恒生銀行
HANG SENG BANK

Banking Disclosure Statement

31 December 2022

(Unaudited)

BANKING DISCLOSURE STATEMENT *(unaudited)*

Contents

Tables

Prefixes contained in the table names, where applicable, represent the reference codes of the standard disclosure templates and tables issued by the HKMA.
Where applicable, RWA in tables 1, 6, 7, 13 and 14 are applied with 1.06 scaling factor, while RWA in other tables are before such application.

Introduction

Purpose

The information contained in this document is for Hang Seng Bank Limited ('the Bank') and its subsidiaries (together 'the Group'). It should be read in conjunction with the Group's 2022 Annual Report. The Group's Annual Report and the Banking Disclosure Statement, taken together, comply with both the Banking (Disclosure) Rules ('BDR') made under section 60A of the Banking Ordinance and the Financial Institutions (Resolution) (Loss-absorbing Capacity Requirements – Banking Sector) Rules ('LAC Rules') made under section 19(1) of the Financial Institutions (Resolution) Ordinance ('FIRO').

These banking disclosures are governed by the Group's disclosure policy, which has been approved by the Board. The disclosure policy sets out the governance, control and assurance requirements for publication of the document. While the Banking Disclosure Statement is not required to be externally audited, the document has been subject to independent review in accordance with the Group's policies on disclosure and its financial reporting and governance processes.

Basis of preparation

Except where indicated otherwise, the financial information contained in this Banking Disclosure Statement has been prepared on a consolidated basis. The basis of consolidation for regulatory purposes is different from that for accounting purposes. Information regarding subsidiaries that are not included in the consolidation for regulatory purposes is set out in the 'Basis of consolidation' section in this document.

The information in this document is not audited and does not constitute statutory accounts.

Certain financial information in this document is extracted from the statutory accounts for the year ended 31 December 2022 which will be delivered to the Registrar of Companies and the Hong Kong Monetary Authority ('HKMA'). The Auditors expressed an unqualified opinion on those statutory accounts in their report dated 21 February 2023. The Auditor's Report did not include a reference to any matters to which the auditor drew any attention by way of emphasis without qualifying their report; and did not contain a statement under sections 406(2), 407(2) or (3) of the Hong Kong Companies Ordinance (Cap.622). The Group's 2022 Annual Report, which include the statutory accounts, can be viewed on our website, www.hangseng.com.

The Banking Disclosure Statement

The Group's Banking Disclosure Statement at 31 December 2022 comprises information required under the framework of the Basel Committee on Banking Supervision ('BCBS'). The disclosures are made in accordance with the latest BDR and the LAC Rules issued by the HKMA.

According to the BDR and the LAC Rules, disclosure of comparative information is not required unless otherwise specified in the standard disclosure templates. Prior period disclosures can be found in the Regulatory Disclosures section of our website, www.hangseng.com.

The Banking Disclosure Statement includes the majority of the information required under the BDR and the LAC Rules. The remainder of the disclosure requirements are covered in the Group's 2022 Annual Report which can be found in the Investor Relations – Financial Statements section of our website, www.hangseng.com.

Disclosure requirements covered in the Group's 2022 Annual Report:	**Reference in Annual Report (Printed version)**	**Reference in Annual Report (Text version)**
– BDR Section 16FJ - LIQA : Liquidity risk management	Pages 96 to 101 and note 21 on pages 210 to 212	Pages 108 to 112 and note 21 on pages 259 to 260
– BDR Section 16J - The Group's definition of 'Impaired' and 'Forborne' and the methods adopted for determining impairments	Note 2(j) on pages 191 to 195	Note 2(j) on pages 232 to 239
– BDR Sections 16ZS, 16ZT, 16ZU, 16ZV - Remuneration	Pages 134 to 135, Pages 137 to 139	Pages 161 to 162, Pages 165 to 168
– BDR Section 44 - Assets used as security	Note 29 on page 219 to 220	Note 29 on pages 266 to 267
– BDR Section 46 - The general disclosure of the major business activities and product lines	Note 4 on page 201 and note 20 on pages 207 to 210	Note 4 on pages 248 to 249 and note 20 on pages 255 to 258
– BDR Section 52 - Corporate governance	Pages 123 to 153	Pages 147 to 187

Loss-absorbing capacity disclosures

The basis of calculating the Group's loss-absorbing capacitry ('LAC') and risk-weighted asset ('RWA') is in accordance with the LAC Rules. The disclosures are made in accordance with the standard disclosure templates as issued by the HKMA.

Table 1: KM1 – Key prudential ratios

			a	b	c	d	e
			At				
		Footnotes	**31 Dec 2022**	30 Sep 2022	30 Jun 2022	31 Mar 2022	31 Dec 2021
	Regulatory capital (HK$m)	*1*					
1	Common Equity Tier 1 ('CET1')		**116,422**	113,609	114,117	115,032	116,599
2	Tier 1 ('T1')		**128,166**	125,353	125,861	126,776	128,343
3	Total capital		**138,676**	135,571	136,307	137,299	138,758
	RWA (HK$m)	*1*					
4	Total RWA		**764,726**	751,753	781,467	758,058	734,128
	Risk-based regulatory capital ratios (as a percentage of RWA)	*1*					
5	CET1 ratio (%)		**15.2**	15.1	14.6	15.2	15.9
6	Tier 1 ratio (%)		**16.8**	16.7	16.1	16.7	17.5
7	Total capital ratio (%)		**18.1**	18.0	17.4	18.1	18.9
	Additional CET1 buffer requirements (as a percentage of RWA)	*1*					
8	Capital conservation buffer requirement (%)		**2.500**	2.500	2.500	2.500	2.500
9	Countercyclical capital buffer ('CCyB') requirement (%)	*2*	**0.816**	0.800	0.798	0.796	0.799
10	Higher loss absorbency requirements (%) (applicable only to Global systemically important authorised institution ('G-SIBs') or Domestic systemically important authorised institution ('D-SIBs'))		**1.000**	1.000	1.000	1.000	1.000
11	Total authorised institution ('AI')-specific CET1 buffer requirements (%)		**4.316**	4.300	4.298	4.296	4.299
12	CET1 available after meeting the AI's minimum capital requirements (%)		**10.1**	10.0	9.4	10.1	10.9
	Basel III leverage ratio	*3*					
13	Total leverage ratio ('LR') exposure measure (HK$m)		**1,752,201**	1,672,587	1,709,100	1,702,467	1,704,064
14	LR (%)		**7.3**	7.5	7.4	7.4	7.5
	Liquidity Coverage Ratio ('LCR')	*4*					
15	Total high quality liquid assets ('HQLA') (HK$m)		**415,870**	398,286	372,355	364,894	369,454
16	Total net cash outflows (HK$m)		**152,258**	173,470	180,721	194,893	193,384
17	LCR (%)		**275.3**	230.5	206.8	188.9	191.8
	Net Stable Funding Ratio ('NSFR')	*5*					
18	Total available stable funding (HK$m)		**1,215,966**	1,158,921	1,201,071	1,187,908	1,169,638
19	Total required stable funding (HK$m)		**742,246**	746,834	775,046	785,316	793,333
20	NSFR (%)		**163.8**	155.2	155.0	151.3	147.4

1 *The regulatory capital, RWA, risk-based regulatory capital ratios and additional CET1 buffer requirements above are based on or derived from the information as contained in the 'Capital Adequacy Ratio - (MA(BS)3)' return submitted to the HKMA on a consolidated basis under the requirements of section 3C(1) of the Banking (Capital) Rules ('BCR').*

2 *The jurisdictional CCyB of Hong Kong used in the calculation of CCyB requirement has been 1.0% since 31 March 2020. The jurisdictional CCyB of other countries used in the calculation of the CCyB requirement ranged from 0% to 2.0% at 31 December 2022.*

3 *The Basel III leverage ratios are disclosed in accordance with the information contained in the 'Leverage Ratio - (MA(BS)27)' return submitted to the HKMA under the requirements specified in Part 1C of the BCR.*

4 *The LCRs shown are the simple average values of all working days in the reporting periods and are made in accordance with the requirements specified in the 'Liquidity Position - (MA(BS)1E)' return submitted to the HKMA under rule 11(1) of the Banking (Liquidity) Rules ('BLR').*

5 *The NSFR disclosures are made in accordance with the information contained in the 'Stable Funding Position - (MA(BS)26)' return submitted to the HKMA under the requirements specified in rule 11(1) of the BLR.*

Overview of Risk Management

Our risk management framework

We aim to use an enterprise-wide risk management approach and across all risk types, underpinned by our risk culture and values. This is outlined in our risk management framework, including the key principles and practices that we employ in managing material risks, both financial and non-financial.

The framework fosters continuous monitoring of the risk environment, and promotes risk awareness and sound operational and strategic decision making and escalation process. It also ensures we have a consistent approach to monitoring, managing and mitigating the risks we accept and incur in our activities, with clear accountabilities. We continue to actively review and develop our risk management framework and enhance our approach to managing risk, through our activities with regard to people and capabilities; governance; reporting and management information; credit risk management models; and data. Further information on our risk management framework is set out on page 49 of the Group's 2022 Annual Report*. The measurement and management of principal risks facing the Group is described on pages 58 to 60 of the Group's 2022 Annual Report*.

Risk culture

We have long recognised the importance of a strong risk culture. Our culture refers to our shared attitudes, values and standards that shape behaviours related to risk awareness, risk taking and risk management. It is instrumental in aligning the behaviours of individuals with our attitude to assuming and managing risk, which helps to ensure that our risk profile remains in line with our risk appetite. The fostering of a strong culture is a key responsibility of our senior executives.

Our risk culture is further reinforced by our approach to remuneration. Individual awards, including those for senior executives, are based on compliance with our values and the achievement of financial and non-financial objectives that are aligned to our risk appetite and strategy.

Risk governance

The Board has ultimate responsibility for the effective management of risk and approves the risk appetite. It is advised by the Risk Committee.

Executive accountability for the ongoing monitoring, assessment and management of the risk environment and the effectiveness of the risk management framework resides with the Group's Chief Risk Officer, supported by the Group's Risk Management Meeting ('RMM').

Day-to-day responsibility for risk management is delegated to senior managers with individual accountability for decision making. All employees have a role to play in risk management. These roles are defined using the Three Lines of Defence model, which takes into account the Group's business and functional structures.

We use a defined executive risk governance structure to ensure appropriate oversight and accountability for risk, which facilitates the reporting and escalation to the RMM.

Risk appetite

Risk appetite is a key component of our management of risk. It sets out the aggregate level and types of risk that we are willing to accept in achieving our strategic goals. Within the Group, risk appetite is managed through a global risk appetite framework and articulated in a Risk Appetite Statement ('RAS'), which is approved by the Board on the advice of the Group's Risk Committee.

The RMM regularly reviews the Group's actual risk appetite profile against the limits set out in the RAS on a monthly basis to enable senior management to monitor the risk profile and guide business activities in order to balance risk and return. The actual risk appetite profile is also reported to the Risk Committee and the Board by the Chief Risk Officer including any material deviation and the related management mitigating actions.

The Group's risk appetite informs our strategic and financial planning process, defining the desired forward-looking risk profile of the Group. It is also integrated within other risk management tools, such as the top and emerging risks report and stress testing, to ensure consistency in risk management. Information on our risk management tools is set out on pages 50 to 51 of the Group's 2022 Annual Report*. Details on the Group's overarching risk appetite are set out in the global risk appetite framework.

Stress testing

The Group operates a wide-ranging stress testing programme that supports our risk management and capital planning. It includes execution of stress tests mandated by our regulators and those to meet our own internal requirements. Our stress testing is supported by dedicated teams and infrastructure.

Our testing programme assesses our capital strength through a rigorous examination of our resilience to external shocks. Both the internal and regulatory driven stress tests help us to understand and mitigate risks, and informs our decision about capital and liquidity levels.

Stress testing results are reported, where appropriate, to the RMM which oversees the Group's stress testing programme.

** Refers to printed version. The page reference of Annual Report (text version) is as follows:*

Annual Report (Printed version)	*Annual Report (Text version)*
Page 49	*Page 42*
Page 50 to 51	*Page 44 to 46*
Page 58 to 60	*Page 60 to 64*

The Group's Risk functions

The Group's Risk function, headed by the Group's Chief Risk Officer, is responsible for enterprise-wide risk oversight. This includes establishing policy, monitoring risk profiles and forward-looking risk identification and management capabilities. The Group's Risk function is made up of sub-functions covering all risks to our operations. They are independent from business functions in order to provide challenge, appropriate oversight and balance in risk versus return decisions.

Risk management and internal control systems

The Directors are responsible for maintaining and reviewing the effectiveness of risk management and internal control systems, and for determining the aggregate level and risk types they are willing to accept in achieving the Group's business objectives.

On behalf of the Board, the Group's Audit Committee has responsibility for oversight of risk management and internal controls over financial reporting, and the Group's Risk Committee has responsibility for oversight of risk management and internal controls other than for financial reporting.

The Directors, through the Group's Risk Committee and the Group's Audit Committee receive regular updates and confirmation that management has taken or is taking the necessary actions to remediate any failings or weaknesses identified through the operation of our framework of controls.

Regulatory reporting processes and controls

The quality of regulatory reporting remains a key priority for management. We are progressing with a comprehensive programme to strengthen our processes, improve consistency, and enhance controls on various aspects of regulatory reporting.

Risk measurement and reporting systems

Our risk measurement and reporting systems are designed to help ensure that risks are comprehensively captured with all the attributes necessary to support well-founded decisions, that those attributes are accurately assessed, and that information is delivered in a timely manner for those risks to be successfully managed and mitigated.

Risk measurement and reporting systems are also subject to a governance framework designed to ensure that their build and implementation are fit for purpose and functioning appropriately. Risk information systems development is a key responsibility of the Risk and IT functions, while the development and operation of risk rating and management systems and processes are ultimately subject to the oversight of the Board.

The ongoing programme to strengthen our regulatory reporting also considers the efficacy of our systems. Potential enhancements identified through this programme will be assessed and, where appropriate, implemented under the governance framework.

We continue to invest significant resources in IT systems and processes in order to maintain and improve our risk management capabilities. Group standards govern the procurement and operation of systems used in our subsidiaries to process risk information within business lines and risk functions.

Risk measurement and reporting structures deployed at Group level are applied throughout global businesses and major operating subsidiaries through a common operating model for integrated risk management and control. This model sets out the respective responsibilities of Group, global business and country level risk functions in respect of such matters as risk governance and oversight, compliance risks, approval authorities and lending guidelines, global and local scorecards, management information and reporting, and relations with third parties, including regulators, rating agencies and auditors.

Risk analytics and model governance

The Group's Risk function manages a number of analytics disciplines supporting the development and management of models, including those for risk rating, scoring, economic capital and stress testing covering different risk types and business segments. The analytics functions formulate technical responses to industry developments and regulatory policy in the field of risk analytics, supports the development of the HSBC Group's global risk models, develop local risk models and oversee their use around the Group toward our implementation targets for internal ratings-based ('IRB') approaches.

The HSBC Group Model Risk Committee ('MRC') is the primary committee responsible for the oversight of Model Risk within HSBC Group. It serves an important role in providing strategic direction on the management of models and their associated risks to HSBC's businesses globally and is an essential element of the governance structure for model risk management. The MRC is supported by Model Oversight Forums ('MOFs') operating within HSBC and the Group which are responsible for model risk management within their functional areas, including Wholesale Credit Risk, Traded Risk and Wealth and Personal Banking ('WPB') Risk, etc. The Group's Local MOFs consist of the Wholesale Credit and Traded Risk MOF and the Retail Credit Risk MOF, which operate under comparable terms of reference as the HSBC MOFs. They are accountable to RMM and HSBC MOFs.

The Local MOFs meet regularly and report to RMM. They are chaired by the Heads of Risk teams and membership includes businesses, risk and finance. The MOFs identify emerging risks for all aspects of the risk rating system, ensuring that model risk is managed within our risk appetite statement, and formally advises RMM / HSBC MOFs on any material model-related issues.

Models are also subject to an independent validation process and governance oversight by the Model Risk Management team within HSBC Group. The team provides robust challenge to the modelling approaches used across the HSBC Group, including the Group, and ensures that the performance of those models is transparent and that their limitations are visible to key stakeholders. The development and use of data and models to meet local requirements are the responsibility of global businesses or functions, as well as the Group under the governance of our own management, subject to the HSBC Group policy and oversight.

Regulatory and other expectations continue to evolve with regards to our capability and practice of model risk management. We have significantly enhanced our model risk management practices over the last two years and continue to invest in developing and embedding these capabilities.

Further information is available on page 114 of the Group's 2022 Annual Report*.

* *Refers to printed version. The page reference of Annual Report (text version) is pages 137 to 138.*

Linkage to the 2022 Annual Report

Basis of consolidation

The basis of consolidation for financial accounting purposes is in accordance with Hong Kong Financial Reporting Standards ('HKFRS'), as described in note 1 on the consolidated financial statements in the Group's 2022 Annual Report.

The basis of consolidation for regulatory purposes is different from that for accounting purposes. Subsidiaries included in the consolidation for regulatory purposes are specified in a notice from the HKMA in accordance with section 3C(1) of the BCR.

Subsidiaries not included in consolidation for regulatory purposes are securities and insurance companies that are authorised and supervised by regulators and are subject to supervisory arrangements regarding the maintenance of adequate capital to support business activities comparable to those prescribed for AI under the BCR and the Banking Ordinance. The capital invested by the Group in these subsidiaries is deducted from the capital base subject to certain thresholds, as determined in accordance with Part 3 of the BCR.

For insurance entities, the present value of in-force long-term insurance business ('PVIF') asset of HK$20,620m and the related deferred tax liability of HK$3,402m are only recognised on consolidation in financial reporting and are therefore not included in the asset or equity positions for the stand-alone entities presented in the below table.

There are also no subsidiaries which are included within the regulatory scope of consolidation but not included within the accounting scope of consolidation as at 31 December 2022.

For all subsidiaries included in both the accounting and regulatory scope of consolidation, the same consolidation methodology is applied at 31 December 2022.

The Group operates subsidiaries in different territories where capital is governed by local rules and there may be restrictions on the transfer of regulatory capital and funds between members of the Group.

The Group may need to maintain a regulatory reserve to satisfy the provisions of the Banking Ordinance and local regulatory requirements for prudential supervision purposes. As at 31 December 2022, the Group is not required to restrict any reserves which can be distributed to shareholders as the impairment allowance for Stage 1 and 2 loans and advances to customers exceeded the expected regulatory reserve balance.

There are no relevant capital shortfalls in any of the Group's subsidiaries which are not included in its consolidation group for regulatory purposes as at 31 December 2022.

A list of subsidiaries not included in consolidation for regulatory purposes is shown below:

Table 2: List of subsidiaries outside the regulatory scope of consolidation

		As at 31 Dec 2022	
	Principal activities	**Total assets***	**Total equity***
		HK$m	**HK$m**
Hang Seng Investment Management Ltd	Fund management	**231**	**200**
Hang Seng Investment Services Ltd	Provision of investment commentaries	**9**	**9**
Hang Seng Securities Ltd	Stockbroking	**1,854**	**777**
Hang Seng Insurance Co. Ltd and its subsidiaries	Retirement benefits and life assurance	**196,091**	**17,346**
Hang Seng Qianhai Fund Management Co. Ltd	Fund raising, fund sales and asset management	**243**	**217**

** Prepared in accordance with HKFRS*

The approaches used in calculating the Group's regulatory capital and RWA are in accordance with the BCR. The Group uses the advanced IRB approach to calculate its credit risk for the majority of its non-securitisation exposures. For collective investment scheme ('CIS') exposures, the Group uses the look-through approach to calculate the risk-weighted amount. For counterparty credit risk ('CCR'), the Group uses the standardised (counterparty credit risk) ('SA-CCR') approach to calculate its default risk exposures for derivatives and the comprehensive approach for securities financing transactions ('SFTs'). For market risk, the Group uses an internal models ('IMM') approach to calculate its general market risk for the risk categories of interest rate and foreign exchange (including gold) exposures and the standardised (market risk) ('STM') approach for calculating other market risk positions. For operational risk, the Group uses the standardised (operational risk) ('STO') approach to calculate its operational risk.

Balance sheet reconciliation

The following table expands the balance sheet under the regulatory scope of consolidation to show separately the capital components that are reported in the 'Composition of regulatory capital' template in Table 6. The capital components in this table contain a reference that shows how these amounts are included in Table 6.

Table 3: CC2 – Reconciliation of regulatory capital to balance sheet

	a	b	c
	Balance sheet as in published financial statements As at 31 Dec 2022 HK$m	**Under regulatory scope of consolidation As at 31 Dec 2022 HK$m**	**Cross-referenced to Definition of Capital Components**
Assets			
Cash and balances at central banks	**17,609**	**17,609**	
Trading assets	**47,373**	**47,355**	
Derivative financial instruments	**22,761**	**22,799**	
Financial assets designated and otherwise mandatorily measured at fair value through profit or loss	**28,861**	**139**	
Reverse repurchase agreements – non-trading	**42,364**	**49,455**	
Placings with and advances to banks	**62,326**	**59,985**	
Loans and advances to customers	**931,334**	**931,335**	
of which: Impairment allowances eligible for inclusion in Tier 2 capital		*567*	*(1)*
Financial investments	**622,616**	**474,348**	
Investment in subsidiaries	**-**	**7,107**	
Subordinated loans to subsidiaries	**-**	**1,045**	*(2)*
Interest in associates	**2,256**	**-**	
Investment properties	**11,998**	**8,935**	
Premises, plant and equipment	**27,498**	**27,488**	
Intangible assets	**24,514**	**3,563**	*(3)*
Other assets	**52,295**	**32,054**	
of which: Deferred tax assets ('DTAs')		*346*	*(4)*
Total assets	**1,893,805**	**1,683,217**	
Liabilities			
Deposits from banks	**5,205**	**5,205**	
Current, savings and other deposit accounts	**1,249,486**	**1,251,037**	
Repurchase agreements – non-trading	**11,304**	**8,789**	
Trading liabilities	**46,323**	**46,323**	
Derivative financial instruments	**20,992**	**21,225**	
of which: Gains and losses due to changes in own credit risk on fair valued liabilities		*13*	*(5)*
Financial liabilities designated at fair value	**46,309**	**45,976**	
of which: Gains and losses due to changes in own credit risk on fair valued liabilities		*(7)*	*(6)*
Certificates of deposit and other debt securities in issue	**93,379**	**93,379**	
Other liabilities	**36,739**	**24,681**	
Liabilities under insurance contracts	**165,594**	**-**	
Current tax liabilities	**389**	**347**	
Deferred tax liabilities	**6,645**	**3,149**	
of which: Deferred tax liabilities related to intangible assets		*552*	*(7)*
Subordinated liabilities	**27,479**	**27,479**	
Total liabilities	**1,709,844**	**1,527,590**	
Equity			
Share capital	**9,658**	**9,658**	*(8)*
Retained profits	**142,680**	**114,441**	*(9)*
of which: Revaluation gains of investment properties		*6,112*	*(10)*
Valuation adjustments		*151*	*(11)*
Other equity instruments	**11,744**	**11,744**	*(12)*
Other reserves	**19,814**	**19,784**	*(13)*
of which: Cash flow hedge reserve		*(472)*	*(14)*
Revaluation reserve of properties		*18,306*	*(15)*
Valuation adjustments		*1*	*(16)*
Total shareholders' equity	**183,896**	**155,627**	
Non-controlling interests	**65**	**-**	
Total equity	**183,961**	**155,627**	
Total equity and liabilities	**1,893,805**	**1,683,217**	

Table 4: LI1 – Differences between accounting and regulatory scopes of consolidation and mapping of financial statement categories with regulatory risk categories

		a	b	c	d	e	f	g
				Carrying values of items:				
As at 31 Dec 2022	*Footnotes*	**Carrying values as reported in published financial statements HK$m**	**Carrying values under scope of regulatory con-solidation HK$m**	**subject to credit risk framework HK$m**	**subject to counterparty credit risk framework HK$m**	**subject to the securi-tisation framework HK$m**	**subject to market risk framework HK$m**	**not subject to capital require-ments or subject to deduction from capital HK$m**
Assets								
Cash and balances at central banks		**17,609**	**17,609**	**17,609**	**-**	**-**	**-**	**-**
Trading assets		**47,373**	**47,355**	**-**	**-**	**-**	**47,355**	**-**
Derivative financial instruments	*1*	**22,761**	**22,799**	**-**	**22,538**	**-**	**22,799**	**261**
Financial assets designated and otherwise mandatorily measured at fair value through profit or loss		**28,861**	**139**	**62**	**77**	**-**	**-**	**-**
Reverse repurchase agreements – non-trading		**42,364**	**49,455**	**-**	**49,455**	**-**	**-**	**-**
Placings with and advances to banks		**62,326**	**59,985**	**59,985**	**-**	**-**	**-**	**-**
Loans and advances to customers		**931,334**	**931,335**	**931,335**	**-**	**-**	**-**	**-**
Financial investments		**622,616**	**474,348**	**474,348**	**-**	**-**	**-**	**-**
Investment in subsidiaries		**-**	**7,107**	**7,107**	**-**	**-**	**-**	**-**
Subordinated loans to subsidiaries		**-**	**1,045**	**-**	**-**	**-**	**-**	**1,045**
Interest in associates		**2,256**	**-**	**-**	**-**	**-**	**-**	**-**
Investment properties		**11,998**	**8,935**	**8,935**	**-**	**-**	**-**	**-**
Premises, plant and equipment		**27,498**	**27,488**	**27,488**	**-**	**-**	**-**	**-**
Intangible assets	*2*	**24,514**	**3,563**	**-**	**-**	**-**	**-**	**3,011**
Other assets	*2, 3*	**52,295**	**32,054**	**29,782**	**1,926**	**-**	**-**	**346**
Total assets		**1,893,805**	**1,683,217**	**1,556,651**	**73,996**	**-**	**70,154**	**4,663**
Liabilities								
Deposits from banks		**5,205**	**5,205**	**-**	**-**	**-**	**-**	**5,205**
Current, savings and other deposit accounts		**1,249,486**	**1,251,037**	**-**	**-**	**-**	**-**	**1,251,037**
Repurchase agreements – non-trading		**11,304**	**8,789**	**-**	**8,789**	**-**	**-**	**-**
Trading liabilities		**46,323**	**46,323**	**-**	**-**	**-**	**46,323**	**-**
Derivative financial instruments	*1*	**20,992**	**21,225**	**-**	**21,225**	**-**	**21,225**	**-**
Financial liabilities designated at fair value		**46,309**	**45,976**	**-**	**-**	**-**	**46**	**45,930**
Certificates of deposit and other debt securities in issue		**93,379**	**93,379**	**-**	**-**	**-**	**-**	**93,379**
Other liabilities	*3*	**36,739**	**24,681**	**-**	**2,233**	**-**	**-**	**22,448**
Liabilities under insurance contracts		**165,594**	**-**	**-**	**-**	**-**	**-**	**-**
Current tax liabilities		**389**	**347**	**-**	**-**	**-**	**-**	**347**
Deferred tax liabilities		**6,645**	**3,149**	**-**	**-**	**-**	**-**	**3,149**
Subordinated liabilities		**27,479**	**27,479**	**-**	**-**	**-**	**-**	**27,479**
Total liabilities		**1,709,844**	**1,527,590**	**-**	**32,247**	**-**	**67,594**	**1,448,974**

1 *Derivative financial instruments are subject to more than one regulatory risk category. As a result, the amounts shown in column (b) do not equal the sum of columns (c) to (g).*

2 *The assets disclosed in column (g) are net of any associated deferred tax liability in accordance with HKMA requirement.*

3 *The difference in the carrying values reported in the financial statements in column (a) and the scope of regulatory consolidation in column (b) mainly represents (i) the differences between the financial and regulatory scope of consolidation, and (ii) the amounts of acceptance and endorsements being included as contingencies in accordance with the BCR, whilst for accounting purposes, acceptances and endorsements are recognised on the balance sheet.*

Table 5: LI2 – Main sources of differences between regulatory exposure amounts and carrying values in financial statements

			a	b	c	d	e
				Items subject to:			
As at 31 Dec 2022		*Footnotes*	**Total HK$m**	**credit risk framework HK$m**	**securitisation framework HK$m**	**counterparty credit risk framework HK$m**	**market risk framework HK$m**
1	Asset carrying value amount under scope of regulatory consolidation (as per template LI1)	*1*	**1,678,554**	**1,556,651**	**-**	**73,996**	**70,154**
2	Liabilities carrying value amount under regulatory scope of consolidation (as per template LI1)	*2*	**78,616**	**-**	**-**	**32,247**	**67,594**
3	Total net amount under regulatory scope of consolidation		**1,599,938**	**1,556,651**	**-**	**41,749**	**2,560**
4	Off-balance sheet amounts and potential future exposures for counterparty risk		**545,908**	**162,180**	**-**	**10,991**	**-**
5	Differences due to impairments		**13,223**	**13,223**	**-**	**-**	**-**
6	Differences due to recognised collateral		**(8,961)**	**(8,961)**	**-**	**-**	**-**
7	Differences arising from off-balance sheet amounts recognised in regulatory exposures		**(383,728)**	**-**	**-**	**-**	**-**
8	Differences due to a factor α used for computing default risk exposure and application of credit risk mitigation		**(14,871)**	**-**	**-**	**(14,871)**	**-**
9	Differences arising from capital deductions		**(552)**	**-**	**-**	**-**	**-**
10	Exposure amounts considered for regulatory purposes		**1,750,957**	**1,723,093**	**-**	**37,869**	**2,560**

1 *The amount shown in column (a) in Table 5 above is equal to column (b) less column (g) in the Total assets row in Table 4.*

2 *The amount shown in column (a) in Table 5 above is equal to column (b) less column (g) in the Total liabilities row in Table 4.*

Explanations of differences between accounting and regulatory exposure amounts

Off-balance sheet amounts and potential future exposures for counterparty risk

Off-balance sheet amounts subject to credit risk regulatory framework include undrawn portions of committed facilities, various trade finance commitments and guarantees. We apply credit conversion factors ('CCF') to these items and add potential future exposures ('PFE') for CCR.

Differences due to impairments

The carrying value of assets is net of impairments. From the regulatory perspective, exposure value under the IRB approach and non-defaulted exposure under the standardised approach are before deducting impairments.

Differences due to recognised collateral

Exposure value under the standardised approach is calculated after deducting credit risk mitigation whereas accounting value is before such deductions.

Differences due to a factor α used for computing default risk exposure and application of credit risk mitigation

Under the SA-CCR approach, a factor α of 1.4 is applied to the sum of replacement cost and PFE in arriving at the default risk exposure. Differences also arise between accounting carrying values and regulatory exposure as a result of the application of credit risk mitigation.

Explanations of differences between accounting fair value and regulatory prudent valuation

Fair value is defined as the best estimate of the price that would be received to sell an asset or be paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Some fair value adjustments already reflect valuation uncertainty to some degree. These are market data uncertainty, model uncertainty and concentration adjustments.

However, it is recognised that a variety of valuation techniques using stressed assumptions and combined with the range of plausible market parameters at a given point in time may still generate unexpected uncertainty beyond fair value.

A series of additional valuation adjustments ('AVAs') are therefore required to reach a specified degree of confidence (the 'Prudent Value') set by regulators that differs both in terms of scope and measurement from the Group's own quantification for disclosure purposes.

AVAs should consider at the minimum: market price uncertainty, bid-offer (close-out) uncertainty, model risk, concentration, administration costs, unearned credit spreads and investing and funding costs.

AVAs are not limited to level 3 exposures, for which a 95% uncertainty range is already computed and disclosed, but must also be calculated for any exposure for which the exit price cannot be determined with a high degree of certainty. Table 50 presents further information on the prudent valuation adjustment.

Capital and RWA

Regulatory capital disclosures

The following table sets out the detailed composition of the Group's regulatory capital using the composition of regulatory capital disclosures template as specified by the HKMA.

Table 6: CC1 – Composition of regulatory capital

		a	b
	As at 31 Dec 2022	**Component of regulatory capital HK$m**	**Cross-referenced to Table 3 Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation**
	CET1 capital: instruments and reserves		
1	Directly issued qualifying CET1 capital instruments plus any related share premium	**9,658**	(8)
2	Retained earnings	**114,441**	(9)
3	Disclosed reserves	**19,784**	(13)
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**	**143,883**	
	CET1 capital: regulatory deductions		
7	Valuation adjustments	**152**	(11) + (16)
8	Goodwill (net of associated deferred tax liability)	-	
9	Other intangible assets (net of associated deferred tax liabilities)	**3,011**	(3) - (7)
10	Deferred tax assets (net of associated deferred tax liabilities)	**346**	(4)
11	Cash flow hedge reserve	**(472)**	(14)
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 securitisation transactions	-	
14	Gains and losses due to changes in own credit risk on fair valued liabilities	**6**	(5) + (6)
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	**24,418**	
26a	Cumulative fair value gains arising from the revaluation of land and buildings (own-use and investment properties)	**24,418**	(10) + (15)
26b	Regulatory reserve for general banking risks	-	
26c	Securitisation exposures specified in a notice given by the Monetary Authority	-	
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 additional tier 1 ('AT1') capital and Tier 2 capital to cover deductions	-	
28	**Total regulatory deductions to CET1 capital**	**27,461**	
29	**CET1 capital**	**116,422**	

Table 6: CC1 – Composition of regulatory capital *(continued)*

		a	b
		Component of regulatory capital HK$m	**Cross-referenced to Table 3** **Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation**
	AT1 capital: instruments		
30	Qualifying AT1 capital instruments plus any related share premium	**11,744**	
31	*of which: classified as equity under applicable accounting standards*	***11,744***	(12)
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**	**11,744**	
	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**	**11,744**	
45	**Tier 1 capital (T1 = CET1 + AT1)**	**128,166**	
	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*	-	
50	Collective provisions and regulatory reserve for general banking risks eligible for inclusion in Tier 2 capital	**567**	(1)
51	**Tier 2 capital before regulatory deductions**	**567**	
	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)	**1,045**	(2)
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	**(10,988)**	
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	**(10,988)**	((10) + (15)) * 45%
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**	**(9,943)**	
58	**Tier 2 capital (T2)**	**10,510**	
59	**Total regulatory capital ('TC' = T1 + T2)**	**138,676**	
60	**Total RWA**	**764,726**	

Table 6: CC1 – Composition of regulatory capital *(continued)*

		a	b
		Component of regulatory capital HK$m	**Cross-referenced to Table 3 Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation**
	Capital ratios (as a percentage of RWA)		
61	**CET1 capital ratio**	**15.2%**	
62	**Tier 1 capital ratio**	**16.8%**	
63	**Total capital ratio**	**18.1%**	
64	**Institution-specific buffer requirement (capital conservation buffer plus countercyclical capital buffer plus higher loss absorbency requirements)**	**4.316%**	
65	*of which: capital conservation buffer requirement*	***2.500%***	
66	*of which: bank specific countercyclical capital buffer requirement*	***0.816%***	
67	*of which: higher loss absorbency requirement*	***1.000%***	
68	CET1 (as a percentage of RWA) available after meeting minimum capital requirements	**10.1%**	
	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
	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	**4,949**	
73	Significant LAC investments in CET1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation	**7,107**	
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 Basic ('BSC') approach, or the Standardised (credit risk) ('STC') approach and SEC-ERBA, SEC-SA and SEC-FBA (prior to application of cap)	**349**	
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	**907**	
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)	**218**	
79	Cap for inclusion of provisions in Tier 2 under the IRB approach and SEC-IRBA	**3,713**	
	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)	-	

Table 6: CC1 – Composition of regulatory capital *(continued)*

Notes to the template:

Elements where a more conservative definition has been applied in the BCR relative to that set out in Basel III capital standards:

		Hong Kong basis	**Basel III basis**
	As at 31 Dec 2022	**HK$m**	**HK$m**
10	Deferred tax assets (net of associated deferred tax liabilities)	**346**	**-**

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 Mortgage Servicing Rights ('MSRs'), DTAs arising from temporary differences and significant investments in CET1 capital instruments issued by financial sector entities (excluding those that are loans, facilities and other credit exposures to connected companies) under Basel III.

Remarks:

The amount of the 10% threshold mentioned above is calculated based on the amount of CET1 capital determined in accordance with the deduction methods set out in BCR Schedule 4F. The 15% threshold is referring to paragraph 88 of the Basel III text issued by the Basel Committee (December 2010) and has no effect to the Hong Kong regime.

Countercyclical capital buffer ratio

The CCyB is calculated as the weighted average of the applicable CCyB ratios in effect in the jurisdictions in which banks have private sector credit exposures. The Group uses country of business as the basis of geographical allocation for the majority of its credit risk and risk country for market risk, which is defined by considering the country of incorporation, location of guarantor, headquarter domicile, distribution of revenue and booking country.

Table 7: CCyB1 – Geographical distribution of credit exposures used in countercyclical capital buffer

	As at 31 Dec 2022		a	c	d	e
	Geographical breakdown by Jurisdiction ('J')	*Footnotes*	**Applicable JCCyB ratio in effect %**	**RWA used in computation of CCyB ratio HK$m**	**AI-specific CCyB ratio %**	**CCyB amount HK$m**
1	Hong Kong SAR	*1*	**1.000**	**529,089**		
2	Australia		**1.000**	**113**		
3	Norway		**2.000**	**1**		
4	Sweden		**1.000**	**1**		
5	United Kingdom		**1.000**	**1,157**		
	Sum	*2*		**530,361**		
	Total	*3*		**650,191**	**0.816**	**6,240**

1 The jurisdictional CCyB of Hong Kong used in the calculation of CCyB requirement has been 1.0% since 31 March 2020. The jurisdictional CCyB of other countries used in the calculation of the CCyB requirement ranged from 0% to 2.0% at 31 December 2022.

2 This represents the sum of RWA for the private sector credit exposures in jurisdictions with a non-zero countercyclical buffer rate.

3 The total RWA used in the computation of the CCyB ratio in column (c) represents the total RWA for the private sector credit exposures in all jurisdictions to which the bank is exposed, including jurisdictions with no countercyclical buffer rate or with a countercyclical buffer rate set at zero. The CCyB amount in column (e) represents the Group's total RWA multiplied by the AI-specific CCyB ratio in column (d).

BANKING DISCLOSURE STATEMENT *(unaudited) (continued)*

Leverage ratio

The following table shows the leverage ratio, Tier 1 capital and total exposure measure as contained in the 'Leverage Ratio' return submitted to the HKMA under the requirements specified in Part 1C of the BCR.

Table 8: LR2 – Leverage ratio

		a	b
		31 Dec 2022 HK$m	30 Sep 2022 HK$m
	On-balance sheet exposures		
1	On-balance sheet exposures (excluding those arising from derivative contracts and securities financing transactions ('SFTs'), but including collateral)	**1,616,853**	1,542,545
2	Less: Asset amounts deducted in determining Tier 1 capital	**(27,456)**	(27,589)
3	**Total on-balance sheet exposures (excluding derivative contracts and SFTs)**	**1,589,397**	1,514,956
	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)	**15,379**	21,080
5	Add-on amounts for PFE associated with all derivative contracts	**20,850**	23,418
6	Gross-up for collateral provided in respect of dervative 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**	**36,229**	44,498
	Exposures arising from SFTs		
12	Gross SFT assets (with no recognition of netting), after adjusting for sale accounting transactions	**56,989**	38,891
13	Less: Netted amounts of cash payables and cash receivables of gross SFT assets	**-**	-
14	Counterparty credit risk ('CCR') exposure for SFT assets	**1,107**	956
15	Agent transaction exposures	**-**	-
16	**Total exposures arising from SFTs**	**58,096**	39,847
	Other off-balance sheet exposures		
17	Off-balance sheet exposure at gross notional amount	**545,908**	539,961
18	Less: Adjustments for conversion to credit equivalent amounts	**(463,807)**	(455,887)
19	**Off-balance sheet items**	**82,101**	84,074
	Capital and total exposures		
20	Tier 1 capital	**128,166**	125,353
20a	Total exposures before adjustments for specific and collective provisions	**1,765,823**	1,683,375
20b	Adjustments for specific and collective provisions	**(13,622)**	(10,788)
21	**Total exposures after adjustments for specific and collective provisions**	**1,752,201**	1,672,587
	Leverage ratio		
22	Leverage ratio[1] (%)	**7.3%**	7.5%

1 Leverage ratio is the ratio of Tier 1 capital to the total exposures after adjustments for specific and collective provisions.

BANKING DISCLOSURE STATEMENT *(unaudited) (continued)*

Table 9: LR1 – Summary comparison of accounting assets against leverage ratio exposure measure

	As at 31 Dec 2022	a
	Item	**Value under the LR framework HK$m**
1	Total consolidated assets as per published financial statements	**1,893,805**
2	Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	**(197,812)**
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	**13,430**
5	Adjustment for SFTs (i.e. repos and similar secured lending)	**1,107**
6	Adjustment for off-balance sheet ('OBS') items (i.e. conversion to credit equivalent amounts of OBS exposures)	**82,101**
6a	Adjustments for prudent valuation adjustments and specific and collective provisions that are allowed to be excluded from exposure measure	**(13,774)**
7	Other adjustments	**(26,656)**
8	**Leverage ratio exposure measure**	**1,752,201**

Other adjustments mainly represent the regulatory deductions of property revaluation reserves to Tier 1 capital under the leverage ratio framework.

Overview of RWA and the minimum capital requirements

Table 10: OV1 – Overview of RWA

		a	b	c
		RWA[1]		**Minimum capital requirements[2]**
		31 Dec 2022 HK$m	30 Sep 2022 HK$m	**31 Dec 2022 HK$m**
1	Credit risk for non-securitisation exposures	**611,208**	597,407	**51,483**
2	*of which: STC approach*	***72,217***	*70,864*	***5,777***
2a	*of which: BSC approach*	-	-	-
3	*of which: Foundation IRB approach*	-	-	-
4	*of which: Supervisory slotting criteria approach*	***50,985***	*48,435*	***4,323***
5	*of which: Advanced IRB approach*	***488,006***	*478,108*	***41,383***
6	Counterparty default risk and default fund contributions	**7,183**	9,531	**607**
7	*of which: SA-CCR approach*	***6,604***	*9,076*	***559***
7a	*of which: Current exposure method ('CEM')*	-	-	-
8	*of which: Internal models (counterparty credit risk) ('IMM(CCR)') approach*	-	-	-
9	*of which: Others*	***579***	*455*	***48***
10	Credit valuation adjustment ('CVA') risk	**9,500**	11,931	**760**
11	Equity positions in banking book under the simple risk-weight method and the internal models method	**19,797**	18,172	**1,679**
12	Collective investment scheme ('CIS') exposures – Look-through ('LTA') approach	**481**	441	**41**
13	CIS exposures – Mandate-based ('MBA') approach	-	-	-
14	CIS exposures – Fall-back ('FBA') approach	-	-	-
14a	CIS exposures – combination of approaches	-	-	-
15	Settlement risk	-	-	-
16	Securitisation exposures in banking book	-	-	-
17	*of which: Securitisation internal ratings-based ('SEC-IRBA') approach*	-	-	-
18	*of which: Securitisation external ratings-based ('SEC-ERBA') approach (including internal assessment approach ('IAA'))*	-	-	-
19	*of which: Securitisation standardised ('SEC-SA') approach*	-	-	-
19a	*of which: Securitisation fall-back ('SEC-FBA') approach*	-	-	-
20	Market risk	**19,883**	18,283	**1,590**
21	*of which: STM approach*	***473***	*567*	***37***
22	*of which: IMM approach*	***19,410***	*17,716*	***1,553***
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**	Not applicable	**Not applicable**
24	Operational risk	**57,311**	57,250	**4,585**
24a	Sovereign concentration risk	-	-	-
25	Amounts below the thresholds for deduction (subject to 250% Risk-weight ('RW'))	**17,769**	17,769	**1,507**
26	Capital floor adjustment	-	-	-
26a	Deduction to RWA	**(13,430)**	(13,362)	**(1,074)**
26b	*of which: Portion of regulatory reserve for general banking risks and collective provisions which is not included in Tier 2 Capital*	-	-	-
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*	***(13,430)***	*(13,362)*	***(1,074)***
27	**Total**	**729,702**	717,422	**61,178**

1 RWA in this table are presented before the application of the 1.06 scaling factor, where applicable.

2 Minimum capital requirement represents the Pillar 1 capital charge at 8% of the RWA after application of the 1.06 scaling factor, where applicable.

3 Item marked with an asterisk (*) will be applicable only after the respective policy frameworks take effect. Until then, 'Not applicable' is reported in this row.

Total RWA increased by HK$12.3bn in the fourth quarter of 2022. Credit risk RWA for non-securitisation exposures was the key contributor which increased by HK$13.8bn mainly due to credit rating migration and model updates relating to corporate exposures. Also, market risk RWA increased by HK$1.6bn mainly driven by changes in Offshore renminbi ('CNH') interest rate trading positions. The impact is partly offset by the decrease in RWA of HK$4.8bn from counterparty default risk and credit valuation adjustment mainly due to changes in exchange rate contract exposure and mark-to-market movement.

RWA flow statements

RWA flow statement for credit risk

Table 11: CR8 – RWA flow statement of credit risk[1] exposures under IRB approach

		a Amount HK$m
1	RWA as at end of previous reporting period (30 Sep 2022)	**526,543**
2	Asset size	**(2,557)**
3	Asset quality	**5,809**
4	Model updates	**4,633**
5	Methodology and policy	**3,462**
6	Acquisitions and disposals	**-**
7	Foreign exchange movements	**1,363**
8	Other	**(262)**
9	**RWA as at end of reporting period (31 Dec 2022)**	**538,991**

1 Credit risk in this table represents the credit risk for non-securitisation exposures excluding counterparty credit risk.

RWA increased by HK$12.4bn in the fourth quarter of 2022. It was mainly due to an increase of HK$5.8bn from asset quality due to credit rating migration and an increase of HK$4.6bn from model updates relating to corporate exposures.

RWA flow statement for market risk

Table 12: MR2 – RWA flow statement of market risk exposures under IMM approach

		a	b	c	d	e	f
		Value at risk ('VaR') HK$m	**Stressed VaR ('SVaR') HK$m**	**Incremental risk charge ('IRC') HK$m**	**Comprehensive risk charge ('CRC') HK$m**	**Other HK$m**	**Total RWA HK$m**
1	RWA as at end of previous reporting period (30 Sep 2022)	**4,553**	**13,163**	**-**	**-**	**-**	**17,716**
2	Movement in risk levels	**(323)**	**2,149**	**-**	**-**	**-**	**1,826**
3	Model updates/changes	**-**	**(10)**	**-**	**-**	**-**	**(10)**
4	Methodology and policy	**-**	**-**	**-**	**-**	**-**	**-**
5	Acquisitions and disposals	**-**	**-**	**-**	**-**	**-**	**-**
6	Foreign exchange movements	**(31)**	**(91)**	**-**	**-**	**-**	**(122)**
7	Other	**-**	**-**	**-**	**-**	**-**	**-**
8	**RWA as at end of reporting period (31 Dec 2022)**	**4,199**	**15,211**	**-**	**-**	**-**	**19,410**

The increase in market risk RWA is mainly driven by CNH interest rate trading positions.

Loss-absorbing capacity

Table 13: KM2(A) – Key metrics – LAC requirements for material subsidiaries

			a	b	c	d	e
			At				
		Footnotes	**31 Dec 2022**	30 Sep 2022	30 Jun 2022	31 Mar 2022	31 Dec 2021
Of the material entity at LAC consolidation group level							
1	Internal loss-absorbing capacity available (HK$m)		**166,155**	163,069	163,803	161,797	163,242
2	Risk-weighted amount under the LAC Rules (HK$m)		**764,726**	751,753	781,467	758,058	734,128
3	Internal LAC risk-weighted ratio (%)		**21.7**	21.7	21.0	21.3	22.2
4	Exposure measure under the LAC Rules (HK$m)		**1,751,156**	1,671,542	1,708,055	1,701,422	1,703,019
5	Internal LAC leverage ratio (%)		**9.5**	9.8	9.6	9.5	9.6
6a	Does the subordination exemption in the antepenultimate paragraph of Section 11 of the FSB TLAC Term Sheet apply?	*1*	**Not applicable**	Not applicable	Not applicable	Not applicable	Not applicable
6b	Does the subordination exemption in the penultimate paragraph of Section 11 of the FSB TLAC Term Sheet apply?	*1*	**Not applicable**	Not applicable	Not applicable	Not applicable	Not applicable
6c	If the capped subordination exemption applies, the amount of funding issued that ranks pari passu with excluded liabilities and that is recognised as external loss-absorbing capacity, divided by funding issued that ranks pari passu with excluded liabilities and that would be recognised as external loss-absorbing capacity if no cap was applied	*1*	**Not applicable**	Not applicable	Not applicable	Not applicable	Not applicable

1 The subordination exemptions under Section 11 of the Financial Stability Board ('FSB') Total Loss-absorbing Capacity ('TLAC') Term Sheet do not apply in Hong Kong under the LAC Rules.

Table 14: TLAC1(A) – TLAC composition

	As at 31 Dec 2022	a **Amount**
	Regulatory capital elements of internal loss-absorbing capacity and adjustments (HK$m)	
1	Common Equity Tier 1 ('CET1') capital	**116,422**
2	Additional Tier 1 ('AT1') capital before LAC adjustments	**11,744**
3	AT1 capital instruments ineligible as internal loss-absorbing capacity as not issued directly or indirectly to, and held directly or indirectly by, the resolution entity or non-HK resolution entity in the material subsidiary's resolution group	**-**
4	Other adjustments	**-**
5	AT1 capital eligible under the LAC Rules	**11,744**
6	Tier 2 ('T2') capital before LAC adjustments	**10,510**
7	Amortised portion of T2 capital instruments that are internal LAC debt instruments issued directly or indirectly to, and held directly or indirectly by, the resolution entity or non-HK resolution entity in the material subsidiary's resolution group	**-**
8	T2 capital instruments ineligible as internal loss-absorbing capacity as not issued directly or indirectly to, and held directly or indirectly by, the resolution entity or non-HK resolution entity in the material subsidiary's resolution group	**-**
9	Other adjustments	**-**
10	T2 capital eligible under the LAC Rules	**10,510**
11	**Internal loss-absorbing capacity arising from regulatory capital**	**138,676**
	Non-regulatory capital elements of internal loss-absorbing capacity (HK$m)	
12	Internal non-capital LAC debt instruments issued directly or indirectly to, and held indirectly or indirectly by, the resolution entity or non-HK resolution entity in the material subsidiary's resolution group	**27,479**
17	**Internal loss-absorbing capacity arising from non-capital LAC debt instruments before adjustments**	**27,479**
	Non-regulatory capital elements of internal loss-absorbing capacity: adjustments (HK$m)	
18	**Internal loss-absorbing capacity before deductions**	**166,155**
19	Deductions of exposures between the material subsidiary's LAC consolidation group and group companies outside that group that correspond to non-capital items eligible for internal loss-absorbing capacity	**-**
20	Deduction of holdings of its own non-capital LAC liabilities	**-**
21	Other adjustments to internal loss-absorbing capacity	**-**
22	**Internal loss-absorbing capacity after deductions**	**166,155**
	Risk-weighted amount and exposure measure under the LAC Rules for internal loss-absorbing capacity purposes (HK$m)	
23	Risk-weighted amount under the LAC Rules	**764,726**
24	Exposure measure under the LAC Rules	**1,751,156**
	Internal LAC ratios and buffers (%)	
25	Internal LAC risk-weighted ratio	**21.7**
26	Internal LAC leverage ratio	**9.5**
27	CET1 capital (as a percentage of RWA under the BCR) available after meeting the LAC consolidation group's minimum capital and LAC requirements	**8.2**
28	Institution-specific buffer requirement (capital conservation buffer plus countercyclical capital buffer requirements plus higher loss absorbency requirement, expressed as a percentage of RWA under the BCR)	**4.316**
29	*Of which: capital conservation buffer requirement*	***2.500***
30	*Of which: institution-specific countercyclical capital buffer requirement*	***0.816***
31	*Of which: higher loss absorbency requirement*	***1.000***

BANKING DISCLOSURE STATEMENT *(unaudited) (continued)*

Table 15: TLAC2 – Hang Seng Bank Limited creditor ranking

		Creditor ranking (HK$m)				Sum of values in columns 1 to 3
		1 (most junior)	1 (most junior)	2	3 (most senior)	
1	Is the resolution entity or a non-HK resolution entity the creditor/investor? (yes or no)[1]	No	Yes	Yes	Yes	
2	Description of creditor ranking	Ordinary shares[2]	Ordinary shares[2]	AT1 instruments	LAC loans	
3	Total capital and liabilities net of credit risk mitigation	**3,657**	**6,001**	**11,744**	**27,499**	**48,901**
4	Subset of row 3 that is excluded liabilities	-	-	-	-	-
5	Total capital and liabilities less excluded liabilities	**3,657**	**6,001**	**11,744**	**27,499**	**48,901**
6	Subset of row 5 that are eligible as internal loss-absorbing capacity	**3,657**	**6,001**	**11,744**	**27,499**	**48,901**
7	Subset of row 6 with 1 year ≤ residual maturity < 2 years	-	-	-	-	-
8	Subset of row 6 with 2 years ≤ residual maturity < 5 years	-	-	-	**11,240**	**11,240**
9	Subset of row 6 with 5 years ≤ residual maturity < 10 years	-	-	-	**16,259**	**16,259**
10	Subset of row 6 with residual maturity ≥ 10 years, but excluding perpetual securities	-	-	-	-	-
11	Subset of row 6 that is perpetual securities	**3,657**	**6,001**	**11,744**	-	**21,402**

1 Any direct/indirect holdings by the resolution entity is reported as 'yes'.

2 Excludes the value of reserves attributable to ordinary shareholders.

BANKING DISCLOSURE STATEMENT *(unaudited) (continued)*

Main features of regulatory capital instruments and non-capital LAC debt instruments

The following is a summary of CET1 capital, AT1 capital and non-capital LAC debt instruments that meet both regulatory capital and LAC requirements, or only LAC (but not regulatory capital) requirements.

Table 16: CCA(A) – Main features of regulatory capital instruments and non-capital LAC debt instruments

(i) Instruments that meet both regulatory capital and LAC requirements
As at 31 Dec 2022

		a
		Quantitative / qualitative information
		Ordinary shares
1	Issuer	Hang Seng Bank Limited
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	HK0011000095
3	Governing law(s) of the instrument	Laws of Hong Kong
3a	Means by which enforceability requirement of Section 13 of the TLAC Term Sheet is achieved (for non-capital LAC debt instruments governed by non-Hong Kong law)	N/A
	Regulatory treatment	
4	Transitional Basel III rules[1]	N/A
5	Post-transitional Basel III rules[2]	CET1
6	Eligible at solo / group / solo and group (for regulatory capital purposes)	Solo and Group
6a	Eligible at solo / LAC consolidation group / solo and LAC consolidation group (for LAC purposes)	Solo and LAC consolidation group
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)	HK$ 9,658 million
8a	Amount recognised in loss-absorbing capacity (currency in millions, as of most recent reporting date)	HK$ 9,658 million
9	Par value of instrument	No par value (Total amount HK$ 9,658 million)
10	Accounting classification	Shareholders' equity
11	Original date of issuance	Various
12	Perpetual or dated	Perpetual
13	Original maturity date	No maturity
14	Issuer call subject to prior supervisory approval	N/A
15	Optional call date, contingent call dates and redemption price	N/A
16	Subsequent call dates, if applicable	N/A
	Coupons / dividends	
17	Fixed or floating dividend/coupon	N/A
18	Coupon rate and any related index	N/A
19	Existence of a dividend stopper	N/A
20	Fully discretionary, partially discretionary or mandatory	Fully discretionary
21	Existence of step up or other incentive to redeem	N/A
22	Non-cumulative or cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger(s)	N/A
25	If convertible, fully or partially	N/A
26	If convertible, conversion rate	N/A
27	If convertible, mandatory or optional conversion	N/A
28	If convertible, specify instrument type convertible into	N/A
29	If convertible, specify issuer of instrument it converts into	N/A
30	Write-down feature	No
31	If write-down, write-down trigger(s)	N/A
32	If write-down, full or partial	N/A
33	If write-down, permanent or temporary	N/A
34	If temporary write-down, description of write-up mechanism	N/A
34a	Type of subordination	Contractual
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument in the insolvency creditor hierarchy of the legal entity concerned)	Immediately subordinate to AT1 instruments (columns b and c)
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	N/A
	Terms and conditions	Terms and conditions - Ordinary shares

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.*

3 *Subject to FIRO*

4 *Terms and conditions for loan issuance before 20 April 2022 to be read in conjunction with the Master terms and conditions (the 'Master terms and conditions')*

Master terms and conditions

5 *On 20 April 2022, the interest rate benchmark of US$400m non-capital LAC debt instrument was transited to compounded SOFR from previous 3-month US$ LIBOR.*

6 *Terms and conditions for loan issuance after 20 April 2022 to be read in conjunction with the Amended Master terms agreement (the 'Amended Master terms agreement')*

Amended master terms agreement

BANKING DISCLOSURE STATEMENT *(unaudited) (continued)*

Table 16: CCA(A) – Main features of regulatory capital instruments and non-capital LAC debt instruments *(continued)*

As at 31 Dec 2022

		b	c
		Quantitative / qualitative information	
		Perpetual subordinated loan (US$ 900 million)	Perpetual subordinated loan (US$ 600 million)
1	Issuer	Hang Seng Bank Limited	Hang Seng Bank Limited
2	Unique identifier	N/A	N/A
3	Governing law(s) of the instrument	Laws of Hong Kong	Laws of Hong Kong
3a	Means by which enforceability requirement of Section 13 of the TLAC Term Sheet is achieved	N/A	N/A
	Regulatory treatment		
4	Transitional Basel III rules[1]	N/A	N/A
5	Post-transitional Basel III rules[2]	AT1	AT1
6	Eligible at solo / group / solo and group	Solo and Group	Solo and Group
6a	Eligible at solo / LAC consolidation group / solo and LAC consolidation group	Solo and LAC consolidation group	Solo and LAC consolidation group
7	Instrument type (types to be specified by each jurisdiction)	Perpetual debt instrument	Perpetual debt instrument
8	Amount recognised in regulatory capital	HK$ 7,044 million	HK$ 4,700 million
8a	Amount recognised in loss-absorbing capacity	HK$ 7,044 million	HK$ 4,700 million
9	Par value of instrument	US$ 900 million	US$ 600 million
10	Accounting classification	Shareholders' equity	Shareholders' equity
11	Original date of issuance	14 June 2019	18 June 2019
12	Perpetual or dated	Perpetual	Perpetual
13	Original maturity date	No maturity	No maturity
14	Issuer call subject to prior supervisory approval	Yes	Yes
15	Optional call date, contingent call dates and redemption price	17 September 2024 at par value	18 June 2024 at par value
16	Subsequent call dates, if applicable	Callable on any interest payment date after first call date	Callable on any interest payment date after first call date
	Coupons / dividends		
17	Fixed or floating dividend/coupon	Fixed until 17 September 2024 and thereafter floating	Fixed until 18 June 2024 and thereafter floating
18	Coupon rate and any related index	6.030% until 17 September 2024, and thereafter 3-month US$ LIBOR + 4.020%	6.000% until 18 June 2024, and thereafter 3-month US$ LIBOR + 4.060%
19	Existence of a dividend stopper	No	No
20	Fully discretionary, partially discretionary or mandatory	Fully discretionary	Fully discretionary
21	Existence of step up or other incentive to redeem	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible[3]	Non-convertible[3]
24	If convertible, conversion trigger(s)	N/A	N/A
25	If convertible, fully or partially	N/A	N/A
26	If convertible, conversion rate	N/A	N/A
27	If convertible, mandatory or optional conversion	N/A	N/A
28	If convertible, specify instrument type convertible into	N/A	N/A
29	If convertible, specify issuer of instrument it converts into	N/A	N/A
30	Write-down feature	Yes	Yes
31	If write-down, write-down trigger(s)	Contractual write-down at point of non-viability of borrower. Contractual recognition of HKMA statutory powers under FIRO	Contractual write-down at point of non-viability of borrower. Contractual recognition of HKMA statutory powers under FIRO
32	If write-down, full or partial	May be written down partially	May be written down partially
33	If write-down, permanent or temporary	Permanent	Permanent
34	If temporary write-down, description of write-up mechanism	N/A	N/A
34a	Type of subordination	Contractual	Contractual
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument in the insolvency creditor hierarchy of the legal entity concerned)	Immediately subordinate to non-capital LAC debt instruments (columns a to f under ii)	Immediately subordinate to non-capital LAC debt instruments (columns a to f under ii)
36	Non-compliant transitioned features	No	No
37	If yes, specify non-compliant features	N/A	N/A
	Terms and conditions	Individual loan agreement[4]	Individual loan agreement[4]

Table 16: CCA(A) – Main features of regulatory capital instruments and non-capital LAC debt instruments *(continued)*

(ii) Instruments that meet only LAC (but not regulatory capital) requirements
As at 31 Dec 2022

		a	b
		Quantitative / qualitative information	
		Subordinated loan (HK$ 5,460 million)	Subordinated loan (HK$ 4,680 million)
1	Issuer	Hang Seng Bank Limited	Hang Seng Bank Limited
2	Unique identifier	N/A	N/A
3	Governing law(s) of the instrument	Laws of Hong Kong	Laws of Hong Kong
3a	Means by which enforceability requirement of Section 13 of the TLAC Term Sheet is achieved	N/A	N/A
	Regulatory treatment		
4	Transitional Basel III rules[1]	N/A	N/A
5	Post-transitional Basel III rules[2]	Ineligible	Ineligible
6	Eligible at solo / group / solo and group	Ineligible	Ineligible
6a	Eligible at solo / LAC consolidation group / solo and LAC consolidation group	Solo and LAC consolidation group	Solo and LAC consolidation group
7	Instrument type (types to be specified by each jurisdiction)	Non-capital LAC debt instrument	Non-capital LAC debt instrument
8	Amount recognised in regulatory capital	N/A	N/A
8a	Amount recognised in loss-absorbing capacity	HK$ 5,460 million	HK$ 4,680 million
9	Par value of instrument	HK$ 5,460 million	HK$ 4,680 million
10	Accounting classification	Liability – amortised cost	Liability – amortised cost
11	Original date of issuance	30 May 2019	10 June 2019
12	Perpetual or dated	Dated	Dated
13	Original maturity date	Interest payment date falling in May 2028	Interest payment date falling in June 2029
14	Issuer call subject to prior supervisory approval	Yes	Yes
15	Optional call date, contingent call dates and redemption price	Interest payment date falling in May 2027 at par value	Interest payment date falling in June 2028 at par value
16	Subsequent call dates, if applicable	Callable on any interest payment date after first call date	Callable on any interest payment date after first call date
	Coupons / dividends		
17	Fixed or floating dividend/coupon	Floating	Floating
18	Coupon rate and any related index	3-month HK$ HIBOR + 1.425%	3-month HK$ HIBOR + 1.564%
19	Existence of a dividend stopper	No	No
20	Fully discretionary, partially discretionary or mandatory	Mandatory	Mandatory
21	Existence of step up or other incentive to redeem	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible[3]	Non-convertible[3]
24	If convertible, conversion trigger(s)	N/A	N/A
25	If convertible, fully or partially	N/A	N/A
26	If convertible, conversion rate	N/A	N/A
27	If convertible, mandatory or optional conversion	N/A	N/A
28	If convertible, specify instrument type convertible into	N/A	N/A
29	If convertible, specify issuer of instrument it converts into	N/A	N/A
30	Write-down feature	Yes	Yes
31	If write-down, write-down trigger(s)	Contractual write-down at point of non-viability of borrower. Contractual recognition of HKMA statutory powers under FIRO	Contractual write-down at point of non-viability of borrower. Contractual recognition of HKMA statutory powers under FIRO
32	If write-down, full or partial	May be written down partially	May be written down partially
33	If write-down, permanent or temporary	Permanent	Permanent
34	If temporary write-down, description of write-up mechanism	N/A	N/A
34a	Type of subordination	Contractual	Contractual
35	Position in subordination hierarchy in liquidation	Immediately subordinate to the claims of all unsubordinated creditors	Immediately subordinate to the claims of all unsubordinated creditors
36	Non-compliant transitioned features	No	No
37	If yes, specify non-compliant features	N/A	N/A
	Terms and conditions	Individual loan agreement[4]	Individual loan agreement[4]

Table 16: CCA(A) – Main features of regulatory capital instruments and non-capital LAC debt instruments *(continued)*

As at 31 Dec 2022		c	d
		Quantitative / qualitative information	
		Subordinated loan (US$ 400 million)	Subordinated loan (HK$ 6,240 million)
1	Issuer	Hang Seng Bank Limited	Hang Seng Bank Limited
2	Unique identifier	N/A	N/A
3	Governing law(s) of the instrument	Laws of Hong Kong	Laws of Hong Kong
3a	Means by which enforceability requirement of Section 13 of the TLAC Term Sheet is achieved	N/A	N/A
	Regulatory treatment		
4	Transitional Basel III rules[1]	N/A	N/A
5	Post-transitional Basel III rules[2]	Ineligible	Ineligible
6	Eligible at solo / group / solo and group	Ineligible	Ineligible
6a	Eligible at solo / LAC consolidation group / solo and LAC consolidation group	Solo and LAC consolidation group	Solo and LAC consolidation group
7	Instrument type (types to be specified by each jurisdiction)	Non-capital LAC debt instrument	Non-capital LAC debt instrument
8	Amount recognised in regulatory capital	N/A	N/A
8a	Amount recognised in loss-absorbing capacity	HK$ 3,119 million	HK$ 6,240 million
9	Par value of instrument	US$ 400 million	HK$ 6,240 million
10	Accounting classification	Liability – amortised cost	Liability – amortised cost
11	Original date of issuance	10 June 2019	13 June 2019
12	Perpetual or dated	Dated	Dated
13	Original maturity date	Interest payment date falling in June 2030	Interest payment date falling in June 2026
14	Issuer call subject to prior supervisory approval	Yes	Yes
15	Optional call date, contingent call dates and redemption price	Interest payment date falling in June 2029 at par value	Interest payment date falling in June 2025 at par value
16	Subsequent call dates, if applicable	Callable on any interest payment date after first call date	Callable on any interest payment date after first call date
	Coupons / dividends		
17	Fixed or floating dividend/coupon	Floating	Floating
18	Coupon rate and any related index	Compounded SOFR + 2.0478%	3-month HK$ HIBOR + 1.342%
19	Existence of a dividend stopper	No	No
20	Fully discretionary, partially discretionary or mandatory	Mandatory	Mandatory
21	Existence of step up or other incentive to redeem	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible[3]	Non-convertible[3]
24	If convertible, conversion trigger(s)	N/A	N/A
25	If convertible, fully or partially	N/A	N/A
26	If convertible, conversion rate	N/A	N/A
27	If convertible, mandatory or optional conversion	N/A	N/A
28	If convertible, specify instrument type convertible into	N/A	N/A
29	If convertible, specify issuer of instrument it converts into	N/A	N/A
30	Write-down feature	Yes	Yes
31	If write-down, write-down trigger(s)	Contractual write-down at point of non-viability of borrower. Contractual recognition of HKMA statutory powers under FIRO	Contractual write-down at point of non-viability of borrower. Contractual recognition of HKMA statutory powers under FIRO
32	If write-down, full or partial	May be written down partially	May be written down partially
33	If write-down, permanent or temporary	Permanent	Permanent
34	If temporary write-down, description of write-up mechanism	N/A	N/A
34a	Type of subordination	Contractual	Contractual
35	Position in subordination hierarchy in liquidation	Immediately subordinate to the claims of all unsubordinated creditors	Immediately subordinate to the claims of all unsubordinated creditors
36	Non-compliant transitioned features	No	No
37	If yes, specify non-compliant features	N/A	N/A
	Terms and conditions	Amendment agreement[5]	Individual loan agreement[4]

Table 16: CCA(A) – Main features of regulatory capital instruments and non-capital LAC debt instruments *(continued)*

As at 30 Jun 2022

		e	f
		Quantitative / qualitative information	
		Subordinated loan (HK$ 5,000 million)	Subordinated loan (HK$ 3,000 million)
1	Issuer	Hang Seng Bank Limited	Hang Seng Bank Limited
2	Unique identifier	N/A	N/A
3	Governing law(s) of the instrument	Laws of Hong Kong	Laws of Hong Kong
3a	Means by which enforceability requirement of Section 13 of the TLAC Term Sheet is achieved	N/A	N/A
	Regulatory treatment		
4	Transitional Basel III rules[1]	N/A	N/A
5	Post-transitional Basel III rules[2]	Ineligible	Ineligible
6	Eligible at solo / group / solo and group	Ineligible	Ineligible
6a	Eligible at solo / LAC consolidation group / solo and LAC consolidation group	Solo and LAC consolidation group	Solo and LAC consolidation group
7	Instrument type (types to be specified by each jurisdiction)	Non-capital LAC debt instrument	Non-capital LAC debt instrument
8	Amount recognised in regulatory capital	N/A	N/A
8a	Amount recognised in loss-absorbing capacity	HK$ 4,988 million	HK$ 2,992 million
9	Par value of instrument	HK$ 5,000 million	HK$ 3,000 million
10	Accounting classification	Liability – amortised cost	Liability – amortised cost
11	Original date of issuance	30 November 2021	27 June 2022
12	Perpetual or dated	Dated	Dated
13	Original maturity date	Interest payment date falling in November 2027	Interest payment date falling in June 2028
14	Issuer call subject to prior supervisory approval	Yes	Yes
15	Optional call date, contingent call dates and redemption price	Interest payment date falling in November 2026 at par value	Interest payment date falling in June 2027 at par value
16	Subsequent call dates, if applicable	Callable on any interest payment date after first call date	Callable on any interest payment date after first call date
	Coupons / dividends		
17	Fixed or floating dividend/coupon	Floating	Floating
18	Coupon rate and any related index	3-month HK$ HIBOR + 1.00%	3-month HK$ HIBOR + 1.68%
19	Existence of a dividend stopper	No	No
20	Fully discretionary, partially discretionary or mandatory	Mandatory	Mandatory
21	Existence of step up or other incentive to redeem	No	No
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible[3]	Non-convertible[3]
24	If convertible, conversion trigger(s)	N/A	N/A
25	If convertible, fully or partially	N/A	N/A
26	If convertible, conversion rate	N/A	N/A
27	If convertible, mandatory or optional conversion	N/A	N/A
28	If convertible, specify instrument type convertible into	N/A	N/A
29	If convertible, specify issuer of instrument it converts into	N/A	N/A
30	Write-down feature	Yes	Yes
31	If write-down, write-down trigger(s)	Contractual write-down at point of non-viability of borrower. Contractual recognition of HKMA statutory powers under FIRO	Contractual write-down at point of non-viability of borrower. Contractual recognition of HKMA statutory powers under FIRO
32	If write-down, full or partial	May be written down partially	May be written down partially
33	If write-down, permanent or temporary	Permanent	Permanent
34	If temporary write-down, description of write-up mechanism	N/A	N/A
34a	Type of subordination	Contractual	Contractual
35	Position in subordination hierarchy in liquidation	Immediately subordinate to the claims of all unsubordinated creditors	Immediately subordinate to the claims of all unsubordinated creditors
36	Non-compliant transitioned features	No	No
37	If yes, specify non-compliant features	N/A	N/A
	Terms and conditions	Individual loan agreement[4]	Individual loan agreement[6]

Credit risk

Overview and responsibilities

Credit risk is the risk that financial loss arises from the failure of a customer or counterparty to meet its obligations under a contract. It arises principally from lending, trade finance, and treasury businesses. The Group has dedicated standards, policies and procedures in place to control and monitor risk from all such activities.

The principal objectives of our credit risk management sub-function are:

- to maintain across the Group a strong culture of responsible lending and a robust credit risk policy and control framework;
- to both partner and challenge our businesses in defining, implementing and continually re-evaluating our credit risk appetite under actual and stress scenario conditions; and
- to ensure there is independent, expert scrutiny of credit risks, their costs and their mitigation.

The credit risk sub-functions within Wholesale Credit Risk Management and WPB Risk are the constituent parts of the Group's Risk functions that support the Group's Chief Risk Officer in overseeing credit risks. Their major duties comprise undertaking independent review of large and high-risk credit proposals, overseeing large exposure policy and reporting on our wholesale and retail credit risk management disciplines, owning our credit policy and credit system programmes, overseeing portfolio management and reporting on risk matters to senior executive management and to regulators.

These credit risk sub-functions work closely with other functions of the Group. They fulfil an essential role as independent risk control units distinct from business line management in providing objective scrutiny of risk rating assessments, credit proposals for approval and other risk matters.

Our credit risk procedures operate through a hierarchy of individual credit approval authority limits. With delegation from the Board, the Executive Committee delegates the credit approval authority limits to Chief Executive and empowers the Chief Executive to further delegate to Chief Risk Officer and senior management teams on individual basis. Chief Risk Officer is empowered by Chief Executive to further delegate the credit approval authority limits.

Business models and strategies will be reviewed regularly by respective business units taking into consideration of current market condition and the Group's risk appetite. Credit risk policies and limits will also be reviewed to ensure alignment with the direction of defined risk appetite and business strategy.

Credit Risk Management

Our exposures to credit risk arise from a wide range of customers and products, and the risk rating systems in place to measure and monitor these risks are correspondingly diverse. Senior management receives a variety of reports on our credit risk exposures, including expected credit losses, total exposures and RWA, as well as updates on specific portfolios that are considered to have heightened credit risk.

Credit risk exposures are generally measured and managed in portfolios of either customer types or product categories. Risk rating systems are designed to assess the default propensity of, and loss severity associated with, distinct customers who are typically managed as individual relationships or, in the case of retail business exposures, on a product portfolio basis. Risk rating systems for retail exposures are generally quantitative in nature, applying techniques such as behavioural analysis across product portfolios comprising large numbers of homogeneous transactions. Rating systems for individually managed relationships typically use customer financial statements and market data analysis, but also qualitative elements and a final subjective overlay to better reflect any idiosyncratic elements of the customer's risk profile.

A fundamental principle of the Group's policy and approach is that analytical risk rating systems and scorecards are decision tools supporting management and facilitating judgemental decisions for which individual approvers are accountable for.

For wholesale lending, the credit process provides for at least an annual review of the facility granted. For retail lending revolving facilities, an annual review is undertaken. Review may be more frequent, as required by circumstances such as the emergence of adverse risk factors.

The Group adopts a set of standards that govern the process through which risk rating systems are initially developed, judged fit for purpose, approved and implemented. They also govern the conditions under which analytical risk model outcomes can be overridden by approvers and the process of model performance monitoring and reporting. The framework emphasises on an effective dialogue between business line and risk management, suitable independence of decision takers and a good understanding and robust challenge on the part of senior management.

Analytical risk rating systems are not static and are subject to review and modification in light of the changing environment and the greater availability and quality of data and any deficiencies identified through internal and external regulatory review. Structured processes and metrics are in place to capture relevant data and feed this into continuous model improvement.

We constantly seek to improve the quality of our risk management. IT systems that process credit risk data continue to be enhanced in order to deliver both comprehensive management information in support of business strategy and solutions to evolving regulatory reporting requirements.

Dilution risk

Dilution risk is the risk that an amount receivable is reduced through cash or non-cash credit to the obligor, and arises mainly from factoring and invoice discounting transactions.

Where there is recourse to the seller, we treat these transactions as loans secured by the debts purchased and do not report dilution risk for them. For our non-recourse portfolio we retain the right of recourse to require seller to repurchase the receivables subject to this risk. Moreover, factoring transactions involve lending at a discount to the face-value of the receivables, which provides protection against dilution risk.

Credit quality of assets

Tables 17 to 21 present information on the credit quality of exposures by exposure category, geographical location, industry and residual maturity, and changes in defaulted loans and debt securities on a regulatory consolidation basis. For further details on the credit quality of IRB and STC exposures, refer to Tables 33 to 34 and 36 respectively.

The loans covered in these tables are generally referred to as any on-balance sheet exposures included as credit risk for non-securitisation exposures, covering exposures to customers, banks, sovereigns and others. Cash items and non-financial assets are excluded.

Table 17: CR1 – Credit quality of exposures

		a	b	c	d	e	f	g
		Gross carrying amounts of			**Of which Expected Credit Loss ('ECL') accounting provisions[1] for credit losses on STC approach exposures**			
	As at 31 Dec 2022	**Defaulted exposures HK\$m**	**Non-defaulted exposures HK\$m**	**Allowances/ impairments HK\$m**	**Allocated in regulatory category of specific provisions HK\$m**	**Allocated in regulatory category of collective provisions HK\$m**	**Of which ECL accounting provisions for credit losses on IRB approach exposures HK\$m**	**Net values (a + b - c) HK\$m**
1	Loans	**24,212**	**996,639**	**13,408**	**185**	**348**	**12,875**	**1,007,443**
2	Debt securities	**-**	**470,575**	**18**	**-**	**-**	**18**	**470,557**
3	Off-balance sheet exposures	**37**	**545,871**	**196**	**-**	**2**	**194**	**545,712**
4	**Total**	**24,249**	**2,013,085**	**13,622**	**185**	**350**	**13,087**	**2,023,712**

1 *The categorisation of ECL accounting provisions into regulatory categories of specific and collective provisions follows the treatment specified in the completion instructions of the HKMA 'Capital Adequacy Ratio – (MA(BS)3)' return. According to the completion instructions, the ECL accounting provisions classified into Stage 1 and Stage 2 are treated as collective provisions, while those classified under Stage 3 are treated as specific provisions. Provisions made for purchased or originated credit-impaired financial assets, under which any changes in lifetime expected credit losses will be recognised in the profit and loss account as an impairment gain or loss, are treated as specific provisions.*

Table 18: CR2 – Changes in defaulted loans and debt securities

			a
		Footnote	**Amount HK\$m**
1	Defaulted loans and debt securities at end of the previous reporting period (30 Jun 2022)		**19,024**
2	Loans and debt securities that have defaulted since the last reporting period		**8,452**
3	Returned to non-defaulted status		**(16)**
4	Amounts written off		**(591)**
5	Other changes	*1*	**(2,657)**
6	**Defaulted loans and debt securities at end of the current reporting period (31 Dec 2022)**		**24,212**

1 *Other changes included repayment and foreign exchange movements.*

Table 19: CRB1 – Exposures by geographical location[1]

	Footnote	**Gross carrying amounts at 31 Dec 2022 HK\$m**
Hong Kong SAR		**1,809,744**
Mainland China		**190,276**
Others	*2*	**37,314**
Total		**2,037,334**

1 *The geographical locations shown in this table above represent the location of the principal operations of the subsidiary and by the location of the branch responsible for advancing the funds.*

2 *Any segment which constitutes less than 10% of total gross carrying amounts is disclosed on an aggregated basis under the category 'Others'.*

Table 20: CRB2 – Exposures by industry

	Gross carrying amounts at 31 Dec 2022 HK$m
Industrial, commercial and financial	
- Property development and investment	**302,400**
- Financial concerns	**176,128**
- Stockbrokers	**1,953**
- Wholesale and retail trade	**101,385**
- Manufacturing	**70,550**
- Transport and transport equipment	**27,769**
- Recreational activities	**935**
- Information technology	**26,780**
- Others	**621,363**
Individuals	**624,248**
Trade finance	**83,823**
Total	**2,037,334**

Table 21: CRB3 – Exposures by residual maturity

	Gross carrying amounts at 31 Dec 2022 HK$m
Less than 1 year	**987,366**
Between 1 and 5 years	**434,065**
More than 5 years	**614,121**
Undated	**1,782**
Total	**2,037,334**

Credit-impaired exposures, past due unimpaired exposures and forborne exposures

Tables 22 to 25 analyse impaired exposures, impairment allowances, past due unimpaired exposures and forborne exposures on a regulatory consolidation basis.

Our approach for determining impairment allowances, definitions for accounting purposes of 'credit-impaired' , 'forborne' and the definition of default for regulatory capital are explained in Note 2(j) of the Group's 2022 Annual Report.

The analysis of gross impaired loans and advances and impairment allowances by major industry sectors based on categories and definitions used by the Group is as follows:

Table 22: CRB4 – Credit-impaired exposures and impairment allowances and write-offs by industry

As at 31 Dec 2022	*Footnote*	Gross loans and advances to customers[1] HK$m	Gross credit-impaired loans and advances HK$m	Overdue loans and advances[2] HK$m	Specific provisions[3] HK$m	Collective provisions[3] HK$m	Impairment allowances charged to/ (released from) profit and loss HK$m	Advances written off during the year HK$m
Residential mortgages		**313,861**	**506**	**270**	**(17)**	**(5)**	**-**	**-**
Real estate		**236,768**	**16,845**	**5,160**	**(5,594)**	**(2,994)**	**5,566**	**-**
Others	*4*	**394,100**	**6,861**	**3,891**	**(2,210)**	**(2,574)**	**2,101**	**899**
Total		**944,729**	**24,212**	**9,321**	**(7,821)**	**(5,573)**	**7,667**	**899**

1 *The amounts shown in column 'Gross loans and advances to customers' represent loans and advances to customers gross of provisions in the financial statements under the regulatory consolidation scope and therefore is different from the 'Gross loans and advances to customers' shown in table 26 which is prepared on accounting consolidation basis. The difference of total gross loans of HK$1m represents the Bank's loans and advances to the Group's subsidiaries which are outside the regulatory scope of consolidation.*

2 *The amounts shown in column 'Overdue loans and advances' represent gross loans and advances to customers that were overdue for more than 3 months as at 31 December 2022.*

3 *The classification of specific and collective provisions follows the treatment specified in the completion instructions of the HKMA 'Capital Adequacy Ratio - MA(BS)3' return. Details can be found in footnote 1 under table 17 of this document.*

4 *Any segment which constitutes less than 10% of total gross loans and advances to customers is disclosed on an aggregated basis under the category 'Others'.*

The geographical information shown below has been classified by the location of the principal operations of the subsidiary and by the location of the branch responsible for advancing the funds.

Table 23: CRB5 – Credit-impaired exposures and impairment allowances and write-offs by geographical location

As at 31 Dec 2022	*Footnote*	Gross loans and advances to customers[1] HK$m	Gross credit-impaired loans and advances HK$m	Overdue loans and advances[2] HK$m	Specific provisions[3] HK$m	Collective provisions[3] HK$m	Impairment allowances charged to/ (released from) profit and loss HK$m	Advances written off during the year HK$m
Hong Kong SAR		**849,632**	**22,832**	**8,789**	**(7,439)**	**(4,801)**	**6,937**	**556**
Mainland China		**79,915**	**1,365**	**517**	**(367)**	**(760)**	**748**	**343**
Others	*4*	**15,182**	**15**	**15**	**(15)**	**(12)**	**(18)**	**-**
Total		**944,729**	**24,212**	**9,321**	**(7,821)**	**(5,573)**	**7,667**	**899**

1 *The amounts shown in column 'Gross loans and advances to customers' represent loans and advances to customers gross of provisions in the financial statements under the regulatory consolidation scope and therefore is different from the 'Gross loans and advances to customers' shown in table 26 which is prepared on accounting consolidation basis. The difference of total gross loans of HK$1m represents the Bank's loans and advances to the Group's subsidiaries which are outside the regulatory scope of consolidation.*

2 *The amounts shown in column 'Overdue loans and advances' represent gross loans and advances to customers that were overdue for more than 3 months as at 31 December 2022.*

3 *The classification of specific and collective provisions follows the treatment specified in the completion instructions of the HKMA 'Capital Adequacy Ratio - MA(BS)3' return. Details can be found in footnote 1 under table 17 of this document.*

4 *Any segment which constitutes less than 10% of total gross loans and advances to customers is disclosed on an aggregated basis under the category 'Others'.*

Past due unimpaired exposures are those loans where customers have failed to make payments in accordance with the contractual terms of their facilities. Exposures past due for more than 90 days are considered impaired.

Table 24: CRB6 – Aging analysis of accounting past due unimpaired exposures

As at 31 Dec 2022	**Up to 29 days HK$m**	**30-59 days HK$m**	**60-89 days HK$m**	**Total HK$m**
Loans and advances to customers held at amortised cost:				
- Personal	**4,436**	**541**	**203**	**5,180**
- Corporate and commercial	**840**	**128**	**27**	**995**
Total	**5,276**	**669**	**230**	**6,175**

Table 25: CRB7 – Breakdown of forborne loans between credit impaired and not credit impaired

	31 Dec 2022 HK$m
Not credit impaired	**191**
Credit impaired	**4,012**
Total	**4,203**

Loans and advances to customers

Tables 26 to 28 analyse the loans and advances to customers by geographical locations, by industries, and by which are overdue and rescheduled on an accounting consolidation basis. The accounting consolidation basis is different from the regulatory consolidation basis as explained in the 'Basis of consolidation' section of this document.

The following analysis of loans and advances to customers by geographical areas is in accordance with the location of counterparties, after recognised risk transfer.

Table 26: Gross loans and advances to customers by geographical location

As at 31 Dec 2022	*Footnote*	**Hong Kong SAR HK$m**	**Mainland China HK$m**	**Others HK$m**	**Total HK$m**
Gross loans and advances to customers	*1*	**818,081**	**103,084**	**23,563**	**944,728**

1 *The amounts shown in column 'Gross loans and advances to customers' represent the loans and advances to customers gross of provisions in the financial statements on the accounting consolidation basis and therefore is different from the 'Gross loans and advances to customers' shown in tables 22 and 23 which are prepared under the regulatory consolidation scope. The difference of total gross loans of HK$1m represents the Bank's loans and advances to the Group's subsidiaries which are outside the regulatory scope of consolidation.*

The analysis of gross loans and advances to customers by industry sector based on categories and definitions contained in the 'Quarterly Analysis of Loans and Advances and Provisions - (MA(BS)2A)' return submitted to the HKMA is as follows:

Table 27: Gross loans and advances to customers by industry sector

As at 31 Dec 2022	**Gross loans and advances HK$m**	**% of gross advances covered by collateral %**
Industrial, commercial and financial sectors		
- property development	**54,966**	**43.7%**
- property investment	**148,207**	**87.3%**
- financial concerns	**3,063**	**16.1%**
- stockbrokers	**10**	**98.1%**
- wholesale and retail trade	**24,253**	**56.8%**
- manufacturing	**19,202**	**30.8%**
- transport and transport equipment	**13,518**	**59.8%**
- recreational activities	**280**	**2.7%**
- information technology	**11,532**	**5.9%**
- other	**88,420**	**74.1%**
Individuals		
- loans and advances for the purchase of flats under the Government Home Ownership Scheme, Private Sector Participation Scheme and Tenants Purchase Scheme	**38,779**	**100.0%**
- loans and advances for the purchase of other residential properties	**253,158**	**99.8%**
- credit card loans and advances	**28,744**	**0.0%**
- other	**30,833**	**49.0%**
Gross loans and advances for use in Hong Kong	**714,965**	**77.6%**
Trade finance	**35,333**	**21.5%**
Gross loans and advances for use outside Hong Kong	**194,430**	**34.3%**
Gross loans and advances to customers	**944,728**	**66.6%**

Collateral includes any tangible security that carries a fair market value and is readily marketable. This includes (but is not limited to) cash and deposits, stocks and bonds, mortgages over properties and charges over other fixed assets such as plant and equipment. Where collateral values are greater than gross loans and advances to customers, only the amount of collateral up to the gross loans and advances is included.

Loans and advances to customers that are more than three months overdue and their expression as a percentage of gross loans and advances to customers are as follows:

Table 28: Overdue loans and advances to customers

As at 31 Dec 2022	HK$m	%
Gross loans and advances which have been overdue with respect to either principal or interest for periods of:		
- more than three months but not more than six months	**3,607**	**0.38%**
- more than six months but not more than one year	**2,524**	**0.27%**
- more than one year	**3,190**	**0.34%**
Total	**9,321**	**0.99%**
of which:		
- specific provisions	**(3,692)**	
- covered portion of overdue loans and advances	**4,650**	
- uncovered portion of overdue loans and advances	**4,671**	
- current market value of collateral held against the covered portion of overdue loans and advances	**5,689**	
Rescheduled loans and advances to customers	**3,087**	**0.33%**

Collateral held with respect to overdue loans and advances is mainly residential properties and commercial properties. The current market value of residential properties and commercial properties were HK$1,600m and HK$3,132m respectively.

Loans and advances with a specific repayment date are classified as overdue when the principal or interest is overdue and remains unpaid at period-end. Loans and advances repayable by regular instalments are treated as overdue when an instalment payment is overdue and remains unpaid at period-end. Loans and advances repayable on demand are classified as overdue either when a demand for repayment has been served on the borrower but repayment has not been made in accordance with the demand notice, or when the loans and advances have remained continuously outside the approved limit advised to the borrower for more than the overdue period in question.

Rescheduled loans and advances to customers are those loans and advances that have been rescheduled or renegotiated for reasons related to the borrower's financial difficulties. This will normally involve the granting of concessionary terms and resetting the overdue account to non-overdue status. Rescheduled loans and advances to customers are stated net of any advances which have subsequently become overdue for more than three months and which are included in 'Overdue loans and advances to customers'.

The amount of repossessed assets as at 31 December 2022 was HK$87m.

Overdue and rescheduled amounts relating to placings with and advances to banks and other assets

There were no impaired, overdue or rescheduled placings with and advances to banks, nor rescheduled other assets as at 31 December 2022.

Off-balance sheet exposures other than derivative transactions

The following table gives the nominal contract amounts and RWA of contingent liabilities and commitments. The information is consistent with that in the 'Capital Adequacy Ratio' return required to be submitted to the HKMA by the Group. The return is prepared on a consolidated basis as specified by the HKMA under the requirement of section 3C(1) of the BCR.

For accounting purposes, acceptances and endorsements are recognised on the balance sheet in 'Other assets'. For the purpose of the BCR, acceptances and endorsements are included in the capital adequacy calculation as if they were contingencies.

Table 29: Off-balance sheet exposures other than derivative transactions

	31 Dec 2022 HK$m
Contract amounts	
Direct credit substitutes	**1,821**
Transaction-related contingencies	**17,387**
Trade-related contingencies	**20,530**
Forward asset purchases	**76**
Commitments that are unconditionally cancellable without prior notice	**462,652**
Commitments which have an original maturity of not more than one year	**1,942**
Commitments which have an original maturity of more than one year	**41,500**
Total	**545,908**
RWA	**48,080**

Credit risk under internal ratings-based approach

Qualitative disclosures related to internal models for measuring credit risk under IRB approach

(i) Nature of exposures within each IRB class

The Group uses advanced IRB approach for the majority of its business under the approval granted by the HKMA. This includes the following major classes of non-securitisation exposures:

– Corporate exposures including exposures to global and local large corporates, middle market corporates and small and medium-sized enterprises ('SME'), non-bank financial institutions and specialised lending.

– Sovereign exposures, including exposures to central governments, central monetary institutions, multilateral development banks and relevant international organisations.

– Bank exposures including exposures to banks and regulated securities firms.

– Retail exposures, including residential mortgages, qualifying revolving retail exposures, retail SME and other retail exposures.

– Equity exposures.

– Other exposures, including cash items and other assets.

At 31 December 2022, the portion of exposure at default ('EAD') and RWA within the Group covered by IRB approach are summarised in the following table. The remaining portions not covered by IRB approach are under STC approach.

Table 30: CRE1 – Percentage of total EAD and RWA covered by IRB approach

Portfolio	Percentage of total EAD under IRB approach	Percentage of total RWA under IRB approach
Corporate exposures (includes SME and other corporates and specialised lending)[1]	**92%**	**88%**
Sovereign exposures	**100%**	**100%**
Bank exposures (including securities firms)	**98%**	**96%**
Residential mortgage loans	**92%**	**88%**
Other retail exposures	**93%**	**79%**
Equity exposures	**100%**	**100%**
Other exposures	**100%**	**100%**

1 Specialised lending exposures adopt regulatory slotting approach under the IRB framework.

The above table covers credit risk for non-securitisation exposures excluding counterparty credit risk. For counterparty credit risk, the percentage of total RWA covered by IRB approach is 90% for corporate exposures and 100% for sovereign and bank exposures.

(ii) Application of IRB parameters

The Group's credit risk rating framework incorporates the probability of default ('PD') of a borrower and the loss severity, expressed in terms of EAD and loss given default ('LGD'). These measures are used to calculate both expected loss ('EL') and capital requirements, subject to any floors required by the HKMA. They are also used in conjunction with other inputs to inform rating assessments for the purpose of credit approval and many other risk management decisions. The narrative explanations that follow relate to the IRB advanced approaches, that is, IRB advanced for distinct customers and retail IRB for the portfolio managed retail business.

Table 31: CRE2 – Wholesale IRB credit risk models

Regulatory asset classes measured	**Component**	**Number of significant models**	**Model description and methodology**	**Number of years loss data**	**Regulatory Floors**
Central governments and central banks	PD	1	A shadow rating approach that includes macroeconomic and political factors, constrained with expert judgement.	>10	No
	LGD	1	An unsecured model built on assessment of structural factors that influence the country's long-term economic performance. For unsecured LGD, a floor of 45% is applied.	>10	45%[1]
	EAD	1	A cross-classification model that uses both internal data and expert judgement, as well as information on similar exposure types from other asset classes.	>10	EAD must be at least equal to the current utilisation of the balance at account level
Bank / Securities firm	PD	2	Statistical models that combine quantitative analysis on financial information with expert inputs and macroeconomic factors.	>10	0.03%
	LGD	1	A quantitative model that produces both downturn and expected LGD. Several securities types are included in the model to recognise collateral in the LGD calculation. For unsecured LGD, a floor of 45% is applied.	>10	45%[2]
	EAD	1	A quantitative model that assigns CCF taking into account product types and committed/uncommitted indicator to calculate EAD using current utilisation and available headroom.	>10	EAD must be at least equal to the current utilisation of the balance at account level
Other Corporate / Small and medium sized corporates[3]	PD	12	The corporate models use financial information, macroeconomic information and market-driven data, and is complemented by a qualitative assessment. The Non-Bank Financial Institution ('NBFI') models which are the predominantly statistical models that combines quantitative analysis on financial information with expert inputs.	>=10	0.03%
	LGD	1	Regional statistical models covering all corporates, developed using historical loss/recovery data and various data inputs, including collateral information, facility seniority and customer geography.	>10	No
	EAD	1	Regional statistical models covering all corporates, developed using historical utilisation information and various data inputs, including product type and nature of commitment.	>10	EAD must be at least equal to the current utilisation of the balance at account level

1 LGD floor exempted for Mainland China and Hong Kong Special Administrative Region

2 LGD floor exempted for intra-group entities

3 Excludes specialised lending exposures subject to supervisory slotting approach.

(ii) Application of IRB parameters *(continued)*

Table 32: CRE3 – Material retail IRB credit risk models

Regulatory asset classes measured	Component	Number of significant models	Model description and methodology	Number of years loss data	Regulatory Floors
Hong Kong - Hang Seng Personal Residential Mortgages* (Residential mortgage exposures)	PD	1	Statistical model built on internal behavioural data and calibrated to a long-run default rate.	>10	0.03%
	LGD	3	1 component based model and 2 historical average models based on estimate of loss incurred over a recovery period derived from historical data with downturn LGD based on the worst observed default rate.	>10	10%
	EAD	1	Rule-based calculation based on current balance and estimated incurred interest which continues to be a conservative estimate for EAD.	>10	EAD must at least be equal to current balance
Hong Kong – Hang Seng Credit Cards (Qualifying revolving retail exposures and Other retail exposures to individuals)	PD	1	Statistical model built on internal behavioural data and calibrated to a long-run default rate by segment.	>10	0.03%
	LGD	1	Statistical model based on forecasting the amount of expected future losses with downturn adjustment.	>10	
	EAD	1	Statistical model which derives a credit limit utilization by segment which is used to determine the EAD.	>10	EAD must at least be equal to current balance
Hong Kong – Hang Seng Personal Loans (Other retail exposures to individuals)	PD	1	Statistical model built on internal behavioural data and calibrated to a long-run default rate by segment.	>10	0.03%
	LGD	1	Statistical model based on forecasting the amount of expected future losses with downturn adjustment.	> 10	
	EAD	1	Rule-based calculation based on current balance and estimated incurred interest which continues to be a conservative estimate for EAD.	> 10	EAD must at least be equal to current balance

** Apart from the regulatory floors on PD and LGD, Hong Kong residential mortgage exposures are also subject to regulatory risk-weighted floor of 15%/25% for loans that granted before/after 19 May 2017.*

These measures are used to calculate expected loss and capital requirements. They are also used in conjunction with other inputs to form rating assessments for the purpose of credit approval and for risk management decisions.

The wide range of application and behavioural information used in the management of retail portfolios has been supplemented with models to derive the measures of PD, EAD and LGD required for the Basel framework.

PD models are developed using statistical estimation generally based on a minimum of five years of historical data. The modelling approach is typically a hybrid approach, which includes elements of Through-The-Cycle ('TTC') and Point-in-Time ('PiT') approaches.

EAD models are also generally developed using at least five years of historical observations and typically adopt one of two approaches:

- Closed-end products without the facility for additional drawdowns, EAD is estimated as the outstanding balance of accounts at the time of observation with predicted interest and fees; or
- EAD for products with the facility for additional drawdowns is estimated as the outstanding balance of accounts at the time of observation plus a credit conversion factor applied to the undrawn portion of the facility.

LGD estimates have more variation, particularly in respect of the time period that is used to quantify economic downturn assumptions. The LGD models for retail exposures are developed based on the Group's internal loss and default experiences including recovery values for different types of collaterals for secured retail exposures such as residential mortgages; for unsecured retail exposures such as qualifying revolving retail exposures, LGD models are developed based on past recovery experiences, account behaviours and repayment ability.

(iii) Model Governance

Throughout HSBC, models are governed under the remit of the HSBC Group MRC, operating in line with HSBC's model risk policy. The MRC is responsible to authorize MOFs, where required, to operate under its remit and are responsible for model risk management within their areas. All new or materially changed IRB capital models require the HKMA and the Prudential Regulation Authority's ('PRA') approval and such models are under the oversight of Local MOFs and HSBC MOFs.

Local MOFs require all credit risk models for which they are responsible, to be approved by delegated senior managers with notification to the respective Committees that retain the responsibility for oversight.

HSBC and the Group sets global and internal standards for the development, validation, independent review, approval, implementation and performance monitoring of credit risk rating models. Independent reviews of our models are performed by the HSBC Independent Model Review team which is separate from the Risk Analytics functions that are responsible for the development of models.

Compliance with HSBC Group standards is subject to examination by risk oversight and review from within the Risk function itself, and by Internal Audit.

BANKING DISCLOSURE STATEMENT *(unaudited) (continued)*

Table 33.1: CR6 – Credit risk exposures by portfolio and PD ranges – for IRB approach (Wholesale)

	a	b	c	d	e	f	g	h	i	j	k	l
As at 31 Dec 2022	**Original on-balance sheet gross exposure**	**Off-balance sheet exposures pre-CCF**	**Average CCF**	**EAD post-credit risk mitigation ('CRM') and post-CCF**	**Average PD**	**Number of obligors**	**Average LGD**	**Average maturity**	**RWA**	**RWA density**	**EL**	**Provisions^**
PD scale	**HK$m**	**HK$m**	**%**	**HK$m**	**%**		**%**	**years**	**HK$m**	**%**	**HK$m**	**HK$m**
Sovereign												
0.00 to < 0.15	**458,210**	**-**	**-**	**458,210**	**0.01**	**42**	**26.6**	**1.07**	**11,219**	**2**	**16**	
0.15 to < 0.25	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	
0.25 to < 0.50	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	
0.50 to < 0.75	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	
0.75 to < 2.50	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	
2.50 to < 10.00	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	
10.00 to < 100.00	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	
100.00 (Default)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	
Sub-total	**458,210**	**-**	**-**	**458,210**	**0.01**	**42**	**26.6**	**1.07**	**11,219**	**2**	**16**	**3**
Bank												
0.00 to < 0.15	**65,860**	**915**	**68.8**	**66,490**	**0.04**	**877**	**39.5**	**1.19**	**7,412**	**11**	**10**	
0.15 to < 0.25	**1,430**	**294**	**49.7**	**1,576**	**0.22**	**73**	**45.4**	**0.96**	**562**	**36**	**2**	
0.25 to < 0.50	**77**	**10**	**45.0**	**81**	**0.37**	**29**	**45.2**	**1.00**	**47**	**58**	**-**	
0.50 to < 0.75	**147**	**16**	**47.9**	**155**	**0.63**	**30**	**45.0**	**0.32**	**94**	**61**	**-**	
0.75 to < 2.50	**34**	**10**	**55.0**	**40**	**1.53**	**13**	**41.2**	**0.92**	**32**	**80**	**-**	
2.50 to < 10.00	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	
10.00 to < 100.00	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	
100.00 (Default)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	
Sub-total	**67,548**	**1,245**	**63.7**	**68,342**	**0.05**	**1,022**	**39.7**	**1.19**	**8,147**	**12**	**12**	**3**
Corporate – small-and-medium sized corporates												
0.00 to < 0.15	**2,092**	**7,200**	**40.3**	**5,500**	**0.12**	**87**	**32.6**	**1.47**	**728**	**13**	**2**	
0.15 to < 0.25	**1,914**	**3,176**	**25.8**	**2,674**	**0.22**	**129**	**25.8**	**1.95**	**529**	**20**	**2**	
0.25 to < 0.50	**6,705**	**8,526**	**28.3**	**9,116**	**0.37**	**222**	**27.2**	**2.10**	**2,698**	**30**	**9**	
0.50 to < 0.75	**9,314**	**5,723**	**33.3**	**11,222**	**0.63**	**271**	**28.8**	**2.28**	**4,575**	**41**	**20**	
0.75 to < 2.50	**39,298**	**20,739**	**29.2**	**45,346**	**1.46**	**1,027**	**26.5**	**2.00**	**26,097**	**58**	**173**	
2.50 to < 10.00	**20,963**	**5,347**	**30.3**	**22,585**	**4.99**	**229**	**26.1**	**1.61**	**15,067**	**67**	**291**	
10.00 to < 100.00	**1,401**	**141**	**25.5**	**1,437**	**13.77**	**22**	**33.8**	**1.53**	**1,664**	**116**	**66**	
100.00 (Default)	**3,083**	**-**	**-**	**3,083**	**100.00**	**28**	**36.2**	**1.53**	**8,186**	**266**	**525**	
Sub-total	**84,770**	**50,852**	**31.0**	**100,963**	**5.14**	**2,015**	**27.4**	**1.90**	**59,544**	**59**	**1,088**	**1,010**
Corporate – others												
0.00 to < 0.15	**98,120**	**57,162**	**29.4**	**114,437**	**0.08**	**385**	**46.0**	**1.80**	**24,212**	**21**	**43**	
0.15 to < 0.25	**39,492**	**29,750**	**29.9**	**48,447**	**0.22**	**233**	**44.0**	**1.84**	**19,309**	**40**	**47**	
0.25 to < 0.50	**31,549**	**17,865**	**17.4**	**34,653**	**0.37**	**313**	**44.7**	**1.79**	**18,011**	**52**	**57**	
0.50 to < 0.75	**24,101**	**27,224**	**18.4**	**29,114**	**0.63**	**320**	**39.8**	**1.39**	**16,568**	**57**	**73**	
0.75 to < 2.50	**93,316**	**62,595**	**24.1**	**108,372**	**1.37**	**1,019**	**33.2**	**1.75**	**79,580**	**73**	**491**	
2.50 to < 10.00	**29,963**	**13,668**	**20.1**	**32,708**	**4.07**	**318**	**37.0**	**1.71**	**36,537**	**112**	**491**	
10.00 to < 100.00	**14,509**	**3,518**	**19.3**	**15,188**	**18.02**	**76**	**38.8**	**1.59**	**35,839**	**236**	**1,044**	
100.00 (Default)	**20,041**	**32**	**60.0**	**20,060**	**100.00**	**126**	**37.3**	**1.41**	**29,979**	**149**	**7,113**	
Sub-total	**351,091**	**211,814**	**24.7**	**402,979**	**6.48**	**2,790**	**40.3**	**1.73**	**260,035**	**65**	**9,359**	**10,242**

Table 33.2: CR6 – Credit risk exposures by portfolio and PD ranges – for IRB approach (Retail)

	a	b	c	d	e	f	g	h	i	j	k	l
As at 31 Dec 2022	**Original on-balance sheet gross exposure**	**Off-balance sheet exposures pre-CCF**	**Average CCF**	**EAD post CRM and post-CCF**	**Average PD**	**Number of obligors**	**Average LGD**	**Average maturity**	**RWA**	**RWA density**	**EL**	**Provisions^**
PD scale	**HK$m**	**HK$m**	**%**	**HK$m**	**%**		**%**	**years**	**HK$m**	**%**	**HK$m**	**HK$m**
Retail – qualifying revolving retail exposures ('QRRE')												
0.00 to < 0.15	**11,167**	**163,863**	**38.2**	**73,810**	**0.07**	**1,775,420**	**105.3**		**3,439**	**5**	**55**	
0.15 to < 0.25	**2,042**	**13,051**	**47.2**	**8,202**	**0.22**	**189,118**	**104.9**		**1,007**	**12**	**19**	
0.25 to < 0.50	**4,029**	**19,672**	**36.2**	**11,157**	**0.40**	**207,636**	**102.7**		**2,145**	**19**	**46**	
0.50 to < 0.75	**2,073**	**4,071**	**54.9**	**4,307**	**0.60**	**58,683**	**102.0**		**1,125**	**26**	**26**	
0.75 to < 2.50	**5,621**	**11,537**	**36.8**	**9,864**	**1.42**	**90,700**	**101.2**		**4,903**	**50**	**142**	
2.50 to < 10.00	**3,308**	**2,974**	**67.2**	**5,305**	**4.69**	**48,244**	**100.8**		**6,127**	**115**	**251**	
10.00 to < 100.00	**1,170**	**343**	**167.5**	**1,744**	**32.94**	**14,020**	**99.1**		**3,313**	**190**	**551**	
100.00 (Default)	**65**	**-**	**-**	**65**	**100.00**	**829**	**94.4**		**99**	**152**	**54**	
Sub-total	**29,475**	**215,511**	**39.4**	**114,454**	**1.02**	**2,384,650**	**104.2**		**22,158**	**19**	**1,144**	**1,120**
Retail – residential mortgage exposures												
0.00 to < 0.15	**200,019**	**1,598**	**100.0**	**201,617**	**0.08**	**54,609**	**25.4**		**46,840**	**23**	**43**	
0.15 to < 0.25	**43,974**	**351**	**100.0**	**44,325**	**0.18**	**29,951**	**24.5**		**9,744**	**22**	**19**	
0.25 to < 0.50	**383**	**3**	**100.0**	**386**	**0.34**	**65**	**18.3**		**85**	**22**	**-**	
0.50 to < 0.75	**18,425**	**147**	**100.0**	**18,572**	**0.52**	**7,604**	**22.0**		**4,306**	**23**	**21**	
0.75 to < 2.50	**17,219**	**136**	**100.0**	**17,355**	**0.95**	**14,145**	**21.1**		**4,775**	**28**	**35**	
2.50 to < 10.00	**5,572**	**43**	**100.0**	**5,615**	**4.59**	**3,785**	**20.1**		**3,557**	**63**	**52**	
10.00 to < 100.00	**4,429**	**33**	**100.0**	**4,462**	**20.89**	**2,613**	**19.8**		**5,015**	**112**	**185**	
100.00 (Default)	**532**	**-**	**-**	**532**	**100.00**	**192**	**14.4**		**898**	**169**	**5**	
Sub-total	**290,553**	**2,311**	**100.0**	**292,864**	**0.76**	**112,964**	**24.6**		**75,220**	**26**	**360**	**-**
Retail – small business retail exposures												
0.00 to < 0.15	**2,600**	**11**	**100.0**	**2,611**	**0.07**	**1,206**	**9.6**		**51**	**2**	**-**	
0.15 to < 0.25	**485**	**3**	**100.0**	**488**	**0.19**	**129**	**17.7**		**34**	**7**	**-**	
0.25 to < 0.50	**-**	**-**	**-**	**-**	**-**	**-**	**-**		**-**	**-**	**-**	
0.50 to < 0.75	**480**	**1**	**100.0**	**481**	**0.55**	**176**	**6.9**		**24**	**5**	**-**	
0.75 to < 2.50	**456**	**2**	**100.0**	**458**	**1.33**	**109**	**26.8**		**140**	**31**	**2**	
2.50 to < 10.00	**356**	**-**	**-**	**356**	**4.93**	**146**	**6.9**		**36**	**10**	**1**	
10.00 to < 100.00	**55**	**-**	**-**	**55**	**36.92**	**31**	**13.6**		**20**	**36**	**3**	
100.00 (Default)	**3**	**-**	**-**	**3**	**100.00**	**1**	**27.8**		**9**	**300**	**-**	
Sub-total	**4,435**	**17**	**100.0**	**4,452**	**1.17**	**1,798**	**11.8**		**314**	**7**	**6**	**1**
Other retail exposures to individuals												
0.00 to < 0.15	**2,772**	**2,145**	**9.5**	**2,976**	**0.08**	**21,400**	**15.4**		**104**	**3**	**-**	
0.15 to < 0.25	**1,495**	**2,688**	**14.9**	**1,895**	**0.22**	**21,724**	**15.9**		**126**	**7**	**1**	
0.25 to < 0.50	**4,707**	**1,113**	**19.6**	**4,924**	**0.32**	**46,354**	**97.4**		**2,636**	**54**	**15**	
0.50 to < 0.75	**1,671**	**147**	**43.5**	**1,735**	**0.59**	**8,358**	**78.9**		**1,085**	**63**	**8**	
0.75 to < 2.50	**6,148**	**1,594**	**31.2**	**6,645**	**1.40**	**28,253**	**64.8**		**4,898**	**74**	**62**	
2.50 to < 10.00	**3,079**	**537**	**33.6**	**3,259**	**4.22**	**12,924**	**59.3**		**2,823**	**87**	**90**	
10.00 to < 100.00	**535**	**34**	**55.2**	**554**	**18.18**	**4,304**	**83.2**		**956**	**173**	**89**	
100.00 (Default)	**56**	**5**	**-**	**56**	**100.00**	**492**	**47.2**		**116**	**207**	**20**	
Sub-total	**20,463**	**8,263**	**19.1**	**22,044**	**1.90**	**143,809**	**61.9**		**12,744**	**58**	**285**	**158**

Table 33.3: CR6 – Credit risk exposures by portfolio and PD ranges – for IRB approach (Total)

	a	b	c	d	e	f	g	h	i	j	k	l
As at 31 Dec 2022	**Original on-balance sheet gross exposure**	**Off-balance sheet exposures pre-CCF**	**Average CCF**	**EAD post CRM and post-CCF**	**Average PD**	**Number of obligors**	**Average LGD**	**Average maturity***	**RWA**	**RWA density**	**EL**	**Provisions^**
	HK$m	**HK$m**	**%**	**HK$m**	**%**		**%**	**years**	**HK$m**	**%**	**HK$m**	**HK$m**
Total (all portfolios)	**1,306,545**	**490,013**	**32.2**	**1,464,308**	**2.41**	**2,649,090**	**37.2**	**1.42**	**449,381**	**31**	**12,270**	**12,537**

* The average maturity is relevant to wholesale portfolios only.

^ Provisions in this table represent the eligible provisions as defined under Division 1, Part 6 of the BCR which include the regulatory reserves for general banking risks and the impairment allowances reported under IRB approach.

Table 34: CR10 – Specialised lending under supervisory slotting criteria approach – other than high-volatility commercial real estate ('HVCRE')

As at 31 Dec 2022

		a	b	c	d(i)	d(ii)	d(iii)	d(iv)	d(v)	e	f
					EAD amount						
Supervisory Rating Grade	**Remaining Maturity**	**On-balance sheet exposure amount HK$m**	**Off-balance sheet exposure amount HK$m**	**Supervisory risk-weight ('SRW') %**	**Project finance ('PF') HK$m**	**Object finance ('OF') HK$m**	**Commodities finance ('CF') HK$m**	**Income-producing real estate ('IPRE') HK$m**	**Total HK$m**	**RWA HK$m**	**Expected loss amount HK$m**
Strong^	Less than 2.5 years	**23,283**	**1,032**	**50%**	**-**	**-**	**-**	**23,728**	**23,728**	**11,864**	**-**
Strong	Less than 2.5 years	**3,010**	**940**	**70%**	**-**	**-**	**-**	**3,371**	**3,371**	**2,359**	**13**
Strong	Equal to or more than 2.5 years	**8,259**	**661**	**70%**	**-**	**-**	**-**	**8,482**	**8,482**	**5,938**	**34**
Good^	Less than 2.5 years	**9,530**	**856**	**70%**	**-**	**-**	**-**	**9,918**	**9,918**	**6,942**	**40**
Good	Less than 2.5 years	**4,172**	**1,158**	**90%**	**-**	**-**	**-**	**4,568**	**4,568**	**4,111**	**37**
Good	Equal to or more than 2.5 years	**5,747**	**299**	**90%**	**-**	**-**	**-**	**5,882**	**5,882**	**5,294**	**47**
Satisfactory		**6,347**	**355**	**115%**	**-**	**-**	**-**	**6,487**	**6,487**	**7,460**	**182**
Weak		**2,806**	**1**	**250%**	**-**	**-**	**-**	**2,807**	**2,807**	**7,017**	**225**
Default		**-**	**-**	**0%**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total		**63,154**	**5,302**		**-**	**-**	**-**	**65,243**	**65,243**	**50,985**	**578**

^ Use of preferential risk-weights.

Table 35: CR10 – Equity exposures under the simple risk-weight method

As at 31 Dec 2022

	a	b	c	d	e
Categories	**On-balance sheet exposure amount HK$m**	**Off-balance sheet exposure amount HK$m**	**SRW %**	**EAD amount HK$m**	**RWA HK$m**
Publicly traded equity exposures	**-**	**-**	**300%**	**-**	**-**
All other equity exposures	**4,949**	**-**	**400%**	**4,949**	**19,797**
Total	**4,949**	**-**		**4,949**	**19,797**

Credit risk under standardised approach

Use of external credit ratings under the standardised approach for credit risk

The standardised (credit risk) ('STC') approach is applied where exposures do not qualify for use of an IRB approach and/or where an exemption from IRB has been granted. The STC approach requires banks to use risk assessments prepared by External Credit Assessment Institutions ('ECAI') to determine the risk weightings applied to rated counterparties.

ECAI risk assessments are used within the group as part of the determination of risk weightings for the following classes of exposures:

– Public sector entity ('PSE') exposures; and
– Bank or corporate exposures (those without an internal customer risk rating ('CRR'));

The Group uses external credit ratings from the following ECAIs:

– Fitch Ratings
– Moody's Investors Service
– Standard & Poor's Ratings Services

The Group determines ECAI issuer ratings or ECAI issue-specific ratings in the banking book in a process consisent with Part 4 of the BCR.

All other exposure classes are assigned risk weightings as prescribed in the HKMA's BCR.

Table 36: CR5 – Credit risk exposures by asset classes and by risk weights – for STC approach

		a	b	c	d	e	f	g	h	ha	i	j
As at 31 Dec 2022												
	Risk weight	**0%**	**10%**	**20%**	**35%**	**50%**	**75%**	**100%**	**150%**	**250%**	**Others**	**Total credit risk exposures amount (post CCF and post CRM)**
		HK$m	**HK$m**	**HK$m**	**HK$m**	**HK$m**	**HK$m**	**HK$m**	**HK$m**	**HK$m**	**HK$m**	**HK$m**
	Exposure class											
1	Sovereign exposures	**1,785**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1,785**
2	PSE exposures	**12,276**	**-**	**9,477**	**-**	**1**	**-**	**-**	**-**	**-**	**-**	**21,754**
2a	*Of which: Domestic PSEs*	***-***	***-***	***8,851***	***-***	***-***	***-***	***-***	***-***	***-***	***-***	***8,851***
2b	*Of which: Foreign PSEs*	***12,276***	***-***	***626***	***-***	***1***	***-***	***-***	***-***	***-***	***-***	***12,903***
3	Multilateral development bank exposures	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
4	Bank exposures	**-**	**-**	**1,442**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1,442**
5	Securities firm exposures	**-**	**-**	**-**	**-**	**45**	**-**	**-**	**-**	**-**	**-**	**45**
6	Corporate exposures	**-**	**-**	**649**	**-**	**758**	**-**	**49,691**	**-**	**-**	**-**	**51,098**
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	**-**	**-**	**-**	**-**	**-**	**6,193**	**-**	**-**	**-**	**-**	**6,193**
11	Residential mortgage loans	**-**	**-**	**-**	**23,897**	**-**	**822**	**1,144**	**-**	**-**	**-**	**25,863**
12	Other exposures which are not past due exposures	**-**	**-**	**-**	**-**	**-**	**-**	**4,701**	**-**	**-**	**-**	**4,701**
13	Past due exposures	**2**	**-**	**-**	**-**	**-**	**-**	**54**	**191**	**-**	**-**	**247**
14	Significant exposures to commercial entities	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
15	**Total**	**14,063**	**-**	**11,568**	**23,897**	**804**	**7,015**	**55,590**	**191**	**-**	**-**	**113,128**

Credit risk mitigation

The Group's approach when granting credit facilities is to do so on the basis of capacity to repay, rather than placing primarily reliance on credit risk mitigation. Depending on a customer's standing and the type of product, facilities may be provided on an unsecured basis. Nevertheless, mitigation of credit risk is an important aspect of effective management and takes in many forms.

The Group's general policy is to promote the use of credit risk mitigation, justified by commercial prudence and good practice as well as capital efficiency. Policies covering the acceptability, structuring, terms, control and valuation with regard to different types of collateral security are established to ensure that they are supported by empirical evidence and continue to fulfil their intended purpose.

Collateral

The Group has implemented guidelines on the acceptability of specific classes of collateral or credit risk mitigation. Security structures and legal covenants are subject to regular review to ensure that they continue to fulfil their intended purpose and remain in line with local market practice.

While collateral is an important mitigant to credit risk, it is the Group's policy to establish that loans are within the customer's capacity to repay rather than to rely excessively on security. Facilities may be granted on unsecured basis depending on the customer's standing and the type of product. The principal collateral types are as follows:

– in the personal sector, charges over properties, securities, investment funds and deposits;
– in the commercial and industrial sector, charges over business assets such as properties, stocks, debtors, investment funds and deposits; and
– in the commercial real estate sector, charges over the properties being financed.

Repossessed assets are non-financial assets acquired in exchange for loans in order to achieve an orderly realisation, and are reported in the balance sheet within 'Other assets' at the lower of fair value (less costs to sell) and the carrying amount of the loan (net of any impairment allowance). If excess funds arise after the debt has been repaid, they are made available either to repay other secured lenders with lower priority or are returned to the customer. The Group does not generally occupy repossessed properties for its business use.

Collateral held as security for financial assets other than loans and advances is determined by the nature of the instrument. Debt securities, treasury and other eligible bills are generally unsecured.

Credit Risk Mitigation under IRB Approach

The main types of recognised collateral taken by the Group are those as stated in section 80 of the BCR, including (but not limited to) cash on deposit, gold bullion, equities listed in a main index and/or a recognised exchange, collective investment schemes, various recognised debt securities, residential, industrial and commercial property.

The Group's policy provides that netting is only to be applied where it has the legal right to do so. Consistent with the BCR, only bilateral netting arrangements are included in the capital adequacy credit risk mitigation calculation.

In terms of the application within IRB approach, credit risk mitigants are considered in two broad categories: first, those which reduce the intrinsic PD of an obligor and therefore operate as adjustments to PD estimation, and second, those which affect estimated recoverability of obligations and require adjustment of LGD. The first includes, for example, full parental or group company guarantees; the second, collateral security of various kinds such as cash, equity, properties, fixed assets such as motor vehicles, plant and machinery, stock and debtors, bank and sovereign guarantees.

Credit Risk Mitigation under STC Approach

As stated in sections 98 and 99 of the BCR, certain guarantees and credit derivative contracts are recognised for credit risk mitigation purposes. The main types of guarantees are from sovereigns, corporates and banks. With corporate guarantees, in order for it to be recognised as a credit risk mitigant, it must have a credit rating of A- or better by Standard & Poor's Ratings Services, Fitch Ratings or a credit rating of A3 or better by Moody's Investors Service.

Table 37: CR3 – Overview of recognised credit risk mitigation

	a	b1	b	d	f
As at 31 Dec 2022	**Exposures unsecured: carrying amount HK$m**	**Exposures to be secured HK$m**	**Exposures secured by recognised collateral HK$m**	**Exposures secured by recognised guarantees HK$m**	**Exposures secured by recognised credit derivative contracts HK$m**
1 Loans	**378,120**	**629,323**	**530,262**	**99,061**	**-**
2 Debt securities	**469,616**	**941**	**-**	**941**	**-**
3 **Total**	**847,736**	**630,264**	**530,262**	**100,002**	**-**
4 *of which: Defaulted*	***5,534***	***10,857***	***8,477***	***2,380***	**-**

Table 38: CR7 – Effects on RWA of recognised credit derivative contracts used as recognised credit risk mitigation – for IRB approach

	a	b
As at 31 Dec 2022	**Pre-credit derivatives RWA HK$m**	**Actual RWA HK$m**
1 Corporate – Specialised lending under supervisory slotting criteria approach (project finance)	**-**	**-**
2 Corporate – Specialised lending under supervisory slotting criteria approach (object finance)	**-**	**-**
3 Corporate – Specialised lending under supervisory slotting criteria approach (commodities finance)	**-**	**-**
4 Corporate – Specialised lending under supervisory slotting criteria approach (income-producing real estate)	**50,985**	**50,985**
5 Corporate – Specialised lending (high-volatility commercial real estate)	**-**	**-**
6 Corporate – Small-and-medium sized corporates	**59,544**	**59,544**
7 Corporate – Other corporates	**260,035**	**260,035**
8 Sovereigns	**10,475**	**10,475**
9 Sovereign foreign public sector entities	**-**	**-**
10 Multilateral development banks	**744**	**744**
11 Bank exposures – Banks	**7,545**	**7,545**
12 Bank exposures – Securities firms	**602**	**602**
13 Bank exposures – Public sector entities (excluding sovereign foreign public sector entities)	**-**	**-**
14 Retail – Small business retail exposures	**314**	**314**
15 Retail – Residential mortgages to individuals	**74,530**	**74,530**
16 Retail – Residential mortgages to property-holding shell companies	**690**	**690**
17 Retail – Qualifying revolving retail exposures	**22,158**	**22,158**
18 Retail – Other retail exposures to individuals	**12,744**	**12,744**
19 Equity – Equity exposures under market-based approach (simple risk-weight method)	**19,797**	**19,797**
20 Equity – Equity exposures under market-based approach (internal models method)	**-**	**-**
21 Equity – Equity exposures under PD/LGD approach (publicly traded equity exposures held for long-term investment)	**-**	**-**
22 Equity – Equity exposures under PD/LGD approach (privately owned equity exposures held for long-term investment)	**-**	**-**
23 Equity – Equity exposures under PD/LGD approach (other publicly traded equity exposures)	**-**	**-**
24 Equity – Equity exposures under PD/LGD approach (other equity exposures)	**-**	**-**
25 Equity – Equity exposures associated with equity investments in funds (CIS exposures)	**481**	**481**
26 Other – Cash items	**191**	**191**
27 Other – Other items	**38,434**	**38,434**
28 **Total (under the IRB calculation approaches)**	**559,269**	**559,269**

There is no impact on RWA, as the Group does not have credit derivative contracts used as recognised credit risk mitigation.

Table 39: CR4 – Credit risk exposures and effects of recognised credit risk mitigation – for STC approach

		a	b	c	d	e	f
		Exposures pre-CCF and pre-CRM		**Exposures post-CCF and post-CRM**		**RWA and RWA density**	
As at 31 Dec 2022		**On-balance sheet amount HK\$m**	**Off-balance sheet amount HK\$m**	**On-balance sheet amount HK\$m**	**Off-balance sheet amount HK\$m**	**RWA HK\$m**	**RWA density %**
	Exposure classes						
1	Sovereign exposures	**-**	**-**	**1,452**	**333**	**-**	**-**
2	PSE exposures	**21,227**	**1,105**	**21,227**	**527**	**1,896**	**9**
2a	*Of which: Domestic PSEs*	***8,324***	***1,105***	***8,324***	***527***	***1,770***	***20***
2b	*Of which: Foreign PSEs*	***12,903***	***-***	***12,903***	***-***	***126***	***1***
3	Multilateral development bank exposures	**-**	**-**	**-**	**-**	**-**	**-**
4	Bank exposures	**1,442**	**-**	**1,442**	**-**	**289**	**20**
5	Securities firm exposures	**45**	**-**	**45**	**-**	**22**	**50**
6	Corporate exposures	**53,684**	**27,272**	**49,929**	**1,169**	**50,200**	**98**
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	**6,831**	**12,105**	**6,188**	**5**	**4,645**	**75**
11	Residential mortgage loans	**25,903**	**4,332**	**25,862**	**1**	**10,124**	**39**
12	Other exposures which are not past due exposures	**10,456**	**5,703**	**4,607**	**94**	**4,701**	**100**
13	Past due exposures	**247**	**-**	**247**	**-**	**340**	**138**
14	Significant exposures to commercial entities	**-**	**-**	**-**	**-**	**-**	**-**
15	**Total**	**119,835**	**50,517**	**110,999**	**2,129**	**72,217**	**64**

Remark:

Exposures pre-CCF and pre-CRM are reported under obligor's corresponding exposure class. Where the exposure is covered by a guarantee, the credit protection covered portion of the exposure is reported under the exposure class of credit protection provider in columns (c) & (d).

Model performance

The disclosure covers wholesale and retail models which have been approved by regulators. It validates the PD estimation by comparing the PD estimated by IRB Models against actual default experience. It shows that our IRB models are generally conservative.

Table 40.1: CR9 – Back-testing of PD per portfolio – for IRB approach (Wholesale)

a	b	c			d	e	f		g	h	i
							Number of obligors [2,3]				
Portfolio	**PD Range**	**External rating equivalent (S&P)**	**External rating equivalent (Moody's)**	**External rating equivalent (Fitch)**	**Weighted average PD[1]**	**Arithmetic average PD by obligors[1]**	**Beginning of the year**	**End of the year**	**Defaulted obligors in the year**	**of which: new defaulted obligors in the year**	**Average historical annual default rate**
As at 31 Dec 2022					%	%					%
Sovereign	0.00 to < 0.15	AAA to BBB	Aaa to Baa2	AAA to BBB	**0.01**	**0.01**	**20**	**23**	-	-	-
	0.15 to < 0.25	BBB-	Baa3	BBB-	-	-	-	-	-	-	-
	0.25 to < 0.50	BBB-	Baa3	BBB-	-	-	-	-	-	-	-
	0.50 to < 0.75	BB+ to BB	Ba1 to Ba2	BB+ to BB	-	-	-	-	-	-	-
	0.75 to < 2.50	BB- to B+	Ba3 to B2	BB- to B-	-	-	-	-	-	-	-
	2.50 to < 10.00	B to B-	B2 to Caa1	CCC+ to CCC	-	-	-	-	-	-	-
	10.00 to < 100.00	B- to C	Caa1 to C	CCC to C	-	-	-	-	-	-	-
Bank	0.00 to < 0.15	AAA to A-	Aaa to Baa1	AAA to BBB+	**0.04**	**0.06**	**53**	**82**	-	-	-
	0.15 to < 0.25	BBB+	Baa2	BBB	**0.22**	**0.22**	**6**	**9**	-	-	-
	0.25 to < 0.50	BBB	Baa3	BBB-	**0.37**	**0.37**	**4**	**3**	-	-	-
	0.50 to < 0.75	BBB-	Baa3	BBB-	**0.63**	**0.63**	**5**	**7**	-	-	-
	0.75 to < 2.50	BB+ to BB-	Ba1 to B1	BB+ to B+	**0.91**	**0.95**	**4**	**4**	-	-	-
	2.50 to < 10.00	B+ to B-	B2 to Caa1	B to CCC+	-	-	-	-	-	-	-
	10.00 to < 100.00	CCC+ to C	Caa1 to C	CCC to C	-	-	-	-	-	-	-
Corporate – small-and-medium sized corporates	0.00 to < 0.15	AAA to A-	Aaa to Baa1	AAA to BBB+	**0.12**	**0.12**	**62**	**64**	-	-	-
	0.15 to < 0.25	BBB+	Baa2	BBB	**0.22**	**0.22**	**142**	**109**	-	-	-
	0.25 to < 0.50	BBB	Baa3	BBB-	**0.37**	**0.37**	**210**	**201**	-	-	**0.48**
	0.50 to < 0.75	BBB-	Baa3	BBB-	**0.63**	**0.63**	**336**	**234**	-	-	-
	0.75 to < 2.50	BB+ to BB-	Ba1 to B1	BB+ to B+	**1.36**	**1.47**	**1,079**	**930**	**4**	-	**0.25**
	2.50 to < 10.00	B+ to B-	B2 to Caa1	B to CCC+	**3.50**	**3.68**	**240**	**202**	**5**	-	**1.68**
	10.00 to < 100.00	CCC+ to C	Caa1 to C	CCC to C	**10.61**	**11.00**	**9**	**17**	**4**	-	**30.63**
Corporate – others[4]	0.00 to < 0.15	AAA to A-	Aaa to Baa1	AAA to BBB+	**0.08**	**0.10**	**198**	**193**	-	-	-
	0.15 to < 0.25	BBB+	Baa2	BBB	**0.22**	**0.22**	**208**	**165**	**1**	-	**0.45**
	0.25 to < 0.50	BBB	Baa3	BBB-	**0.37**	**0.37**	**237**	**199**	**2**	-	**0.46**
	0.50 to < 0.75	BBB-	Baa3	BBB-	**0.63**	**0.63**	**308**	**248**	**4**	-	**0.58**
	0.75 to < 2.50	BB+ to BB-	Ba1 to B1	BB+ to B+	**1.33**	**1.50**	**925**	**794**	**20**	-	**0.99**
	2.50 to < 10.00	B+ to B-	B2 to Caa1	B to CCC+	**3.98**	**3.78**	**228**	**246**	**3**	-	**2.28**
	10.00 to < 100.00	CCC+ to C	Caa1 to C	CCC to C	**49.11**	**20.00**	**21**	**37**	**8**	-	**17.62**

Note:

1 *The weighted average PD% and the arithmetic average PD% by obligors are based on the position at the beginning of the year.*

2 *The number of obligors represents the obligors rated by key wholesale IRB models directly.*

3 *The number of obligors on corporate counterparty is being reported at counterparty level, while the number of obligors on Multilateral Development Bank (grouped under Sovereign portfolio) and Bank are being reported at entity level. Sovereigns are reported at country level based on local currency and foreign currency ratings.*

4 *Specialised lending exposures are excluded.*

Table 40.2: CR9 – Back-testing of PD per portfolio – for IRB approach (Retail)

a	b	c	d	e	f		g	h	i
					Number of obligors[2]				
Portfolio	**PD Range**	**External rating equivalent****	**Weighted average PD[1]**	**Arithmetic average PD by obligors[1]**	**Beginning of the year**	**End of the year**	**Defaulted obligors in the year**	**of which: new defaulted obligors in the year**	**Average historical annual default rate**
As at 31 Dec 2022			%	%					%
Retail – QRRE	0.00 to < 0.15		**0.07**	**0.07**	**1,919,485**	**1,903,946**	**989**	**6**	**0.04**
	0.15 to < 0.25		**0.22**	**0.22**	**183,650**	**201,246**	**216**	**7**	**0.11**
	0.25 to < 0.50		**0.40**	**0.40**	**209,451**	**220,694**	**395**	**4**	**0.18**
	0.50 to < 0.75		**0.60**	**0.59**	**58,348**	**62,060**	**220**	**6**	**0.36**
	0.75 to < 2.50		**1.43**	**1.35**	**231,221**	**241,945**	**1,008**	**19**	**0.48**
	2.50 to < 10.00		**4.70**	**4.53**	**70,105**	**71,779**	**1,173**	**12**	**2.11**
	10.00 to < 100.00		**32.11**	**38.39**	**16,012**	**15,819**	**1,861**	**1**	**11.44**
Retail – residential mortgage exposures	0.00 to < 0.15		**0.08**	**0.09**	**60,661**	**55,302**	**13**	**1**	**0.03**
	0.15 to < 0.25		**0.18**	**0.17**	**25,533**	**30,477**	**11**	**-**	**0.03**
	0.25 to < 0.50		**0.34**	**0.34**	**98**	**69**	**-**	**-**	**0.01**
	0.50 to < 0.75		**0.53**	**0.53**	**9,197**	**7,746**	**9**	**-**	**0.13**
	0.75 to < 2.50		**0.93**	**0.94**	**13,294**	**14,585**	**21**	**-**	**0.14**
	2.50 to < 10.00		**4.77**	**4.81**	**3,449**	**3,964**	**13**	**-**	**0.60**
	10.00 to < 100.00		**19.84**	**19.86**	**2,617**	**2,735**	**82**	**-**	**3.93**
Retail – small business retail exposures	0.00 to < 0.15		**0.07**	**0.07**	**1,311**	**1,390**	**-**	**-**	**-**
	0.15 to < 0.25		**0.19**	**0.19**	**150**	**145**	**-**	**-**	**-**
	0.25 to < 0.50		**-**	**-**	**-**	**-**	**-**	**-**	**-**
	0.50 to < 0.75		**0.56**	**0.56**	**263**	**203**	**-**	**-**	**-**
	0.75 to < 2.50		**1.25**	**1.26**	**103**	**146**	**1**	**-**	**0.19**
	2.50 to < 10.00		**5.04**	**4.94**	**200**	**180**	**1**	**-**	**0.37**
	10.00 to < 100.00		**-**	**-**	**-**	**33**	**-**	**-**	**-**
Other retail exposures to individuals	0.00 to < 0.15		**0.08**	**0.08**	**13,253**	**11,620**	**3**	**-**	**0.02**
	0.15 to < 0.25		**0.21**	**0.20**	**11,199**	**11,028**	**8**	**-**	**0.07**
	0.25 to < 0.50		**0.33**	**0.33**	**46,556**	**45,543**	**86**	**6**	**0.15**
	0.50 to < 0.75		**0.59**	**0.60**	**9,430**	**8,944**	**36**	**4**	**0.32**
	0.75 to < 2.50		**1.37**	**1.42**	**29,294**	**27,511**	**272**	**37**	**0.87**
	2.50 to < 10.00		**4.67**	**4.78**	**14,543**	**13,779**	**391**	**49**	**2.81**
	10.00 to < 100.00		**18.36**	**19.49**	**4,720**	**4,677**	**436**	**8**	**10.03**

*** External rating equivalent is not applicable to retail exposures.*

Not

1. The weighted average PD% and the arithmetic average PD% by obligors are based on the position at the beginning of the year.

2. The number of obligors is based on account level information for all retail IRB portfolios.

Counterparty credit risk exposures

Counterparty credit risk management

Counterparty credit risk ('CCR') arises for derivatives and SFTs. It is calculated in both the trading and banking books, and is the risk that a counterparty may default before settlement of the transaction. CCR is generated primarily from our wholesale global businesses.

The Group is permitted to apply the following methods to determine exposure values for CCR: the Standardised (Counterparty Credit Risk) (SA-CCR) approach – for derivatives; and the comprehensive approach to recognition of collateral for SFTs.

Under the SA-CCR approach, the exposure at default ('EAD') is calculated as the sum of Replacement Cost ('RC') and Potential Future Exposures ('PFE') multiplied by an alpha factor of 1.4.

The PFE measures used for CCR management are calibrated to the 95th percentile. The measures consider volatility, trade maturity and the counterparty legal documentation covering netting and collateral.

Limits for CCR exposures, including to central counterparties ('CCPs'), are assigned within the overall credit process. The credit risk function assigns a limit against each counterparty to cover derivatives exposure which may arise as a result of a counterparty default. The magnitude of this limit will depend on the overall risk appetite and type of derivatives and SFT trading undertaken with a counterparty.

Credit valuation adjustment

CVA represents the risk of mark-to-market losses on the expected counterparty risk to over-the-counter ('OTC') derivatives. The Group uses the standardised approach to calculate the CVA capital charge. Certain exposures to qualifying central counterparties are exempt from CVA.

Collateral arrangements

Our policy is to revalue all traded transactions and associated collateral positions on a daily basis. An independent collateral management function manages the collateral process including pledging collateral, receiving collateral, investigating disputes and following up on non-receipts.

Eligible collateral types are controlled under a policy to ensure price transparency, price stability, liquidity, enforceability, independence, reusability and eligibility for regulatory purposes. A valuation 'haircut' policy reflects the fact that collateral may fall in value between the date the collateral was called and the date of liquidation or enforcement.

Credit ratings downgrade

A credit rating downgrade clause in a Master Agreement or a credit rating downgrade threshold clause in a Credit Support Annex ('CSA') is designed to trigger an action if the credit rating of the affected party falls below a specified level. These actions may include the requirement to pay or increase collateral, the termination of transactions by the non-affected party or the assignment of transactions by the affected party.

At 31 December 2022, the potential value of the additional collateral pertaining to International Swaps and Derivatives Association ('ISDA') CSA downgrade thresholds that we would potentially need to post with counterparties in the event of a one-notch or two-notch downgrade of our rating was nil.

Wrong-way risk

Wrong-way risk occurs when a counterparty's exposures are adversely correlated with its credit quality.

There are two types of wrong-way risk.

– General wrong-way risk occurs when the probability of counterparty default is positively correlated with general risk factors, for example, where a counterparty is resident and/or incorporated in a higher-risk country and seeks to sell a non-domestic currency in exchange for its home currency.

– Specific wrong-way risk occurs in self-referencing transactions. These are transactions in which exposure is driven by capital or financing instruments issued by the counterparty and occurs where exposure from the Bank's perspective materially increases as the value of the counterparty's capital or financing instruments referenced in the contract decreases. It is the Bank's policy that specific wrong-way transactions are approved on a case-by-case basis.

We use a range of tools to monitor and control wrong-way risk, including requiring the business to obtain prior approval before undertaking wrong-way risk transactions outside pre-agreed guidelines. The Traded Risk functions are responsible for the control and monitoring process within an overarching Group framework and limit framework.

Central counterparties

While exchange traded derivatives have been cleared through central counterparties ('CCP')'s for many years, recent regulatory initiatives designed to reduce systemic risk in the banking system are directing increasing volumes of over-the-counter ('OTC') derivatives to be cleared through CCPs.

To manage the significant concentration of risk in CCPs that results from this, the Bank has adopted a risk appetite framework to manage risk accordingly, at the level of individual CCP and globally. The Bank undertakes in-depth due diligence of the unique risks associated with these organisations.

Table 41: CCR1 – Analysis of counterparty default risk exposures (other than those to CCPs) by approaches

		a	b	c	d	e	f
As at 31 Dec 2022		**Replacement cost ('RC') HK$m**	**PFE HK$m**	**Effective expected positive exposure ('EPE') HK$m**	**Alpha (α) used for computing default risk exposure**	**Default risk exposure after CRM HK$m**	**RWA HK$m**
1	SA-CCR approach (for derivative contracts)	**10,581**	**10,910**		**1.4**	**30,087**	**6,604**
1a	CEM (for derivative contracts)	-	-		-	-	-
2	IMM (CCR) approach			-	-	-	-
3	Simple approach (for SFTs)					-	-
4	Comprehensive approach (for SFTs)					**3,982**	**445**
5	VaR for SFTs					-	-
6	**Total**						**7,049**

Table 42: CCR2 – CVA capital charge

		a	b
As at 31 Dec 2022		**EAD post-CRM HK$m**	**RWA HK$m**
	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	**30,087**	**9,500**
4	**Total**	**30,087**	**9,500**

Table 43: CCR8 – Exposures to CCPs

	As at 31 Dec 2022	a Exposure after CRM HK$m	b RWA HK$m
1	**Exposures of the AI as clearing member or clearing client to qualifying CCPs (total)**		**134**
2	Default risk exposures to qualifying CCPs (excluding items disclosed in rows 7 to 10), of which:	**3,440**	**122**
3	*(i) OTC derivative transactions*	***3,440***	***122***
4	*(ii) Exchange-traded derivative contracts*	-	-
5	*(iii) Securities financing transactions*	-	-
6	*(iv) Netting sets subject to valid cross-product netting agreements*	-	-
7	Segregated initial margin	-	
8	Unsegregated initial margin	**283**	**10**
9	Funded default fund contributions	**77**	**2**
10	Unfunded default fund contributions	-	-
11	**Exposures of the AI as clearing member or clearing client to non-qualifying CCPs (total)**		-
12	Default risk exposures to non-qualifying CCPs (excluding items disclosed in rows 17 to 20), of which:	-	-
13	*(i) OTC derivative transactions*	-	-
14	*(ii) Exchange-traded derivative contracts*	-	-
15	*(iii) Securities financing transactions*	-	-
16	*(iv) Netting sets subject to valid cross-product netting agreements*	-	-
17	Segregated initial margin	-	
18	Unsegregated initial margin	-	-
19	Funded default fund contributions	-	-
20	Unfunded default fund contributions	-	-

Table 44: CCR5 – Composition of collateral for counterparty default risk exposures (including those for contracts or transactions cleared through CCPs)

		a	b	c	d	e	f
		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**
	As at 31 Dec 2022	**Segregated HK$m**	**Unsegregated HK$m**	**Segregated HK$m**	**Unsegregated HK$m**	**HK$m**	**HK$m**
1	Cash – domestic currency	-	-	-	**704**	**1,100**	**153**
2	Cash – other currencies	-	**2,233**	-	**1,334**	**8,946**	**49,594**
3	Domestic sovereign debt	-	-	-	-	-	**1,105**
4	Other sovereign debt	**49,518**	-	-	-	**22,265**	**9,466**
5	Government agency debt	-	-	-	-	-	-
6	Corporate bonds	-	-	-	-	**20,025**	**61**
7	Equity securities	-	-	-	-	-	-
8	Other collateral	**3,632**	-	-	-	**6,787**	**2,726**
9	**Total**	**53,150**	**2,233**	-	**2,038**	**59,123**	**63,105**

Counterparty default risk under internal ratings-based approach

Table 45: CCR4 – Counterparty default risk exposures (other than those to CCPs) by portfolio and PD range – for IRB approach

	a	b	c	d	e	f	g
As at 31 Dec 2022 **PD scale**	**EAD post-CRM HK$m**	**Average PD %**	**Number of obligors**	**Average LGD %**	**Average maturity years**	**RWA HK$m**	**RWA density %**
Sovereign							
0.00 to < 0.15	**295**	**0.02**	**2**	**44.5**	**0.99**	**16**	**5**
0.15 to < 0.25	-	-	-	-	-	-	-
0.25 to < 0.50	-	-	-	-	-	-	-
0.50 to < 0.75	-	-	-	-	-	-	-
0.75 to < 2.50	-	-	-	-	-	-	-
2.50 to < 10.00	-	-	-	-	-	-	-
10.00 to < 100.00	-	-	-	-	-	-	-
100.00 (Default)	-	-	-	-	-	-	-
Sub-total	**295**	**0.02**	**2**	**44.5**	**0.99**	**16**	**5**
Bank							
0.00 to < 0.15	**26,948**	**0.05**	**104**	**33.1**	**2.15**	**3,974**	**15**
0.15 to < 0.25	**1,153**	**0.22**	**15**	**45.0**	**0.98**	**488**	**42**
0.25 to < 0.50	**89**	**0.37**	**5**	**49.1**	**0.13**	**38**	**43**
0.50 to < 0.75	**31**	**0.63**	**2**	**45.0**	**1.00**	**24**	**77**
0.75 to < 2.50	-	-	-	-	-	-	-
2.50 to < 10.00	-	-	-	-	-	-	-
10.00 to < 100.00	-	-	-	-	-	-	-
100.00 (Default)	-	-	-	-	-	-	-
Sub-total	**28,221**	**0.06**	**126**	**33.6**	**2.09**	**4,524**	**16**
Corporates							
0.00 to < 0.15	**3,372**	**0.07**	**27**	**33.8**	**0.75**	**424**	**13**
0.15 to < 0.25	**132**	**0.22**	**12**	**53.3**	**1.32**	**59**	**45**
0.25 to < 0.50	**564**	**0.37**	**21**	**51.4**	**1.54**	**319**	**57**
0.50 to < 0.75	**24**	**0.63**	**3**	**55.8**	**1.00**	**17**	**73**
0.75 to < 2.50	**709**	**1.62**	**43**	**56.6**	**1.28**	**806**	**114**
2.50 to < 10.00	**320**	**4.84**	**12**	**50.4**	**3.21**	**553**	**173**
10.00 to < 100.00	-	-	-	-	-	-	-
100.00 (Default)	-	-	-	-	-	-	-
Sub-total	**5,121**	**0.62**	**118**	**40.5**	**1.08**	**2,178**	**43**
Retail							
0.00 to < 0.15	-	-	-	-	-	-	-
0.15 to < 0.25	-	-	-	-	-	-	-
0.25 to < 0.50	-	-	-	-	-	-	-
0.50 to < 0.75	-	-	-	-	-	-	-
0.75 to < 2.50	-	-	-	-	-	-	-
2.50 to < 10.00	-	-	-	-	-	-	-
10.00 to < 100.00	-	-	-	-	-	-	-
100.00 (Default)	-	-	-	-	-	-	-
Sub-total	-	-	-	-	-	-	-
Total (sum of all portfolios)	**33,637**	**0.14**	**246**	**34.8**	**1.93**	**6,718**	**20**

Note:
Details on the scope of models and percentage of RWA covered by models for each of the regulatory portfolios can be found in the 'Credit risk under internal ratings-based approach' section of this document.

The Group has not used the IMM(CCR) approach to calculate its default risk exposure.

Counterparty default risk under standardised approach

Table 46: CCR3 – Counterparty default risk exposures (other than those to CCPs) by asset classes and by risk weights – for STC approach

	As at 31 Dec 2022	a	b	c	ca	d	e	f	g	ga	h	i
	Risk weight	**0% HK$m**	**10% HK$m**	**20% HK$m**	**35% HK$m**	**50% HK$m**	**75% HK$m**	**100% HK$m**	**150% HK$m**	**250% HK$m**	**Others HK$m**	**Total default risk exposure after CRM HK$m**
	Exposure class											
1	Sovereign exposures	-	-	-	-	-	-	-	-	-	-	-
2	PSE exposures	-	-	**108**	-	-	-	-	-	-	-	**108**
2a	*Of which: Domestic PSEs*	-	-	***108***	-	-	-	-	-	-	-	***108***
2b	*Of which: Foreign PSEs*	-	-	-	-	-	-	-	-	-	-	-
3	Multilateral development bank exposures	-	-	-	-	-	-	-	-	-	-	-
4	Bank exposures	-	-	-	-	-	-	-	-	-	-	-
5	Securities firm exposures	-	-	-	-	-	-	-	-	-	-	-
6	Corporate exposures	-	-	-	-	-	-	**235**	-	-	-	**235**
7	CIS exposures	-	-	-	-	-	-	-	-	-	-	-
8	Regulatory retail exposures	-	-	-	-	-	**60**	-	-	-	-	**60**
9	Residential mortgage loans	-	-	-	-	-	-	-	-	-	-	-
10	Other exposures which are not past due exposures	-	-	-	-	-	-	**28**	-	-	-	**28**
11	Significant exposures to commercial entities	-	-	-	-	-	-	-	-	-	-	-
12	**Total**	-	-	**108**	-	-	**60**	**263**	-	-	-	**431**

Market risk

Overview and governance

Market risk is the risk that movements in market factors, such as foreign exchange rates, interest rates, credit spreads, equity prices and commodity prices, will reduce our income or the value of our portfolios.

Exposure to market risk is separated into two portfolios types:

– Trading portfolios: these comprise positions held for client servicing and market-making, with the intention of short-term resale and/or to hedge risks resulting from such positions.

– Banking portfolios: these comprise positions that primarily arise from the interest rate management of our retail and commercial banking assets and liabilities, financial investments measured at fair value through other comprehensive income and debt instruments measured at amortised cost. These portfolios also include non-trading book foreign exchange ('NTBFX') exposures, where risk may arise from change in the accounting value of assets and liabilities held outside of the trading book, due to movements in foreign exchange ('FX') rates. NTBFX exposures originate primarily from structural foreign exchange exposures and transactional foreign exchange exposures.

Where appropriate, the Group applies similar risk management policies and measurement techniques to both trading and banking portfolios. The Group's objective is to manage and control market risk exposures to optimise return on risk while maintaining a market risk profile consistent with the established risk appetite.

Market risk governance

The Group's total VaR, trading VaR and SVaR reside in Global Markets which manages market risk within overall risk limits set by the Chief Risk Officer and approved by the Board.

Market risk measures

Monitoring and limiting market risk exposures

The Group uses a range of tools to monitor and limit market risk exposures including sensitivity analysis, VaR, and stress testing.

Sensitivity analysis

The Group uses sensitivity measures to monitor the market risk positions within each asset class and risk type. Granular sensitivity limits are set for each trading desk taking into consideration market liquidity, customer demand and capital constraints, amongst other factors.

VaR

VaR is a technique that estimates the potential mark-to-market losses on derivative, security and money market positions in the trading and banking portfolios as a result of movements in market rates and prices over a specified time horizon and to a given level of confidence. The use of VaR is an integral part of our market risk management framework and is calculated for a scope of trading and banking positions which is wider than the set of trading positions which are capitalised under a VaR treatment.

Our models are predominantly based on historical simulation. VaR is calculated at a 99% confidence level for a one-day holding period.

Our VaR models use historical series of market rates and prices, implicitly taking into account inter-relationships between different markets and rates such as interest rates and foreign exchange rates.

The primary categories of risk factors driving market risk are summarised below:

Risk factor	Description
Foreign exchange	Risk arising from changes in foreign exchange rates and volatilities.
Interest rate	Risk arising from changes in the level of interest rates that may impact prices of interest rate sensitive assets such as interest rate swaps.
Equity	Risk arising from changes in equity prices, volatilities and dividend yields.
Commodity	Risk arising from changes in commodity prices.
Credit	Risk arising from changes in the level of credit spreads that may impact prices of credit spread sensitive assets.

Our model uses a mixed approach when applying changes in market rates and prices:

– For equity, credit and foreign exchange risk factors, VaR scenarios are calculated on a relative return basis.

– For interest rates, a mixed approach is used. The scenarios applied to volatilities are on a relative return basis, whereas the scenarios applied to interest rate curves are calculated using a hybrid of absolute and relative returns. This approach enables the VaR to smoothly adapt to either low or high interest rate environments and to support negative rates.

The Group uses the past two years as the historical data set in our VaR models and the scenarios are updated on a weekly basis. These scenarios are then applied to the market baselines and positions on a daily basis. The models incorporate the effect of option features on the underlying exposures.

The valuation approach used in our model varies:
– Desks trading non-linear instruments use a full revaluation approach; and
– Desks trading only linear instruments, such as bonds and swaps, use a sensitivity based approach.

The nature of the VaR model means that an increase in observed market volatility will lead to an increase in VaR even without any changes in the underlying positions.

VaR model limitations

Although a valuable guide to risk, VaR is used with awareness of its limitations, for example:

– The use of historical data as a proxy for estimating future events may not encompass all potential events, particularly those which are extreme in nature;

– The use of a 1-day holding period for risk management purposes of trading and non-trading books assumes that this short period is sufficient to hedge or liquidate all positions;

– The use of a 99% confidence level, by definition does not take into account losses that might occur beyond this level of confidence; and

– VaR is calculated on the basis of exposures outstanding at the close of business and therefore does not necessarily reflect intra-day exposures.

Risk not in VaR ('RNIV') framework

The RNIV framework captures risks from exposures in the trading book that are not captured well by the VaR model. Our VaR model is designed to capture significant basis risk such as cross-currency basis. Other basis risks that are not completely covered in VaR are complemented by our RNIV calculations and are integrated into our capital framework.

Risk factors are reviewed on a regular basis and either incorporated directly in the VaR models, where possible, or quantified through either the VaR-based RNIV approach or a stress test approach within the RNIV framework. While VaR-based RNIVs are calculated by using historical scenarios, stress-type RNIVs are estimated on the basis of stress scenarios whose severity is calibrated to be in line with the capital adequacy requirements.

Backtesting

The Group validates daily the accuracy of the VaR model by back-testing the model against both actual and hypothetical profit and loss. Hypothetical profit and loss excludes non-modelled items such as fees, commissions and revenues of intra-day transactions.

The actual number of profits or losses in excess of VaR over this period can therefore be used to gauge how well the models are performing. A VaR model is deemed satisfactory if it experiences fewer than five profit or loss exceptions in a 250-day period. VaR backtesting is performed at various levels of our Group entity hierarchy. Back-testing covers entities which have approval to use VaR in the calculation of market risk regulatory capital requirements.

Stress testing

Stress testing is an integral part of our market risk management framework which is used to evaluate the potential impact on portfolio values of more extreme, although plausible, events or movements in a set of financial variables. In such scenarios, losses can be greater than those predicted by VaR modelling.

Stress testing is implemented at the legal entity and the overall Group levels. The risk appetite around potential stress losses for the Group is set and monitored against referral limits.

Market risk reverse stress tests are designed to identify vulnerabilities in our portfolios by looking for scenarios that lead to loss levels considered severe for the relevant portfolio. These scenarios may be local or idiosyncratic in nature, and complement the systematic top-down stress testing.

Stressed VaR and stress testing, together with reverse stress testing, provide management with insights regarding the "tail risk" beyond VaR for which the Group appetite is limited.

The market risk stress testing incorporates historical and hypothetical events.

Market risk capital models

The Group has permission to use a number of market risk capital models to calculate regulatory capital as listed in the table below. For regulatory purposes, the trading book comprises all positions in financial instruments and commodities held with trading intent and positions where it can be demonstrated that they hedge positions in the trading book. Trading book positions must either be free of any restrictive covenants on their tradability or be capable of being hedged.

A financial instrument is defined as any contract that gives rise to both a financial asset to one party and a financial liability or equity instrument to another party.

Positions in the trading book are subject to market risk-based rules, i.e. market risk capital, calculated using regulatory approved models. Where the Group does not have permission to use internal models, market risk capital is calculated using the standardised approach.

Model Component	Confidence level	Liquidity	Model description and methodology
VaR	99%	10 day	Uses most recent two years' history of daily returns to determine a loss distribution. The result is scaled, using the square root of 10, to provide an equivalent 10-day loss.
Stressed VaR	99%	10 day	Stressed VaR is calibrated to a one-year period of stress observed in history, calculated using 10 day returns.

VaR

VaR used for regulatory purposes differs from VaR used for management purpose with key differences listed below.

VaR	Regulatory	Management
Scope	Regulatory approval	Broader population of trading and banking book positions
Confidence interval	99%	99%
Liquidity horizon	10-day	1-day
Data set	Past 2 years	Past 2 years

We calculate VaR for regulatory purposes only in respect of the trading books for which we have received approval to use an internal model from the regulator. Regulatory VaR levels contribute to the calculation of market risk RWAs.

Stressed VaR

Stressed VaR is primarily used for regulatory capital purposes and is integrated into the risk management process to ensure prudent capital management. Stressed VaR complements other risk measures by providing the potential losses under stressed market conditions.

Stressed VaR modelling follows the same approach as our VaR risk measure, except that:

– potential market movements employed for stressed VaR calculations are based on a continuous one-year period of stress for the trading portfolio;
– it is calculated to a 99% confidence using a 10-day holding period; and
– it is based on an actual 10-day holding period, whereas Regulatory VaR is based on a one-day holding period scaled to 10 days.

Using the standard templates as specified by the HKMA, the following tables provide detailed information relating to market risk under STM and IMM approaches.

Market risk under standardised approach

Table 47: MR1 – Market risk under STM approach

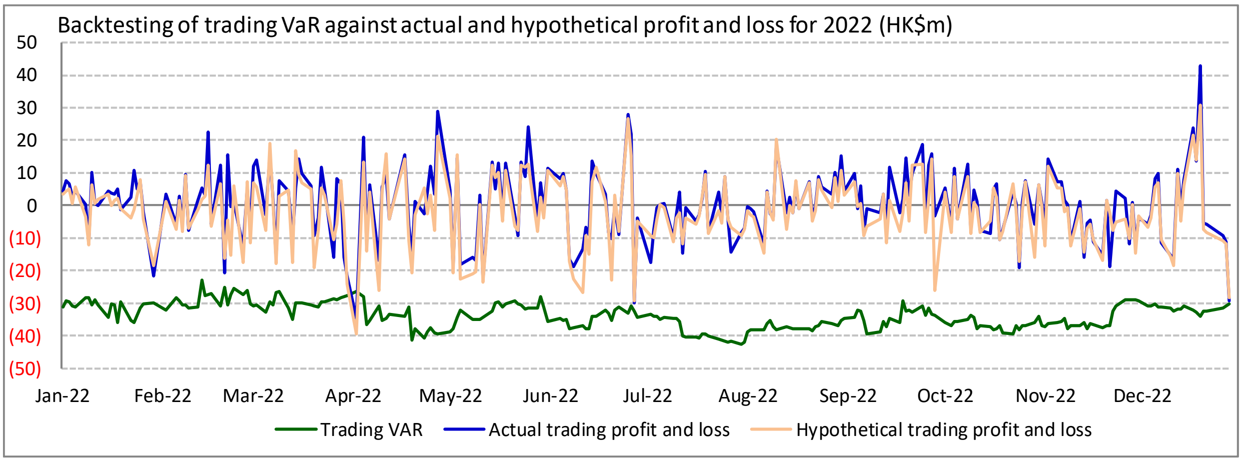
		a
		RWA
	As at 31 Dec 2022	**HK$m**
	Outright product exposures	
1	Interest rate exposures (general and specific risk)	**417**
2	Equity exposures (general and specific risk)	**55**
3	Foreign exchange (including gold) exposures	**-**
4	Commodity exposures	**2**
	Option exposures	
5	Simplified approach	**-**
6	Delta-plus approach	**-**
7	Other approach	**-**
8	Securitisation exposures	**-**
9	**Total**	**473**

Analysis of VaR, stressed VaR and incremental risk charge measures

Table 48: MR3 – IMM approach values for market risk exposures

		a
		Value
As at 31 Dec 2022		**HK$m**
VaR (10 days – one-tailed 99% confidence interval)		
1	Maximum Value	**135**
2	Average Value	**107**
3	Minimum Value	**73**
4	Period End	**100**
Stressed VaR (10 days – one-tailed 99% confidence interval)		
5	Maximum Value	**378**
6	Average Value	**282**
7	Minimum Value	**152**
8	Period End	**242**
IRC (99.9% confidence interval)		
9	Maximum value	-
10	Average value	-
11	Minimum value	-
12	Period end	-
CRC (99.9% confidence interval)		
13	Maximum value	-
14	Average value	-
15	Minimum value	-
16	Period end	-
17	Floor	-

Table 49: MR4 – Comparison of VaR estimates with gains or losses



In 2022, there was one hypothetical loss exception and one actual loss exception at the Group consolidated level.

Prudent valuation adjustment

The Group has documented policies and maintains systems and controls for the calculation of Prudent Valuation Adjustment ('PVA'). Prudent value is an estimated conservative pricing with a 90% degree of certainty that would be received to sell an asset or paid to transfer a liability in orderly transactions occurring between market participants at the balance sheet date. The Group's methodology addresses fair value uncertainties arising from a number of sources; market price uncertainty, bid offer uncertainty, model risk, concentration, administration cost, unearned credit spreads and investing and funding costs.

Table 50: PV1 – Prudent valuation adjustments

		a	b	c	d	e	f	g	h
As at 31 Dec 2022		**Equity HK$m**	**Interest rates HK$m**	**Foreign Exchange HK$m**	**Credit HK$m**	**Commo-dities HK$m**	**Total HK$m**	**Of which: In the trading book HK$m**	**Of which: In the banking book HK$m**
1	Close-out uncertainty	**(31)**	**(64)**	**6**	**-**	**-**	**(89)**	**(22)**	**(67)**
2	*-for which:*								
	Mid-market value	***(31)***	***(31)***	***4***	***-***	***-***	***(58)***	***(14)***	***(44)***
3	*Close-out costs*	***-***	***(13)***	***2***	***-***	***-***	***(11)***	***(5)***	***(6)***
4	*Concentration*	***-***	***(20)***	***-***	***-***	***-***	***(20)***	***(3)***	***(17)***
5	Early termination	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
6	Model risk	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
7	Operational risks	**(3)**	**(5)**	**(1)**	**-**	**-**	**(9)**	**(5)**	**(4)**
8	Investing and funding costs	**-**	**(1)**	**-**	**-**	**-**	**(1)**	**(1)**	**-**
9	Unearned credit spreads	**(1)**	**(11)**	**(22)**	**-**	**-**	**(34)**	**(34)**	**-**
10	Future administrative costs	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
11	Other adjustments	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
12	**Total adjustments**	**(35)**	**(81)**	**(17)**	**-**	**-**	**(133)**	**(62)**	**(71)**

Note:
The numbers above represent negative valuation adjustments for assets measured at fair value.

Liquidity information

The liquidity coverage ratio ('LCR') aims to ensure that a bank has sufficient unencumbered high quality liquid assets ('HQLA') to meet its liquidity needs in a 30 calendar day liquidity stress scenario. The Group also uses the net stable funding ratio ('NSFR') as a basis for ensuring operating entities raise sufficient stable funding to support their business activities. The NSFR requires institutions to maintain a minimum amount of stable funding based on assumptions of asset liquidity.

The following table displays the LCR and NSFR levels on three reporting bases in accordance with rules 10(1)(a), 10(1)(b) and 11(1) of the BLR:

Table 51: LIQA – LCRs and NSFRs on three liquidity reporting bases

As at 31 Dec 2022	**LCR %**	**NSFR %**
Hong Kong Office	**300.9**	**166.2**
Unconsolidated	**292.3**	**164.9**
Consolidated	**281.3**	**163.8**

Information relating to the Group's approach to liquidity risk management, including customised measurement tools and metrics, and details of collateral pools and funding sources are set out in pages 96 to 101 of the Group's 2022 Annual Report*. The balance sheet items, broken down into maturity buckets are disclosed in Note 21 'Maturity Analysis of assets and liabilities' on the consolidated financial statements in pages 210 to 212 of the Group's 2022 Annual Report*.

** Refers to printed version. The page reference of Annual Report (text version) is as follows:*

Annual Report (Printed version)	*Annual Report (Text version)*
Page 96 to 101	*Page 108 to 112*
Page 210 to 212	*Page 259 to 260*

The Group is required to calculate its LCR and NSFR on a consolidated basis in accordance with rule 11(1) of the BLR and to maintain both LCR and NSFR of not less than 100%.

Table 52: Average liquidity coverage ratio

	Quarter ended 31 Dec 2022 %
Average liquidity coverage ratio	**275.3**

The average LCR was 275.3% for the quarter ended 31 December 2022. The liquidity position of the Group remained strong and above the statutory requirement of 100%.

The composition of the Group's HQLA as defined under Schedule 2 of the BLR is shown as below. The majority of the HQLA held by the Group are Level 1 assets which comprise mainly of government debt securities.

Table 53: Total weighted amount of high quality liquid assets

	Weighted value (average) for the quarter ended 31 Dec 2022 HK$m
Level 1 assets	**400,658**
Level 2A assets	**12,385**
Level 2B assets	**2,827**
Total weighted amount of HQLA	**415,870**

Sources of funding

Our primary sources of funding are customer deposits. We issue wholesale securities to supplement our customer deposits and change the currency mix or maturity profile of our liabilities.

Currency mismatch

In times of stress it cannot automatically be assumed that one currency can always be converted for another, even if those currencies are 'hard' currencies. LCR is therefore assessed by single currency for those that are material. In some currencies, convertibility is restricted by regulators and central banks and this restriction results in local currency not being convertible offshore or even onshore. Group policy requires all operating entities to monitor material single currency Internal Liquidity Metric ('ILM') and LCR. Limits are set to ensure that outflows can be met, given assumptions on stressed capacity in the FX swap markets. Limits are approved by the local Asset and Liability Management Committee ('ALCO')/Tactical Asset and Liability Management Committee ('TALCO'), and monitored by the local ALCO.

Additional contractual obligations

Most of the Group's derivative transactions are exchange rate contracts and interest rate contracts. Under the terms of our current collateral obligations under derivative contracts (which are ISDA compliant CSA contracts), the additional collateral required to post in the event of one-notch and two-notch downgrade in credit ratings is nil.

A summary of the Group's current policies and practices for the management of liquidity and funding risk is set out in pages 96 to 101 of the Group's 2022 Annual Report*.

** Refers to printed version. The page reference of Annual Report (text version) is page 108 to 112.*

The following table sets out the required disclosure items under the Liquidity Coverage Ratio Standard Disclosure Template as specified by the HKMA. Number of data points used in calculating the average value of the LCR and related components set out in this table for the quarter ended on 31 December 2022 was 74.

Table 54: LIQ1 – Liquidity coverage ratio – for category 1 institution

		Quarter ended 31 Dec 2022 (74 data points)	
		a	b
	Basis of disclosure: consolidated	**Unweighted value (average) HK$m**	**Weighted value (average) HK$m**
A	**High quality liquid assets**		
1	Total HQLA		**415,870**
B	**Cash outflows**		
2	Retail deposits and small business funding, of which:	**894,077**	**72,753**
3	*Stable retail deposits and stable small business funding*	***237,927***	***7,138***
4	*Less stable retail deposits and less stable small business funding*	***656,150***	***65,615***
4a	*Retail term deposits and small business term funding*	**-**	**-**
5	Unsecured wholesale funding (other than small business funding) and debt securities and prescribed instruments issued by the institution, of which:	**244,264**	**111,341**
6	*Operational deposits*	***33,119***	***7,635***
7	*Unsecured wholesale funding (other than small business funding) not covered in Row 6*	***201,159***	***93,720***
8	*Debt securities and prescribed instruments issued by the institution and redeemable within the LCR period*	***9,986***	***9,986***
9	Secured funding transactions (including securities swap transactions)		**83**
10	Additional requirements, of which:	**70,825**	**17,870**
11	*Cash outflows arising from derivative contracts and other transactions, and additional liquidity needs arising from related collateral requirements*	***5,466***	***5,466***
12	*Cash outflows arising from obligations under structured financing transactions and repayment of funding obtained from such transactions*	***2,372***	***2,372***
13	*Potential drawdown of undrawn committed facilities (including committed credit facilities and committed liquidity facilities)*	***62,987***	***10,032***
14	Contractual lending obligations (not otherwise covered in Section B) and other contractual cash outflows	**24,471**	**24,471**
15	Other contingent funding obligations (whether contractual or non-contractual)	**476,444**	**2,749**
16	Total cash outflows		**229,267**
C	**Cash inflows**		
17	Secured lending transactions (including securities swap transactions)	**12,872**	**7,173**
18	Secured and unsecured loans (other than secured lending transactions covered in Row 17) and operational deposits placed at other financial institutions	**94,196**	**52,652**
19	Other cash inflows	**28,790**	**17,184**
20	Total cash inflows	**135,858**	**77,009**
D	**Liquidity coverage ratio (adjusted value)**		
21	Total HQLA		**415,870**
22	Total net cash outflows		**152,258**
23	LCR (%)		**275.3%**

Table 55: LIQ2 – Net stable funding ratio – for category 1 institution

Basis of disclosure: consolidated

		Footnote	Quarter ended 31 Dec 2022				
			Unweighted value by residual maturity				
			No specified term to maturity HK$m	<6 months or repayable on demand HK$m	6 months to < 12 months HK$m	12 months or more HK$m	Weighted amount HK$m
A.	**Available stable funding ('ASF') item**						
1	Capital:		**161,428**	**-**	**-**	**-**	**161,428**
2	*Regulatory capital*		***161,428***	***-***	***-***	***-***	***161,428***
2a	*Minority interests not covered by row 2*		***-***	***-***	***-***	***-***	***-***
3	*Other capital instruments*		***-***	***-***	***-***	***-***	***-***
4	Retail deposits and small business funding:		**-**	**934,315**	**-**	**-**	**852,419**
5	*Stable deposits*			***230,698***	***-***	***-***	***219,163***
6	*Less stable deposits*			***703,617***	***-***	***-***	***633,256***
7	Wholesale funding:		**-**	**345,582**	**13,998**	**9,792**	**164,251**
8	*Operational deposits*			***31,171***	***-***	***-***	***15,585***
9	*Other wholesale funding*		***-***	***314,411***	***13,998***	***9,792***	***148,666***
10	Liabilities with matching interdependent assets		**-**	**-**	**-**	**-**	**-**
11	Other liabilities:		**73,607**	**91,469**	**20,390**	**27,673**	**37,868**
12	*Net derivative liabilities*		***563***				
13	*All other funding and liabilities not included in the above categories*		***73,044***	***91,469***	***20,390***	***27,673***	***37,868***
14	**Total ASF**						**1,215,966**
B.	**Required stable funding ('RSF') item**						
15	Total HQLA for NSFR purposes	*1*		**470,077**			**10,488**
16	Deposits held at other financial institutions for operational purposes		**-**	**-**	**-**	**-**	**-**
17	Performing loans and securities:		**38,707**	**333,154**	**93,848**	**625,876**	**651,535**
18	*Performing loans to financial institutions secured by Level 1 HQLA*		***-***	***23,137***	***-***	***-***	***2,314***
19	*Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions*		***53***	***77,984***	***3,406***	***4,358***	***17,812***
20	*Performing loans, other than performing residential mortgage, to non-financial corporate clients, retail and small business customers, sovereigns, the Monetary Authority for the account of the Exchange Fund, central banks and PSEs, of which:*		***35,329***	***199,890***	***68,891***	***273,118***	***396,112***
21	*With a risk-weight of less than or equal to 35% under the STC approach*		***30***	***2,597***	***65***	***2,258***	***2,819***
22	*Performing residential mortgages, of which:*		***-***	***7,959***	***8,024***	***320,347***	***222,813***
23	*With a risk-weight of less than or equal to 35% under the STC approach*		***-***	***6,137***	***6,110***	***287,368***	***192,912***
24	*Securities that are not in default and do not qualify as HQLA, including exchange-traded equities*		***3,325***	***24,184***	***13,527***	***28,053***	***12,484***
25	Assets with matching interdependent liabilities		**-**	**-**	**-**	**-**	**-**
26	Other assets:		**88,620**	**13,490**	**-**	**1,045**	**77,240**
27	*Physical traded commodities, including gold*		***6,887***				***5,854***
28	*Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs*		***1,945***				***1,654***
29	*Net derivative assets*		***-***				***-***
30	*Total derivative liabilities before adjustments for deduction of variation margin posted*		***4,305***				***215***
31	*All other assets not included in the above categories*		***75,483***	***13,490***	***-***	***1,045***	***69,517***
32	Off-balance sheet items	*1*			**544,773**		**2,983**
33	**Total RSF**						**742,246**
34	**Net Stable Funding Ratio (%)**						**163.8%**

Table 55: LIQ2 – Net stable funding ratio – for category 1 institution (continued)

			Quarter ended 30 Sep 2022				
			Unweighted value by residual maturity				
Basis of disclosure: consolidated		Footnote	No specified term to maturity HK$m	<6 months or repayable on demand HK$m	6 months to < 12 months HK$m	12 months or more HK$m	Weighted amount HK$m
A.	**Available stable funding ('ASF') item**						
1	Capital:		157,998	-	-	-	157,998
2	*Regulatory capital*		*157,998*	-	-	-	*157,998*
2a	*Minority interests not covered by row 2*		-	-	-	-	-
3	*Other capital instruments*		-	-	-	-	-
4	Retail deposits and small business funding:		-	882,139	-	-	805,812
5	*Stable deposits*			*237,740*	-	-	*225,853*
6	*Less stable deposits*			*644,399*	-	-	*579,959*
7	Wholesale funding:		-	322,066	15,885	4,906	151,675
8	*Operational deposits*			*41,975*	-	-	*20,988*
9	*Other wholesale funding*		-	*280,091*	*15,885*	*4,906*	*130,687*
10	Liabilities with matching interdependent assets		-	-	-	-	-
11	Other liabilities:		66,355	78,371	31,364	27,754	43,436
12	*Net derivative liabilities*		*408*				
13	*All other funding and liabilities not included in the above categories*		*65,947*	*78,371*	*31,364*	*27,754*	*43,436*
14	**Total ASF**						1,158,921
B.	**Required stable funding ('RSF') item**						
15	Total HQLA for NSFR purposes	*1*		387,304			7,447
16	Deposits held at other financial institutions for operational purposes		-	-	-	-	-
17	Performing loans and securities:		35,300	304,415	118,734	639,317	664,210
18	*Performing loans to financial institutions secured by Level 1 HQLA*		-	*8,230*	-	-	*823*
19	*Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions*		*6*	*92,490*	*6,808*	*7,111*	*24,395*
20	*Performing loans, other than performing residential mortgage, to non-financial corporate clients, retail and small business customers, sovereigns, the Monetary Authority for the account of the Exchange Fund, central banks and PSEs, of which:*		*32,189*	*180,597*	*93,852*	*288,543*	*409,331*
21	*With a risk-weight of less than or equal to 35% under the STC approach*		*35*	*3,730*	*81*	*2,504*	*3,547*
22	*Performing residential mortgages, of which:*		-	*8,077*	*7,499*	*316,379*	*219,657*
23	*With a risk-weight of less than or equal to 35% under the STC approach*		-	*6,479*	*6,408*	*285,265*	*191,866*
24	*Securities that are not in default and do not qualify as HQLA, including exchange-traded equities*		*3,105*	*15,021*	*10,575*	*27,284*	*10,004*
25	Assets with matching interdependent liabilities		-	-	-	-	-
26	Other assets:		87,287	5,688	-	1,045	71,995
27	*Physical traded commodities, including gold*		*6,933*				*5,893*
28	*Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs*		*1,788*				*1,520*
29	*Net derivative assets*		-				-
30	*Total derivative liabilities before adjustments for deduction of variation margin posted*		*8,787*				*439*
31	*All other assets not included in the above categories*		*69,779*	*5,688*	-	*1,045*	*64,143*
32	Off-balance sheet items	*1*			535,258		3,182
33	**Total RSF**						746,834
34	**Net Stable Funding Ratio (%)**						155.2%

1 *The unweighted values disclosed in these rows are not required to be split by residual maturity.*

Other disclosures

Interest rate exposures in the banking book

Interest rate risk in the banking book ('IRRBB') is the potential adverse impact of changes in interest rates on earnings and capital. The component of IRRBB that can be economically neutralised in the market is transferred to Markets Treasury to manage, in accordance with internal transfer pricing rules. In its management of IRRBB, the Group aims to balance the potential adverse effect of future interest rate movements on the net interest income against the cost of hedging. The monitoring of the projected net interest income ('NII') and economic value of equity ('EVE') sensitivity ('Δ') under varying interest rate scenarios is a key part of this.

Governance and structure

Asset, Liability and Capital Management ('ALCM') monitors and controls interest rate risk in the banking book. This includes reviewing and challenging the global business prior to the release of new products and proposed behavioural assumptions used for hedging activities. ALCM is also responsible for maintaining and updating the transfer pricing framework, informing the ALCO of the Group's overall banking book interest rate risk exposure and managing the balance sheet in conjunction with Markets Treasury.

The ALCO defines each operating entity's transfer pricing curve and reviews and approves the transfer pricing policy, including behaviouralisation assumptions used for products where there is either no defined maturity or customer optionality exists.

The ALCO is also responsible for monitoring and reviewing each entity's overall structural interest rate risk position. Interest rate behaviouralisation policies are formulated in line with the Group's behaviouralisation policies and approved at least annually by local ALCOs. Banking book assets and liabilities are transferred to Markets Treasury based on their repricing and maturity characteristics.

Markets Treasury manages the banking book interest rate positions transferred to it within the Market Risk limits.

Sensitivity of economic value of equity

ΔEVE is the extent to which the EVE will change due to a pre-specified movement in interest rates (six interest rate shock scenarios prescribed by the HKMA), where all other economic variables are held constant. Variations in market interest rates can affect the economic value of assets, liabilities and OBS positions. The economic value of an instrument represents an assessment of the present value of its expected net cash flows, discounted to reflect market rates. The economic value perspective reflects this sensitivity. It provides a more comprehensive view of the potential long-term effects of changes in interest rates.

Sensitivity of net interest income

ΔNet interest income ('NII') is the sensitivity of expected net interest income under varying interest rate scenarios, where all other economic variables are held constant. The sensitivity of net interest income reflects the Group's sensitivity of earnings due to changes in market interest rates. Based on the reported interest rate repricing positions in the Interest Rate Risk Return, the impact on earnings is assessed over the next 12 months using the interest rate shock scenarios prescribed by the HKMA.

The ΔEVE and ΔNII shown in Table 56 are indicative and based on scenarios and assumptions prescribed by the HKMA under its completion instructions for the Return of Interest Rate Risk in the banking book - (MA(BS)12A), which is completed and reported quarterly on a consolidated basis.

Key modelling and parametric assumptions used in calculating ΔEVE and ΔNII in Table 56 include:

i. for ΔEVE, commercial margins and other spread components have been excluded from the cash flows used in the computation and discount rate used;

ii. all the positions captured are assumed to run to maturity and slotted into the appropriate time bands according to the earliest interest repricing date (as per MA(BS)12A) including for non-maturity deposits; and

iii. no prepayment or early redemption risk is assumed as the Group does not have material long term fixed rate positions, the majority of the loans are on a floating basis and average term for fixed rate deposits is one to three months, therefore the risk is immaterial.

The Group uses internal measurement system ('IMS') to generate ΔEVE for internal assessment of capital adequacy which is different from the modelling assumptions prescribed for this disclosure, however, the cumulative impact on the quantification of economic value of equity sensitivity is small. This includes:

i. behaviouralisation of non-maturity products, the extent of which can be driven by:

   a. the amount of the current balance that can be assessed as stable under business-as-usual conditions; and

   b. for managed rate balances the historic market interest rate re-pricing behaviour observed; or

   c. for non-interest bearing balances the duration for which the balance is expected to remain under business-as-usual conditions. This assessment is often driven by the reinvestment tenors available to Markets Treasury to neutralise the risk through the use of fixed rate government bonds or interest rate derivatives, and for derivatives the availability of cash flow hedging capacity.

ii. internal measurements consider aggregated results of all currencies and not only material currencies as prescribed by the HKMA under its completion instruction for the Return of Interest Rate Risk in the banking book - (MA(BS)12A);
iii. negative rate flooring is set at -1% for the overnight tenor to 0% for 20 year tenor unlike the modelling assumptions prescribed under this disclosure which is set at -2% for all currencies; and
iv. economic value gains weighted 50% and losses weighted 100% under internal measurement unlike modelling assumptions for this disclosure where economic value gains are weighted at 0%.

Average and longest repricing maturity for non-maturity deposits ('NMDs') in 2022 was 1 day.

Table 56: IRRBB1 – Quantitative information on interest rate risk in banking book

		a	b	c	d
		ΔEVE		ΔNII	
		31 Dec 2022	31 Dec 2021	**31 Dec 2022**	31 Dec 2021
		HK$m	HK$m	**HK$m**	HK$m
1	Parallel up	**1,612**	4,500	**(23)**	1,408
2	Parallel down	**-**	-	**23**	(1,379)
3	Steepener	**-**	-		
4	Flattener	**860**	2,403		
5	Short rate up	**1,356**	3,757		
6	Short rate down	**-**	-		
7	Maximum	**1,612**	4,500	**23**	1,408
	Period	**31 Dec 2022**		31 Dec 2021	
8	Tier 1 capital	**128,166**		128,343	

The worst scenario for change in the economic value of equity is 'Parallel up' scenario with specific size of interest rate shock for each currency. The major contributors to the change in economic value of equity are from the net gap positions for HKD, USD and CNY currencies, mainly due to change in customer deposit mix from current and savings account deposits to time deposits and reduction in risk of longer term positions.

The scenario with the most adverse impact of interest rate movements from an earnings perspective under the supervisory prescribed interest rate shock scenarios over the next twelve months is the 'Parallel down' scenario. The change in net interest income sensitivity is mainly due to decrease in liabilities in short term period.

Mainland activities exposures

The analysis of mainland activities exposures is based on the categories of non-bank counterparties and the type of direct exposures defined by the HKMA under the BDR with reference to the HKMA's Return of Mainland Activities – (MA(BS)20). This includes the mainland activities exposures extended by the Bank's Hong Kong offices and its wholly owned banking subsidiary in mainland China.

Table 57: Mainland activities exposures

As at 31 Dec 2022	On-balance sheet exposure HK$m	Off-balance sheet exposure HK$m	Total exposures HK$m
Type of Counterparties			
1 Central government, central government-owned entities and their subsidiaries and joint ventures ('JVs')	**56,115**	**5,546**	**61,661**
2 Local governments, local government-owned entities and their subsidiaries and JVs	**29,866**	**1,352**	**31,218**
3 People's Republic of China ('PRC') nationals residing in Mainland China or other entities incorporated in Mainland China and their subsidiaries and JVs	**109,390**	**15,659**	**125,049**
4 Other entities of central government not reported in item 1 above	**6,226**	**-**	**6,226**
5 Other entities of local governments not reported in item 2 above	**3,909**	**663**	**4,572**
6 PRC nationals residing outside Mainland China or entities incorporated outside Mainland China where the credit is granted for use in Mainland China	**25,923**	**1,155**	**27,078**
7 Other counterparties where the exposures are considered by the reporting institution to be non-bank Mainland China exposures	**10,331**	**155**	**10,486**
Total	**241,760**	**24,530**	**266,290**
Total assets after provision	**1,700,037**		
On-balance sheet exposures as percentage of total assets	**14.22%**		

On-balance sheet exposures as percentage of total assets decreased slightly as compared with 30 June 2022.

International claims

The Group's country risk exposures in the table below are prepared in accordance with the HKMA 'Return of International Banking Statistics - (MA(BS)21)' guidelines. International claims are on-balance sheet exposures to counterparties based on the location of the counterparties after taking into account the transfer of risk, and represent the sum of cross-border claims in all currencies and local claims in foreign currencies.

The table shows claims on individual countries and territories or areas, after recognised risk transfer, amounting to not less than 10% of the Group's total international claims.

Table 58: International claims

As at 31 Dec 2022	Banks HK$m	Official Sector HK$m	Non Bank Financial Institution HK$m	Non-Financial Private Sector HK$m	Others HK$m	Total HK$m
Developed countries	**46,781**	**128,995**	**32,726**	**76,589**	**-**	**285,091**
of which : United States	***3,034***	***41,319***	***11,336***	***39,827***	**-**	***95,516***
Offshore centres	**17,095**	**24,926**	**11,602**	**120,781**	**-**	**174,404**
of which : Hong Kong SAR	***14,517***	***1,212***	***9,631***	***106,289***	**-**	***131,649***
Developing Asia and Pacific	**55,085**	**26,502**	**9,908**	**61,869**	**-**	**153,364**
of which : Mainland China	***46,471***	***26,458***	***9,141***	***56,784***	**-**	***138,854***

At 31 December 2022, only claims on Hong Kong SAR, Mainland China and United States were the individual countries and territories or areas, which were not less than 10% of the Group's total international claims.

Foreign exchange exposures

Structural foreign exchange exposures represent net assets or capital investments in subsidiaries, branches or the fair value of the Group's long-term foreign currency equity investments, the functional currencies of which are currencies other than the Hong Kong dollar. An entity's functional currency is normally that of the primary economic environment in which the entity operates.

Exchange differences on structural exposures are recognised in 'Other comprehensive income'. The Group uses Hong Kong dollar as our presentation currency in our consolidated financial statements. Therefore, our consolidated balance sheet is affected by exchange differences between Hong Kong dollar and all the non-Hong Kong dollar functional currencies of underlying subsidiaries.

The Group's structural foreign exchange exposures are managed with the primary objective of ensuring, where practical, that the Group's consolidated capital ratios and capital ratios of individual banking subsidiaries are largely protected from the effect of changes in exchange rates.

The Group's foreign exchange exposures in the table below are prepared in accordance with the HKMA 'Return of Foreign Currency Position - (MA(BS)6)'.

At 31 December 2022, the US dollars ('USD'), Chinese renminbi ('RMB') and Euro ('EUR') were the currencies in which the Group had non-structural foreign currency positions that were not less than 10% of the total net position in all foreign currencies. The Group also had a RMB structural foreign currency position, which was not less than 10% of the total net structural position in all foreign currencies. The net options positions are calculated using the delta-weighted positions of the options contracts.

The table below summarise the net structural and non-structural foreign currency positions of the Group.

Table 59: Foreign exchange exposures

As at 31 Dec 2022	**USD HK$m**	**RMB HK$m**	**EUR HK$m**	**Other foreign currencies HK$m**	**Total foreign currencies HK$m**
Non-structural position					
Spot assets	**221,342**	**164,838**	**47,991**	**124,614**	**558,785**
Spot liabilities	**(206,662)**	**(152,698)**	**(11,027)**	**(72,954)**	**(443,341)**
Forward purchases	**582,848**	**191,413**	**5,260**	**17,054**	**796,575**
Forward sales	**(594,059)**	**(204,862)**	**(42,744)**	**(68,787)**	**(910,452)**
Net options position	**(624)**	**335**	**288**	**16**	**15**
Net long/(short) non-structural position	**2,845**	**(974)**	**(232)**	**(57)**	**1,582**
Structural position	**-**	**17,863**	**-**	**1,770**	**19,633**

Other information

Abbreviations

A	
AI	Authorised institution
ALCM	Asset, Liability and Capital Management
ALCO	Asset and Liability Management Committee
ASF	Available stable funding
AT1	Additional tier 1
AVAs	Additional valuation adjustments
B	
Bank	Hang Seng Bank Limited
BCBS	Basel Committee on Banking Supervision
BCR	Banking (Capital) Rules
BDR	Banking (Disclosure) Rules
BLR	Banking (Liquidity) Rules
BSC	Basic approach
C	
CCF	Credit conversion factor
CCP	Central counterparty
CCR	Counterparty credit risk
CCyB	Countercyclical capital buffer
CEM	Current exposure method
CET1	Common equity tier 1
CF	Commodities finance
CIS	Collective investment scheme
CNH	Offshore renminbi
CNY	Onshore Chinese Yuan
CRC	Comprehensive risk charge
CRM	Credit risk mitigation
CRR	Customer risk rating
CSA	Credit support annex
CVA	Credit valuation adjustment
D	
D-SIB	Domestic systemically important authorised institution
DTAs	Deferred tax assets
E	
EAD	Exposure at default
ECAI	External Credit Assessment Institution
ECL	Expected Credit Loss
EL	Expected loss
EPE	Expected positive exposure
EVE	Economic value of equity
EUR	Euro
F	
FBA	Fall-back approach
FIRO	Financial Institutions (Resolution) Ordinance
FSB	Financial Stability Board
FX	Foreign exchange
G	
G-SIB	Global systemically important authorised institution
Group	Hang Seng Bank Limited together with its subsidiaries
H	
HK$bn	Billions (thousands of millions) of Hong Kong dollars
HK$m	Millions of Hong Kong dollars
HKD	Hong Kong dollar
HKMA	Hong Kong Monetary Authority
HKFRS	Hong Kong Financial Reporting Standards
Hong Kong SAR	The Hong Kong Special Administrative Region of the People's Republic of China
HSBC	HSBC Holdings together with its subsidiary undertakings
HQLA	High quality liquid assets
HVCRE	High-volatility commercial real estate

I	
IAA	Internal assessment approach
ILM	Internal Liquidity Metric
IMM	Internal models approach
IMM(CCR)	Internal models (counterparty credit risk) approach
IMS	Internal measurement system
IPRE	Income-producing real estate
IRB	Internal ratings-based approach
IRC	Incremental risk charge
IRRBB	Interest rate risk in the banking book
ISDA	International Swaps and Derivatives Association
J	
J	Jurisdiction
JVs	Joint ventures
L	
LAC	Loss-absorbing capacity
LAC Rules	Financial Institutions (Resolution) (Loss-absorbing Capacity Requirements - Banking Sector) Rules
LCR	Liquidity coverage ratio
LGD	Loss given default
LR	Leverage ratio
LTA	Look through approach
M	
MBA	Mandate-based approach
MOF	Model Oversight Forum
MRC	Model Risk Committee
MSRs	Mortgage servicing rights
N	
N/A	Not applicable
NBFI	Non-Bank Financial Institution
NBTFX	Non-trading book foreign exchange
NII	Net interest income
NMDs	Non-maturity deposit
NSFR	Net stable funding ratio
O	
OBS	Off-balance sheet
OF	Object finance
OTC	Over-the-counter
P	
PD	Probability of default
PF	Project finance
PFE	Potential future exposure
PiT	Point-in-Time
PRA	Prudential Regulation Authority
PRC	People's Republic of China
PSE	Public sector entity
PVA	Prudent valuation adjustment
PVIF	Present value of in-force long-term insurance business
Q	
QRRE	Qualifying revolving retail exposures
R	
RAS	Risk Appetite Statement
RC	Replacement cost
RMB	Chinese Renminbi
RMM	Risk Management Meeting
RNIV	Risk not in VaR
RSF	Required stable funding
RW	Risk-weight
RWA	Risk-weighted asset/risk-weighted amount

S	
SA-CCR	Standardised approach for counterparty credit risk
SEC-ERBA	Securitisation external ratings-based approach
SEC-FBA	Securitisation fall-back approach
SEC-IRBA	Securitisation internal ratings-based approach
SEC-SA	Securitisation standardised approach
SFT	Securities financing transaction
SME	Small and medium-sized enterprises
SRW	Supervisory risk-weight
STC	Standardised (credit risk) approach
STO	standardised (operational risk) approach
STM	Standardised (market risk) approach
SVaR	Stressed VaR
T	
T1	Tier 1
T2	Tier 2
TALCO	Tactical Asset and Liability Management Committee
TC	Total regulatory capital
TLAC	Total loss-absorbing capacity
TTC	Through-The-Cycle
U	
USD	US dollar
V	
VaR	Value at risk
W	
WPB	Wealth and Personal Banking