The Hongkong and Shanghai Banking Corporation Limited

Interim Report 2022

HSBC

Contents

Certain defined terms

This document comprises the *Interim Report 2022* for The Hongkong and Shanghai Banking Corporation Limited ('the Bank') and its subsidiaries (together 'the group'). References to 'HSBC', 'the Group' or 'the HSBC Group' within this document mean HSBC Holdings plc together with its subsidiaries. Within this document the Hong Kong Special Administrative Region of the People's Republic of China is referred to as 'Hong Kong'. The abbreviations 'HK$m' and 'HK$bn' represent millions and billions (thousands of millions) of Hong Kong dollars respectively.

Cautionary statement regarding forward-looking statements

This *Interim Report 2022* contains certain forward-looking statements with respect to the financial condition, results of operations and business of the group.

Statements that are not historical facts, including statements about the group's beliefs and expectations, are forward-looking statements. Words such as 'expects', 'anticipates', 'intends', 'plans', 'believes', 'seeks', 'estimates', 'potential' and 'reasonably possible', variations of these words and similar expressions are intended to identify forward-looking statements. These statements are based on current plans, estimates and projections, and therefore undue reliance should not be placed on them. Forward-looking statements speak only as of the date they are made. The Hongkong and Shanghai Banking Corporation Limited makes no commitment to revise or update any forward-looking statements to reflect events or circumstances occurring or existing after the date of any forward-looking statement.

Forward-looking statements involve inherent risks and uncertainties. Readers are cautioned that a number of factors could cause actual results to differ, in some instances materially, from those anticipated or implied in any forward-looking statement.

Chinese translation

A Chinese translation of the *Interim Report 2022* is available upon request from: Communications (Asia), Level 32, HSBC Main Building, 1 Queen's Road Central, Hong Kong. The report is also available, in English and Chinese, on the Bank's website at www.hsbc.com.hk.

本《*2022 年中期業績報告*》備有中譯本，如有需要可向下列部門索取：香港皇后大道中 1 號滙豐總行大廈 32 樓企業傳訊部（亞太區）。本報告之中英文本亦載於本行之網站 www.hsbc.com.hk

中英文本如有歧異，概以英文本為準。

Additional information

The *Banking Disclosure Statement at 30 June 2022*, which is prepared in accordance with the Banking (Disclosure) Rules made under section 60A of the Banking Ordinance and the Financial Institutions (Resolution) (Loss-absorbing Capacity Requirements – Banking Sector) Rules made under section 19(1) of the Financial Institutions (Resolution) Ordinance, will be published on our website at www.hsbc.com.hk.

Financial highlights

- Profit before tax down 12% to HK$44,393m (HK$50,507m in the first half of 2021).
- Attributable profit down 11% to HK$35,095m (HK$39,382m in the first half of 2021).
- Return on average ordinary shareholders' equity of 8.3% (9.4% in the first half of 2021).
- Total assets up 5% to HK$10,356bn (HK$9,903bn at the end of 2021).
- Common equity tier 1 ratio of 14.4% (15.4% at the end of 2021), total capital ratio of 17.9% (18.7% at the end of 2021).
- Cost efficiency ratio of 58.7% (55.2% for the first half of 2021).

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Financial review

Consolidated income statement and balance sheet data by reportable segments[1]

	Wealth and Personal Banking HK$m	Commercial Banking HK$m	Global Banking[2] HK$m	Markets and Securities Services[2] HK$m	Corporate Centre[3] HK$m	Other (GBM – other)[2] HK$m	Total HK$m
Half-year to 30 Jun 2022							
Net interest income/(expense)	**27,388**	**16,868**	**8,029**	**1,909**	**(2,107)**	**1,166**	**53,253**
Net fee income/(expense)	**9,506**	**5,221**	**2,667**	**2,151**	**150**	**(55)**	**19,640**
Net income/(expense) from financial instruments measured at fair value through profit or loss	**(8,935)**	**1,701**	**(23)**	**11,828**	**1,994**	**273**	**6,838**
Gains less losses from financial investments	**(64)**	**(58)**	**—**	**—**	**—**	**(110)**	**(232)**
Net insurance premium income/(expense)	**45,448**	**2,816**	**—**	**—**	**(205)**	**—**	**48,059**
Other operating income	**6,842**	**71**	**110**	**565**	**83**	**—**	**7,671**
Total operating income/(expense)	**80,185**	**26,619**	**10,783**	**16,453**	**(85)**	**1,274**	**135,229**
Net insurance claims and benefits paid and movement in liabilities to policyholders	**(40,496)**	**(2,930)**	**—**	**—**	**170**	**—**	**(43,256)**
Net operating income before change in expected credit losses and other credit impairment charges	**39,689**	**23,689**	**10,783**	**16,453**	**85**	**1,274**	**91,973**
– of which: external	***37,349***	***24,209***	***10,612***	***17,400***	***(1,477)***	***3,880***	***91,973***
inter-segment	***2,340***	***(520)***	***171***	***(947)***	***1,562***	***(2,606)***	**—**
Change in expected credit losses and other credit impairment charges	**(618)**	**(3,099)**	**(419)**	**16**	**—**	**(24)**	**(4,144)**
Net operating income	**39,071**	**20,590**	**10,364**	**16,469**	**85**	**1,250**	**87,829**
Operating expenses	**(25,712)**	**(10,469)**	**(5,251)**	**(7,342)**	**(3,987)**	**(1,250)**	**(54,011)**
Operating profit/(loss)	**13,359**	**10,121**	**5,113**	**9,127**	**(3,902)**	**—**	**33,818**
Share of profit in associates and joint ventures	**31**	**—**	**—**	**—**	**10,544**	**—**	**10,575**
Profit before tax	**13,390**	**10,121**	**5,113**	**9,127**	**6,642**	**—**	**44,393**
Balance sheet data at 30 Jun 2022							
Loans and advances to customers (net)	**1,552,732**	**1,333,797**	**914,045**	**48,029**	**1,460**	**14,736**	**3,864,799**
Customer accounts	**3,432,308**	**1,637,900**	**834,008**	**208,583**	**27**	**840**	**6,113,666**
Half-year to 30 Jun 2021							
Net interest income/(expense)	25,392	14,387	7,419	1,599	(1,298)	1,242	48,741
Net fee income/(expense)	12,978	5,108	2,857	2,973	105	(16)	24,005
Net income from financial instruments measured at fair value through profit or loss	15,268	1,839	31	10,794	224	287	28,443
Gains less losses from financial investments	609	237	—	—	—	287	1,133
Net insurance premium income/(expense)	29,996	2,435	—	—	(201)	—	32,230
Other operating income/(expense)	(717)	(53)	83	541	38	(72)	(180)
Total operating income/(expense)	83,526	23,953	10,390	15,907	(1,132)	1,728	134,372
Net insurance claims and benefits paid and movement in liabilities to policyholders	(39,271)	(2,404)	—	—	155	—	(41,520)
Net operating income/(expense) before change in expected credit losses and other credit impairment charges	44,255	21,549	10,390	15,907	(977)	1,728	92,852
– of which: external	*42,334*	*21,937*	*10,191*	*15,907*	*(1,135)*	*3,618*	*92,852*
inter-segment	*1,921*	*(388)*	*199*	—	*158*	*(1,890)*	—
Change in expected credit losses and other credit impairment charges	(518)	(1,418)	307	6	(1)	17	(1,607)
Net operating income/(expense)	43,737	20,131	10,697	15,913	(978)	1,745	91,245
Operating expenses	(24,250)	(10,250)	(4,943)	(6,945)	(3,486)	(1,412)	(51,286)
Operating profit/(loss)	19,487	9,881	5,754	8,968	(4,464)	333	39,959
Share of profit in associates and joint ventures	55	—	—	—	10,493	—	10,548
Profit before tax	19,542	9,881	5,754	8,968	6,029	333	50,507
Balance sheet data at 30 Jun 2021							
Loans and advances to customers (net)	1,589,927	1,303,116	951,587	52,410	4,014	78	3,901,132
Customer accounts	3,304,632	1,513,022	869,069	207,281	36	7,455	5,901,495

1 *The financial information included in this table forms part of the Interim condensed consolidated financial statements, which have been reviewed by PricewaterhouseCoopers.*

2 *In the second half of 2021, the reportable segments were changed to reflect the change in the management of the Global Banking and Markets ('GBM') business, with the splitting out of Global Banking ('GB') and Markets and Securities Services ('MSS') as separate reportable segments, while GBM – Other (previously reported within GBM) is now reported under 'Other (GBM – other)'. Comparatives have been re-presented to conform to the current year's presentation. Further details on the change in reportable segments are set out in Note 10 'Segmental analysis' on the Interim condensed consolidated financial statements.*

3 *Includes inter-segment elimination.*

Financial review

The commentary in this financial review compares the group's financial performance for the half-year ended 30 June 2022 with the half-year ended 30 June 2021 unless otherwise stated.

Result commentary

The group reported profit before tax of HK$44,393m, a decrease of HK$6,114m, or 12%.

Net interest income increased by HK$4,512m, or 9%. Excluding the unfavourable foreign exchange impact, net interest income increased by HK$4,983m, or 10%, driven by Hong Kong mainly from balance sheet growth as customer deposits increased, coupled with improved customer deposit spreads and higher reinvestment yields due to higher market interest rates compared with the first half of 2021. To a lesser extent, increases were also noted in Singapore, reflecting the favourable impact from the higher interest rate environment, and in mainland China and India, mainly from balance sheet growth.

Net fee income decreased by HK$4,365m, or 18%. Excluding the unfavourable foreign exchange impact, net fee income decreased by HK$4,160m, or 17%, driven by Wealth and Personal Banking ('WPB') from decreases in unit trust fees due to lower sales volume, securities brokerage income from lower equities turnover and funds under management income. Net fee income also decreased in Markets and Securities Services ('MSS'), mainly from lower underwriting fees.

Net income from financial instruments measured at fair value through profit or loss decreased by HK$21,605m, or 76%.

Net income from assets and liabilities of insurance business, including related derivatives, measured at fair value through profit or loss decreased by HK$23,798m, or 180%. This was driven by the unfavourable equity market performance in Hong Kong in the first half of 2022 as compared with the favourable equity market performance in the first half of 2021, which resulted in revaluation losses on equities held to back insurance liabilities in the first half of 2022. To the extent that these gains or losses are attributable to policyholders, these are offset by a corresponding movement in 'Net insurance claims and benefits paid and movement in liabilities to policyholders'.

Net income from financial instruments held for trading or managed on a fair value basis increased by HK$2,270m, or 15%, driven by mainland China, mainly from revaluation gains on foreign currency translation of balance sheet exposures. To a lesser extent, increases were also noted in Australia and India.

Net insurance premium income increased by HK$15,829m, or 49%, driven by Hong Kong due to strong sales volumes in the first half of 2022. This was largely offset by a corresponding movement in 'Net insurance claims and benefits paid and movement in liabilities to policyholders'.

Other operating income increased by HK$7,851m to HK$7,671m driven by the favourable movement of HK$7,105m in the present value of in-force long-term insurance business ('PVIF'). The changes in PVIF were primarily in Hong Kong and included a HK$1,544m increase in the value of new business, a HK$2,351m gain from a pricing update for policyholders' funds held on deposit with us, and an increase of HK$2,282m primarily reflecting the effect of sharing lower investment returns with policyholders. The movement in PVIF was partly offset by a corresponding movement in 'Net insurance claims and benefits paid and movement in liabilities to policyholders'.

The increase also included a provisional gain of HK$556m on completion of our acquisition of AXA Insurance Pte Limited ('AXA Singapore') in the first half of 2022.

Net insurance claims and benefits paid and movement in liabilities to policyholders increased by HK$1,736m, or 4%, reflecting higher claims from higher business sales and the favourable movement in PVIF, partly offset by lower investment returns to policyholders from the unfavourable equity market performance in the first half of 2022.

Change in expected credit losses and other credit risk provisions increased by HK$2,537m, or 158%, notably in Commercial Banking ('CMB') and to a lesser extent in Global Banking ('GB'), mainly reflecting increases in allowance in relation to exposures to the mainland China's commercial real estate sector.

Total operating expenses increased by HK$2,725m, or 5%. Excluding the favourable foreign exchange impact, operating expenses increased by HK$3,163m, or 6%, reflecting our continued investment in technology and in wealth in Asia.

Share of profit in associates and joint ventures increased by HK$27m, or less than 1%. Excluding the favourable foreign exchange impact, share of profit in associates and joint ventures decreased by HK$52m, mainly from lower share of profits from Barrowgate Limited.

Net interest income

	Half-year to	
	30 Jun 2022	30 Jun 2021
	HK$m	HK$m
Net interest income	**53,253**	48,741
Average interest-earning assets	**7,556,448**	7,102,770
	%	%
Net interest spread	**1.36**	1.33
Contribution from net free funds	**0.06**	0.05
Net interest margin	**1.42**	1.38

Net interest income ('NII') increased by HK$4,512m, or 9%. Excluding the unfavourable foreign exchange impact, NII increased by HK$4,983m, or 10%, driven by Hong Kong from balance sheet growth as customer deposits increased, coupled with improved customer deposit spreads and higher reinvestment yields due to higher market interest rates compared with the first half of 2021. To a lesser extent, increases were also noted in Singapore, reflecting the favourable impact from the higher interest rate environment, and in mainland China and India, mainly from balance sheet growth.

Average interest-earning assets increased by HK$454bn, or 6%, driven by Hong Kong, mainly in financial investments and reverse repurchase agreements, reflecting growth in the commercial surplus as customer deposits increased. To a lesser extent, increases were also noted in mainland China and India, mainly from growth in customer advances, and in Japan from an increase in reverse repurchase agreements.

Net interest margin ('NIM') increased by four basis points, primarily in Hong Kong and to a lesser extent in Singapore, reflecting the favourable impact from the higher interest rate environment which resulted in improved customer deposit spreads and higher reinvestment yields. This was partly offset by an increase in the commercial surplus, primarily deployed into reverse repurchase agreements, which contributed to lower yields.

As a result, the NIM at the Bank's operations in Hong Kong increased by five basis points, and at Hang Seng Bank, the NIM increased by one basis point.

Net fee income

	Half-year to	
	30 Jun 2022	30 Jun 2021
	HK$m	HK$m
Funds under management	**3,752**	4,333
Unit trusts	**2,743**	4,193
Broking income	**2,461**	3,782
Cards	**3,750**	3,708
Global custody	**2,135**	2,307
Credit facilities	**1,529**	1,586
Imports/exports	**1,591**	1,477
Remittances	**1,443**	1,363
Account services	**1,147**	1,090
Underwriting	**327**	863
Insurance agency commission	**866**	807
Other	**4,674**	4,432
Fee income	**26,418**	29,941
Fee expense	**(6,778)**	(5,936)
Net fee income	**19,640**	24,005

Net income from financial instruments measured at fair value through profit or loss

	Half-year to	
	30 Jun 2022	30 Jun 2021
	HK$m	HK$m
Net income/(expense) arising on:		
Net trading activities	**17,196**	17,884
Other instruments managed on a fair value basis	**659**	(2,299)
Net income from financial instruments held for trading or managed on a fair value basis	**17,855**	15,585
Financial assets held to meet liabilities under insurance and investment contracts	**(12,239)**	13,689
Liabilities to customers under investment contracts	**1,638**	(492)
Net income/(expense) from assets and liabilities of insurance businesses, including related derivatives, measured at fair value through profit or loss	**(10,601)**	13,197
Changes in fair value of designated debts issued and related derivatives[1]	**(447)**	(312)
Changes in fair value of other financial instruments mandatorily measured at fair value through profit or loss	**31**	(27)
Net income from financial instruments measured at fair value through profit or loss	**6,838**	28,443

1 *Includes debt instruments which are issued for funding purposes and are designated under the fair value option to reduce an accounting mismatch.*

Other operating income

	Half-year to	
	30 Jun 2022 HK$m	30 Jun 2021 HK$m
Change in present value of in-force long-term insurance business	**5,600**	(1,505)
Gain on acquisition of subsidiary[1]	**556**	—
Gains/(losses) on investment properties	**(57)**	138
Other[2]	**1,572**	1,187
Other operating income/(expense)	**7,671**	(180)

1 *Includes a provisional gain of HK$556m from the acquisition of AXA Insurance Pte Limited. Details are included in Note 12 'Business acquisitions' on the Interim condensed consolidated financial statements.*
2 *Includes mainly recovery of operating expenses from fellow companies.*

Insurance manufacturing

The following table shows the results of our insurance manufacturing operations by income statement line item, and separately the insurance distribution income earned by the group's bank channels.

Results of insurance manufacturing operations and insurance distribution income earned by the group's bank channels

	Half-year to	
	30 Jun 2022 HK$m	30 Jun 2021 HK$m
Insurance manufacturing operations[1]		
Net interest income	**8,520**	8,065
Net fee expense	**(2,374)**	(1,933)
Net income/(expense) from financial instruments measured at fair value	**(11,482)**	13,064
Net insurance premium income	**48,261**	32,427
Change in present value of in-force long-term insurance business	**5,600**	(1,505)
Other operating income	**685**	245
Total operating income	**49,210**	50,363
Net insurance claims and benefits paid and movement in liabilities to policyholders	**(43,426)**	(41,637)
Net operating income before change in expected credit losses and other credit impairment charges	**5,784**	8,726
Change in expected credit losses and other credit impairment charges	**(8)**	(136)
Net operating income	**5,776**	8,590
Total operating expenses	**(2,564)**	(1,487)
Operating profit	**3,212**	7,103
Share of profit in associates and joint ventures	**31**	55
Profit before tax	**3,243**	7,158
Annualised new business premiums of insurance manufacturing operations	**8,658**	10,616
Distribution income earned by banking operations	**2,632**	2,342

1 *The results presented for insurance manufacturing operations are shown before elimination of intercompany transactions with the group's non-insurance operations.*

Profit before tax from the insurance manufacturing business decreased by HK$3,915m, or 55%, driven by unfavourable equity market impacts, partly offset by higher new business volumes in the first half of 2022.

Net interest income increased by 6%, as net premium inflows from new business and renewals increased fixed income assets held to back insurance liabilities.

Net expense from financial instruments measured at fair value through profit or loss was HK$11,482m in the first half of 2022, compared with a net income of HK$13,064m in the first half of 2021. This was primarily due to the unfavourable equity market performance in Hong Kong in the first half of 2022, compared with the favourable market performance in the first half of 2021.

Net insurance premium income increased by HK$15,834m, mainly in Hong Kong due to strong sales volumes from our whole-of-life propositions in the first half of 2022.

The change in the PVIF increased by HK$7,105m, primarily in Hong Kong, reflecting an increase in the value of new business of HK$1,544m, a HK$2,351m gain from a pricing update for policyholders' funds held on deposit with us to reflect the cost of the provision of these services, and an increase of HK$2,282m primarily reflecting the effect of sharing lower investment returns with policyholders.

To the extent that the above gains or losses are attributable to policyholders, there is an offsetting movement reported under 'Net insurance claims and benefits paid and movement in liabilities to policyholders'.

Other operating income increased, largely due to a provisional gain of HK$556m on completion of our acquisition of AXA Singapore.

Total operating expenses increased by HK$1,077m, reflecting the incorporation of the results of AXA Singapore in the first half of 2022 and investment in our Pinnacle proposition in mainland China.

Change in expected credit losses and other credit impairment charges

	Half-year to	
	30 Jun 2022	30 Jun 2021
	HK$m	HK$m
Loans and advances to banks and customers	**3,793**	2,072
– new allowances net of releases	**4,242**	2,572
– recoveries of amounts previously written off	**(449)**	(500)
Loan commitments and guarantees	**174**	(469)
Other financial assets	**177**	4
Change in expected credit losses and other credit impairment charges	**4,144**	1,607

The change in expected credit losses ('ECL') as a percentage of average gross customer advances was 0.20% for the first half of 2022 (first half of 2021: 0.11%). The increase in ECL was notable in CMB, mainly reflecting additional allowances in relation to exposures to mainland China's commercial real estate sector in the first half of 2022. To a lesser extent, an increase was also noted in GB, reflecting exposures to the same sector.

Operating expenses

	Half-year to	
	30 Jun 2022	30 Jun 2021
	HK$m	HK$m
Employee compensation and benefits	**20,113**	20,246
General and administrative expenses	**26,448**	24,578
Depreciation of property, plant and equipment	**4,573**	4,409
Amortisation and impairment of intangible assets	**2,877**	2,053
Operating expenses	**54,011**	51,286

Employee compensation and benefits decreased by HK$133m, or 1%. Excluding the favourable foreign exchange impact, employee compensation and benefits increased by HK$102m, or 1%, as the impact from wage inflation was largely offset by lower performance-related pay and lower average headcount across the region.

General and administrative expenses increased by HK$1,870m, or 8%, reflecting our continued investment in technology and in wealth in Asia. To a lesser extent, there were also increases in marketing expenses and professional and consultancy expenses.

Amortisation and impairment of intangible assets increased by HK$824m, or 40%, mainly due to higher capitalised software balances.

Associates and joint ventures

At 30 June 2022, an impairment review on the group's investment in Bank of Communications Co., Limited ('BoCom') was carried out and it was concluded that the investment was not impaired based on our value-in-use calculation (see Note 5 on the Interim condensed consolidated financial statements for further details). As discussed in that note, in future periods, the value-in-use may increase or decrease depending on the effect of changes to model inputs. It is expected that the carrying amount will increase due to retained profits earned by BoCom. At the point where the carrying amount exceeds the value-in-use, impairment would be recognised. The group would continue to recognise its share of BoCom's profit or loss, but the carrying amount would be reduced to equal the value-in-use, with a corresponding reduction in the income statement. An impairment review would continue to be performed at each subsequent reporting period, with the carrying amount and income statement adjusted accordingly.

Risk

Principal risks and uncertainties

The group continuously monitors and identifies risks. Our principal risks are credit risk, treasury risk, traded risk, resilience risk, regulatory compliance risk, financial crime risk, model risk, as well as financial and insurance risks from our insurance manufacturing operations. A description of principal risks and a summary of our current policies and practices regarding the management of risk is set out on pages 27 to 28 and pages 14 to 16 in the 'Risk' section of the *Annual Report and Accounts 2021.*

We have maintained a consistent approach to risk management throughout our history, helping to ensure we protect customers' funds, lend responsibly and support economies.

The repercussions from the Russia-Ukraine war, alongside the continuing geopolitical tensions and challenging economic conditions are continuing to impact our customers and our organisation.

Global commodity markets have been significantly impacted by the Russia-Ukraine war, leading to supply chain disruptions and increased prices for both energy and raw materials. The continuation of, or any further escalation in the Russia-Ukraine war could have additional economic, social and political repercussions. These include further sanctions and trade restrictions, longer term changes in the macroeconomic environment with the risk of higher and sustained inflation, and a continued increase in energy prices. This has been further impacted by continuing tensions between China and the US, the UK, the EU, India and other countries during 2022, which may affect the group and its customers by creating regulatory, reputational and market risks. The macroeconomic, trade and regulatory environments have become increasingly fragmented through disruptions to supply chains, increasing inflationary pressures, and market concerns regarding potential impacts following instability in mainland China's commercial real estate sector. We continue to monitor the situation closely and to seek to manage the potential implications of all the above developments on our customers and business.

We continued to focus on improving the quality and timeliness of the data used to inform management decisions, through measures such as forward-looking indicators, prudent active management of our risk appetite, and ensuring regular communication with our Board and key stakeholders.

While the financial performance of our operations varied in different geographies, the balance sheet and liquidity of the group remained strong.

We remain committed to investing in the reliability and resilience of our IT systems and critical services that support all parts of our business. We do so to protect our customers, affiliates and counterparties, and to help ensure that we minimise any disruption to services that could result in reputational and regulatory consequences. We continue to operate in a challenging environment in which cyber threats are prevalent, and continue to invest in business and technical controls to defend against these threats.

We are progressing with the implementation of our business transformation plans, while seeking to ensure that we are able to support growth and manage safely the associated risks, which include execution, operational, governance, reputational, conduct and financial risks.

Our emerging risks report identifies forward-looking risks so that they can be considered in determining whether any incremental action is needed to either prevent them from materialising or to limit their effect. Emerging risks are those that could have a material impact on our risk profile were they to occur, are not considered immediate and are not under active management.

Top risks are those that have the potential to have a material adverse impact on the financial results, reputation or business model of the group. We actively manage and take actions to mitigate our top risks.

Our suite of top and emerging risks is subject to regular review by senior governance forums. We continue to monitor closely the identified risks and ensure robust management actions are in place, as required.

Our current top and emerging risks are summarised below and discussed in more detail on pages 17 to 22 of the *Annual Report and Accounts 2021*.

Risk	Trend	Description
Externally driven		
Geopolitical and macroeconomic risks	^	Our operations and portfolios are exposed to risks associated with political instability, civil unrest and military conflict, which could lead to disruption of our operations, physical risk to our staff and/or physical damage to our assets. Heightened geopolitical tensions, alongside other factors, have also disrupted supply chains globally, with potential ramifications for the group. Inflation and rising interest rates are likely to prompt a marked global slowdown which will affect the group's portfolio.
Technology and cyber security risk[1]	>	We are exposed to the risk of service disruption through technology failures or malicious activity by internal or external threats. In response to the recent geopolitical events, enhanced monitoring of this risk is being undertaken. We operate a continuous improvement programme to enhance our technology operations and to counter a hostile and fast-evolving cyber threat environment.
Evolving regulatory environment risk[2]	>	The compliance risk environment has become more complex, given heightened geopolitical tensions. There has been increased regulatory focus on operational and cyber resilience, sanctions, and wider anti-money laundering controls. These alongside other key regulatory priorities, may result in change requirements across the group in the short to medium term.
Financial crime risk[3]	>	We continue to support our customers against a backdrop of complex geopolitical, socio-economic and technological challenges, including the Russia-Ukraine war. We are monitoring the direct and indirect impacts of the war on the group, and using its sanctions compliance capabilities to respond to the new sanctions regulations, noting the challenges that arise in implementing the complex, novel and ambiguous aspects of certain of the sanctions.
Interbank offered rate ('Ibor') transition risk	>	We are primarily exposed to regulatory compliance, legal, resilience, model and market risks as part of transition away from demising Ibor benchmarks, in advance of their cessation dates, to new reference rates. As a result, we continue to take into account the fairness of client outcomes, our compliance with regulatory expectations and the operation of our systems and processes. We have transitioned all of our contracts in 2021 demised Ibors, but some contracts are temporarily utilising 'synthetic' sterling Libor or Japanese yen Libor. Our customer engagement for demising Ibors has begun, in particular for US dollar Libor.
Environmental, social and governance ('ESG') risks	^	We are exposed to ESG risks relating to climate change, nature and human rights. This risk has increased owing to the pace and volume of regulatory developments globally and stakeholders placing more emphasis on financial institutions' actions and investment decisions in respect of ESG matters. If we fail to meet evolving regulatory and stakeholder expectations on ESG risk management as a result of any event, behaviour, action or inaction, this may result in financial and non-financial risks for us, potentially causing stakeholders to form a negative view of the group.
Digitalisation and technological advances risk	>	Developments in technology and changes in regulations are enabling new entrants to the industry. This along with new products and services offered by existing competitors, challenges us to continue to innovate in order to take advantage of new digital capabilities to best serve our customers, and adapt our products to attract and retain customers and employee talent.
Internally driven		
Risks associated with workforce capability, capacity and environmental factors with potential impact on growth	>	We monitor workforce capacity and capability requirements in line with our published growth strategy. We have measures to support our people to work safely during the Covid-19 pandemic, and to implement flexible working as government restrictions ease. We monitor people risks that may arise due to business transformation, and perform periodic risk assessments, including against strategies, to help ensure retention of key personnel to support growth.
Risks arising from the receipt of services from third parties	>	We procure services and goods from a range of third parties. It is critical that we have appropriate risk management policies, processes and practices over the selection and governance of third parties and their supply network, particularly for key activities that could affect our operational resilience. Any deficiency in the management of risks associated with our third parties could affect our ability to support our customers and meet regulatory expectations.
Model risk	New	Evolving regulatory requirements are driving material changes to models across the banking industry with particular focus on capital models. In addition, new technologies such as machine learning are also driving changes to the model landscape and our strategic focus on climate risk is leading to new areas of modelling being developed. A key area of focus is ensuring our standards, processes and controls are adequate to identify, measure and manage the resulting model risks.
Data risk[4]	>	We use data to serve our customers and run our internal operations, often in real-time within digital journeys and processes. If this data is not accurate and timely, our ability to serve customers, operate with resilience, or meet regulatory requirements could be impacted. We must ensure the confidentiality of data and comply with the growing number of laws and regulations governing data privacy and the cross-border movement of data.
Change execution risk	>	Failure to effectively prioritise, manage and/or deliver change impacts our ability to achieve our strategic objectives. We must monitor, manage and oversee change execution risk to ensure our change portfolios and initiatives continue to deliver the right outcomes for our customers, people, investors and communities.

^ *Risk heightened during the first half 2022.*
> *Risk remained at the same level as 2021.*

1 *Previously 'Cyber threat and unauthorised access to systems' and 'IT systems infrastructure and technologies advances'.*
2 *Previously 'Regulatory compliance risk environment including conduct'.*
3 *Previously 'Financial crime risk environment'.*
4 *Previously 'Data management'.*

Key developments in the first half of 2022

We continue to manage actively those risks related to the Russia-Ukraine war and broader macroeconomic and geopolitical uncertainties alongside the continued risks resulting from the Covid-19 pandemic, and other key risks described in this section. In addition, we enhanced our risk management in the following areas:

- We have continued to enhance decision making, particularly with regard to the governance of treasury risk to ensure senior executives have appropriate oversight and visibility of macroeconomic trends around inflation and interest rates.
- We continued to develop our approach to emerging risk identification and management, including use of forward-looking indicators to support our analysis.
- We enhanced our enterprise risk reporting processes to place greater focus on our emerging risks, including capturing the materiality, oversight and individual monitoring of these risks.
- We are enhancing our third-party management frameworks and processes to improve visibility of the role our material third parties play in our operational resilience and including compliance with regulatory requirements by our supply network.
- We are progressing with a comprehensive regulatory reporting programme to strengthen our global processes, improve consistency, and enhance controls.
- We enhanced, and continue to embed, the governance and oversight around model adjustments and related processes for HKFRS 9 models and related Sarbanes-Oxley controls.
- The group has appointed a Head of Climate and Nature Related Risks in support of our climate change strategy and to oversee the development of our climate risk management capabilities. The climate risk programme continues to shape our approach to climate risk across four key pillars: governance and risk appetite; risk management; stress testing; and disclosures.
- We continued to improve the effectiveness of our financial crime controls, deploying advanced analytics capabilities. We are refreshing our financial crime policies, ensuring they remain up-to-date and address changing and emerging risks, and we continue to monitor regulatory changes.

Areas of special interest

During the first half of 2022, a number of areas were considered as part of our top and emerging risks because of the effect they have on the group. In this section we have focused on risks related to geopolitical and macroeconomic risk, Covid-19, climate risk and Ibor transition.

Geopolitical and macroeconomic risk

The Russia-Ukraine war continues to have far-reaching geopolitical and economic implications. We are monitoring the direct and indirect impacts of the war, and continue to respond to new sanctions and trade restrictions that have been imposed, noting the challenges that arise in implementing the complex, novel and ambiguous aspects of certain of these sanctions. Global commodity markets have been significantly impacted by the Russia-Ukraine war and the Covid-19 pandemic, leading to sustained supply chain disruptions. This has resulted in product shortages appearing across several regions, and increased prices for both energy and non-energy commodities (such as food). We do not expect these to ease significantly in the second half of 2022. In turn, this has had a significant impact on global inflation.

Rising global inflation is also prompting central banks to tighten monetary policy. Uncertainty over the economic outlook could nevertheless slow the pace of tightening, and keep fiscal policies broadly accommodative for some time. The US Federal Reserve Board ('FRB') delivered a 75bps increase in the Federal Funds rate in June 2022, with several more expected in the second half of 2022 and 2023. Financial markets currently expect the FRB to raise the Federal Funds rate to 3% by the end of 2022.

The European Central Bank is expected to lag the FRB but nevertheless began increasing its benchmark rates in July 2022. In recent months, the Hong Kong dollar exchange rate against the US dollar has traded on the weaker side of the peg, resulting in reduction in the liquidity buffer provided by the aggregate balance. While the Hong Kong dollar interbank rates continue to lag the US dollar interest rates currently, the spread between the two is expected to narrow based on the Hong Kong dollar supply and demands situation in the local market. We continue to monitor our risk profile closely in the context of uncertainty over monetary policy.

The rapid rise of the US dollar interest rate has led to a strengthening US dollar exchange rate against most currencies. Major central banks in Asia-Pacific (except for mainland China and Japan) are following the FRB with rate hikes but at slower pace. Asian currencies have depreciated against the US dollar across the region in the first half of 2022. In Japan, the accommodative monetary policies have led to a widening interest rate gap against the US dollar, resulting in a significantly weaker Japanese yen. We continue to monitor our direct and indirect risk exposure to Asian currencies depreciation at both portfolio and counterparty level.

Global tensions over trade, technology and ideology are manifesting themselves in divergent regulatory standards and compliance regimes, presenting long-term strategic challenges for multinational businesses.

The US-China relations remain complex, with tensions over a number of critical issues. The US government has recently articulated its approach to perceived strategic competition with China based on an intent to 'invest, align and compete'. The US, the UK, the EU, Canada and other countries have imposed various sanctions and trade restrictions on Chinese individuals and companies, including freezing assets of government officials, and investment and import/export restrictions targeting certain Chinese companies.

There is a continued risk of increased sanctions being imposed by the US and other governments in relation to human rights and other issues with China, and this could create a more complex operating environment for the group and its customers.

China has in turn announced a number of its own sanctions and trade restrictions that target, or provide authority to target, foreign individuals or companies. It has also promulgated new laws that provide a legal framework for imposing further sanctions and export restrictions. These include laws prohibiting implementation of – or compliance with – foreign sanctions against China as well as laws that create a private right of action in Chinese courts for damages caused by third parties implementing foreign sanctions or other discriminatory measures. These and any future measures and countermeasures that may be taken by the US, China and other countries may affect the group, its customers, and the markets in which we operate.

Market participants remain concerned about the repercussions for the Chinese domestic economy from instability in its commercial real estate sector, including deteriorating operating performance and challenging liquidity conditions, and more recently China's government-imposed lockdown restrictions in major Chinese cities to respond to elevated Covid-19 infections. Such repercussions may occur directly through financial exposures to the Chinese commercial real estate sector, or indirectly through the effect of a slowdown in economic activity in China and on global supply chains in various sectors. Despite a recent improvement in economic indicators as lockdown measures are lifted, we continue to monitor the situation closely, including potential indirect impacts, and seek to take mitigating actions as required.

Sri Lanka has defaulted on its foreign currency debts as it struggles with an economic and political crisis. There are uncertainties in the formation of a new government following the agreement by the leaders to resign in July 2022 amidst nationwide protests. With an inflation rate rising to 54.6% as of 30 June 2022, shortages of food, fuel and medicines and rolling power blackouts, the country is facing a plunging currency and shortage of foreign currency reserves for payment of imports. We continue to monitor the situation in Sri Lanka and take actions through local Major

Incident Groups, Counterparty Review and Action Group meetings. De-risking measures have been initiated to maintain a stable capital risk profile.

The impact of the pandemic and second order impacts from other geopolitical and macroeconomic events remain uncertain and may lead to significant credit losses on specific exposures, which may not be fully captured in ECL estimates. To help mitigate this risk, model outputs and management adjustments are closely monitored and independently reviewed at the group and markets level for reliability and appropriateness.

As the geopolitical landscape evolves, compliance by multinational corporations with their legal or regulatory obligations in one jurisdiction may be seen as supporting the law or policy objectives of that jurisdiction over another, creating additional compliance, reputational and political risks for the group. We maintain dialogue with our regulators in various jurisdictions on the impact of legal and regulatory obligations on our business and customers.

The group will continue to consider potential regulatory, reputational and market risks arising from the evolving geopolitical landscape.

Expanding data privacy, national security and cybersecurity laws in a number of markets could pose potential challenges to intra-group data sharing. These developments could increase financial institutions' compliance burdens in respect of cross-border transfers of personal information.

Risks related to Covid-19

Despite the successful roll-out of vaccines around the world, the Covid-19 pandemic and its effect on the global economy have continued to impact our customers and organisation. The emergence of new variants and sub-variants poses a continuing risk. The global vaccination roll-out has helped reduce the social and economic impact of the Covid-19 pandemic, although there continues to be divergence in the speed at which vaccines have been deployed. Countries continue to differ in their approach to restrictions on activity and travel, and if these differences persist, this could prolong or worsen supply chain and international travel disruptions. Most notably, China's government-imposed lockdown restrictions in major cities, which were only eased recently, have adversely impacted China's economy, Asia tourism and global supply chains.

Central banks in major markets – with the exception of mainland China and Japan – are tightening their monetary policies, with the speed of such tightening varying across jurisdictions based on specific macroeconomic conditions. Policy tightening in several major emerging markets is also underway in order to counteract rising inflation and the risk of capital outflows. Governments are also expected to make fiscal support more targeted as the appetite for broad lockdowns and public health restrictions decreases. Government debt has risen in most advanced economies, and is expected to remain high into the medium term. High government debt burdens have raised fiscal vulnerabilities, increasing the sensitivity of debt service costs to interest rate increases and potentially reducing the fiscal space available to address future economic downturns.

Our Central scenario used to calculate credit impairment assumes that economic activity will continue to recover through 2022, surpassing peak pre-pandemic levels of GDP in our key markets. It is assumed that private sector growth accelerates, ensuring a strong recovery is sustained even as pandemic-related fiscal support is withdrawn. However, there is a high degree of uncertainty associated with economic forecasts in the current environment and there are significant risks to our Central scenario. The degree of uncertainty varies by market, depending on exposure to commodity price increases, supply chain constraints, the monetary policy response to inflation and the public health policy response to the pandemic. For further details of our Central and other scenarios, see 'Measurement uncertainty and sensitivity analysis of ECL estimates' on page 14.

We continue to monitor the situation closely, and given the significant uncertainties related to the post-pandemic landscape in the future, additional mitigating actions may be required.

Climate risk

The pace of policy and regulatory developments focusing on climate risk management, disclosures, and stress testing and scenario analysis continues to increase in 2022. The Russia-Ukraine war continues to impact global commodity markets, necessitating actions in the short term around energy security. While these actions may impact the near-term transition path for us and our customers, we remain committed to our climate strategy to align our own operations and supply chain to net zero by 2030, and the financed emissions from our portfolio of customers to net zero by 2050. As announced in March 2022, the Group intends to publish a Group climate transition plan in 2023, and has committed to a science-aligned phase-down of fossil fuel finance, and a review of our wider financing and investment policies critical to achieving net zero by 2050.

Our most material risks in terms of managing climate risk relate to corporate and retail client financing within our banking portfolio, but there are also significant responsibilities in relation to asset ownership by our insurance business, as well as from the activities of our asset management business. We continue to monitor the impacts of climate risk, and further embed our approach across our key risk areas, priority markets and businesses.

We have refreshed our credit risk policy to further embed climate risk considerations into our control and oversight of the credit risk impact of climate change for new money requests, and delivered guidance on the oil and gas, power and utilities, and metals and mining sectors. We continue to develop guidance for our other higher transition risk sectors. To help with risk assessment, our developing transition and physical risk questionnaire is currently being applied across 10 sectors and 11 of the group's markets to determine the level of transition risk and physical risk exposure.

We are also focused on embedding climate risk into retail credit risk management processes and are implementing metrics to support risk management and exposure monitoring for properties with heightened climate-related physical risk exposure.

In addition to financial risks arising in our corporate and retail banking portfolio, we may also face increased reputational, legal and regulatory risks as we make progress towards our net zero ambition, as stakeholders are likely to place a greater focus on our actions, investment decisions and disclosures related to this ambition. We will face additional risks if we are perceived to mislead stakeholders regarding our climate strategy, the climate impact of a product or service, or regarding the commitments of our customers. In response to this, the Group has published internal guidance to increase awareness of greenwashing risk across the first and second lines of defence, and established a cross-line of defence panel of internal experts to provide greenwashing risk advice to existing governance forums. The Group has also created a product enhancement guide to outline how climate considerations should be embedded into existing product governance processes throughout the product lifecycle.

We continued to develop our climate stress testing and scenario capabilities, including model development, and delivered regulatory climate stress tests. These are being used to further improve our understanding of our risk exposures for use in risk management and business decision making.

While climate risk reporting has improved over time, we continue to focus on data quality and consistency with the development of our risk appetite and metrics.

Ibor transition

The publication of sterling, Swiss franc, euro, Japanese yen and some US dollar Libor interest rate benchmark settings, as well as Euro Overnight Index Average ('Eonia') ceased from the end of 2021. Our interbank offered rate ('Ibor') transition programme – which is tasked with the development of new near risk-free rate ('RFR') products and the transition of legacy Ibor products – has continued to support transition of a limited number of remaining contracts in these benchmarks to RFRs, or alternative reference rates.

During the first half of 2022, we continued to develop process, technology and RFR product capabilities in our remaining locations that have a requirement for US dollar Libor and other regional rates demising at later dates ('demising regional rates'), which are expected to demise from June 2023. We have also implemented controls to ensure we do not undertake any new US dollar Libor contracts outside of agreed exemptions to control the related risks. We carried out relevant communication to our clients to support them through transition of their products, and began the transition of trade, hedging and uncommitted lending facilities. To date, we have transitioned all of our contracts in 2021 demised Ibors, but some contracts are temporarily utilising 'synthetic' sterling Libor or Japanese yen Libor. We continue to actively engage in market and industry discussions around the transition of the remaining demising Ibors, including ceasing the use of 'synthetic' sterling and Japanese yen Libor.

The group's non-derivative financial liabilities as at 30 June 2022 included three Japanese yen Total Loss Absorbing Capacity ('TLAC') instruments at fixed to floating rate where the Japanese yen Libor benchmark will be used to reset the coupon rate if the bank chooses not to redeem these instruments on the respective call date, or dates, for each series. The interest rate for these instruments is currently at fixed rate and the earliest call date before the coupon rate reset among these instruments is in September 2023.

We remain mindful of the various factors that impact on Ibor remediation strategy for our regulatory capital and TLAC instruments, including – but not limited to – timescales for cessation of relevant Ibor rates, constraints relating to the governing law of outstanding instruments, the potential relevance of legislative solutions and industry best practice guidance. We remain committed in seeking to remediate or mitigate relevant risks relating to Ibor-demise, as appropriate, on our outstanding regulatory capital and TLAC instruments before the relevant calculation dates, which may occur post-cessation of the relevant Ibor rate or rates.

For US dollar Libor and other demising Ibors, we are exposed to regulatory compliance, resilience, legal, model and market risks.

- Regulatory compliance: if we neglect to act appropriately in the transition of legacy contracts, we may observe an increase in client complaints resulting from a breach of duty to our clients;
- Resilience: we may be exposed to increased operational risks due to changes in manual and automated processes, and the transition of large volumes of contracts;
- Legal: we may be exposed to an increased risk of litigation as a result of Ibor transition, which may give rise to contractual, sales or other claims;
- Model: as a result of required changes to our models there is a risk that model output is adversely affected, leading to increased regulatory notifications or incorrect model outputs;
- Market: as a result of differences in Libor and other demising regional rates against RFRs interest rates, we are exposed to basis risk resulting from the asymmetric adoption of rates across assets, liabilities and products.

Based on our experience in transitioning contracts referencing Ibors that demised from the end of 2021, and an assessment of the risks that relate to the transition of US dollar Libor and other demising regional rates, we do not believe that our risk position has materially changed during the first half of 2022. Increased market and industry use of alternative rates, including the Secured Overnight Funding Rate ('SOFR'), have further reduced potential risks related to transition away from US dollar Libor and other demising regional rates. We will continue to monitor market initiatives and have developed controls and plans to mitigate these risks. We will monitor these risks through the development of our product capabilities and the transition of legacy contracts, with a focus on fair client outcomes.

Throughout the remainder of 2022, and into 2023, we are committed to engaging with our clients and investors to complete an orderly transition from the remaining demising Ibors. Additionally, following the recent announcement relating to the cessation of Canadian dollar offered rate ('CDOR') after June 2024, we are assessing the impacts and will take appropriate action.

Financial instruments impacted by Ibor reform

	Financial instruments yet to transition to alternative benchmarks, by main benchmark				
	USD Libor	Japanese yen Libor	Sibor	GBP Libor	Others[1]
At 30 Jun 2022	**HK$m**	**HK$m**	**HK$m**	**HK$m**	**HK$m**
Non-derivative financial assets[2]	**191,471**	**–**	**44,317**	**966**	**6,124**
Non-derivative financial liabilities	**132,013**	**9,117**	**–**	**–**	**–**
Derivative notional contract amount	**9,006,776**	**677**	**–**	**–**	**447,284**
At 31 Dec 2021					
Non-derivative financial assets[2]	206,508	2,846	56,291	22,197	4,779
Non-derivative financial liabilities	147,198	10,930	–	–	–
Derivative notional contract amount	8,547,665	798,921	–	88,218	715,439

1 *Comprises financial instruments referencing other significant benchmark rates yet to transition to alternative benchmarks (EUR Libor, Swiss Franc Libor, Eonia, SGD Swap Offer Rate ('SOR') and Thai Baht Interest Rate Fixing ('THBFIX')).*
2 *Gross carrying amount excluding allowances for expected credit losses.*

The amounts in the above table relate to the group's main operating entities where the group has material exposures impacted by Ibor reform, including in Hong Kong, Singapore, Australia, Japan and Thailand. The amounts provide an indication of the extent of the group's exposure to the Ibor benchmarks that are due to be replaced.

Amounts are in respect of financial instruments that:

- contractually reference an interest rate benchmark that is planned to transition to an alternative benchmark;
- have a contractual maturity date beyond the date by which the reference interest rate benchmark is expected to cease; and
- are recognised on the group's consolidated balance sheet.

Credit risk

Overview

Credit risk is the risk of financial loss if a customer or counterparty fails to meet an obligation under a contract. Credit risk arises principally from direct lending, trade finance and leasing business, but also from other products, such as guarantees and credit derivatives.

There were no material changes to credit risk policy in the first half of 2022.

For the wholesale and retail exposures mentioned in the credit risk section, wholesale exposures mainly refers to exposures to Commercial Banking, Global Banking and Markets and Securities Services, whereas retail exposures primarily consists of exposures to individuals under Wealth and Personal Banking.

A summary of our current policies and practices for the management of credit risk is set out in 'Credit risk management' on pages 29 to 31 of the Annual Report and Accounts 2021.

Summary of credit risk

The following table provides an overview of the group's credit risk by stage and industry, and the associated ECL coverage. The financial assets recorded in each stage have the following characteristics:

- Stage 1: These financial assets are unimpaired and without significant increase in credit risk on which a 12-month allowance for ECL is recognised.
- Stage 2: A significant increase in credit risk has been experienced on these financial assets since initial recognition for which a lifetime ECL is recognised.
- Stage 3: There is objective evidence of impairment and the financial assets are therefore considered to be in default or otherwise credit impaired on which a lifetime ECL is recognised.
- POCI: Financial assets that are purchased or originated at a deep discount are seen to reflect the incurred credit losses on which a lifetime ECL is recognised.

Summary of credit risk (excluding debt instruments measured at fair value through other comprehensive income ('FVOCI')) by stage distribution and ECL coverage by industry sector[4]

	Gross carrying/nominal amount[1]					Allowance for ECL					ECL coverage %				
	Stage 1	Stage 2	Stage 3	POCI	Total	Stage 1	Stage 2	Stage 3	POCI	Total	Stage 1	Stage 2	Stage 3	POCI	Total
	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	%	%	%	%	%
Loans and advances to customers	3,360,179	482,200	55,773	566	3,898,718	(2,364)	(7,835)	(23,548)	(172)	(33,919)	0.1	1.6	42.2	30.4	0.9
– personal	1,455,378	74,886	10,381	–	1,540,645	(1,128)	(2,784)	(1,682)	–	(5,594)	0.1	3.7	16.2	–	0.4
– corporate[2]	1,649,787	387,579	45,390	564	2,083,320	(996)	(4,921)	(21,866)	(170)	(27,953)	0.1	1.3	48.2	30.1	1.3
– financial institutions[3]	255,014	19,735	2	2	274,753	(240)	(130)	–	(2)	(372)	0.1	0.7	–	100.0	0.1
Loans and advances to banks	492,337	1,118	–	–	493,455	(29)	(3)	–	–	(32)	0.0	0.3	–	–	0.0
Other financial assets	2,682,232	25,566	222	1	2,708,021	(312)	(292)	(20)	–	(624)	0.0	1.1	9.0	–	0.0
Loan and other credit-related commitments	1,849,350	40,052	2,668	–	1,892,070	(298)	(267)	(23)	–	(588)	0.0	0.7	0.9	–	0.0
– personal	1,289,883	6,777	174	–	1,296,834	–	–	–	–	–	–	–	–	–	–
– corporate[2]	398,550	29,854	2,494	–	430,898	(285)	(259)	(23)	–	(567)	0.1	0.9	0.9	–	0.1
– financial institutions[3]	160,917	3,421	–	–	164,338	(13)	(8)	–	–	(21)	0.0	0.2	–	–	0.0
Financial guarantee	29,585	3,767	62	–	33,414	(12)	(15)	(25)	–	(52)	0.0	0.4	40.3	–	0.2
– personal	3,814	–	1	–	3,815	–	–	(1)	–	(1)	–	–	100.0	–	0.0
– corporate[2]	23,007	3,735	61	–	26,803	(12)	(15)	(24)	–	(51)	0.1	0.4	39.3	–	0.2
– financial institutions[3]	2,764	32	–	–	2,796	–	–	–	–	–	–	–	–	–	–
At 30 Jun 2022	8,413,683	552,703	58,725	567	9,025,678	(3,015)	(8,412)	(23,616)	(172)	(35,215)	0.0	1.5	40.2	30.3	0.4

Summary of credit risk (excluding debt instruments measured at FVOCI) by stage distribution and ECL coverage by industry sector (continued)

	Gross carrying/nominal amount[1]					Allowance for ECL					ECL coverage %				
	Stage 1	Stage 2	Stage 3	POCI	Total	Stage 1	Stage 2	Stage 3	POCI	Total	Stage 1	Stage 2	Stage 3	POCI	Total
	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	%	%	%	%	%
Loans and advances to customers	3,349,434	480,632	41,332	1,558	3,872,956	(2,603)	(9,426)	(19,654)	(334)	(32,017)	0.1	2.0	47.6	21.4	0.8
– personal	1,461,358	60,795	10,158	—	1,532,311	(1,236)	(2,965)	(1,765)	—	(5,966)	0.1	4.9	17.4	—	0.4
– corporate[2]	1,626,514	398,273	31,068	1,556	2,057,411	(1,131)	(6,384)	(17,859)	(332)	(25,706)	0.1	1.6	57.5	21.3	1.2
– financial institutions[3]	261,562	21,564	106	2	283,234	(236)	(77)	(30)	(2)	(345)	0.1	0.4	28.3	100.0	0.1
Loans and advances to banks	431,079	1,207	—	—	432,286	(36)	(3)	—	—	(39)	0.0	0.2	—	—	0.0
Other financial assets	2,092,847	21,164	289	1	2,114,301	(482)	(140)	(17)	—	(639)	0.0	0.7	5.9	—	0.0
Loan and other credit-related commitments	1,782,353	43,711	271	—	1,826,335	(260)	(295)	(25)	—	(580)	0.0	0.7	9.2	—	0.0
– personal	1,245,694	6,976	154	—	1,252,824	—	—	—	—	—	—	—	—	—	—
– corporate[2]	417,349	30,978	117	—	448,444	(247)	(288)	(25)	—	(560)	0.1	0.9	21.4	—	0.1
– financial institutions[3]	119,310	5,757	—	—	125,067	(13)	(7)	—	—	(20)	0.0	0.1	—	—	0.0
Financial guarantee	30,214	4,048	40	—	34,302	(14)	(14)	(16)	—	(44)	0.0	0.3	40.0	—	0.1
– personal	4,000	—	1	—	4,001	(1)	—	(1)	—	(2)	0.0	—	100.0	—	0.0
– corporate[2]	22,995	4,011	39	—	27,045	(13)	(14)	(15)	—	(42)	0.1	0.3	38.5	—	0.2
– financial institutions[3]	3,219	37	—	—	3,256	—	—	—	—	—	—	—	—	—	—
At 31 Dec 2021	7,685,927	550,762	41,932	1,559	8,280,180	(3,395)	(9,878)	(19,712)	(334)	(33,319)	0.0	1.8	47.0	21.4	0.4

The above tables do not include balances due from Group companies.

1 *Represents the maximum amount at risk should the contracts be fully drawn upon and clients default.*
2 *Includes corporate and commercial customers.*
3 *Includes non-bank financial institutions.*
4 *The financial information included in this table forms part of the Interim condensed consolidated financial statements, which have been reviewed by PricewaterhouseCoopers.*

Mainland China commercial real estate

The following table presents the group's total exposure to mainland China commercial real estate ('CRE') at 30 June 2022, by country/territory and credit quality. Mainland China reported real estate exposures comprise exposures booked in mainland China and offshore where the ultimate parent and beneficial owner is based in mainland China.

Mainland China CRE exposure

	At 30 Jun 2022				At 31 Dec 2021			
	Hong Kong	**Mainland China**	**Rest of Asia-Pacific**	**Total**	Hong Kong	Mainland China	Rest of Asia-Pacific	Total
	HK$m	**HK$m**	**HK$m**	**HK$m**	HK$m	HK$m	HK$m	HK$m
Loans and advances to customers[1]	**76,687**	**50,912**	**913**	**128,512**	77,229	53,116	658	131,003
Guarantees issued and others[2]	**15,385**	**8,047**	**232**	**23,664**	13,624	18,533	127	32,284
Total mainland China CRE exposure	**92,072**	**58,959**	**1,145**	**152,176**	90,853	71,649	785	163,287
Distribution of mainland China CRE exposure by credit quality								
– Strong	**16,434**	**16,610**	**204**	**33,248**	27,630	30,141	239	58,010
– Good	**19,059**	**22,739**	**211**	**42,009**	20,681	18,357	—	39,038
– Satisfactory	**24,356**	**17,831**	**730**	**42,917**	26,384	22,263	546	49,193
– Sub-standard	**15,271**	**745**	**—**	**16,016**	12,245	94	—	12,339
– Impaired	**16,952**	**1,034**	**—**	**17,986**	3,913	794	—	4,707
	92,072	**58,959**	**1,145**	**152,176**	90,853	71,649	785	163,287
Allowance for ECL	**(6,940)**	**(809)**	**(22)**	**(7,771)**	(4,371)	(379)	(15)	(4,765)

1 *Amounts represent gross carrying amount.*
2 *Amounts represent nominal amount.*

Risks associated with real estate developers in mainland China's real estate market have intensified in the first half of 2022 and at 30 June 2022, this portfolio had 78% of exposure booked with credit quality of 'satisfactory' or above. In addition, offshore exposures are typically higher risk than onshore exposures.

At 30 June 2022, the group had allowances for ECL of HK$6,940m held against mainland China commercial real estate exposures booked in Hong Kong. We continue to monitor the prevailing situation closely.

Measurement uncertainty and sensitivity analysis of ECL estimates

(Reviewed by PricewaterhouseCoopers)

There continues to be a high degree of uncertainty in relation to economic scenarios. Heightened geopolitical risks, ongoing risks relating to new Covid-19 variants and public health policy responses, and the effects of supply chain disruption are contributing to an environment of increasing interest rates and inflation, and higher risks of global stagflation. The level and speed of recovery from the global pandemic remains volatile.

As a result of this uncertainty, management judgements and estimates continue to reflect a degree of caution in both the selection of economic scenarios and their weightings, and in the use of management judgemental adjustments, which reflect how economic conditions interact with modelled outcomes, and are described in more detail below.

The recognition and measurement of ECL involves the use of significant judgement and estimation. We form multiple economic scenarios based on economic forecasts, apply these assumptions to credit risk models to estimate future credit losses, and probability-weight the results to determine an unbiased ECL estimate.

Methodology

Five economic scenarios have been used to capture the current economic environment and to articulate management's view of the range of potential outcomes. Scenarios produced to calculate ECL are aligned to the group's top and emerging risks.

Of the four standard scenarios, three are drawn from consensus forecasts and distributional estimates. The fourth scenario, Downside 2, represents management's view of severe downside risks. In the second quarter of 2022, management has chosen to use an additional fifth scenario, known as Downside 1, to ensure that current supply-side risks are sufficiently reflected in forward economic guidance. The scenario is designed to capture the implications of a sustained global supply shock that keeps inflation elevated for a long period, raises unemployment and depresses GDP growth.

The use of an additional scenario is in line with HSBC's forward economic guidance methodology. Management may include additional scenarios when consensus scenarios are determined to inadequately capture the economic risks faced by the group. Unlike the consensus scenarios, these additional scenarios are driven by narrative assumptions aligned to an identified risk and may incorporate shocks that drive economic activity permanently away from long-term trend.

Description of consensus economic scenarios

The economic assumptions presented in this section have been formed internally, with reference to external forecasts specifically for the purpose of calculating ECL.

Economic forecasts are subject to a high degree of uncertainty in the current environment. Risks to the outlook are dominated by the actions of central banks as they raise interest rates to bring inflation back to target and curtail a rise in inflation expectations. The implications of the war in Ukraine and the progression and management of the pandemic in Asia also remain key sources of uncertainty. Other geopolitical risks such as the evolution of the differences between the US and China over a range of strategic issues also present downside risks.

The five global scenarios used for the purpose of calculating ECL at 30 June 2022 are the consensus Central scenario, the consensus Upside scenario, the consensus Downside scenario, the Downside 1 scenario and the Downside 2 scenario.

The scenarios used to calculate ECL in the *Interim Report 2022* are described below.

The consensus Central scenario

HSBC's Central scenario features a gradual slowdown in GDP growth through 2022 and 2023, following a strong recovery in 2021. Unemployment is expected to remain low through this period.

GDP forecasts have been lowered in recent quarters. In Asia, the downward revisions follow from the stringent public health policy response to the pandemic in some markets. Elsewhere, the sharp rise in inflation, related to supply shortages and rising commodity prices, has started to weigh on growth as costs rise and real income growth stalls.

The Central scenario assumes that inflation peaks in 2022 and, supported by tighter monetary policy, reverts back towards central bank targets by the end of 2023.

Global GDP is expected to grow by 3.3% in 2022 in the Central scenario. The average rate of global GDP growth is expected to be 2.8% over the forecast period, which is in line with the average growth rate over the five-year period prior to the onset of the pandemic.

Across the key markets, the Central scenario assumes the following:

- Economic growth is expected to slow in the near term as supply chain disruptions and price inflation diminish purchasing power. Growth is expected to return to trend in later years as supply chain issues are assumed to ease and inflation returns towards target.
- Unemployment is expected to remain close to pre-pandemic levels and the labour market remains tight across our key markets.
- Inflation is expected to remain elevated in 2022 as commodity, food and goods prices remain high. Inflation is subsequently expected to converge back to central bank targets over the next two years of the forecast.
- Policy interest rates in key markets are expected to rise over the first 18 months of the projection period as central banks tighten policy to bring inflation back towards target. Thereafter, they settle at a higher level than existed pre-pandemic.
- The West Texas Intermediate oil price is expected to average above US$100 in the first two years of the forecast, before dropping back as supply constraints ease. Over the entire projection the oil price averages US$81 per barrel.

The Central scenario was created with forecasts available in May, and subsequently updated in June. Dispersion between the constituent forecasts of the consensus remains unusually high, suggesting an elevated level of uncertainty. Probability weights assigned to the Central scenario are 55% and reflect the level of uncertainty seen in economic forecast across markets.

The following table describes key macroeconomic variables and the probabilities assigned in the consensus Central scenario.

Central scenario (2022 Q3 – 2027 Q2)

	Hong Kong	Mainland China
	%	%
GDP growth rate (annual average rate)		
2022	**1.1**	**4.5**
2023	**3.8**	**5.1**
2024	**2.5**	**5.0**
5-year average	**2.9**	**4.9**
Unemployment rate (annual average rate)		
2022	**4.4**	**3.8**
2023	**3.6**	**3.7**
2024	**3.5**	**3.7**
5-year average	**3.5**	**3.7**
House price growth (annual average rate)		
2022	**(1.2)**	**(0.5)**
2023	**1.2**	**1.3**
2024	**2.5**	**3.5**
5-year average	**1.9**	**3.2**
Inflation rate (annual average rate)		
2022	**2.3**	**2.2**
2023	**2.2**	**2.3**
2024	**2.2**	**2.3**
5-year average	**2.2**	**2.4**
Probability	**55**	**55**

The consensus Upside scenario

Compared with the consensus Central scenario, the consensus Upside scenario features a faster rate of GDP growth during the first two years, before converging to long-run trend. The scenario is consistent with a number of key upside risk themes. These include faster resolution of supply chain issues; a rapid and peaceful conclusion to the Russia-Ukraine war; and the de-escalation of tensions between the US and China.

The following table describes key macroeconomic variables and the probabilities assigned in the consensus Upside scenario.

Consensus Upside scenario best outcome

	Hong Kong	Mainland China
	%	%
GDP growth rate	**12.4 (1Q23)**	**10.2 (2Q23)**
Unemployment rate	**2.8 (3Q23)**	**3.5 (1Q23)**
House price growth	**7.7 (2Q23)**	**6.2 (2Q23)**
Inflation rate	**4.1 (3Q23)**	**5.8 (1Q23)**
Probability	**5**	**5**

Note: Extreme point in the consensus Upside is 'best outcome' in the scenario, for example the highest GDP growth and the lowest unemployment rate, in the first two years of the scenario.Inflation is positively correlated with GDP in the Upside scenario, and the 'best outcome' also refers to the cyclical high point.

Downside scenarios

Downside scenarios explore the intensification and crystallisation of a number of key economic and financial risks.

Inflation and the monetary policy response to it have become concerns for global growth. Supply chain disruptions, caused by the pandemic and Russia's invasion into Ukraine, have led to sharp rises in commodity prices and headline price inflation across many markets. A key concern is that inflation expectations become unanchored from central bank targets, particularly as labour markets and labour supply shortages across some sectors are putting upward pressure on wages. The de-anchoring of inflation expectations would raise the risk that inflation remains elevated for longer, exacerbating cost pressures and the squeeze on household real incomes and corporate margins. In turn, it raises the risk of a more forceful policy response from central banks, a steeper trajectory for interest rates and ultimately, economic recession.

Covid-19-related risks also remain significant. Despite the easing of Covid-19-related restrictions across Europe and North America, the emergence of a new Covid-19 variant with greater vaccine-resistance that necessitates a stringent public health policy response remains a key risk to the global outlook. In Asia, adherence to a stringent public health policy response in Hong Kong and mainland China in response to the circulation of highly virulent Covid-19 strains, presents ongoing risks to growth and global supply chains.

The geopolitical risk backdrop also present a threat. These risks include:

- a prolonged Russia-Ukraine war with escalation beyond Ukraine's borders; and
- continued differences between the US and other countries with China, which could affect sentiment and restrict global economic activity.

The consensus Downside scenario

In the consensus Downside scenario, economic activity is considerably weaker compared with the Central scenario. In this scenario, GDP growth weakens, unemployment rates rise and asset prices fall. The scenario is structured as a demand shock where inflation and commodity prices fall, before gradually recovering towards their long-run trend.

The following table describes key macroeconomic variables and the probabilities assigned in the consensus Downside scenario.

Consensus Downside scenario worst outcome

	Hong Kong	Mainland China
	%	%
GDP growth rate	**(2.9) (4Q23)**	**1.3 (1Q23)**
Unemployment rate	**5.4 (4Q22)**	**4.2 (1Q23)**
House price growth	**(8.3) (3Q23)**	**(4.3) (2Q23)**
Inflation rate	**(0.5) (3Q23)**	**(0.7) (3Q23)**
Probability	**20**	**30**

Note: Extreme point in the consensus Downside is 'worst outcome' in the scenario, for example the lowest GDP growth and the highest unemployment rate, in the first two years of the scenario. Inflation is positively correlated with GDP in the Downside scenario, and the 'worst outcome' refers to the cyclical low point.

Downside 1 scenario

An additional Downside scenario has been created to explore the implications of a prolonged period of high price inflation, a more aggressive upward path for policy interest rates, higher unemployment and a global recession.

In this scenario the war in Ukraine leads to a sustained supply shock that keeps inflation elevated above the baseline for a longer period than in the other scenarios. The scenario assumes that major central banks are slow to respond, but as inflation expectations start to de-anchor from the inflation target, they resort to taking stronger action. The rise in interest rates is expected to cause a severe credit crunch that ultimately results in a global economic contraction later in the projection period.

The following table describes key macroeconomic variables and the probabilities assigned in the Downside 1 scenario.

Downside 1 scenario worst outcome

	Hong Kong	Mainland China
	%	%
GDP growth rate	**(3.0) (4Q23)**	**(1.2) (1Q25)**
Unemployment rate	**6.5 (4Q24)**	**4.8 (1Q25)**
House price growth	**(7.6) (2Q25)**	**(9.8) (3Q23)**
Inflation rate	**4.2 (1Q23)**	**4.2 (1Q23)**
Probability	**15**	**5**

Note: Extreme point in the Downside 1 is 'worst outcome' in the scenario, for example the lowest GDP growth and the highest unemployment rate.

Downside 2 scenario

The Downside 2 scenario features a deep global recession and reflects management's view of the tail of the economic risk distribution. It incorporates the crystallisation of a number of risks simultaneously, including further escalation of the Russia-Ukraine war, worsening of supply chain disruptions and the emergence of a vaccine resistant Covid-19 variant that necessitates a stringent public health policy response.

This scenario features an initial supply side shock that pushes up inflation. This impulse is expected to prove short lived as a large downside demand shock causes commodity prices to correct sharply and global price inflation to slow as a severe and prolonged recession takes hold.

The following table describes key macroeconomic variables and the probabilities assigned in the Downside 2 scenario.

Downside 2 scenario worst outcome

	Hong Kong	Mainland China
	%	%
GDP growth rate	**(9.3) (2Q23)**	**(5.0) (2Q23)**
Unemployment rate	**5.9 (2Q23)**	**5.4 (2Q24)**
House price growth	**(10.8) (3Q23)**	**(18.7) (2Q23)**
Inflation rate	**(0.5) (1Q24)**	**1.4 (2Q24)**
Probability	**5**	**5**

Note: Extreme point in the additional Downside is 'worst outcome' in the scenario, for example the lowest GDP growth and the highest unemployment rate, in the first two years of the scenario. After a temporary increase, inflation remains positively correlated with GDP in the Downside 2 scenario, and the 'worst outcome' refers to the scenario low point.

Scenario weightings

In reviewing the economic conjuncture, the level of uncertainty and risk, management has considered both global and market-specific factors. This has led management to assigning scenario probabilities that are tailored to its view of uncertainty in individual markets.

A key consideration in the first half of 2022 has been the high level of uncertainty attached to the Central scenario projections. These concerns focused on:

- the risks of higher inflation given the risks attached to gas supply security in Europe and global oil supply, which raises the possibility of a more significant impact on real incomes and GDP growth;
- market interest rate expectations that imply a rapid and significant change to the interest rate environment;
- the progression of the Covid-19 pandemic in Asian countries/ territories and the impact of stringent public policy responses on growth in the region and global supply chains.

In mainland China and Hong Kong, increased weights have been assigned to Downside scenarios in light of the stringent public health response to the Covid-19 pandemic, the virulence of current strains, and the observed impact on economic activity of the recent restrictions. The consensus Upside and Central scenarios in both markets had a combined weighting of 60%.

Critical accounting estimates and judgements

The calculation of ECL under HKFRS 9 involves significant judgements, assumptions and estimates, as set out in the *Annual Report and Accounts 2021* under 'Critical accounting estimates and judgements'. The level of estimation uncertainty and judgement has remained high since 31 December 2021 including significant judgements relating to:

- the selection and weighting of economic scenarios, given rapidly changing economic conditions and a wide distribution of economic forecasts. There is judgement in making assumptions about the effects of inflation, supply chain disruption and length of time and severity of the continuing economic effects of the pandemic and health policy responses;
- estimating the economic effects of those scenarios on ECL, in particular as the historical relationship between macroeconomic variables and defaults might not reflect the dynamics of high inflation scenarios.

How economic scenarios are reflected in ECL calculations

The methodologies for the application of forward economic guidance into the calculation of ECL for wholesale and retail loans and portfolios are set out on page 37 of the *Annual Report and Accounts 2021*. Models are used to reflect economic scenarios on ECL estimates. These models are based largely on historical observations and correlations with default.

Economic forecasts and ECL model response to these forecasts are subject to a high degree of uncertainty in the current environment, and models continue to be supplemented by management judgemental adjustments where required.

Management judgemental adjustments

In the context of HKFRS 9, management judgemental adjustments are typically short-term increases or decreases to the ECL at either a customer, segment or portfolio level to account for late-breaking events, model deficiencies and other assessments applied during management review and challenge.

This includes refining model inputs and outputs and using post-model adjustments based on management judgement and higher level quantitative analysis for impacts that are difficult to model.

The wholesale and retail management judgemental adjustments are presented as part of the global business impairment committees with representation from Model Risk Management. This is in line with the governance process for HKFRS 9 as set out on page 29 of the *Annual Report and Accounts 2021*.

The drivers of the management judgemental adjustments continue to evolve with the economic environment.

We have internal governance in place to monitor management judgemental adjustments regularly and, where possible, to reduce the reliance on these through model recalibration or redevelopment, as appropriate.

Wider-ranging model changes will take time to develop and need observable loss data on which models can be developed. Models will be revisited over time once the longer-term impacts of the Covid-19 outbreak are observed. Therefore, we continue to anticipate significant management judgemental adjustments for the foreseeable future.

Management judgemental adjustments made in estimating the reported ECL at 30 June 2022 are set out in the following table.

Management judgemental adjustments to ECL at 30 June 2022[1]

	Retail HK$bn	Wholesale HK$bn	Total HK$bn
Banks, sovereigns and government entities	**(0.1)**	**0.1**	**—**
Corporate lending adjustments	**—**	**2.0**	**2.0**
Inflation-related adjustments	**0.1**	**—**	**0.1**
Macroeconomic-related adjustments	**0.5**	**—**	**0.5**
Pandemic-related economic recovery adjustments	**0.4**	**—**	**0.4**
Other retail lending adjustments	**0.5**	**—**	**0.5**
Total	**1.4**	**2.1**	**3.5**

Management judgemental adjustments to ECL at 31 December 2021[1]

	Retail HK$bn	Wholesale HK$bn	Total HK$bn
Banks, sovereigns and government entities	0.1	(0.2)	(0.1)
Corporate lending adjustments	—	4.1	4.1
Inflation-related adjustments	—	—	—
Macroeconomic-related adjustments	(0.4)	—	(0.4)
Pandemic-related economic recovery adjustments	0.6	—	0.6
Other retail lending adjustments	0.7	—	0.7
Total	1.0	3.9	4.9

1 *Management judgemental adjustments presented in the table reflect increases or (decreases) to ECL, respectively.*

In the wholesale portfolio, management judgemental adjustments were:

- Adjustments relating to banks, sovereigns and government entities considering the possible pathways of the treatment of Sri Lankan local currency sovereign debt under a possible International Monetary Fund restructuring programme.
- Adjustments to corporate exposures principally reflected the outcome of management judgements for high-risk and vulnerable sectors in some of our key markets, supported by credit experts' input, quantitative analyses and benchmarks. Considerations included potential default suppression in some sectors due to continued government intervention and in light of the continuing challenging forward-looking economic indicators, especially the impacts of rising inflation and rates linked to the US. The adjustment is lower than 31 December 2021 and reflects the greater alignment of the modelled ECL, notably in Hong Kong and mainland China, with management's expectation reflecting the latest macroeconomic variables forecast, the latest CRR downgrades, and deterioration of scenario weighting in mainland China.

In the retail portfolio, management judgemental adjustments mainly relate to macroeconomic conditions and customer support programmes.

In the retail portfolio, management judgemental adjustments were an ECL increase of HK$1.4bn at 30 June 2022 (31 December 2021: HK$1.0bn increase).

- Inflation-related adjustments increased ECL by HK$0.1bn (31 December 2021: HK$0.0bn). These adjustments address where country-specific inflation risks were not fully captured by the modelled output.
- Macroeconomic-related adjustments increased ECL by HK$0.5bn (31 December 2021: HK$0.4bn decrease). These adjustments were primarily in relation to model oversensitivity as well as country-specific risks related to future macroeconomic conditions.
- Pandemic-related economic recovery adjustments increased ECL by HK$0.4bn (31 December 2021: HK$0.6bn increase) to adjust for the effects of the volatile pace of recovery from the pandemic where in management's judgement this leads to modelled outcomes that are overly sensitive given the limited observed deterioration in the underlying portfolio during the period. This adjustment was made only for markets where there are remaining concerns regarding Covid-19.
- Other retail lending adjustments increased ECL by HK$0.5bn (31 December 2021: HK$0.7bn increase) reflecting those who remain in or have recently exited customer support programmes and all other data and model adjustments.

Economic scenarios sensitivity analysis of ECL estimates

Management considered the sensitivity of the ECL outcome against the economic forecasts as part of the ECL governance process by recalculating the ECL under each scenario described above for selected portfolios, applying a 100% weighting to each scenario in turn. The weighting is reflected in both the determination of a significant increase in credit risk and the measurement of the resulting ECL.

The ECL calculated for the Upside and Downside scenarios should not be taken to represent the upper and lower limits of possible ECL outcomes. The impact of defaults that might occur in the future under different economic scenarios is captured by recalculating ECL for loans in stages 1 and 2 at the balance sheet date. The population of stage 3 loans (in default) at the balance sheet date is unchanged in these sensitivity calculations. Stage 3 ECL would only be sensitive to changes in forecasts of future economic conditions if the loss-given default of a particular portfolio was sensitive to these changes.

There is a particularly high degree of estimation uncertainty in numbers representing tail risk scenarios when assigned a 100% weighting.

For wholesale credit risk exposures, the sensitivity analysis excludes ECL and financial instruments related to defaulted obligors because the measurement of ECL is relatively more sensitive to credit factors specific to the obligor than future economic scenarios. Therefore, it is impracticable to separate the effect of macroeconomic factors in individual assessments.

For retail credit risk exposures, the sensitivity analysis includes ECL for loans and advances to customers related to defaulted obligors. This is because the retail ECL for secured mortgage portfolios, including loans in all stages is sensitive to macroeconomic variables.

Wholesale and retail sensitivity

The wholesale and retail sensitivity analyses are stated inclusive of management judgemental adjustments, as appropriate to each scenario. The results tables exclude portfolios held by the insurance business and small portfolios, and as such cannot be directly compared with personal and wholesale lending presented in other credit risk tables. Additionally, in both the wholesale and retail analysis, the Downside 1 scenario was only introduced during the first half of 2022 and therefore was not present at 31 December 2021.

Wholesale analysis

HKFRS 9 ECL sensitivity to future economic conditions[1]

	Hong Kong	Mainland China
ECL of loans and advances to customers at 30 June 2022[2]	**HK$m**	**HK$m**
Reported ECL	**4,192**	**1,694**
Central scenario ECL	**3,257**	**1,127**
Upside scenario ECL	**2,244**	**486**
Downside scenario ECL	**5,514**	**2,339**
Downside 1 ECL	**5,019**	**2,978**
Downside 2 scenario ECL	**10,301**	**5,717**
ECL of loans and advances to customers at 31 December 2021[2]		
Reported ECL	5,981	1,162
Central scenario ECL	5,085	881
Upside scenario ECL	3,712	281
Downside scenario ECL	7,674	1,684
Downside 2 scenario ECL	14,575	6,286

1 *ECL sensitivities exclude portfolios utilising less complex modelling approaches.*
2 *ECL sensitivity includes off-balance sheet financial instruments that are subject to significant measurement uncertainty.*

At 30 June 2022, the Downside 2 scenario reflects the most significant level of ECL sensitivity in Hong Kong and mainland China due to the combination of potential for deterioration of the credit quality on those markets and level of exposure.

The most significant level of ECL sensitivity related to the judgements over the mainland China offshore real estate portfolio booked in Hong Kong.

Retail analysis

HKFRS 9 ECL sensitivity to future economic conditions[1]

	Hong Kong
ECL of loans and advances to customers at 30 June 2022[2]	**HK$m**
Reported ECL	**2,637**
Central scenario ECL	**2,350**
Upside scenario ECL	**2,086**
Downside scenario ECL	**2,939**
Downside 1 scenario ECL	**3,306**
Downside 2 scenario ECL	**3,743**
ECL of loans and advances to customers at 31 December 2021[2]	
Reported ECL	2,554
Central scenario ECL	2,395
Upside scenario ECL	1,884
Downside scenario ECL	2,802
Downside 2 scenario ECL	4,198

1 *ECL sensitivities exclude portfolios utilising less complex modelling approaches.*
2 *ECL sensitivity includes only on-balance sheet financial instruments to which HKFRS 9 impairment requirements are applied.*

At 30 June 2022, the most significant level of ECL sensitivity was observed in Hong Kong driven by the relative size of the portfolio.

Treasury risk

Capital

The following tables show the capital ratios, risk-weighted assets ('RWAs') and capital base on a consolidated basis, in accordance with the Banking (Capital) Rules:

Capital ratios and RWAs

	At	
	30 Jun 2022	31 Dec 2021
	%	%
Capital ratios		
Common equity tier 1 ('CET1') ratio	**14.4**	15.4
Tier 1 capital ratio	**16.0**	16.8
Total capital ratio	**17.9**	18.7
	HK$m	HK$m
RWAs	**3,252,522**	3,156,553

The following table sets out the composition of the group's capital base under Basel III at 30 June 2022.

Capital base

	At	
	30 Jun 2022	31 Dec 2021
	HK$m	HK$m
Common equity tier 1 ('CET1') capital		
Shareholders' equity	**711,336**	714,139
– shareholders' equity per balance sheet	**858,449**	856,809
– revaluation reserve capitalisation issue	**(1,454)**	(1,454)
– other equity instruments	**(52,386)**	(44,615)
– unconsolidated subsidiaries	**(93,273)**	(96,601)
Non-controlling interests	**30,586**	28,730
– non-controlling interests per balance sheet	**65,453**	66,702
– non-controlling interests in unconsolidated subsidiaries	**(11,342)**	(11,800)
– surplus non-controlling interests disallowed in CET1	**(23,525)**	(26,172)
Regulatory deductions to CET1 capital	**(274,563)**	(258,215)
– valuation adjustments	**(2,521)**	(1,834)
– goodwill and intangible assets	**(30,217)**	(28,883)
– deferred tax assets net of deferred tax liabilities	**(4,781)**	(3,353)
– cash flow hedging reserve	**341**	(60)
– changes in own credit risk on fair valued liabilities	**(4,676)**	1,322
– defined benefit pension fund assets	**(12)**	(18)
– significant loss-absorbing capacity ('LAC') investments in unconsolidated financial sector entities	**(145,999)**	(139,239)
– property revaluation reserves[1]	**(67,400)**	(67,563)
– regulatory reserve	**(19,298)**	(18,587)
Total CET1 capital	**467,359**	484,654
Additional tier 1 ('AT1') capital		
Total AT1 capital before regulatory deductions	**54,043**	46,073
– perpetual subordinated loans	**52,386**	44,615
– allowable non-controlling interests in AT1 capital	**1,657**	1,458
Regulatory deductions to AT1 capital	**(11)**	(26)
– significant LAC investments in unconsolidated financial sector entities	**(11)**	(26)
Total AT1 capital	**54,032**	46,047
Total tier 1 capital	**521,391**	530,701
Tier 2 capital		
Total tier 2 capital before regulatory deductions	**68,653**	67,802
– perpetual subordinated debt[2]	**—**	3,119
– term subordinated debt	**18,851**	14,972
– property revaluation reserves[1]	**30,984**	31,057
– impairment allowances and regulatory reserve eligible for inclusion in tier 2 capital	**17,135**	17,471
– allowable non-controlling interests in tier 2 capital	**1,683**	1,183
Regulatory deductions to tier 2 capital	**(6,353)**	(8,025)
– significant LAC investments in unconsolidated financial sector entities	**(6,353)**	(8,025)
Total tier 2 capital	**62,300**	59,777
Total capital	**583,691**	590,478

1 *Includes the revaluation surplus on investment properties which is reported as part of retained earnings and adjustments made in accordance with the Banking (Capital) Rules issued by the HKMA.*
2 *This tier 2 capital instrument is grandfathered under Basel III and has been phased out in full after 31 December 2021.*

Liquidity and funding risk

Overview

Liquidity risk is the risk that we do not have sufficient financial resources to meet our obligations as they fall due. Liquidity risk arises from mismatches in the timing of cash flows.

Funding risk is the risk that we cannot raise funding or can only do so at excessive cost.

The group has comprehensive policies, metrics and controls, which aim to allow us to withstand severe but plausible liquidity stresses. The group manages liquidity and funding risk at an operating entity level to make sure that obligations can be met in the jurisdiction where they fall due, generally without reliance on other parts of the group.

Operating entities are required to meet internal minimum requirements and any applicable regulatory requirements at all times. These requirements are assessed through the Internal Liquidity Adequacy Assessment Process ('ILAAP'), which ensures that operating entities have robust strategies, policies, processes and systems for the identification, measurement, management and monitoring of liquidity risk over an appropriate set of time horizons, including intra-day. The ILAAP informs the validation of risk tolerance and the setting of risk appetite. It also assesses the capability to manage liquidity and funding effectively in each major entity. Liquidity and funding risk metrics are set and managed locally but are subject to robust global review and challenge to ensure consistency of approach and application of the Group's policies and controls.

Framework

The Global Treasury function is responsible for the application of policies and controls at a local operating entity level. The elements of liquidity and funding risk management framework are underpinned by a robust governance framework, with the two major elements being:

- Asset and Liability Management Committees ('ALCOs') at the group and entity level; and
- annual ILAAP used to validate risk tolerance and set risk appetite.

All operating entities are required to prepare an ILAAP document at appropriate frequency. Compliance with liquidity and funding requirements is monitored and reported to ALCO, RMM and the Executive Committee on a regular basis.

Liquidity and Funding Risk management processes include:

- maintaining compliance with relevant regulatory requirements of the operating entity;
- projecting cash flows under various stress scenarios and considering the level of liquid assets necessary in relation thereto;
- monitoring liquidity and funding ratios against internal and regulatory requirements;
- maintaining a diverse range of funding sources with adequate back-up facilities;
- managing the concentration and profile of term funding;
- managing contingent liquidity commitment exposures within pre-determined limits;
- maintaining debt financing plans;
- monitoring of depositor concentration in order to avoid undue reliance on large individual depositors and ensuring a satisfactory overall funding mix; and
- maintaining liquidity and funding contingency plans. These plans identify early indicators of stress conditions and describe actions to be taken in the event of difficulties arising from systemic or other crises, while minimising adverse long-term implications for the business.

Management of liquidity and funding risk

Funding and liquidity plans form part of the financial resource plan that is approved by the Board. The Board-level appetite measures are the liquidity coverage ratio ('LCR') and net stable funding ratio ('NSFR'). Operating entities have internal liquidity metrics ('ILM') to supplement the regulatory liquidity metrics. An appropriate funding and liquidity profile is managed through a wider set of measures:

- a minimum LCR requirement;
- a minimum NSFR requirement or other appropriate metric;
- an ILM requirement;
- a legal entity depositor concentration limit;
- cumulative term funding maturity concentrations limit;
- a minimum LCR requirement by currency;
- intra-day liquidity;
- the application of liquidity funds transfer pricing; and
- forward-looking funding assessments.

Sources of funding

Our primary sources of funding are customer current accounts and customer savings deposits payable on demand or at short notice. We issue wholesale securities (secured and unsecured) to supplement our customer deposits and change the currency mix, maturity profile or location of our liabilities.

Currency mismatch in the LCR

Group policy requires all operating entities to monitor material single currency LCR. Limits are set to ensure that outflows can be met, given assumptions on stressed capacity in the FX swap markets.

Additional collateral obligations

Under the terms of our current collateral obligations of 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 immaterial.

Liquidity and funding risk in the first half of 2022

The group is required to calculate its LCR and NSFR on a consolidated basis in accordance with rule 11(1) of The Banking (Liquidity) Rules ('BLR'), and is required to maintain both LCR and NSFR of not less than 100%.

The average LCR of the group for the period is as follows:

	Quarter ended	
	30 Jun 2022	31 Dec 2021
	%	%
Average LCR	**154.5**	154.3

The average LCR increased marginally by 0.2 percentage points from 154.3% for the quarter ended 31 December 2021 to 154.5% for the quarter ended 30 June 2022.

The majority of high quality liquid assets ('HQLA') included in the LCR are Level 1 assets as defined in the BLR, which consist mainly of government debt securities.

The total weighted amount of HQLA of the group for the period are as follows:

	Weighted amount (average value) at quarter ended	
	30 Jun 2022	31 Dec 2021
	HK$m	HK$m
Level 1 assets	**1,802,138**	1,767,933
Level 2A assets	**84,082**	79,368
Level 2B assets	**66,812**	64,106
Total	**1,953,032**	1,911,407

The NSFR of the group for the period is as follows:

	At	
	30 Jun 2022	31 Dec 2021
	%	%
Net stable funding ratio	**149.5**	151.9

The NSFR decreased by 2.4 percentage points from 151.9% for the quarter ended 31 December 2021 to 149.5% for the quarter ended 30 June 2022.

Interdependent assets and liabilities included in the group's NSFR are certificates of indebtedness held and legal tender notes issued.

Further details of the group's liquidity information disclosures can be viewed in the *Banking Disclosure Statement at 30 June 2022.*

Market Risk

Overview

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.

A summary of our current policies and practices for the management of market risk is set out in 'Market risk management' on pages 57 to 59 of the Annual Report and Accounts 2021.

Market risk in the first half of 2022

Rising global recession risks and concerns over high inflation were the dominant macro market themes during the first half of 2022. Heightened geopolitical risks from the Russia-Ukraine war and continued Covid-19 pandemic restrictions in Asia led to supply chain disruptions resulting in higher energy, commodity and food prices. The majority of Asian central banks are stepping up in tightening monetary policies at a much faster pace than anticipated in order to counter rising inflation. Bond markets sold off sharply with a rapid rise of yield curves to multi-year highs. Market sentiment in credit markets was much weaker from credit spreads widening for both investment-grade and high-yield debts towards the widest level since the start of the Covid-19 pandemic. In particular, the mainland China commercial real estate sector remained weak amid increasing number of credit rating downgrades and defaults, fuelled further from China's growth concern. Recession risks and tightening liquidity conditions led to moderate sell offs in global equity markets. FX markets performance was dominated by the US dollar strengthening due to global geopolitical instability and the US Federal Reserve monetary tightening pace.

VaR remained within overall risk appetite as the business pursued its core market-making activity in support of our customers. Market risk was managed using a complementary set of risk measures and limits including stress test and scenario analysis.

Trading portfolios

Value at risk of the trading portfolios

Trading value at risk ('VaR') was predominantly generated by Markets & Securities Services. Interest rate risks from market-making activities were the main drivers of trading VaR. Total trading VaR was lower as at 30 June 2022 compared with 31 December 2021 mainly due to the increase in portfolio diversification across different asset class VaRs.

The trading VaR for the period is shown in the table below.

Trading value at risk, 99% 1 day[1]

	Foreign exchange and commodity	Interest rate	Equity	Credit spread	Portfolio diversification[2]	Total[3]
	HK$m	**HK$m**	**HK$m**	**HK$m**	**HK$m**	**HK$m**
Half-year to 30 Jun 2022						
Period end	**41**	**158**	**52**	**35**	**(110)**	**176**
Average	**44**	**171**	**56**	**28**		**203**
Maximum	**78**	**217**	**80**	**43**		**259**
Half-year to 30 Jun 2021						
Period end	50	179	77	29	(154)	181
Average	52	148	72	31		159
Maximum	77	212	107	62		213
Half-year to 31 Dec 2021						
Period end	36	135	60	31	(74)	188
Average	47	166	82	37		190
Maximum	72	218	105	50		241

1 *Trading portfolios comprise positions arising from the market-making and warehousing of customer-derived positions.*
2 *Portfolio diversification is the market risk dispersion effect of holding a portfolio containing different risk types. It represents the reduction in unsystematic market risk that occurs when combining a number of different risk types, for example, interest rate, equity and foreign exchange, together in one portfolio. It is measured as the difference between the sum of the VaR by individual risk type and the combined total VaR. A negative number represents the benefit of portfolio diversification. As the maximum and minimum occur on different days for different risk types, it is not meaningful to calculate a portfolio diversification benefit for these measures.*
3 *The total VaR is non-additive across risk types due to diversification effects.*

Insurance manufacturing operations risk management

Overview

The key risks for our insurance manufacturing operations are market risks, in particular interest rate, growth asset, and credit risks, as well as insurance underwriting and operational risks. Liquidity risk, while significant for other parts of the group, is relatively minor for our insurance operations.

A summary of our policies and practices regarding the risk management of insurance operations, our insurance model and the main contracts we manufacture is provided on pages 62 to 63 of the Annual Report and Accounts 2021.

There have been no material changes to the policies and practices for the management of risks arising in our insurance operations described in the *Annual Report and Accounts 2021.*

Insurance manufacturing operations risk profile in the first half of 2022

The risk profile of our insurance manufacturing operations is assessed in the group's ICAAP based on their financial capacity to support the risks which they are exposed to. Capital adequacy is assessed on both the Group's economic capital basis, and the relevant local insurance regulatory basis. The economic capital basis for the Hong Kong based manufacturing entities is largely aligned to the emerging Hong Kong risk-based capital regulations. Risk appetite buffers are set to ensure that the operations are able to remain solvent on both bases allowing for business-as-usual volatility and extreme but plausible stress events. In addition, the insurance manufacturing operations manage their market, liquidity, credit, underwriting and non-financial risk exposures to Board-approved risk appetite limits.

Equity values, which are a key risk driver for the financial strength of the insurance operations, in general fell during the first half of the year. This was partly offset by the impact of rising interest rates. Overall, at 30 June 2022 the majority of the capital and financial risk positions of our insurance operations were within risk appetite. However, the impact of changes in market factors, relative to the economic assumptions in place at the start of the year, had a negative impact on reported profit before tax of HK$6.2bn (first half of 2021: HK$1.4bn positive). We continue to monitor these risks closely in the current volatile economic climate.

The table below shows the composition of assets and liabilities by contract type and 89% (2021: 92%) of both assets and liabilities are derived from Hong Kong.

Balance sheet of insurance manufacturing subsidiaries by type of contract[4]

	Non-linked	Unit-linked	Shareholders' assets and liabilities	Total
	HK$m	HK$m	HK$m	HK$m
At 30 Jun 2022				
Financial assets	**693,332**	**37,356**	**40,604**	**771,292**
– financial assets designated and otherwise mandatorily measured at fair value	**175,948**	**35,704**	**382**	**212,034**
– derivatives	**855**	**1**	**6**	**862**
– financial investments measured at amortised cost	**467,030**	**441**	**34,379**	**501,850**
– financial investments measured at fair value through other comprehensive income	**5,632**	**—**	**746**	**6,378**
– other financial assets[1]	**43,867**	**1,210**	**5,091**	**50,168**
Reinsurance assets	**31,132**	**9**	**—**	**31,141**
PVIF[2]	**—**	**—**	**71,075**	**71,075**
Other assets and investment properties	**14,155**	**26**	**6,561**	**20,742**
Total assets	**738,619**	**37,391**	**118,240**	**894,250**
Liabilities under investment contracts designated at fair value	**26,730**	**8,079**	**—**	**34,809**
Liabilities under insurance contracts	**665,575**	**23,593**		**689,168**
Deferred tax[3]	**529**	**—**	**11,902**	**12,431**
Other liabilities	**—**	**—**	**39,782**	**39,782**
Total liabilities	**692,834**	**31,672**	**51,684**	**776,190**
Total equity	**—**	**—**	**118,060**	**118,060**
Total equity and liabilities	**692,834**	**31,672**	**169,744**	**894,250**
At 31 Dec 2021				
Financial assets	637,317	37,382	46,971	721,670
– financial assets designated and otherwise mandatorily measured at fair value	160,555	35,906	457	196,918
– derivatives	631	6	3	640
– financial investments measured at amortised cost	432,733	479	37,734	470,946
– financial investments measured at fair value through other comprehensive income	5,780	—	592	6,372
– other financial assets[1]	37,618	991	8,185	46,794
Reinsurance assets	28,874	6	—	28,880
PVIF[2]	—	—	63,765	63,765
Other assets and investment properties	13,626	4	5,304	18,934
Total assets	679,817	37,392	116,040	833,249
Liabilities under investment contracts designated at fair value	28,397	7,030	—	35,427
Liabilities under insurance contracts	608,590	29,645	—	638,235
Deferred tax[3]	9	—	10,579	10,588
Other liabilities	—	—	35,269	35,269
Total liabilities	636,996	36,675	45,848	719,519
Total equity	—	—	113,730	113,730
Total equity and liabilities	636,996	36,675	159,578	833,249

1 *Comprise mainly loans and advances to banks, cash and inter-company balances with other non-insurance legal entities.*
2 *Present value of in-force long-term insurance business.*
3 *'Deferred tax' includes the deferred tax liabilities arising on recognition of PVIF.*
4 *Balance sheet of insurance manufacturing operations is shown before elimination of inter-company transactions with HSBC non-insurance operations.*

Market risk

Description and exposure

Market risk is the risk of changes in market factors affecting capital or profit. Market factors include interest rates, equity and growth assets and foreign exchange rates.

Our exposure varies depending on the type of contract issued. Our most significant life insurance products are contracts with discretionary participating features ('DPF'). These products typically include some form of capital guarantee or guaranteed return on the sums invested by the policyholders, to which discretionary bonuses are added if allowed by the overall performance of the funds. These funds are primarily invested in bonds, with a proportion allocated to other asset classes to provide customers with the potential for enhanced returns.

DPF products expose the group to the risk of variation in asset returns, which will impact our participation in the investment performance. In addition, in some scenarios the asset returns can become insufficient to cover the policyholders' financial guarantees, in which case the shortfall has to be met by the group. Reserves are held against the cost of such guarantees, calculated by stochastic modelling.

The cost of such guarantees is accounted for as a deduction from the present value of in-force ('PVIF') asset, unless the cost of guarantees is already explicitly allowed for within the insurance contract liabilities.

For unit-linked contracts, market risk is substantially borne by the policyholders, but some market risk exposure typically remains as fees earned are related to the market value of the linked assets.

Sensitivities

Where appropriate, the effects of the sensitivity tests on profit after tax and total equity incorporate the impact of the stress on the PVIF. The relationship between the profit and total equity, and the risk factors is non-linear; therefore the results disclosed should not be extrapolated to measure sensitivities to different levels of stress. For the same reason, the impact of the stress is not symmetrical on the upside and downside. The sensitivities reflect the established risk-sharing mechanism with policyholders for participating products, and are stated before allowance for management actions which may mitigate the effect of changes in the market environment. The sensitivities presented allow for adverse changes in policyholders' behaviour that may arise in response to changes in market rates. The following table illustrates the effects of selected interest rate, equity price and foreign exchange rate scenarios on our profit for the period and the total equity of our insurance manufacturing subsidiaries.

Sensitivity of the group's insurance manufacturing subsidiaries to market risk factors

	30 Jun 2022		31 Dec 2021	
	Effect on profit after tax	**Effect on total equity**	Effect on profit after tax	Effect on total equity
	HK$m	**HK$m**	HK$m	HK$m
+100 basis points parallel shift in yield curves	**(1,660)**	**(2,431)**	(1,257)	(2,036)
-100 basis points parallel shift in yield curves	**919**	**1,690**	1,201	1,980
10% increase in equity prices	**2,424**	**2,424**	2,388	2,388
10% decrease in equity prices	**(2,527)**	**(2,527)**	(2,426)	(2,426)
10% increase in USD exchange rate compared to all currencies	**1,018**	**1,018**	635	635
10% decrease in USD exchange rate compared to all currencies	**(1,018)**	**(1,018)**	(635)	(635)

Statement of Directors' responsibilities

The Directors, the names of whom are set out below, confirm to the best of their knowledge that:

- the Interim condensed consolidated financial statements of the group have been prepared in accordance with Hong Kong Accounting Standard ('HKAS') 34 'Interim Financial Reporting' as issued by the Hong Kong Institute of Certified Public Accountants; and
- the Interim Report includes a fair review of the information required by DTR 4.2.7R of the Disclosure Guidance and Transparency Rules sourcebook of the UK's Financial Conduct Authority, being an indication of important events that have occurred during the first six months of the financial year ending 31 December 2022 and their impact on the Interim condensed consolidated financial statements; and a description of the principal risks and uncertainties for the remaining six months of the financial year.

Peter Tung Shun WONG#, GBS, JP (Chairman)

David Gordon ELDON#, GBS, CBE, JP (Deputy Chairman)

David Yi Chien LIAO (Co-Chief Executive Officer)

Surendranath Ravi ROSHA (Co-Chief Executive Officer)

Sonia Chi Man CHENG*

Yiu Kwan CHOI*

Andrea Lisa DELLA MATTEA*

Rajnish KUMAR*

Beau Khoon Chen KUOK*

Irene Yun-lien LEE*

Victor Tzar Kuoi LI#

Ewen James STEVENSON#

Kevin Anthony WESTLEY*, BBS

* independent non-executive Director

non-executive Director

On behalf of the Board

Peter Wong

Chairman

1 August 2022

Independent review report by PricewaterhouseCoopers

Report On Review of the Interim condensed consolidated financial statements
To the Board of Directors of The Hongkong and Shanghai Banking Corporation Limited

(incorporated in Hong Kong with limited liability)

Introduction

We have reviewed the Interim condensed consolidated financial statements set out on pages 26 to 43, which comprise the consolidated balance sheet of The Hongkong and Shanghai Banking Corporation Limited (the 'Bank') and its subsidiaries (together, the 'group') as at 30 June 2022 and the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the six-month period then ended, and a summary of significant accounting policies and other explanatory notes[1]. The directors of the Bank are responsible for the preparation and presentation of the Interim condensed financial statements in accordance with Hong Kong Accounting Standard 34 'Interim Financial Reporting' issued by the Hong Kong Institute of Certified Public Accountants and the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority. Our responsibility is to express a conclusion on these Interim condensed consolidated financial statements based on our review and to report our conclusion solely to you, as a body, in accordance with our agreed terms of engagement and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report.

1 *Certain required disclosures as described in note 1(g) on the Interim condensed consolidated financial statements have been presented elsewhere in the* Interim Report 2022, *rather than in the notes on the Interim condensed consolidated financial statements. These are cross-referenced from the Interim condensed consolidated financial statements and are identified as reviewed.*

Scope of Review

We conducted our review in accordance with International Standard on Review Engagements (UK) 2410, 'Review of Interim Financial Information Performed by the Independent Auditor of the Entity' issued by the United Kingdom's Financial Reporting Council. A review of interim financial information consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (UK) and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the interim condensed consolidated financial statements of the group are not prepared, in all material respects, in accordance with Hong Kong Accounting Standard 34 'Interim Financial Reporting' and the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority.

PricewaterhouseCoopers
Certified Public Accountants

Hong Kong
1 August 2022

Interim condensed consolidated financial statements

Consolidated income statement

	Half-year to	
	30 Jun 2022	30 Jun 2021
	HK$m	HK$m
Net interest income	**53,253**	48,741
– interest income	**67,458**	60,260
– interest expense	**(14,205)**	(11,519)
Net fee income	**19,640**	24,005
– fee income	**26,418**	29,941
– fee expense	**(6,778)**	(5,936)
Net income from financial instruments held for trading or managed on a fair value basis	**17,855**	15,585
Net income/(expense) from assets and liabilities of insurance businesses, including related derivatives, measured at fair value through profit or loss	**(10,601)**	13,197
Changes in fair value of designated debts issued and related derivatives	**(447)**	(312)
Changes in fair value of other financial instruments mandatorily measured at fair value through profit or loss	**31**	(27)
Gains less losses from financial investments	**(232)**	1,133
Net insurance premium income	**48,059**	32,230
Other operating income/(expense)	**7,671**	(180)
Total operating income	**135,229**	134,372
Net insurance claims and benefits paid and movement in liabilities to policyholders	**(43,256)**	(41,520)
Net operating income before change in expected credit losses and other credit impairment charges	**91,973**	92,852
Change in expected credit losses and other credit impairment charges	**(4,144)**	(1,607)
Net operating income	**87,829**	91,245
Employee compensation and benefits	**(20,113)**	(20,246)
General and administrative expenses	**(26,448)**	(24,578)
Depreciation and impairment of property, plant and equipment	**(4,573)**	(4,409)
Amortisation and impairment of intangible assets	**(2,877)**	(2,053)
Total operating expenses	**(54,011)**	(51,286)
Operating profit	**33,818**	39,959
Share of profit in associates and joint ventures	**10,575**	10,548
Profit before tax	**44,393**	50,507
Tax expense	**(7,512)**	(7,868)
Profit for the period	**36,881**	42,639
Attributable to:		
– ordinary shareholders of the parent company	**33,242**	37,545
– other equity holders	**1,853**	1,837
– non-controlling interests	**1,786**	3,257
Profit for the period	**36,881**	42,639

Consolidated statement of comprehensive income

	Half-year to	
	30 Jun 2022	30 Jun 2021
	HK$m	HK$m
Profit for the period	**36,881**	42,639
Other comprehensive income/(expense)		
Items that will be reclassified subsequently to profit or loss when specific conditions are met:		
Debt instruments at fair value through other comprehensive income	**(12,801)**	(2,145)
– fair value losses	**(16,338)**	(1,716)
– fair value (gains)/losses transferred to the income statement	**187**	(996)
– expected credit (recoveries)/losses recognised in the income statement	**162**	(76)
– income taxes	**3,188**	643
Cash flow hedges	**(1,576)**	(325)
– fair value gains	**6,099**	5,309
– fair value gains reclassified to the income statement	**(8,001)**	(5,694)
– income taxes	**326**	60
Share of other comprehensive income/(expense) of associates and joint ventures	**(787)**	480
Exchange differences	**(22,112)**	(805)
Items that will not be reclassified subsequently to profit or loss:		
Property revaluation	**1,672**	2,500
– fair value gains	**2,013**	3,004
– income taxes	**(341)**	(504)
Equity instruments designated at fair value through other comprehensive income	**1,268**	(2,721)
– fair value gains/(losses)	**1,270**	(2,716)
– income taxes	**(2)**	(5)
Changes in fair value of financial liabilities designated at fair value upon initial recognition arising from changes in own credit risk	**5,656**	(392)
– before income taxes	**6,766**	(464)
– income taxes	**(1,110)**	72
Remeasurement of defined benefit asset/liability	**146**	686
– before income taxes	**179**	832
– income taxes	**(33)**	(146)
Other comprehensive expense for the period, net of tax	**(28,534)**	(2,722)
Total comprehensive income for the period	**8,347**	39,917
Attributable to:		
– ordinary shareholders of the parent company	**5,312**	34,996
– other equity holders	**1,853**	1,837
– non-controlling interests	**1,182**	3,084
Total comprehensive income for the period	**8,347**	39,917

Consolidated balance sheet

	Notes	At 30 Jun 2022 HK$m	31 Dec 2021 HK$m
Assets			
Cash and balances at central banks		**233,769**	276,857
Items in the course of collection from other banks		**47,348**	21,632
Hong Kong Government certificates of indebtedness		**344,194**	332,044
Trading assets		**681,035**	777,450
Derivatives		**502,780**	365,167
Financial assets designated and otherwise mandatorily measured at fair value through profit or loss		**219,385**	202,399
Reverse repurchase agreements – non-trading		**875,200**	803,775
Loans and advances to banks		**493,423**	432,247
Loans and advances to customers	3	**3,864,799**	3,840,939
Financial investments	4	**2,099,827**	2,051,575
Amounts due from Group companies		**202,711**	112,719
Interests in associates and joint ventures	5	**189,058**	188,485
Goodwill and intangible assets		**105,323**	95,181
Property, plant and equipment		**128,522**	129,827
Deferred tax assets		**4,928**	3,353
Prepayments, accrued income and other assets		**363,730**	269,743
Total assets		**10,356,032**	9,903,393
Liabilities			
Hong Kong currency notes in circulation		**344,194**	332,044
Items in the course of transmission to other banks		**52,117**	25,701
Repurchase agreements – non-trading		**287,591**	255,374
Deposits by banks		**337,078**	280,310
Customer accounts	6	**6,113,666**	6,177,182
Trading liabilities		**106,297**	92,723
Derivatives		**495,427**	355,791
Financial liabilities designated at fair value		**149,750**	138,965
Debt securities in issue		**107,280**	67,364
Retirement benefit liabilities		**1,712**	1,890
Amounts due to Group companies		**392,567**	356,233
Accruals and deferred income, other liabilities and provisions		**313,462**	219,206
Liabilities under insurance contracts		**689,045**	638,145
Current tax liabilities		**3,097**	2,378
Deferred tax liabilities		**34,818**	32,522
Subordinated liabilities		**4,029**	4,054
Total liabilities		**9,432,130**	8,979,882
Equity			
Share capital		**180,181**	172,335
Other equity instruments		**52,386**	44,615
Other reserves		**117,341**	151,804
Retained earnings		**508,541**	488,055
Total shareholders' equity		**858,449**	856,809
Non-controlling interests		**65,453**	66,702
Total equity		**923,902**	923,511
Total liabilities and equity		**10,356,032**	9,903,393

Consolidated statement of cash flows

	Half-year to	
	30 Jun 2022 HK$m	30 Jun 2021 HK$m
Profit before tax	**44,393**	50,507
Adjustments for non-cash items:		
Depreciation and amortisation	**7,450**	6,462
Net (gain)/loss from investing activities	**312**	(1,243)
Share of profits in associates and joint ventures	**(10,575)**	(10,548)
Gain on disposal of subsidiaries, businesses, associates and joint ventures	**(1)**	(6)
Gain on acquisition of subsidiary	**(556)**	—
Change in expected credit losses gross of recoveries and other credit impairment charges	**4,593**	2,107
Provisions	**162**	277
Share-based payment expense	**380**	512
Other non-cash items included in profit before tax	**(5,074)**	3,364
Change in operating assets	**(272,129)**	(255,831)
Change in operating liabilities	**366,864**	184,338
Elimination of exchange differences	**22,185**	5,533
Dividends received from associates	**70**	77
Contributions paid to defined benefit plans	**(146)**	(156)
Tax paid	**(4,431)**	(4,430)
Net cash from operating activities	**153,497**	(19,037)
Purchase of financial investments	**(648,340)**	(696,433)
Proceeds from the sale and maturity of financial investments	**587,433**	715,439
Purchase of property, plant and equipment	**(1,313)**	(1,286)
Proceeds from sale of property, plant and equipment and assets held for sale	**121**	177
Proceeds from disposal of customer loan portfolios	**601**	1,812
Net investment in intangible assets	**(5,413)**	(4,006)
Net cash outflow on purchase of subsidiaries	**(4,166)**	—
Net cash from investing activities	**(71,077)**	15,703
Issue of ordinary share capital and other equity instruments	**15,617**	—
Purchase of non-controlling interest	**(1,548)**	—
Subordinated loan capital issued[1]	**57,351**	43,632
Subordinated loan capital repaid[1]	**(13,701)**	(19,665)
Dividends paid to shareholders of the parent company and non-controlling interests	**(22,030)**	(38,539)
Net cash from financing activities	**35,689**	(14,572)
Net increase/(decrease) in cash and cash equivalents	**118,109**	(17,906)
Cash and cash equivalents at 1 Jan	**1,055,084**	1,047,807
Exchange differences in respect of cash and cash equivalents	**(54,150)**	(18,788)
Cash and cash equivalents at 30 Jun[2]	**1,119,043**	1,011,113

Interest received in the first half of 2022 was HK$71,362m (first half of 2021: HK$65,677m), interest paid in the first half of 2022 was HK$15,406m (first half of 2021: HK$13,261m) and dividends received in the first half of 2022 was HK$2,927m (first half of 2021: HK$2,101m).

1 *Changes in subordinated liabilities (including those issued to Group companies) during the first half of the year included amounts from issuance and repayments as presented above, and non-cash changes from foreign exchange loss of HK$1,209m in the first half of 2022 (first half of 2021: loss of HK$691m) and fair value loss after hedging of HK$20,926m in the first half of 2022 (first half of 2021: fair value loss of HK$3,808m).*
2 *At 30 June 2022 HK$147,072m (2021:HK$180,085m) was not available for use by the group.*

Consolidated statement of changes in equity

	Half-year to 30 Jun 2022										
				Other reserves							
	Share capital[1]	Other equity instruments	Retained earnings	Property revaluation reserve	Financial assets at FVOCI reserve	Cash flow hedge reserve	Foreign exchange reserve	Other[3]	Total share-holders' equity	Non-controlling interests	Total equity
	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m
At 1 Jan 2022	**172,335**	**44,615**	**488,055**	**64,990**	**3,869**	**153**	**(7,130)**	**89,922**	**856,809**	**66,702**	**923,511**
Profit for the period	**—**	**—**	**35,095**	**—**	**—**	**—**	**—**	**—**	**35,095**	**1,786**	**36,881**
Other comprehensive income/ (expense) (net of tax)	**—**	**—**	**5,828**	**1,572**	**(12,355)**	**(1,351)**	**(21,787)**	**163**	**(27,930)**	**(604)**	**(28,534)**
– debt instruments at fair value through other comprehensive income	**—**	**—**	**—**	**—**	**(12,384)**	**—**	**—**	**—**	**(12,384)**	**(417)**	**(12,801)**
– equity instruments designated at fair value through other comprehensive income	**—**	**—**	**—**	**—**	**975**	**—**	**—**	**—**	**975**	**293**	**1,268**
– cash flow hedges	**—**	**—**	**—**	**—**	**—**	**(1,351)**	**—**	**—**	**(1,351)**	**(225)**	**(1,576)**
– changes in fair value of financial liabilities designated at fair value upon initial recognition arising from changes in own credit risk	**—**	**—**	**5,655**	**—**	**—**	**—**	**—**	**—**	**5,655**	**1**	**5,656**
– property revaluation	**—**	**—**	**—**	**1,572**	**—**	**—**	**—**	**—**	**1,572**	**100**	**1,672**
– remeasurement of defined benefit asset/liability	**—**	**—**	**177**	**—**	**—**	**—**	**—**	**—**	**177**	**(31)**	**146**
– share of other comprehensive income/(expense) of associates and joint ventures	**—**	**—**	**(4)**	**—**	**(946)**	**—**	**—**	**163**	**(787)**	**—**	**(787)**
– exchange differences	**—**	**—**	**—**	**—**	**—**	**—**	**(21,787)**	**—**	**(21,787)**	**(325)**	**(22,112)**
Total comprehensive income/ (expense) for the period	**—**	**—**	**40,923**	**1,572**	**(12,355)**	**(1,351)**	**(21,787)**	**163**	**7,165**	**1,182**	**8,347**
Shares issued[1]	**7,846**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**7,846**	**—**	**7,846**
Other equity instruments issued[2]	**—**	**7,771**	**—**	**—**	**—**	**—**	**—**	**—**	**7,771**	**—**	**7,771**
Dividends to shareholders[4]	**—**	**—**	**(20,198)**	**—**	**—**	**—**	**—**	**—**	**(20,198)**	**(1,832)**	**(22,030)**
Movement in respect of share-based payment arrangements	**—**	**—**	**39**	**—**	**—**	**—**	**—**	**(83)**	**(44)**	**6**	**(38)**
Transfers and other movements[5]	**—**	**—**	**(278)**	**(1,691)**	**44**	**—**	**—**	**1,025**	**(900)**	**(605)**	**(1,505)**
At 30 Jun 2022	**180,181**	**52,386**	**508,541**	**64,871**	**(8,442)**	**(1,198)**	**(28,917)**	**91,027**	**858,449**	**65,453**	**923,902**
	Half-year to 30 Jun 2021										
At 1 Jan 2021	172,335	44,615	478,903	63,793	9,883	772	(10,688)	85,740	845,353	66,178	911,531
Profit for the period	—	—	39,382	—	–	–	–	–	39,382	3,257	42,639
Other comprehensive income/ (expense) (net of tax)	—	—	199	2,296	(3,779)	(291)	(1,007)	33	(2,549)	(173)	(2,722)
– debt instruments at fair value through other comprehensive income	—	—	—	—	(2,023)	—	—	—	(2,023)	(122)	(2,145)
– equity instruments designated at fair value through other comprehensive income	—	—	—	—	(2,181)	—	—	—	(2,181)	(540)	(2,721)
– cash flow hedges	—	—	—	—	—	(291)	—	—	(291)	(34)	(325)
– changes in fair value of financial liabilities designated at fair value upon initial recognition arising from changes in own credit risk	—	—	(392)	—	—	—	—	—	(392)	—	(392)
– property revaluation	—	—	—	2,296	—	—	—	—	2,296	204	2,500
– remeasurement of defined benefit asset/liability	—	—	569	—	—	—	—	—	569	117	686
– share of other comprehensive income of associates and joint ventures	—	—	22	—	425	—	—	33	480	—	480
– exchange differences	—	—	—	—	—	—	(1,007)	—	(1,007)	202	(805)
Total comprehensive income/ (expense) for the period	—	—	39,581	2,296	(3,779)	(291)	(1,007)	33	36,833	3,084	39,917
Dividends to shareholders[4]	—	—	(35,713)	—	—	—	—	—	(35,713)	(2,826)	(38,539)
Movement in respect of share-based payment arrangements	—	—	77	—	—	—	—	(77)	—	(3)	(3)
Transfers and other movements[5]	—	—	1,194	(1,509)	(13)	—	—	892	564	23	587
At 30 Jun 2021	172,335	44,615	484,042	64,580	6,091	481	(11,695)	86,588	847,037	66,456	913,493

Consolidated statement of changes in equity (continued)

	Half-year to 31 Dec 2021										
				Other reserves							
	Share capital[1]	Other equity instruments	Retained earnings	Property revaluation reserve	Financial assets at FVOCI reserve	Cash flow hedge reserve	Foreign exchange reserve	Other[3]	Total share-holders' equity	Non-controlling interests	Total equity
	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m
At 1 Jul 2021	172,335	44,615	484,042	64,580	6,091	481	(11,695)	86,588	847,037	66,456	913,493
Profit for the period	—	—	27,966	—	—	—	—	—	27,966	1,943	29,909
Other comprehensive income/ (expense) (net of tax)	—	—	961	2,063	(2,213)	(328)	4,565	16	5,064	55	5,119
– debt instruments at fair value through other comprehensive income	—	—	—	—	(1,752)	—	—	—	(1,752)	(112)	(1,864)
– equity instruments designated at fair value through other comprehensive income	—	—	—	—	(556)	—	—	—	(556)	(203)	(759)
– cash flow hedges	—	—	—	—	—	(328)	—	—	(328)	(47)	(375)
– changes in fair value of financial liabilities designated at fair value upon initial recognition arising from changes in own credit risk	—	—	913	—	—	—	—	—	913	1	914
– property revaluation	—	—	—	2,063	—	—	—	—	2,063	208	2,271
– remeasurement of defined benefit asset/liability	—	—	43	—	—	—	—	—	43	(5)	38
– share of other comprehensive income of associates and joint ventures	—	—	5	—	95	—	—	16	116	—	116
– exchange differences	—	—	—	—	—	—	4,565	—	4,565	213	4,778
Total comprehensive income/ (expense) for the period	—	—	28,927	2,063	(2,213)	(328)	4,565	16	33,030	1,998	35,028
Dividends to shareholders[4]	—	—	(23,392)	—	—	—	—	—	(23,392)	(1,592)	(24,984)
Movement in respect of share-based payment arrangements	—	—	54	—	—	—	—	(96)	(42)	1	(41)
Transfers and other movements[5]	—	—	(1,576)	(1,653)	(9)	—	—	3,414	176	(161)	15
At 31 Dec 2021	172,335	44,615	488,055	64,990	3,869	153	(7,130)	89,922	856,809	66,702	923,511

1 *Ordinary share capital includes preference shares which have been redeemed or bought back via payments out of distributable profits in previous years. During the first half of 2022, there were 3,138.4m new ordinary shares issued at an issue price of HK$2.5 each.*
2 *During the first half of 2022, there was an additional tier 1 capital instrument issued amounted to US$1,000m on which there were US$10m issue costs.*
3 *The other reserves mainly comprise share of associates' other reserves, purchase premium arising from transfer of business from fellow subsidiaries, property revaluation reserve relating to transfer of properties to a fellow subsidiary and the share-based payment reserve. The share-based payment reserve is used to record the amount relating to share awards and options granted to employees of the group directly by HSBC Holdings plc.*
4 *Including distributions paid on perpetual subordinated loans classified as equity under HKFRS.*
5 *The movement from retained earnings to other reserves includes the relevant transfers in associates according to local regulatory requirements, and from the property revaluation reserve to retained earnings in relation to depreciation of revalued properties.*

Notes on the Interim condensed consolidated financial statements

1 Basis of preparation and significant accounting policies

(a) Compliance with Hong Kong Financial Reporting Standards

The Interim condensed consolidated financial statements of the group have been prepared on the basis of the policies set out in the 2021 annual financial statements and in accordance with HKAS 34 'Interim Financial Reporting' as issued by the Hong Kong Institute of Certified Public Accountants ('HKICPA') and the Disclosure Guidance and Transparency Rules sourcebook of the UK's Financial Conduct Authority. These financial statements should be read in conjunction with the *Annual Report and Accounts 2021*.

Standards applied during the half-year to 30 June 2022

There were no new standards or amendments to standards that had a material effect on these interim condensed consolidated financial statements.

(b) Use of estimates and judgements

Management believes that the group's critical accounting estimates and judgements are those which relate to the impairment of amortised cost and FVOCI debt financial assets, the valuation of financial instruments, interests in associates and liabilities under insurance contracts and present value of in-force long-term insurance business. There were no changes in the current period to the critical accounting estimates and judgements applied in 2021, which are stated in Note 1 of the *Annual Report and Accounts 2021.*

(c) Composition of the group

There were no material changes in the composition of the group in the half-year to 30 June 2022.

(d) Future accounting developments

HKFRS 17 'Insurance Contracts' was issued in January 2018, with amendments to the standard issued in October 2020 and February 2022. The standard sets out the requirements that an entity should apply in accounting for insurance contracts it issues and reinsurance contracts it holds. Following the amendments, HKFRS 17 is effective from 1 January 2023. The group is in the process of implementing HKFRS 17. Industry practice and interpretation of the standard are still developing. Therefore, the likely impact of its implementation remains uncertain. However, compared with the group's current accounting policy for insurance, there will be no present value of in-force long-term insurance business ('PVIF') asset recognised. Instead, the estimated future profit will be included in the measurement of the insurance contract liability as the contractual service margin and gradually recognised in revenue as services are provided over the duration of the insurance contract.

(e) Going concern

The interim condensed consolidated financial statements are prepared on a going concern basis, as the Directors are satisfied that the group and the Bank have the resources to continue in business for the foreseeable future. In making this assessment, the Directors have considered a wide range of information relating to present and future conditions, including future projections of profitability, cash flows, capital requirements and capital resources. These considerations include stressed scenarios, as well as considering potential impacts from other top and emerging risks, and the related impact on profitability, capital and liquidity.

(f) Accounting policies

The accounting policies applied by the group for the Interim condensed consolidated financial statements are consistent with those described in Note 1 of the *Annual Report and Accounts 2021*, as are the methods of computation.

(g) Presentation of information

Certain disclosures required by HKFRSs have been included in the sections marked as '*Reviewed by PricewaterhouseCoopers*' in this *Interim Report 2022* as follows:

- Consolidated income statement and balance sheet data by reportable segments are included in the 'Financial Review' on page 3.
- 'Summary of credit risk (excluding debt instruments measured at fair value through other comprehensive income ('FVOCI')) by stage distribution and ECL coverage by industry sector' included in 'Risk' section on pages 12 to 13.
- 'Measurement uncertainty and sensitivity analysis of ECL estimates' included in 'Risk' section on pages 14 to 18.

2 Dividends

	Half-year to			
	30 Jun 2022		30 Jun 2021	
	HK$ per share	**HK$m**	HK$ per share	HK$m
Dividends paid on ordinary shares				
– fourth interim dividend in respect of the previous financial year approved and paid during the half-year	**0.23**	**10,584**	0.47	21,665
– first interim dividend paid	**0.17**	**7,761**	0.26	12,211
Total	**0.40**	**18,345**	0.73	33,876
Total coupons on other equity instruments		**1,853**		1,837
Dividends to shareholders		**20,198**		35,713

Total coupons on other equity instruments

	Half-year to	
	30 Jun 2022 HK$m	30 Jun 2021 HK$m
US$1,000m Fixed rate perpetual subordinated loan (interest rate fixed at 6.090%)	**477**	474
US$1,200m Fixed rate perpetual subordinated loans (interest rate fixed at 6.172%)	**580**	576
US$600m Fixed rate perpetual subordinated loan (interest rate fixed at 5.910%)	**278**	275
US$1,100m Fixed rate perpetual subordinated loan (interest rate fixed at 6.000%)	**518**	512
Total	**1,853**	1,837

3 Loans and advances to customers

	At	
	30 Jun 2022 HK$m	31 Dec 2021 HK$m
Gross loans and advances to customers	**3,898,718**	3,872,956
Expected credit loss allowances	**(33,919)**	(32,017)
	3,864,799	3,840,939

The following table provides an analysis of gross loans and advances to customers by industry sector based on the Statistical Classification of economic activities in the European Community ('NACE').

Analysis of gross loans and advances to customers

	At	
	30 Jun 2022 HK$m	31 Dec 2021 HK$m
Residential mortgages	**1,178,698**	1,167,487
Credit card advances	**81,772**	89,005
Other personal	**280,175**	275,819
Total personal	**1,540,645**	1,532,311
Real estate	**617,897**	635,217
Wholesale and retail trade	**446,001**	428,785
Manufacturing	**397,135**	410,033
Transportation and storage	**105,491**	111,388
Other	**516,796**	471,988
Total corporate and commercial	**2,083,320**	2,057,411
Non-bank financial institutions	**274,753**	283,234
	3,898,718	3,872,956
By geography[1]		
Hong Kong	**2,456,034**	2,447,799
Rest of Asia-Pacific	**1,442,684**	1,425,157

1 *The geographical information shown above is classified by the location of the principal operations of the subsidiary or the branch responsible for advancing the funds.*

Gross loans and advances to customers increased by HK$26bn, or 1%, which included unfavourable foreign exchange translation effects of HK$66bn. Excluding this impact, the underlying increase of HK$92bn was driven by an increase in corporate and commercial lending of HK$64bn, mainly in mainland China, Japan and India. Residential mortgages also increased by HK$29bn, mainly in Australia and Hong Kong.

4 Financial investments

Carrying amounts of financial investments

	At	
	30 Jun 2022	31 Dec 2021
	HK$m	HK$m
Financial investments measured at fair value through other comprehensive income	**1,161,793**	1,549,011
– treasury and other eligible bills	**370,948**	653,245
– debt securities	**782,989**	888,664
– equity securities	**7,856**	7,102
Debt instruments measured at amortised cost	**938,034**	502,564
– treasury and other eligible bills	**340,302**	6,900
– debt securities	**597,732**	495,664
	2,099,827	2,051,575

5 Interests in associates and joint ventures

Bank of Communications Co., Ltd ('BoCom')

The group's investment in BoCom is classified as an associate. Significant influence in BoCom was established with consideration of all relevant factors, including representation on BoCom's Board of Directors and participation in a Resource and Experience Sharing agreement ('RES'). Under the RES, HSBC staff have been seconded to assist in the maintenance of BoCom's financial and operating policies. Investments in associates are recognised using the equity method of accounting in accordance with HKAS 28 whereby the investment is initially recognised at cost and adjusted thereafter for the post-acquisition change in the group's share of BoCom's net assets. An impairment test is required if there is any indication of impairment.

Impairment testing

At 30 June 2022, the fair value of the group's investment in BoCom had been below the carrying amount for approximately 10 years. As a result, the group performed an impairment test on the carrying amount, which confirmed that there was no impairment at 30 June 2022 as the recoverable amount as determined by a value-in-use ('VIU') calculation was higher than the carrying value.

	At					
	30 Jun 2022			31 Dec 2021		
	VIU	**Carrying value**	**Fair value**	VIU	Carrying value	Fair value
	HK$bn	**HK$bn**	**HK$bn**	HK$bn	HK$bn	HK$bn
BoCom	**190.6**	**185.4**	**76.6**	193.0	184.8	66.6

The headroom, which is defined as the extent to which the VIU exceeds the carrying value, decreased by HK$3.0bn compared with 31 December 2021. The decrease in headroom was principally due to revisions to management's best estimates of BoCom's future earnings in the short to medium term, partly offset by the impact on the VIU from BoCom's actual performance, which was better than earlier estimates.

In future periods, the VIU may increase or decrease depending on the effect of changes to model inputs. The main model inputs are described below and are based on factors observed at period-end. The factors that could result in a change in the VIU and an impairment include a short-term underperformance by BoCom, a change in regulatory capital requirements, or an increase in uncertainty regarding the future performance of BoCom resulting in a downgrade of the forecast of future asset growth or profitability. An increase in the discount rate could also result in a reduction of VIU and an impairment. At the point where the carrying value exceeds the VIU, impairment would be recognised.

If the group did not have significant influence in BoCom, the investment would be carried at fair value rather than the current carrying value.

Basis of recoverable amount

The impairment test was performed by comparing the recoverable amount of BoCom, determined by a VIU calculation, with its carrying amount. The VIU calculation uses discounted cash flow projections based on management's best estimates of future earnings available to ordinary shareholders prepared in accordance with HKAS 36. Significant management judgement is required in arriving at the best estimate. There are two main components to the VIU calculation. The first component is management's best estimate of BoCom's earnings which is based on explicit forecasts over the short to medium term. This results in forecast earnings growth that is lower than recent historical actual growth and also reflects the uncertainty arising from the current economic outlook. Reflecting management's intent to continue to retain its investment, earnings beyond the short to medium term are then extrapolated into perpetuity using a long-term growth rate to derive a terminal value, which comprises the majority of the VIU. The second component is the capital maintenance charge ('CMC'), which is management's forecast of the earnings that need to be withheld in order for BoCom to meet capital requirements over the forecast period, meaning that CMC is deducted when arriving at management's estimate of future earnings available to ordinary shareholders. The principal inputs to the CMC calculation include estimates of asset growth, the ratio of risk-weighted assets to total assets, and the expected capital requirements. An increase in the CMC as a result of a change to these principal inputs would reduce VIU. Additionally, management considers other qualitative factors, to ensure that the inputs to the VIU calculation remain appropriate.

Key assumptions in value-in-use calculation

We used a number of assumptions in our VIU calculation, in accordance with the requirements of HKAS 36:

- Long-term profit growth rate: 3% (31 December 2021: 3%) for periods after 2025, which does not exceed forecast GDP growth in mainland China and is similar to forecasts by external analysts.
- Long-term asset growth rate: 3% (31 December 2021: 3%) for periods after 2025, which is the rate that assets are expected to grow to achieve long-term profit growth of 3%.
- Discount rate: 10.03% (31 December 2021: 10.03%), which is based on a capital asset pricing model ('CAPM'), using market data. The discount rate used is within the range of 8.2% to 10.2% (31 December 2021: 8.7% to 10.1%) indicated by the CAPM. While the CAPM range sits at the lower end of the range adopted by selected external analysts of 9.9% to 13.5% (31 December 2021: 9.9% to 13.5%), we continue to regard the CAPM range as the most appropriate basis for determining this assumption.
- Expected credit losses ('ECL') as a percentage of customer advances: ranges from 0.99% to 1.15% (31 December 2021: 0.98% to 1.12%) in the short to medium term, reflecting reported credit experience through the ongoing Covid-19 pandemic in mainland China followed by an expected reversion to recent historical levels. For periods after 2025, the ratio is 0.97% (31 December 2021: 0.97%), which is higher than BoCom's average ECL as a percentage of customer advances in recent years prior to the pandemic.
- Risk-weighted assets as a percentage of total assets: ranges from 61.0% to 63.2% (31 December 2021: 61.0% to 62.4%) in the short to medium term, reflecting reductions that may arise from a subsequent lowering of ECLs and a continuation of the trend of strong retail loan growth. For periods after 2025, the ratio is 61.0% (31 December 2021: 61.0%). These rates are similar to BoCom's actual results in recent years and forecasts disclosed by external analysts.
- Operating income growth rate: ranges from 4.6% to 7.3% (31 December 2021: 5.1% to 6.2%) in the short to medium term, and is lower than BoCom's actual results in recent years and the forecasts disclosed by external analysts, reflecting BoCom's most recent actual results, global trade tensions and industry developments in mainland China.
- Cost-income ratio: ranges from 35.5% to 35.8% (31 December 2021: 35.5% to 36.1%) in the short to medium term. These ratios are similar to BoCom's actual results in recent years and forecasts disclosed by external analysts.
- Effective tax rate: ranges from 7.6% to 15.0% (31 December 2021: 6.8% to 15.0%) in the short to medium term, reflecting BoCom's actual results and an expected increase towards the long-term assumption through the forecast period. For periods after 2025, the rate is 15.0% (31 December 2021: 15.0%), which is higher than the recent historical average, and aligned to the minimum tax rate as proposed by the OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting.
- Capital requirements: capital adequacy ratio of 12.5% (31 December 2021: 12.5%) and tier 1 capital adequacy ratio of 9.5% (31 December 2021: 9.5%), based on BoCom's capital risk appetite and capital requirements respectively.

The following table shows the change to each key assumption in the VIU calculation that on its own would reduce the headroom to nil:

Key assumption	Changes to key assumption to reduce headroom to nil
• Long-term profit growth rate	• Decrease by 16 basis points
• Long-term asset growth rate	• Increase by 13 basis points
• Discount rate	• Increase by 21 basis points
• Expected credit losses as a percentage of customer advances	• Increase by 2 basis points
• Risk-weighted assets as a percentage of total assets	• Increase by 109 basis points
• Operating income growth rate	• Decrease by 28 basis points
• Cost-income ratio	• Increase by 63 basis points
• Long-term effective tax rate	• Increase by 182 basis points
• Capital requirements – capital adequacy ratio	• Increase by 22 basis points
• Capital requirements – tier 1 capital adequacy ratio	• Increase by 167 basis points

The following table further illustrates the impact on VIU of reasonably possible changes to key assumptions. This reflects the sensitivity of the VIU to each key assumption on its own and it is possible that more than one favourable and/or unfavourable change may occur at the same time. The selected rates of reasonably possible changes to key assumptions are based on external analysts' forecasts, statutory requirements and other relevant external data sources, which can change period to period.

	Favourable change			Unfavourable change		
		Increase in VIU	VIU		Decrease in VIU	VIU
	bps	HK$bn	HK$bn	bps	HK$bn	HK$bn
At 30 June 2022						
Long-term asset/profit growth rate[1]	**-75/+82**	**25.7/31.6**	**216.3/222.2**	**+82/-75**	**(35.3)/(22.7)**	**155.3/167.9**
Discount rate	**-183**	**62.8**	**253.4**	**+207**	**(40.4)**	**150.2**
Expected credit losses as a percentage of customer advances	**2022 to 2025: 103 2026 onwards: 91**	**12.7**	**203.3**	**2022 to 2025: 123 2026 onwards: 105**	**(21.6)**	**169.0**
Risk-weighted assets as a percentage of total assets	**-110**	**0.6**	**191.2**	**+247**	**(16.2)**	**174.4**
Operating income growth rate	**+51**	**9.7**	**200.3**	**-69**	**(13.0)**	**177.6**
Cost-income ratio	**-113**	**9.0**	**199.6**	**+188**	**(15.8)**	**174.8**
Long-term effective tax rate	**-426**	**11.9**	**202.5**	**+1000**	**(28.2)**	**162.4**
Capital requirements – capital adequacy ratio	**—**	**—**	**190.6**	**+274**	**(68.7)**	**121.9**
Capital requirements – tier 1 capital adequacy ratio	**—**	**—**	**190.6**	**+304**	**(40.8)**	**149.8**
At 31 December 2021						
Long-term asset/profit growth rate[1]	-69/+87	22.9/33.1	215.9/226.1	+87/-69	(36.2)/(20.5)	156.8/172.5
Discount rate	-133	42.2	235.2	+207	(40.8)	152.2
Expected credit losses as a percentage of customer advances	2021 to 2025: 103 2026 onwards: 91	11.9	204.9	2021 to 2025: 121 2026 onwards: 105	(21.0)	172.0
Risk-weighted assets as a percentage of total assets	-111	2.2	195.2	+280	(15.8)	177.2
Operating income growth rate	+37	8.2	201.2	-58	(13.6)	179.4
Cost-income ratio	-152	13.6	206.6	+174	(12.7)	180.3
Long-term effective tax rate	-104	2.9	195.9	+1000	(27.4)	165.6
Capital requirements – capital adequacy ratio	—	—	193.0	+325	(77.6)	115.4
Capital requirements – tier 1 capital adequacy ratio	—	—	193.0	+364	(50.0)	143.0

1 *The reasonably possible ranges of the long-term profit growth rate and long-term asset growth rate assumptions reflect the close relationship between these assumptions, which would result in offsetting changes to each assumption.*

Considering the interrelationship of the changes set out in the table above, management estimates that the reasonably possible range of VIU is HK$145.4bn to HK$227.6bn (31 December 2021: HK$148.3bn to HK$228.4bn). The range is based on impacts set out in the table above arising from the favourable/unfavourable change in the earnings in the short to medium term, the long-term expected credit losses as a percentage of customer advances and a 50bps increase/decrease in the discount rate. All other long-term assumptions and the basis of the CMC have been kept unchanged when determining the reasonably possible range of the VIU.

6 Customer accounts

Customer accounts by country/territory

	At	
	30 Jun 2022	31 Dec 2021
	HK$m	HK$m
Hong Kong	**4,263,818**	4,284,719
Singapore	**447,702**	448,976
Mainland China	**436,113**	462,187
Australia	**222,574**	220,233
India	**192,008**	191,116
Malaysia	**128,314**	128,673
Taiwan	**114,462**	120,744
Indonesia	**45,544**	46,938
Other	**263,131**	273,596
	6,113,666	6,177,182

7 Fair values of financial instruments carried at fair value

The accounting policies, control framework and hierarchy used to determine fair values at 30 June 2022 are consistent with those applied for the *Annual Report and Accounts 2021.*

The following table provides an analysis of financial instruments carried at fair value and bases of valuation.

	Fair value hierarchy					
	Level 1	Level 2	Level 3	Third-party total	Inter-company[2]	Total
	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m
At 30 Jun 2022						
Assets						
Trading assets[1]	**456,695**	**220,557**	**3,783**	**681,035**	**—**	**681,035**
Derivatives	**853**	**335,632**	**3,738**	**340,223**	**162,557**	**502,780**
Financial assets designated and otherwise mandatorily measured at fair value through profit or loss	**93,540**	**43,335**	**82,510**	**219,385**	**—**	**219,385**
Financial investments	**829,523**	**327,842**	**4,428**	**1,161,793**	**—**	**1,161,793**
Liabilities						
Trading liabilities[1]	**73,961**	**32,333**	**3**	**106,297**	**—**	**106,297**
Derivatives	**2,929**	**330,263**	**1,987**	**335,179**	**160,248**	**495,427**
Financial liabilities designated at fair value[1]	**—**	**128,085**	**21,665**	**149,750**	**—**	**149,750**
At 31 Dec 2021						
Assets						
Trading assets[1]	537,816	236,388	3,246	777,450	—	777,450
Derivatives	440	212,740	3,294	216,474	148,693	365,167
Financial assets designated and otherwise mandatorily measured at fair value through profit or loss	93,544	34,203	74,652	202,399	—	202,399
Financial investments	1,153,521	391,816	3,674	1,549,011	—	1,549,011
Liabilities						
Trading liabilities[1]	73,647	19,076	—	92,723	—	92,723
Derivatives	963	200,667	2,130	203,760	152,031	355,791
Financial liabilities designated at fair value[1]	—	118,516	20,449	138,965	—	138,965

1 *Amounts with HSBC Group entities are not included here.*
2 *Derivatives balances with HSBC Group entities are largely under 'Level 2'.*

Transfers between Level 1 and Level 2 fair values

	Assets				Liabilities		
	Financial investments	Trading assets	Designated and otherwise mandatorily measured at fair value	Derivatives	Trading liabilities	Designated at fair value	Derivatives
	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m
1 Jan to 30 Jun 2022							
Transfers from Level 1 to Level 2	**13,916**	**7,424**	**4,219**	**—**	**2**	**—**	**—**
Transfers from Level 2 to Level 1	**30,856**	**22,687**	**779**	**—**	**1,316**	**—**	**—**
1 Jan to 31 Dec 2021							
Transfers from Level 1 to Level 2	57,471	29,852	1,970	802	1,012	—	1,652
Transfers from Level 2 to Level 1	36,073	20,948	1,679	—	3,452	—	—

Transfers between levels of the fair value hierarchy are deemed to occur at the end of each quarter. Transfers into and out of Levels of the fair value hierarchy are primarily attributable to changes in observability of valuation inputs and price transparency.

Fair value valuation bases

Financial instruments measured at fair value using a valuation technique with significant unobservable inputs – Level 3

	Assets					Liabilities			
	Financial investments	Trading assets	Designated and otherwise mandatorily measured at fair value through profit or loss	Derivatives	Total	Trading liabilities	Designated at fair value	Derivatives	Total
	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m
Private equity and related investments	**3,873**	**68**	**81,965**	**–**	**85,906**	**3**	**–**	**–**	**3**
Structured notes	**–**	**–**	**–**	**–**	**–**	**–**	**21,665**	**–**	**21,665**
Others	**555**	**3,715**	**545**	**3,738**	**8,553**	**–**	**–**	**1,987**	**1,987**
At 30 Jun 2022	**4,428**	**3,783**	**82,510**	**3,738**	**94,459**	**3**	**21,665**	**1,987**	**23,655**
Private equity and related investments	3,121	4	74,295	–	77,420	–	–	–	–
Structured notes	–	–	–	–	–	–	20,449	–	20,449
Others	553	3,242	357	3,294	7,446	–	–	2,130	2,130
At 31 Dec 2021	3,674	3,246	74,652	3,294	84,866	–	20,449	2,130	22,579

The basis for determining the fair value of the financial instruments in the table above is explained on page 122 of the *Annual Report and Accounts 2021.*

Reconciliation of fair value measurements in Level 3 of the fair value hierarchy

Movement in Level 3 financial instruments

	Assets				Liabilities		
	Financial investments	Trading assets	Designated and otherwise mandatorily measured at fair value through profit or loss	Derivatives	Trading liabilities	Designated at fair value	Derivatives
	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m
At 1 Jan 2022	**3,674**	**3,246**	**74,652**	**3,294**	**–**	**20,449**	**2,130**
Total gains/(losses) recognised in profit or loss	**–**	**(515)**	**1,838**	**989**	**–**	**(770)**	**372**
– net income/(losses) from financial instruments held for trading or managed on a fair value basis	**–**	**(515)**	**–**	**989**	**–**	**–**	**372**
– changes in fair value of other financial instruments mandatorily measured at fair value through profit or loss	**–**	**–**	**1,838**	**–**	**–**	**(770)**	**–**
– gains less losses from financial investments at fair value through other comprehensive income	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Total gains/(losses) recognised in other comprehensive income (‘OCI’)	**796**	**17**	**(25)**	**9**	**–**	**(529)**	**(36)**
– financial investments: fair value (losses)	**825**	**–**	**–**	**–**	**–**	**(5)**	**–**
– exchange differences	**(29)**	**17**	**(25)**	**9**	**–**	**(524)**	**(36)**
Purchases	**705**	**1,459**	**10,394**	**–**	**–**	**–**	**–**
New issuances	**–**	**–**	**–**	**–**	**–**	**3,568**	**–**
Sales	**(50)**	**(424)**	**(1)**	**–**	**–**	**–**	**–**
Settlements	**(697)**	**(2,025)**	**(4,159)**	**(284)**	**–**	**(344)**	**(464)**
Transfers out	**–**	**(766)**	**(285)**	**(347)**	**–**	**(1,156)**	**(96)**
Transfers in	**–**	**2,791**	**96**	**77**	**3**	**447**	**81**
At 30 Jun 2022	**4,428**	**3,783**	**82,510**	**3,738**	**3**	**21,665**	**1,987**
Unrealised gains/(losses) recognised in profit or loss relating to assets and liabilities held at 30 Jun 2022	**–**	**(291)**	**1,875**	**3,011**	**–**	**55**	**(830)**
– net income/(losses) from financial instruments held for trading or managed on a fair value basis	**–**	**(291)**	**–**	**3,011**	**–**	**–**	**(830)**
– changes in fair value of other financial instruments mandatorily measured at fair value through profit or loss	**–**	**–**	**1,875**	**–**	**–**	**55**	**–**

Movement in Level 3 financial instruments (continued)

	Assets				Liabilities		
	Financial investments	Trading assets	Designated and otherwise mandatorily measured at fair value through profit or loss	Derivatives	Trading liabilities	Designated at fair value	Derivatives
	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m	HK$m
At 1 Jan 2021	6,635	1,237	49,534	1,028	—	20,484	3,538
Total gains/(losses) recognised in profit or loss	(7)	(749)	5,853	1,612	—	(3,263)	2,263
– net income from financial instruments held for trading or managed on a fair value basis	—	(749)	—	1,612	—	—	2,263
– changes in fair value of other financial instruments mandatorily measured at fair value through profit or loss	—	—	5,853	—	—	(3,263)	—
– gains less losses from financial investments at fair value through other comprehensive income	(7)	—	—	—	—	—	—
Total gains/(losses) recognised in other comprehensive income ('OCI')	(2,619)	1	8	5	—	160	5
– financial investments: fair value gains/(losses)	(2,610)	—	—	—	—	—	—
– exchange differences	(9)	1	8	5	—	160	5
Purchases	585	2,825	10,427	—	—	—	—
New issuances	—	—	—	—	—	4,925	—
Sales	(2)	(243)	—	—	—	—	—
Settlements	(676)	(31)	(3,321)	(479)	—	(622)	(3,308)
Transfers out	—	(236)	(921)	(351)	—	(1,865)	(367)
Transfers in	—	13	—	58	—	3,134	260
At 30 Jun 2021	3,916	2,817	61,580	1,873	—	22,953	2,391
Unrealised gains/(losses) recognised in profit or loss relating to assets and liabilities held at 30 Jun 2021	—	(759)	5,477	1,348	—	(6)	319
– net income/(losses) from financial instruments held for trading or managed on a fair value basis	—	(759)	—	1,348	—	—	319
– changes in fair value of other financial instruments mandatorily measured at fair value through profit or loss	—	—	5,477	—	—	(6)	—

Transfers between levels of the fair value hierarchy are deemed to occur at the end of each quarter. Transfers into and out of levels of the fair value hierarchy are primarily attributable to observability of valuation inputs and price transparency.

Effect of changes in significant unobservable assumptions to reasonably possible alternatives

The following table shows the sensitivity of Level 3 fair values to reasonably possible alternative assumptions:

Sensitivity of fair values to reasonably possible alternative assumptions

	At 30 Jun 2022				At 31 Dec 2021			
	Reflected in profit or loss		**Reflected in OCI**		Reflected in profit or loss		Reflected in OCI	
	Favourable changes	**Un-favourable changes**	**Favourable changes**	**Un-favourable changes**	Favourable changes	Un-favourable changes	Favourable changes	Un-favourable changes
	HK$m	**HK$m**	**HK$m**	**HK$m**	HK$m	HK$m	HK$m	HK$m
Derivatives, trading assets and trading liabilities[1]	**204**	**(275)**	**—**	**—**	158	(162)	—	—
Financial assets and liabilities designated and otherwise mandatorily measured at fair value through profit or loss	**4,134**	**(4,134)**	**—**	**—**	3,741	(3,742)	—	—
Financial investments	**—**	**—**	**194**	**(194)**	—	—	157	(157)
Total	**4,338**	**(4,409)**	**194**	**(194)**	3,899	(3,904)	157	(157)

1 *'Derivatives, trading assets and trading liabilities' are presented as one category to reflect the manner in which these instruments are risk-managed.*

The sensitivity analysis aims to measure a range of fair values consistent with the application of a 95% confidence interval. Methodologies take account of the nature of the valuation technique employed, as well as the availability and reliability of observable proxy and historical data.

When the fair value of a financial instrument is affected by more than one unobservable assumption, the above table reflects the most favourable or the most unfavourable change from varying the assumptions individually.

Key unobservable inputs to Level 3 financial instruments

The following table lists key unobservable inputs to Level 3 financial instruments and provides the range of those inputs at 30 June 2022.

There has been no change to the key unobservable inputs to Level 3 financial instruments and inter-relationships therein, which are detailed on page 124 of the *Annual Report and Accounts 2021*.

Quantitative information about significant unobservable inputs in Level 3 valuations

	Fair value				30 Jun 2022		31 Dec 2021	
	Assets	Liabilities	Valuation	Key unobservable	Full range of inputs		Full range of inputs	
	HK$m	HK$m	techniques	inputs	Lower	Higher	Lower	Higher
Private equity and related investments	85,906	3	See footnote 1	See footnote 1				
Structured notes	–	21,665						
– equity-linked notes	–	13,786	Model – Option model	Equity volatility	6%	95%	6%	90%
			Model – Option model	Equity correlation	33%	98%	22%	97%
– FX-linked notes	–	7,699	Model – Option model	FX volatility	3%	36%	2%	36%
– other	–	180						
Others[2]	8,553	1,987						
At 30 Jun 2022	94,459	23,655						

1 *Given the bespoke nature of the analysis in respect of each private equity holding, it is not practical to quote a range of key unobservable inputs.*
2 *'Others' includes a range of smaller holdings.*

8 Fair values of financial instruments not carried at fair value

	At			
	30 Jun 2022		31 Dec 2021	
	Carrying amount	Fair value	Carrying amount	Fair value
	HK$m	HK$m	HK$m	HK$m
Assets[1]				
Reverse repurchase agreements – non-trading	875,200	874,724	803,775	803,828
Loans and advances to banks	493,423	493,454	432,247	432,531
Loans and advances to customers	3,864,799	3,851,562	3,840,939	3,830,416
Financial investments – at amortised cost	938,035	895,968	502,564	540,476
Liabilities[1]				
Repurchase agreements – non-trading	287,591	287,577	255,374	255,366
Deposits by banks	337,078	337,072	280,310	280,408
Customer accounts	6,113,666	6,113,659	6,177,182	6,177,676
Debt securities in issue	107,280	106,265	67,364	67,842
Subordinated liabilities	4,029	3,367	4,054	3,864

1 *Amounts with HSBC Group entities are not included here.*

The fair values above are stated at a specific date and may be significantly different from the amounts which will actually be paid on the maturity or settlement dates of the instruments. In many cases, it would not be possible to realise immediately the estimated fair values given the size of the portfolios measured. Accordingly, these fair values do not represent the value of these financial instruments to the group as a going concern.

Other financial instruments not carried at fair value are typically short term in nature or re-priced to current market rates frequently. Accordingly, their carrying amount is a reasonable approximation of fair value. They include cash and balances at central banks, items in the course of collection from and transmission to other banks, Hong Kong Government certificates of indebtedness, Hong Kong currency notes in circulation, other financial assets and other financial liabilities, all of which are measured at amortised cost.

9 Contingent liabilities, contractual commitments and guarantees

	At	
	30 Jun 2022	31 Dec 2021
	HK$m	HK$m
Guarantees and contingent liabilities	384,041	379,443
Commitments[1]	3,083,723	2,945,560
	3,467,764	3,325,003

1 *Includes HK$1,892,070m of commitments at 30 June 2022 (31 December 2021: HK$1,826,335m) to which the impairment requirements in HKFRS 9 are applied where the group has become party to an irrevocable commitment.*

The above table discloses the nominal principal amounts of commitments (excluding capital commitments), guarantees and other contingent liabilities, which represents the amounts at risk should contracts be fully drawn upon and clients default. The amount of commitments shown above reflects, where relevant, the expected level of take-up of pre-approved facilities. As a significant portion of guarantees and commitments is expected to expire without being drawn upon, the total of the nominal principal amounts is not indicative of future liquidity requirements.

Contingent liabilities at 30 June 2022 included amounts in relation to legal and regulatory matters as set out in Note 13.

10 Segmental analysis

The Executive Committee ('EXCO') is considered the Chief Operating Decision Maker ('CODM') for the purpose of identifying the group's operating segments. Operating segment results are assessed by the CODM on the basis of performance measured in accordance with HKFRSs. The basis of identifying operating segments is set out in Note 31 'Segmental analysis' in the *Annual Report and Accounts 2021,* and the segmental analysis is presented based on reportable segments as assessed under HKFRS 8 'Operating Segments'.

Our operations are closely integrated and, accordingly, the presentation of data includes internal allocations of certain items of income and expense. These allocations include the costs of certain support services and global functions to the extent that they can be meaningfully attributed to operational business lines and geographical regions. While such allocations have been made on a systematic and consistent basis, they necessarily involve a degree of subjectivity. Costs that are not allocated to other operating segments are included in Corporate Centre.

Where relevant, income and expense amounts presented include the results of inter-segment funding along with inter-company and inter-business line transactions. All such transactions are undertaken on arm's length terms. The intra-group elimination items for the operating segments are presented in the Corporate Centre.

Change in operating and reportable segments

Effective from the second half of 2021, the operating and reportable segments have been changed to reflect the change in management of the Global Banking and Markets business, with the splitting out of Global Banking ('GB'), Markets and Securities Services ('MSS') and Global Banking and Markets – Other as separate operating segments following realignments within our internal reporting to the CODM. GB and MSS are separate reportable segments. Global Banking and Markets – Other, which mainly comprises of business activities which are jointly managed by GB and MSS, is reported under 'Other (GBM – other)'. Comparatives have been re-presented to conform to the current year's presentation.

Our global businesses and reportable segments

The group provides a comprehensive range of banking and related financial services to its customers in our global businesses: Wealth and Personal Banking ('WPB'), Commercial Banking ('CMB') and Global Banking and Markets ('GBM'). The products and services offered to customers are organised by these global businesses.

- WPB offers a full range of retail banking and wealth products to our customers from personal banking to ultra-high net worth individuals. Typically, customer offerings include retail banking products, such as current and savings accounts, mortgages and personal loans, credit cards, debit cards and local and international payment services. We also provide wealth management services, including insurance and investment products, global asset management services, investment management and Private Wealth Solutions for customers with more sophisticated and international requirements.
- CMB offers a broad range of products and services to serve the needs of our commercial customers, including small and medium-sized enterprises, mid-market enterprises and corporates. These include credit and lending, international trade and receivables finance, treasury management and liquidity solutions (payments and cash management and commercial cards), commercial insurance and investments. CMB also offers its customers access to products and services offered by other global businesses, such as Global Banking and Markets, which include foreign exchange products, raising capital on debt and equity markets and advisory services.
- GBM comprises of two separate reportable segments: GB and MSS. GB provides tailored financial solutions to major government, corporate and institutional clients and private investors worldwide. The client-focused business lines deliver a full range of banking capabilities including financing, advisory and transaction services. MSS provides services in credit, rates, foreign exchange, equities, money markets and securities services, and principal investment activities.
- Corporate Centre includes strategic investments such as our investment in BoCom, Central Treasury revenue, and costs which are not allocated to global businesses, mainly in relation to investments in technology.

Financial performance by reportable segments is set out in the Financial Review on page 3, which forms part of the Interim condensed consolidated financial statements.

Geographical regions

	Hong Kong HK$m	Rest of Asia-Pacific HK$m	Intra-segment elimination HK$m	Total HK$m
Half-year to 30 Jun 2022				
Total operating income	**93,475**	**41,366**	**388**	**135,229**
Profit before tax	**16,906**	**27,487**	**—**	**44,393**
At 30 Jun 2022				
Total assets	**7,413,631**	**3,889,079**	**(946,678)**	**10,356,032**
Total liabilities	**6,928,001**	**3,450,807**	**(946,678)**	**9,432,130**
Credit commitments and contingent liabilities (contract amounts)	**1,825,271**	**1,642,493**	**—**	**3,467,764**
Half-year to 30 Jun 2021				
Total operating income	94,168	40,229	(25)	134,372
Profit before tax	26,062	24,445	—	50,507
At 30 Jun 2021				
Total assets	6,937,249	3,578,737	(751,965)	9,764,021
Total liabilities	6,454,854	3,147,639	(751,965)	8,850,528
Credit commitments and contingent liabilities (contract amounts)	1,742,763	1,484,782	—	3,227,545

11 Related party transactions

There were no changes in the related party transactions as described in the *Annual Report and Accounts 2021* that have had a material effect on the financial position or performance of the group in the half-year to 30 June 2022. All related party transactions that took place in the half-year to 30 June 2022 were similar in nature to those described in the *Annual Report and Accounts 2021.*

12 Business acquisitions

The following recently announced acquisitions form part of our strategy to become a market leader in Asian wealth management:

- On 28 January 2022, HSBC Insurance (Asia-Pacific) Holdings Limited, a subsidiary of the group, notified the shareholders of Canara HSBC Life Insurance Company Limited ('Canara HSBC') of its intention to increase its shareholding in Canara HSBC up to 49%. The group currently has a 26% shareholding which is accounted for as an associate. Any increase in shareholding is subject to agreement with other shareholders in Canara HSBC, as well as internal and regulatory approvals. Established in 2008, Canara HSBC is a life insurance company based in India.
- On 11 February 2022, HSBC Insurance (Asia-Pacific) Holdings Limited completed the acquisition of 100% of AXA Insurance Pte Limited ('AXA Singapore') for HK$4.1bn. A provisional gain on acquisition of HK$556m was recorded, reflecting the excess of the fair value of net assets acquired (gross assets of HK$35.5bn and gross liabilities of HK$30.9bn) over the acquisition price.
- On 6 April 2022, the Bank announced it had increased its shareholding in HSBC Qianhai Securities Limited, a partially-owned subsidiary, from 51% to 90%.
- On 23 June 2022, HSBC Insurance (Asia) Limited, a subsidiary of the group, acquired the remaining 50% equity interest in HSBC Life Insurance Company Limited. Headquartered in Shanghai, HSBC Life Insurance Company Limited offers a comprehensive range of insurance solutions covering annuity, whole life, critical illness and unit-linked insurance products.

13 Legal proceedings and regulatory matters

The group is party to legal proceedings and regulatory matters in a number of jurisdictions arising out of its normal business operations. Apart from the matters described below, the group considers that none of these matters are material. The recognition of provisions is determined in accordance with the accounting policies set out in Note 1.2(n) of the *Annual Report and Accounts 2021*. While the outcomes of legal proceedings and regulatory matters are inherently uncertain, management believes that, based on the information available to it, appropriate provisions have been made in respect of these matters as at 30 June 2022. Any provision recognised does not constitute an admission of wrongdoing or legal liability. It is not practicable to provide an aggregate estimate of potential liability for our legal proceedings and regulatory matters as a class of contingent liabilities.

Anti-money laundering and sanctions-related matters

In December 2012, HSBC Holdings plc ('HSBC Holdings') entered into a number of agreements, including an undertaking with the UK Financial Services Authority (replaced with a Direction issued by the UK Financial Conduct Authority ('FCA') in 2013 and again in 2020) as well as a cease-and-desist order with the US Federal Reserve Board ('FRB'), both of which contained certain forward-looking anti-money laundering ('AML') and sanctions-related obligations. For several years thereafter, HSBC retained a Skilled Person under section 166 of the Financial Services and Markets Act and an Independent Consultant, under the FRB cease-and-desist order to produce periodic assessments of the Group's AML and sanctions compliance programme. The Skilled Person completed its engagement in the second quarter of 2021, and the FCA determined that no further Skilled Person work is required. Separately, the Independent Consultant completed its latest review pursuant to the FRB cease-and-desist order, which remains in place.

Based on the facts currently known, it is not practicable at this time for HSBC to predict the resolution of these matters, including the timing or any possible impact on HSBC, which could be significant.

Singapore Interbank Offered Rate ('Sibor') and Singapore Swap Offer Rate ('SOR')

In 2016, HSBC and other panel banks were named as defendants in a putative class action filed in the New York District Court on behalf of persons who transacted in products related to the Sibor and SOR benchmark rates. The complaint alleges, among other things, misconduct related to these benchmark rates in violation of US antitrust, commodities and racketeering laws, and state law.

In October 2021, the Bank reached a settlement in principle with the plaintiffs to resolve this action, the agreement for which was executed in May 2022. The settlement received preliminary court approval in June 2022, and the final approval hearing is scheduled for November 2022.

There are many factors that may affect the range of outcomes, and the resulting financial impact of this matter, which could be significant.

Other regulatory investigations, reviews and litigation

The Bank and/or certain of its affiliates are subject to a number of other investigations and reviews by various regulators and competition and law enforcement authorities, as well as litigation, in connection with various matters relating to the firm's businesses and operations, including investigations by tax administration, regulatory and law enforcement authorities in India and elsewhere in connection with allegations of tax evasion or tax fraud, money laundering and unlawful cross-border banking solicitation.

There are many factors that may affect the range of outcomes, and the resulting financial impact, of these matters, which could be significant.

14 Interim Report 2022 and statutory accounts

The information in this *Interim Report 2022* is unaudited and does not constitute statutory accounts. The *Interim Report 2022* was approved by the Board of Directors on 1 August 2022. The Bank's statutory annual consolidated accounts for the year ended 31 December 2021 have been delivered to the Registrar of Companies and the Hong Kong Monetary Authority. The auditor has reported on those financial statements in their report dated 22 February 2022. The auditor's report was unqualified; did not include a reference to any matters to which the auditor drew attention by way of emphasis without qualifying its report; and did not contain a statement under sections 406(2), 407(2) or (3) of the Hong Kong Companies Ordinance (Cap. 622).

15 Ultimate holding company

The Hongkong and Shanghai Banking Corporation Limited is an indirectly-held, wholly-owned subsidiary of HSBC Holdings plc, which is incorporated in England.

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