The Hongkong and Shanghai Banking Corporation Limited

Interim Report 2020

HSBC

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Certain defined terms

This document comprises the *Interim Report 2020* 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 2020* 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 2020* 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《*2020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。

Additional information

The *Banking Disclosure Statement at 30 June 2020*, 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.

Highlights

Financial highlights

- Profit before tax down 29% to HK$51,667m (HK$72,867m in the first half of 2019).
- Attributable profit down 26% to HK$40,846m (HK$55,489m in the first half of 2019).
- Return on average ordinary shareholders' equity of 10.2% (14.8% in the first half of 2019).
- Total assets up 5% to HK$9,097bn (HK$8,662bn at the end of 2019).
- Common equity tier 1 ratio of 16.7% (17.2% at the end of 2019), total capital ratio of 20.3% (21.0% at the end of 2019).
- Cost efficiency ratio of 43.9% (40.7% for the first half of 2019).

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Financial review

Consolidated income statement and balance sheet data by global business[1,2]

	Wealth and Personal Banking HK$m	Commercial Banking HK$m	Global Banking and Markets HK$m	Corporate Centre[3] HK$m	Total HK$m
Half-year to 30 Jun 2020					
Net interest income/(expense)	**33,332**	**18,979**	**12,284**	**(3,637)**	**60,958**
Net fee income	**10,897**	**4,717**	**4,987**	**77**	**20,678**
Net income/(expense) from financial instruments measured at fair value	**(1,268)**	**1,597**	**12,848**	**2,392**	**15,569**
Gains less losses from financial investments	**644**	**375**	**337**	**(15)**	**1,341**
Net insurance premium income/(expense)	**28,282**	**2,787**	**—**	**(306)**	**30,763**
Other operating income/(expense)	**4,941**	**123**	**442**	**(378)**	**5,128**
Total operating income/(expense)	**76,828**	**28,578**	**30,898**	**(1,867)**	**134,437**
Net insurance claims and benefits paid and movement in liabilities to policyholders	**(29,128)**	**(2,564)**	**—**	**201**	**(31,491)**
Net operating income/(expense) before change in expected credit losses and other credit impairment charges	**47,700**	**26,014**	**30,898**	**(1,666)**	**102,946**
– Of which: external	***37,966***	***28,721***	***39,034***	***(2,775)***	***102,946***
inter-segment	***9,734***	***(2,707)***	***(8,136)***	***1,109***	***—***
Change in expected credit losses and other credit impairment charges	**(3,329)**	**(9,535)**	**(1,238)**	**(10)**	**(14,112)**
Net operating income/(expense)	**44,371**	**16,479**	**29,660**	**(1,676)**	**88,834**
Operating expenses	**(22,650)**	**(9,271)**	**(11,286)**	**(2,009)**	**(45,216)**
Operating profit/(loss)	**21,721**	**7,208**	**18,374**	**(3,685)**	**43,618**
Share of profit in associates and joint ventures	**(82)**	**—**	**—**	**8,131**	**8,049**
Profit before tax	**21,639**	**7,208**	**18,374**	**4,446**	**51,667**
Balance at 30 Jun 2020					
Loans and advances to customers (net)	**1,402,816**	**1,228,971**	**1,044,434**	**3,143**	**3,679,364**
Customer accounts	**3,199,609**	**1,343,461**	**1,060,524**	**473**	**5,604,067**
Half-year to 30 Jun 2019					
Net interest income/(expense)	36,124	22,498	13,714	(7,747)	64,589
Net fee income	11,211	5,400	4,921	57	21,589
Net income from financial instruments measured at fair value	10,272	1,262	8,992	6,753	27,279
Gains less losses from financial investments	125	110	123	1	359
Net insurance premium income/(expense)	32,975	3,224	—	(13)	36,186
Other operating income	7,166	298	395	462	8,321
Total operating income/(expense)	97,873	32,792	28,145	(487)	158,323
Net insurance claims and benefits paid and movement in liabilities to policyholders	(43,011)	(3,125)	—	—	(46,136)
Net operating income/(expense) before change in expected credit losses and other credit impairment charges	54,862	29,667	28,145	(487)	112,187
– Of which: external	*41,687*	*31,135*	*41,664*	*(2,299)*	*112,187*
inter-segment	*13,175*	*(1,468)*	*(13,519)*	*1,812*	*—*
Change in expected credit losses and other credit impairment charges	(855)	(979)	(204)	(1)	(2,039)
Net operating income/(expense)	54,007	28,688	27,941	(488)	110,148
Operating expenses	(22,555)	(9,318)	(11,783)	(2,028)	(45,684)
Operating profit/(loss)	31,452	19,370	16,158	(2,516)	64,464
Share of profit in associates and joint ventures	282	—	—	8,121	8,403
Profit before tax	31,734	19,370	16,158	5,605	72,867
Balance at 30 Jun 2019					
Loans and advances to customers (net)	1,372,745	1,275,999	1,048,492	1,253	3,698,489
Customer accounts	3,009,355	1,291,000	988,774	444	5,289,573

1 *Effective from the second quarter of 2020, the reportable segments have been changed to reflect the merging of Retail Banking and Wealth Management and Global Private Banking to form Wealth and Personal Banking ('WPB'), and the re-allocation of Balance Sheet Management from Corporate Centre to the global businesses. 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.*
2 *The financial information included in this table forms part of the Interim condensed consolidated financial statements, which have been reviewed by PricewaterhouseCoopers.*
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 2020 with the half-year ended 30 June 2019 unless otherwise stated.

Result commentary

The group reported profit before tax of HK$51,667m, a decrease of HK$21,200m, or 29%.

Net interest income decreased by HK$3,631m, or 6%. Excluding the unfavourable foreign exchange impact, net interest income decreased by HK$2,631m, or 4%, driven by Hong Kong due to narrower customer deposit spreads and lower reinvestment yields as market interest rates decreased, partly offset by balance sheet growth. The decrease in Hong Kong was partly offset by increases in India, primarily from lower funding costs on customer deposits, coupled with balance sheet growth, and in Japan and Taiwan due to lower funding costs as market interest rates decreased.

Net fee income decreased by HK$911m, or 4%, mainly in Commercial Banking ('CMB') from lower trade-related fees, remittance and credit facility fees. Net fee income in Wealth and Personal Banking ('WPB') also decreased, mainly from lower credit cards income due to lower customer spending as a consequence of the Coronavirus Disease 2019 ('Covid-19') pandemic, coupled with lower income from unit trusts, account services fee income and insurance agency commissions. These were partly offset by higher securities brokerage revenue, mainly in Hong Kong due to higher equity market turnover in the first half of 2020.

Net income from financial instruments held for trading or managed on a fair value basis increased by HK$1,149m, or 6%, mainly in Hong Kong from higher Foreign Exchange ('FX') trading, partly offset by lower Rates and Credit trading, and in mainland China from higher revaluation gains on trading bonds and lower interest expense on structured deposits, partly offset by unfavourable movements on FX and interest rate swaps. Increases were also noted in Korea from favourable movement on structured deposits, and in Indonesia and India, mainly from higher FX and Rates trading income, partly offset by decreases in Taiwan and Japan from unfavourable revaluation on funding swaps.

Net income from assets and liabilities of insurance business, including related derivatives, measured at fair value through profit or loss decreased by HK$12,729m, or 146%, driven by the unfavourable equity market performance in Hong Kong in the first half of 2020 as compared to the favourable equity market performance in the first half of 2019, which resulted in revaluation losses on equities held to back insurance liabilities. To the extent that these losses are attributable to policyholders, the losses are offset by a corresponding movement in 'Net insurance claims and benefits paid and movement in liabilities to policyholders'.

Net insurance premium income decreased by HK$5,423m, or 15%, driven by lower new business sales, partly offset by higher renewals business. This was largely offset by a corresponding movement in 'Net insurance claims and benefits paid and movement in liabilities to policyholders'.

Other operating income decreased by HK$3,193m, or 38%, driven by the unfavourable movement in the present value of in-force insurance business ('PVIF'), and from the unfavourable revaluation on investment properties, mainly in Hong Kong. The movement in PVIF was partly offset by a corresponding movement in 'Net insurance claims and benefits paid and movement in liabilities to policyholders'.

Net insurance claims and benefits paid and movement in liabilities to policyholders decreased by HK$14,645m, or 32%, reflecting lower investment returns to policyholders from the unfavourable equity market performance in the first half of 2020, lower claims from lower business sales and the unfavourable movement in the present value of in-force insurance business.

Change in expected credit losses and other credit risk provisions increased by HK$12,073m, or 592%, with increases across all global businesses, mainly from charges relating to the global impact of Covid-19 and a deteriorating forward economic outlook. The increase also reflected higher charges related to specific wholesale exposures, including a significant charge related to a corporate exposure in Singapore in CMB.

Total operating expenses decreased by HK$468m, or 1%. Excluding the favourable foreign exchange impact, operating expenses increased by HK$230m, or 1%, reflecting an increase in investments, mainly IT-related costs to enhance our digital capabilities. The increase was largely offset by lower employee compensation and benefits, driven by lower performance-related pay and lower average headcount, partly offset by wage inflation across the region.

Share of profit in associates and joint ventures decreased by HK$354m, or 4%, driven by the unfavourable foreign exchange impact. Excluding this impact, share of profit in associates and joint ventures, the largest of which is from Bank of Communications Co., Limited, increased by HK$21m.

Net interest income

	Half-year to	
	30 Jun	30 Jun
	2020	2019
	HK$m	HK$m
Net interest income	**60,958**	64,589
Average interest-earning assets	**6,729,095**	6,437,120
	%	%
Net interest spread	**1.71**	1.86
Contribution from net free funds	**0.11**	0.16
Net interest margin	**1.82**	2.02

Net interest income ('NII') decreased by HK$3,631m, or 6%. Excluding the unfavourable foreign exchange impact, net interest income decreased by HK$2,631m, or 4%, driven by Hong Kong due to narrower customer deposit spreads and lower reinvestment yields as market interest rates decreased, partly offset by balance sheet growth. The decrease in Hong Kong was partly offset by increases in India, primarily from lower funding costs on customer deposits as a result of successive central bank rate cuts, coupled with balance sheet growth, and in Japan and Taiwan due to lower funding costs as market interest rates decreased.

Average interest-earning assets increased by HK$292bn, or 5%, driven by Hong Kong, mainly from an increase in loans and advances to customers, notably in corporate term lending and residential mortgages. Increases were also noted in Singapore and mainland China, driven by balance sheet growth, notably in financial investments and customer advances.

Net interest margin decreased by 20 basis points, driven by Hong Kong and mainland China.

At the Bank's operations in Hong Kong, the net interest margin for the Bank decreased by 26 basis points, primarily from narrower customer deposit spreads and lower reinvestment yields on financial investments as market interest rates decreased.

At Hang Seng Bank, the net interest margin decreased by 30 basis points, mainly from narrower customer deposit spreads and lower reinvestment yields on financial investments as market interest rates decreased, partly offset by a change in the asset portfolio mix due to growth in customer advances.

In mainland China, the decrease in the net interest margin was driven by narrower customer deposit spreads and lower reinvestment yields on financial investments as market interest rates decreased, coupled with the impact from more debt securities issued to support business operations and lower contribution of net free funds.

In India and Taiwan, the net interest margin increased, primarily due to lower cost of funds as market interest rates decreased.

Net fee income

	Half-year to	
	30 Jun	30 Jun
	2020	2019
	HK$m	HK$m
Funds under management	**3,634**	3,526
Account services	**1,049**	1,374
Cards	**3,366**	4,218
Credit facilities	**1,478**	1,842
Unit trusts	**3,100**	3,812
Broking income	**2,879**	1,926
Underwriting	**733**	803
Remittances	**1,237**	1,435
Global custody	**1,891**	1,870
Imports/Exports	**1,446**	1,656
Insurance agency commission	**783**	959
Other	**4,104**	3,810
Fee income	**25,700**	27,231
Fee expense	**(5,022)**	(5,642)
Net fee income	**20,678**	21,589

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

	Half-year to	
	30 Jun 2020	30 Jun 2019
	HK$m	HK$m
Net income/(expense) arising on:		
Net trading activities[1]	**18,361**	21,633
Other instruments managed on fair value basis[2]	**916**	(3,505)
Net income from financial instruments held for trading or managed on a fair value basis[2]	**19,277**	18,128
Financial assets held to meet liabilities under insurance and investment contracts	**(3,507)**	10,081
Liabilities to customers under investment contracts	**(492)**	(1,351)
Net income/(expense) from assets and liabilities of insurance businesses, including related derivatives, measured at fair value through profit or loss	**(3,999)**	8,730
Changes in fair value of designated debts issued and related derivatives[2]	**119**	318
Changes in fair value of other financial instruments mandatorily measured at fair value through profit or loss	**172**	103
Net income from financial instruments measured at fair value through profit or loss	**15,569**	27,279

1 *The presentation has been updated to align with the presentation in the* Annual Report and Accounts 2019*. Comparatives have been re-presented to conform to the current year's presentation.*
2 *In the second half of 2019, the definition of 'Changes in fair value of designated debts issued and related derivatives' has been updated to include debt instruments which are issued for funding purposes and are designated under the fair value option to reduce an accounting mismatch, previously reported as 'Other instruments managed on fair value basis' under 'Net income from financial instruments held for trading or managed on a fair value basis'. Comparatives have been re-presented to conform to the current year's presentation.*

Other operating income

	Half-year to	
	30 Jun 2020	30 Jun 2019
	HK$m	HK$m
Movement in present value of in-force long-term insurance business	**4,512**	6,610
Gains/(losses) on investment properties	**(693)**	308
Other[1]	**1,309**	1,403
Other operating income	**5,128**	8,321

1 *Includes mainly recoveries from fellow group companies.*

Insurance business

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

	Half-year to	
	30 Jun 2020	30 Jun 2019
	HK$m	HK$m
Insurance manufacturing operations[1]		
Net interest income	**7,605**	7,122
Net fee expense	**(1,668)**	(2,606)
Net income/(expense) from financial instruments measured at fair value	**(4,102)**	8,339
Net insurance premium income	**31,062**	36,212
Change in present value of in-force long-term insurance business	**4,512**	6,610
Other operating income/(expenses)	**(294)**	227
Total operating income	**37,115**	55,904
Net insurance claims and benefits paid and movement in liabilities to policyholders	**(31,692)**	(46,136)
Net operating income before change in expected credit losses and other credit impairment charges	**5,423**	9,768
Change in expected credit losses and other credit impairment charges	**(565)**	(19)
Net operating income	**4,858**	9,749
Total operating expenses	**(1,094)**	(1,018)
Operating profit	**3,764**	8,731
Share of profit in associates and joint ventures	**(83)**	282
Profit before tax	**3,681**	9,013
Annualised new business premiums of insurance manufacturing operations	**8,611**	14,099
Distribution income earned by banking operations	**2,424**	3,394

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$5,332m, or 59%, driven by the unfavourable equity market performance and lower new business volumes in the first half of 2020.

Net interest income increased by 7% as net premium inflows from new business and renewals increased fixed income assets held to back insurance liabilities.

Net income from financial instruments measured at fair value decreased significantly, primarily due to adverse equity market performance in Hong Kong and Singapore.

Net insurance premium income decreased, mainly in Hong Kong and Singapore due to lower new business volumes.

The unfavourable movement in the present value of in-force long-term insurance business ('PVIF') reflected a decrease in the value of new business written in the period, primarily in Hong Kong and Singapore in line with the lower business volumes.

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'.

Change in expected credit losses and other credit impairment charges

	Half-year to	
	30 Jun 2020	30 Jun 2019
	HK$m	HK$m
Change in expected credit losses		
Loans and advances to banks and customers	**12,325**	1,923
– new allowances net of releases	**12,646**	2,381
– recoveries of amounts previously written off	**(321)**	(458)
Loan commitments and guarantees	**987**	45
Other financial assets	**800**	71
Change in expected credit losses and other credit impairment charges	**14,112**	2,039

The change in expected credit losses ('ECL') as a percentage of average gross customer advances was 0.66% for the first half of 2020 (first half of 2019: 0.11%). The increase in ECL mainly reflected charges related to the global impact of Covid-19 and a deteriorating forward economic outlook. In addition, ECL in the first half of 2020 also included a significant charge related to a corporate exposure in Singapore in CMB.

Operating expenses

	Half-year to	
	30 Jun 2020	30 Jun 2019
	HK$m	HK$m
Employee compensation and benefits	**17,453**	19,615
General and administrative expenses	**21,030**	20,859
Depreciation of property, plant and equipment	**4,657**	4,040
Amortisation and impairment of intangible assets	**2,076**	1,170
Operating expenses	**45,216**	45,684

Employee compensation and benefits decreased by HK$2,162m, or 11%. Excluding the impact from foreign exchange, employee compensation and benefits decreased by HK$1,759m, or 9%, driven by lower performance-related pay and lower average headcount, partly offset by wage inflation across the region.

General and administrative expenses increased by HK$171m, or 1%. Excluding the impact from foreign exchange, general and administrative expenses increased by HK$411m, or 2%, largely due to an increase in investments, mainly IT-related costs to enhance our digital capabilities. The increase was largely offset by decreases in marketing expenses, professional expenses and premises and equipment costs.

Amortisation and impairment of intangible assets increased by HK$906m, or 77%, driven by impairment on intangible assets and higher amortisation charges, reflecting an increase in investments to enhance our digital capabilities.

Share of profit in associates and joint ventures

At 30 June 2020, 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 income. An impairment review would continue to be performed at each subsequent reporting period, with the carrying amount and income adjusted accordingly.

Risk

Principal risks and uncertainties

The group continuously monitors and identifies risks. Our principal risks are credit risk, liquidity and funding risk, pension risk, market risk, resilience risk, regulatory compliance risk, financial crime and fraud 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 20 to 21 in the 'Risk' section of the *Annual Report and Accounts 2019.*

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 first half of 2020 has been marked by unprecedented global economic events, leading to banks playing an expanded role to support society and customers. The Coronavirus Disease 2019 ('Covid-19') outbreak and its impact on the global economy have impacted many of our customers' business models and income, requiring significant levels of support from both governments and banks. In response, we have enhanced our approach to the management of risk in this rapidly changing environment.

Throughout the Covid-19 outbreak, we have supported our customers and adapted our operational processes. Our people, processes and systems have responded to the changes needed to serve our customers throughout this time. Operational resilience has been particularly evident in Hong Kong, where we have maintained high levels of service throughout the Covid-19 outbreak and the continuing domestic social unrest.

The performance of our operations has varied in different geographies, but overall the balance sheet and liquidity of the group remain strong. This has helped us to respond to the economic recovery as government lockdowns ease, as seen in mainland China.

Key geopolitical risks also heightened during the first half of 2020, with US-China tensions continuing to escalate, including those in relation to Hong Kong following the passing of the Hong Kong National Security Law, termination of the preferential treatment afforded to Hong Kong under the 1992 Hong Kong Policy Act by the US, and US's issuance of the Hong Kong Autonomy Act. The Hong Kong Autonomy Act provides authority to impose primary sanctions against entities and individuals determined to have undermined Hong Kong's autonomy and can impose secondary sanctions against non-US financial institutions as a result of certain activities. In addition, we further observe heightened corporate and national competition over ownership of technologies.

Prevailing market turmoil and temporary forbearance regulations are causing concerns on model performance and reliability across business and functions, resulting in businesses utilising more professional judgement to interpret outcomes.

To meet the additional challenges, we supplemented our existing approach to risk management with additional tools and practices. We increased our focus on the quality and timeliness of the data used to inform management decisions, through measures such as early warning indicators, prudent active risk management of our risk appetite, and ensuring regular communication with our Board and other key stakeholders.

Our current top and emerging risks are summarised below and discussed in more detail on pages 15 to 18 of the *Annual Report and Accounts 2019.*

Risk	Trend	Mitigants
Externally driven		
Geopolitical and macroeconomic risk	^	We monitor developments in geopolitical risk and assess what impacts these may have on our portfolios. Covid-19 has resulted in an unprecedented global economic slowdown with a significant increase in credit stress in the portfolio. Across the group, we have increased the frequency and depth of the monitoring activities on the portfolios. We performed stress tests and other sectoral reviews to identify portfolios or customers who were experiencing or were likely to experience financial difficulty as a result of Covid-19. We are increasing resources to help address the increased level of credit defaults in the current environment and are monitoring the impact of prolonged low interest rates.
Cyber threat and unauthorised access to systems	>	We endeavour to protect the group and our customers by strengthening our cyber defences, helping us to execute our business priorities safely and keep our customers' information secure. Our data-driven approach, grounded in strong controls that mitigate advanced cyber threats, enhances our capability in threat detection, access controls, and resiliency.
Regulatory developments including conduct, with adverse impact on business model and profitability	>	We monitor closely for regulatory developments and engage with regulators as appropriate, to help ensure that new regulatory requirements, such as those in response to the Covid-19 outbreak, are implemented effectively and in a timely way.
Financial crime risk environment	>	During the first half of 2020, we continued to improve the effectiveness of our financial crime controls in accordance with our specific regulatory obligations. The application of both advanced analytics and artificial intelligence remain key elements of our next generation of tools to fight financial crime, and our investment in these areas is ongoing. As fraudulent activity is often more prevalent in times of crisis, we have put in place additional measures to help minimise and detect fraud.
Ibor transition	^	We are focused on developing near risk-free rates ('RFRs') along the supporting processes and systems to make them available to our customers. Our programme is concurrently developing the capability to transition, through repapering outstanding London Interbank Offered Rate ('Libor') and Euro Overnight Index Average ('Eonia') contracts. We continue to engage with industry participants and the official sector to support an orderly transition.
Climate-related risks	>	We continue to improve how we identify, oversee and manage climate-related risks, both physical risks and the transition to a low carbon economy. Our Board-approved risk appetite statement contains a qualitative statement, which is being further enhanced this year. Our risk management priorities are focusing on: assessing the physical and transition risk in our wholesale credit portfolio; reviewing retail mortgage exposures in respect of natural hazard risk; and developing scenarios internally for risk management, planning and stress testing. We continue to engage with our stakeholders, in particular with regard to how we compile related data and disclosures.
Internally driven		
Risks arising from the receipt of services from third parties	>	We have set up a third-party risk management programme so we can better identify, understand, mitigate and manage the risks that arise from the outsourcing of services. The programme, due to conclude in the second half of 2020, aims to ensure adherence to our internal third-party risk policy and framework. We have worked closely with our third-party service providers, which have faced constraints and enhanced oversight on their operations during the Covid-19 outbreak. There has been no major impact to our services during the period.
Data management	>	We continue to enhance and advance our insights, data aggregation, reporting and decisions through ongoing improvement and investments in data governance, data quality, data privacy, data architecture, machine learning and artificial intelligence capabilities. We are continuing to work to modernise our data infrastructure, leveraging cloud technologies to increase flexibility and scalability and improve our fit-for-purpose data.

^ *Risk heightened during first half 2020*
> *Risk remained at the same level as 2019*

Key developments in the first half of 2020

There were no material changes to the policies and practices for the management of risk, as described in the *Annual Report and Accounts 2019*. However, where required, appropriate exceptional handling approaches were exercised in response to Covid-19 developments.

We have been actively managing the risks resulting from Covid-19 and its impacts on our customers and operations during the first half of 2020, as well as other key risks described in this section.

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. We continue to invest in business and technical controls to defend against these threats.

In the first half of 2020, we enhanced our risk management in the following areas:

- In January 2020, we simplified our approach and articulation of risk management, through the combination of the Enterprise Risk Management Framework and the Operational Risk Management Framework to create a single simplified HSBC Risk Management Framework.
- The global model risk policy and associated standards were revised to improve how we manage model risk and meet enhanced expectations. The new policy, which includes updated controls around model monitoring and model use, will be implemented over a six-month period commencing on 1 May 2020.
- We continued to focus on simplifying our approach to non-financial risk management. We are driving more effective oversight and better end-to-end identification and management of non-financial risks.
- We continued to improve the effectiveness of our financial crime controls in accordance with our specific regulatory obligations. We continued to invest in both advanced analytics and artificial intelligence, which remains key components of our next generation of tools to fight financial crime.

Areas of special interest

During the first half of 2020, a number of areas were considered as part of our top and emerging risks because of the effect they have on the group. We place particular focus in this section on geopolitical and macroeconomic risk, risks related to Covid-19, risks to our operations and portfolios and Ibor transition.

Geopolitical and macroeconomic risk

The Covid-19 outbreak has dominated the political and economic landscape for the first six months of 2020. The twin shocks of a public health emergency and the resultant economic fallout have been felt around the world, and hit both advanced and emerging markets. The closure of borders threatened medical and food supplies for many markets, and there is the potential for these countries and territories to focus efforts on building resilient supply chains closer to home to be less vulnerable to global shocks.

The Covid-19 outbreak has heightened existing US-China tensions. US executive branch and congressional action has put pressure on the initial 'phase one' provisions under the trade agreement signed in January 2020. Frictions span an increasing range of issues including trade, technology and human rights. The Covid-19 outbreak has accelerated US's efforts to try to reduce reliance on China in strategic industries such as sensitive technology, pharmaceuticals and precursor chemicals.

Hong Kong has also emerged as an additional source of tension in US-China relations, with potential ramifications for the group, including the impact of sanctions as well as regulatory, reputational and market risks for the group. While Hong Kong has experienced lower levels of social unrest in 2020, disagreements over the interpretation of the 'one country, two systems' model may continue to drive protest activity in the lead-up to the Legislative Council elections.

While UK-China relations have historically been shaped by strong trade and investment, there are also emerging challenges. Following the passage of the Hong Kong National Security Law, the UK government has offered residency rights and a path to citizenship for British National (Overseas) passport holders in Hong Kong. In addition, both UK and Hong Kong have suspended their extradition treaties with each other. The rollout of the UK 5G telecommunications network has also complicated relations. On 14 July, new restrictions on Huawei Technologies Co., Ltd were announced under the Telecoms Security Bill. These issues have the potential to impact bilateral commercial relationships adversely.

Emerging and frontier markets are suffering particularly heavily from the Covid-19 outbreak, in light of healthcare shortcomings, widespread labour informality, exposure to commodities production and often weak policy frameworks and buffers. Multilateral institutions have mobilised support for the weaker frontier markets, with the World Bank and G20 marshalling efforts to implement a standstill on debt to public-sector institutions. The International Monetary Fund has also, to date, lent US$25bn in emergency funds to over 70 countries. However, negotiations on debt to the private sector will prove more difficult, and may result in sovereign debt restructuring and defaults for several countries.

Most developed markets are expected to recover from the crisis, albeit after some permanent business closures and job losses. The majority of developed markets are also expected to not achieve pre-crisis growth rates or activity levels for the foreseeable future. These countries and territories should be able to shoulder the higher public deficits and debt necessary to offset private sector weakness, given the continuing low cost of servicing public debt. However, a group of developed markets entered the Covid-19 crisis on weak economic and fiscal footing and suffered high healthcare and economic costs. Although Eurozone progress in mutualisation of the debt should help to support recoveries and keep debt servicing costs down in the near term, there are concerns that permanently higher debt burdens will eventually lead to economies questioning their sustainability.

The contraction in the global economy has had varying effects on our customers, with many of them experiencing financial difficulties. This has resulted in an increase in expected credit losses ('ECL') as explained further in Credit Risk section.

Risks related to Covid-19

Covid-19 and its effect on the global economy have impacted our customers and our performance, and the future effects are uncertain. The outbreak has necessitated governments to respond at unprecedented levels to protect public health, local economies and livelihoods. It has impacted countries and territories at different times and to varying degrees as it has developed. The varying government measures in response have added challenges, given the rapid pace of change and significant operational demands. The speed at which countries and territories will be able to unwind their lockdown measures and return to pre-Covid-19 economic levels will vary based on levels of infection and local political decisions. There remains a risk of subsequent waves of infection.

Government restrictions on mobility implemented by governments around the world to limit the spread of Covid-19 resulted in a sharp contraction in global economic activity in the first half of this year. At the same time, governments also took steps designed to soften the extent of the damage to investment, trade and labour markets. Economic activity is expected to gradually recover in the second half of the year but there is significant uncertainty associated with the pace and scale of recovery. In our Central scenario, Gross Domestic Product ('GDP') contracts sharply in 2020 in all of our major markets, except mainland China. GDP growth in mainland China is expected to be positive in 2020, although the rate of growth is expected to be significantly lower compared with previous years. Strong recovery in economic activity is expected in 2021, but this is contingent on successful containment of the virus and the evolution of other top risks including political unrest in Hong Kong and tensions between the US and China. It also relies on the willingness and ability of households and businesses to return towards pre-crisis spending levels. While GDP is expected to grow strongly in our major markets in 2021, the Central scenario projects a more gradual decline in the unemployment rate in several of our key markets.

There is a material risk of a renewed drop in economic activity. The economic fallout from Covid-19 risks is increasing inequality across markets that had already suffered from civil unrest. This will leave the burden on governments and central banks to keep up or increase fiscal and monetary stimulus. After financial markets suffered a precipitous fall in the early phases of the spread of Covid-19, they rebounded although remain volatile. Depending on the degree to which global economic growth suffers permanent losses, financial asset prices may suffer a further sharp fall.

Governments and central banks in major economies have deployed extensive measures to support their local populations. Measures implemented by governments included income support to households and funding support to businesses. Central banks' measures included cuts to rates, support to funding markets and asset purchases. These measures are expected to be unwound gradually as government restrictions ease and as activity increases. Central banks are expected to maintain record-low interest rates for a considerable period of time and the debt burden of governments is expected to rise significantly.

We initiated market-specific measures to support our personal and business customers through these challenging times. These included mortgage assistance, payment holidays, the waiving of certain fees and charges, and liquidity relief for businesses facing market uncertainty and supply chain disruption. These measures have been well received and we remain responsive to our customers' changing needs. We are also working closely with governments and supporting national schemes that focus on the parts of the economy most impacted by Covid-19. In Hong Kong, we provided immediate liquidity relief to businesses facing market uncertainty and supply chain pressures. For details of our customer relief programmes, see page 18.

The rapid introduction and varying nature of these government support schemes, as well as customer expectations, can lead to risks as the group implements large-scale changes in a short period of time. This has led to operational issues including complex conduct considerations, increased reputational risks, and a heightened risk of fraud.

At 30 June 2020, our common equity tier 1 ('CET1') ratio was 16.7%, compared with 17.2% at 31 December 2019, and our liquidity coverage ratio ('LCR') was 162.0%. Our capital, funding and liquidity position will help us to continue supporting our customers throughout the Covid-19 outbreak.

In many of our markets, the Covid-19 outbreak has led to a weakening in GDP, a key input used for calculating ECL, and there remains the risk of more adverse economic scenarios given the ongoing impact of the Covid-19 outbreak. Furthermore, ECL will increase from other parts of our business impacted by the disruption to supply chains. The impact will vary by sectors of the economy, with heightened risk to the oil and gas, transport and discretionary consumer sectors being observed in the first stages of the outbreak. The impact of the outbreak on the long-term prospects of businesses in these sectors is uncertain and may lead to significant ECL charges on specific exposures, which may not be fully captured by ECL modelling techniques. In addition, in times of crisis, fraudulent activity is often more prevalent, leading to potentially significant ECL charges.

The significant changes in economic and market drivers, customer behaviours and government actions caused by Covid-19 have also impacted the performance of financial models. These include retail and wholesale credit models such as HKFRS loss models, capital models, traded risk models and models used in the asset/liability management processes. This has required more ongoing monitoring and more frequent testing across the group, particularly for credit models. It has also resulted in the use of compensating controls, specifically as overlays on top of model outputs to provide a more appropriate assessment. By their nature, such compensating controls require a significant degree of management judgement and assumptions to be applied, and there is a risk that future actual results or performance may differ from such judgements and assumptions.

The performance and usage of models over the next 12-18 months will continue to be impacted significantly by the consequences of Covid-19. It is too early in the current situation to be certain of the magnitude of change required for models. However, it is likely that capital, credit risk and HKFRS models will need to be re-calibrated, or in some cases, may need to be replaced with the development of alternative models. The effectiveness of the existing models will depend, in large, on the depth and length of the economic downturn faced by the world's economies.

As a result of Covid-19, business continuity plans have been implemented. Despite high levels of working from home, the majority of service level agreements, both internal and external, are being maintained. We have experienced no major impacts to supply chains from our third-party service providers. The risk of damage or theft of our physical assets or criminal injury to our employees remains unchanged. No significant incidents have impacted our buildings or staff. Expedited decisions to ensure the continuity of critical customer services are being documented through governance.

There remain significant uncertainties in assessing the duration of the Covid-19 outbreak and its impact, and how this will evolve through 2020 and beyond. A prolonged period of significantly reduced economic activity as a result of the impact of the outbreak would have a materially adverse effect on our financial results, prospects, liquidity, capital position and credit ratings. We continue to monitor the situation closely, given the novel and prolonged nature of the outbreak, additional mitigating actions may be required.

Risks to our operations and portfolios

The economic outlook as a result of Covid-19 remains uncertain with a number of industries adversely impacted. Improving trends have been noted for mainland China and New Zealand with regards to the Covid-19 outbreak, whilst cases continue to increase in other jurisdictions such as Hong Kong, Australia, India and Indonesia.

In the first half of 2020, US-China tensions have continued to escalate, including those in relation to Hong Kong. In June 2020, the National People's Congress of China enacted the Hong Kong National Security Law. In response, the US took steps to terminate the preferential treatment afforded to Hong Kong under the 1992 Hong Kong Policy Act. Additionally, the US President signed into law the Hong Kong Autonomy Act and issued an Executive Order, providing authority to impose primary sanctions against entities and individuals determined to have undermined Hong Kong's autonomy. The Hong Kong Autonomy Act also provides authority to impose secondary sanctions against non-US financial institutions determined to have conducted a significant transaction for any individual or entity subject to primary sanctions under the Act. There are other steps that have been taken by the US as well, as tensions with China rise.

Domestic social unrest in Hong Kong remains a risk, with investor and business sentiment in some sectors remaining dampened. There are concerns that ongoing tensions could result in an increasingly fragmented trade and regulatory environment, with the retail and leisure sectors being particularly affected by the lack of tourists. However, the financial services sector in Hong Kong has remained strong and has benefited from stable liquidity conditions.

The plans to rollout 5G telecommunications technology in several countries and its importance to future standard-setting and economic growth is likely to lead to heightened corporate and national competition over ownership of the relevant technologies.

We continue to carefully manage our exposures and conduct regular stress tests to assess the resilience of our balance sheet and our capital adequacy. These are used to consider our risk appetite and provide insights into our financial stability. Our operational resilience has been strongly tested during the Covid-19 outbreak and we have continued to maintain a high level of service to clients during this period in markets that remain at different levels of recovery. Our Hong Kong operations in particular have shown resilience in continuing to operate in times of domestic social unrest, the Covid-19 outbreak and heightened geopolitical risks. However, this will continue to be closely monitored.

We continue to believe in the core elements of our strategy such as targeting growth on the Greater Bay Area and the ASEAN region, and that we are well placed to be able to support opportunities as the economy recovers from the Covid-19 outbreak.

Ibor transition

The Financial Stability Board has observed that the decline in interbank short-term unsecured funding poses structural risks for interest rate benchmarks that reference these markets. In response, regulators and central banks in various jurisdictions have convened national working groups to identify alternative benchmark rates (near risk-free rates or 'RFRs') for these Ibors and, where appropriate, to facilitate an orderly transition to these rates.

Following the announcement by the UK’s FCA in July 2017 that it will no longer persuade or require banks to submit rates for the Libor after 2021, the national working groups for the affected currencies were tasked with facilitating an orderly transition of the relevant Libors to their chosen alternative benchmark rates. The euro working group is also responsible for facilitating an orderly transition of the Eonia to the euro short-term rate as a result of Eonia not being made compliant with the EU Benchmark Regulation.

Regulators have reiterated that firms cannot rely on Libor being published after the end of 2021 but acknowledge that Covid-19 may impact on transition plans.

National working groups, regulators and governments have also recognised that certain Libor contracts genuinely have no or inappropriate alternatives and no realistic ability to be renegotiated or amended prior to Libor’s cessation. In response, the US government and the European Commission intend to implement legislation that gives market participants the confidence to transition these ‘tough legacy’ contracts to the recommended benchmark replacement without the fear of legal repercussions. Similarly, in June 2020, the UK government announced that it would grant powers to the FCA to enable continued publication of a Libor number using a different and more robust methodology and inputs, and therefore reduce disruption to any holders of these tough legacy contracts. However, there is no certainty as to whether the FCA will exercise these powers or in what form the revised methodology would take, and the FCA has consequently encouraged users of Libor to renegotiate or amend as many contracts as possible before Libor’s cessation.

HSBC established the Ibor transition programme with the objective of facilitating an orderly transition from a number of Ibors for HSBC and its clients. During the first half of 2020, the group’s Ibor transition has developed as follows:

We continue to develop our capabilities to offer RFR-based products and the supporting processes and systems. The Covid-19 outbreak has impacted the speed with which we are able to develop these capabilities and many of our customers’ readiness to adopt RFR-based products. Consequently, the sale of Libor and Eonia contracts with maturities beyond 2021, known as legacy contracts, will continue for longer than initially anticipated. This is likely to increase the volume of legacy contracts that will need to be transitioned.

The programme is also continuing to develop the capability to transition legacy Libor and Eonia contracts at scale. The Covid-19 outbreak has also affected the pace with which many of our customers will have been preparing to adopt RFR-based products. Therefore, it has likely affected the pace at which they will transition their legacy contracts to RFRs. Consequently, we expect legacy contract transition to occur over a shortened time period. In combination with the greater number of legacy contracts requiring transition, this increases the overall level of execution risk on the transition process, which could potentially increase the level of conduct and operational risks.

In addition to the heightened conduct and operational risks, the process of adopting new reference rates may expose the group to an increased level of financial risk, such as potential earnings volatility resulting from contract modifications and changes in hedge accounting relationships. Furthermore, the transition to alternative reference rates could have a range of adverse impacts on our business, including legal proceedings or other actions regarding the interpretation and enforceability of provisions in Ibor-based contracts, and regulatory investigations or reviews in respect of our preparation and readiness for the replacement of Ibor with alternative reference rates. We continue to engage with industry participants, the official sector and our clients to support an orderly transition and the mitigation of the risks resulting from the transition.

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.

During the first half of 2020, due to the unique market conditions in the Covid-19 crisis, we expanded operational practices to provide short-term support to customers under the current policy framework. For further details of market-specific measures to support our personal and business customers, see page 18. There have been no material changes to credit risk policy.

For the wholesale and retail mentioned in the credit risk section, wholesale mainly refers to Commercial Banking and Global Banking and Markets, whereas retail 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 22 to 23 of the Annual Report and Accounts 2019.

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[3]

	Gross carrying/nominal amount					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	3,057,331	621,812	26,298	913	3,706,354	(4,277)	(7,667)	(14,779)	(267)	(26,990)	0.1	1.2	56.2	29.2	0.7
– personal	1,299,665	87,681	6,618	–	1,393,964	(2,196)	(3,193)	(1,626)	–	(7,015)	0.2	3.6	24.6	–	0.5
– corporate[1]	1,556,547	477,535	19,665	910	2,054,657	(1,936)	(4,191)	(13,138)	(264)	(19,529)	0.1	0.9	66.8	29.0	1.0
– financial institutions[2]	201,119	56,596	15	3	257,733	(145)	(283)	(15)	(3)	(446)	0.1	0.5	100.0	100.0	0.2
Loans and advances to banks	384,637	17,246	–	–	401,883	(40)	(21)	–	–	(61)	0.0	0.1	–	–	0.0
Other financial assets	1,698,035	35,486	153	1	1,733,675	(530)	(323)	(20)	–	(873)	0.0	0.9	13.1	–	0.1
Loan and other credit-related commitments	1,653,298	80,889	114	–	1,734,301	(265)	(660)	(29)	–	(954)	0.0	0.8	25.4	–	0.1
– personal	1,214,073	8,101	80	–	1,222,254	–	–	–	–	–	–	–	–	–	–
– corporate[1]	351,495	60,040	34	–	411,569	(247)	(639)	(29)	–	(915)	0.1	1.1	85.3	–	0.2
– financial institutions[2]	87,730	12,748	–	–	100,478	(18)	(21)	–	–	(39)	0.0	0.2	–	–	0.0
Financial guarantee	20,410	13,879	461	–	34,750	(20)	(105)	(81)	–	(206)	0.1	0.8	17.6	–	0.6
– personal	4,130	10	6	–	4,146	–	(6)	(1)	–	(7)	0.0	60.0	16.7	–	0.2
– corporate[1]	15,092	13,507	455	–	29,054	(18)	(99)	(80)	–	(197)	0.1	0.7	17.6	–	0.7
– financial institutions[2]	1,188	362	–	–	1,550	(2)	–	–	–	(2)	0.2	–	–	–	0.1
At 30 Jun 2020	6,813,711	769,312	27,026	914	7,610,963	(5,132)	(8,776)	(14,909)	(267)	(29,084)	0.1	1.1	55.2	29.2	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					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	3,423,956	296,522	16,639	1,152	3,738,269	(3,480)	(4,615)	(8,999)	(300)	(17,394)	0.1	1.6	54.1	26.0	0.5
– personal	1,351,575	45,606	5,575	—	1,402,756	(1,732)	(2,646)	(1,325)	—	(5,703)	0.1	5.8	23.8	—	0.4
– corporate[1]	1,850,316	222,819	10,914	1,149	2,085,198	(1,622)	(1,844)	(7,525)	(297)	(11,288)	0.1	0.8	68.9	25.8	0.5
– financial institutions[2]	222,065	28,097	150	3	250,315	(126)	(125)	(149)	(3)	(403)	0.1	0.4	99.3	100.0	0.2
Loans and advances to banks	328,355	579	—	—	328,934	(26)	(3)	—	—	(29)	0.0	0.5	—	—	0.0
Other financial assets	1,530,910	9,884	167	2	1,540,963	(214)	(77)	(50)	—	(341)	0.0	0.8	29.9	—	0.0
Loan and other credit-related commitments	1,601,934	27,967	104	—	1,630,005	(303)	(236)	(21)	—	(560)	0.0	0.8	20.2	—	0.0
– personal	1,158,805	5,311	69	—	1,164,185	—	(1)	—	—	(1)	—	0.0	—	—	0.0
– corporate[1]	378,362	18,495	35	—	396,892	(293)	(230)	(21)	—	(544)	0.1	1.2	60.0	—	0.1
– financial institutions[2]	64,767	4,161	—	—	68,928	(10)	(5)	—	—	(15)	0.0	0.1	—	—	0.0
Financial guarantee	34,496	6,634	33	—	41,163	(29)	(20)	(13)	—	(62)	0.1	0.3	39.4	—	0.2
– personal	4,377	—	3	—	4,380	—	—	(3)	—	(3)	—	—	100.0	—	0.1
– corporate[1]	28,530	6,410	30	—	34,970	(29)	(20)	(10)	—	(59)	0.1	0.3	33.3	—	0.2
– financial institutions[2]	1,589	224	—	—	1,813	—	—	—	—	—	—	—	—	—	—
At 31 Dec 2019	6,919,651	341,586	16,943	1,154	7,279,334	(4,052)	(4,951)	(9,083)	(300)	(18,386)	0.1	1.4	53.6	26.0	0.3

The above table does not include balances due from Group companies.

1 *Includes corporate and commercial.*
2 *Includes non-bank financial institutions.*
3 *The financial information included in this table forms part of the Interim condensed consolidated financial statements, which have been reviewed by PricewaterhouseCoopers.*

Measurement uncertainty and sensitivity analysis of ECL estimates

(Reviewed by PricewaterhouseCoopers)

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

Our methodology in relation to the adoption and generation of economic scenarios is described on pages 27 to 30 of the *Annual Report and Accounts 2019*. There have been no significant changes during the first half of 2020.

Description of consensus economic scenarios

The economic assumptions presented in this section have been formed by HSBC with reference to external forecasts specifically for the purpose of calculating ECL. The emergent nature of the Covid-19 outbreak at the end of 2019 meant that our view of the distribution of risks, as disclosed in the *Annual Report and Accounts 2019*, did not, on a forward-looking basis, consider the impact of the virus. Our consensus Central scenario at the 2019 year-end projected moderate growth over a five-year horizon, with strong prospects for employment and a gradual increase in policy interest rates by central banks in the major economies of Europe and North America. The onset of the virus has led to a fundamental reassessment of our central forecast and the distribution of risks.

Economic forecasts are subject to a high degree of uncertainty in the current environment. Limitations of forecasts and economic models require a greater reliance on management judgement in addressing both the error inherent in economic forecasts and in assessing associated ECL outcomes. The main factors that affect uncertainty across our key markets are:

- epidemiological concerns, including a possible resurgence of the virus later in 2020 and in 2021;
- the ability of new or continued restrictions in individual markets to affect global growth due to deep cross-border trade and financial linkages;
- the ability of governments and central banks to continue to limit the economic damage through support measures;
- country-specific differences in the progression of Covid-19 and the associated responses by public authorities which imply differentiation in the degree of uncertainty across our key markets;
- the potential for other geopolitical and macroeconomic risks to affect growth and economic stability as the world recovers from Covid-19-related restrictions.

This volatility in data, and in forecasts is reflected in management's choice of scenarios, in probability weights and in their assessment of ECL outcomes.

The scenarios used to calculate ECL in the Interim condensed consolidated financial statements are described below.

The consensus Central scenario

HSBC's Central scenario features a 'V-shaped' shock to economic activity as characterised by a deep, initial contraction in GDP, followed by a sharp recovery. This 'V-shape' in activity reflects the unique nature of this downturn and is driven by restrictions on mobility and activity imposed by governments to reduce the spread of the virus. The Central scenario further assumes that the stringent restrictions on activity employed across several countries and territories in the first half of 2020 will not be repeated, allowing economic activity to rebound. Minimal long-term damage to economic prospects is expected, allowing economic growth across our key markets to return to their trend rates. Cross-country differences in the depth of the contraction and the speed and scale of subsequent recovery reflect timing differences in the progression of the virus, national level differences in restrictions imposed and the scale of support measures.

Global GDP is expected to contract by 3.9% in 2020 and reach 4.8% in 2021. The average rate of global GDP growth is expected to be 2.7% over the forecast period 2020–2025, which is slightly lower than the average growth rate over the 2015–2019 period.

The unique circumstances surrounding the current fall in economic activity make it difficult to compare current prospects for global economic activity with previous recessions. However, we note that the depth of the contraction in global economic activity and the subsequent recovery are both expected to be sharper than experienced during the last global downturn of 2008-09.

Across the major markets in Asia, we note:

- Expectations of GDP growth are mostly negative (with the exception of mainland China) in 2020, with the worst quarter expected either in the first or second quarter depending on the timing of the spread of Covid-19 and subsequent restrictions on mobility. GDP is forecast to recover strongly in 2021.
- The unemployment rate is expected to rise sharply in most of our major markets, before reverting gradually back to pre-crisis levels over the forecast horizon.
- Inflation is expected to fall sharply in 2020 in line with the slowdown in economic activity, before increasing to gradually converge to central bank targets in our key markets over the forecast period.
- Governments have provided extensive support to households and corporates across Asia. Fiscal deficits are expected to increase sharply in 2020 before reducing in later years of the projection period. Sovereign indebtedness is expected to increase sharply as a result.
- Major central banks have lowered their main policy interest rates, implemented emergency support measures for funding markets and either restarted or increased quantitative easing programmes in order to support the economy and the financial system. Interest rates are expected to remain close to the zero lower bound over the projection horizon.
- The West Texas Intermediate oil price is forecast to average US$37 per barrel over the projection period.

The Central scenario has been created with forecasts available in May. The weight HSBC has chosen to give the Central scenario reflects management's view of the higher degree of uncertainty that currently prevails in key markets. The Central scenario has been assigned a 70% weight across all of our markets.

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

Central scenario (2020 Q3 - 2025 Q2)

	Hong Kong	Mainland China
GDP growth (%)		
Annual average growth rate: 2020	(4.8)	1.4
Annual average growth rate: 2021	4.2	8.1
1Q22-2Q25: average growth	2.3	5.3
3Q20-2Q22: worst quarter	(2.6) (Q320)	3.3 (Q421)
Unemployment rate (%)		
Annual average rate: 2020	4.6	4.5
Annual average rate: 2021	4.1	4.2
1Q22-2Q25: average	3.7	3.9
3Q20-2Q22: worst quarter	4.8 (Q320)	4.6 (Q320)
House Price Index (%)		
Annual average growth rate: 2020	(7.9)	1.8
Annual average growth rate: 2021	0.4	2.6
1Q22-2Q25: average growth	3.4	5.4
3Q20-2Q22: worst quarter	(11.5) (Q320)	1.3 (Q121)
10-year bond yield (%)		
Annual average rate: 2020	1.2	N/A[1]
Annual average rate: 2021	1.7	N/A[1]
1Q22-2Q25: average	2.2	N/A[1]
3Q20-2Q22: worst quarter	1.2 (Q320)	N/A[1]
Probability (%)	70	70

1 *N/A – not required in credit models.*

The consensus Upside scenario

Compared to the consensus Central scenario, the consensus Upside scenario features a faster recovery in economic activity during the first two years, before converging to long-run trends. Despite this feature, 2020 continues to be a year of contraction in GDP growth and several quarters elapse before global activity reaches the level attained at the end of 2019, just prior to the onset of the virus.

The scenario is consistent with a number of key upside risk themes. These include orderly global abatement of Covid-19 via successful containment and/or the development of a vaccine, de-escalation of tensions between the US and China, continued support from fiscal and monetary policy, stronger oil prices and de-escalation of geopolitical tensions in Hong Kong.

Probability weights assigned to the Upside scenario range from 5% to 10%. These weights reflect management's view of the potential for more positive outcomes relative to the Central scenario in our key markets.

The consensus Downside scenario

Global real GDP growth contracts significantly in 2020 in the Downside scenario with a sharp increase in unemployment and falls in asset prices and inflation before gradually recovering towards its long-run trend. Compared with the Central scenario, this recovery is considerably weaker.

The scenario is consistent with our key downside risks. These include renewed outbreaks of Covid-19 and/or slower easing of restriction of travel and activity, an intensification of tensions between the US and China, further risks to economic growth in Hong Kong and weaker commodity prices.

A weight of either 15% or 20% has been assigned to the consensus Downside scenario to reflect management's view of the risks and severity across key markets.

Alternative Downside scenario

A global downside scenario has been created to reflect management's view of extreme risks. This 'U-shaped' scenario assumes that a number of HSBC's top risks crystallise simultaneously and results in an extremely severe and long-lived recession. This scenario has been assigned a 5% probability across all markets.

The range of macroeconomic projections across the various scenarios is shown in the table below:

Outer scenario ranges (3Q20-2Q25)

	Hong Kong	Mainland China
GDP growth (%)	(1.5) to (15.8) (Q320) (Q320)	3.9 to (7.2) (Q421) (Q320)
Unemployment rate (%)	4.5 to 8 (Q320) (Q121)	4.5 to 6.1 (Q320) (Q122)
House price index (%)	(10.3) to (26.3) (Q320) (Q121)	3.3 to (25.8) (Q320) (Q321)
10-year bond yield (%)	1.2 to (0.8) (Q320) (Q121)	N/A[1]
Probability consensus Upside (%)	5	10
Probability consensus Downside (%)	20	15
Probability Global Downside (%)	5	5

Note: The figures provided represent the range of the worst point across all three outer scenarios.

1 *N/A – not required in credit models.*

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 2019* under 'Critical accounting estimates and judgements'. The level of estimation uncertainty and judgement has increased since 31 December 2019 as a result of the economic effects of the Covid-19 pandemic, including significant judgements relating to:

- the selection and weighting of economic scenarios, given rapidly changing economic conditions in an unprecedented manner, uncertainty as to the effect of government and central bank support measures designed to alleviate adverse economic impacts, and a widening in the distribution of economic forecasts. The key judgement is whether the economic effects of the pandemic are more likely to be temporary or prolonged, and the shape of recovery;
- estimating the economic effects of those scenarios on ECL, where there is no observable historical trend that can be reflected in the models that will accurately represent the effects of the economic changes of the severity and speed brought about by Covid-19. Modelled assumptions and linkages between economic factors and credit losses may underestimate or overestimate ECL in these conditions, and there is significant uncertainty in the estimation of parameters such as collateral values and loss severity; and
- the identification of customers experiencing significant increases in credit risk and credit impairment, particularly where those customers have accepted payment deferrals and other reliefs designed to address short-term liquidity issues, or have extended those deferrals, given limitations in the available credit information on these customers. The use of segmentation techniques for indicators of significant increases in credit risk involves significant estimation uncertainty.

How economic scenarios are reflected in ECL

The methodologies for the application of forward economic guidance into the calculation of ECL for wholesale and retail loans and portfolios is set out in pages 29 to 30 of the *Annual Report and Accounts 2019*. These models are based largely on historical observations and correlations with default rates.

The severe projections at 30 June 2020 of macroeconomic variables are outside the historical observations on which HKFRS 9 models have been built and calibrated to operate. Moreover, the complexities of governmental support programmes and regulatory guidance on treatment of customer impacts (such as forbearance and payment holidays) and the unpredictable pathways of the pandemic have never been modelled. Consequently, our impairment models in some cases generate output that appears overly conservative when compared with other economic and credit metrics. Post-model adjustments are required to ensure that an appropriate amount of ECL impairment is recognised.

These data and model limitations have been addressed in the short term using in-model and post-model adjustments. 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. To ensure a consistent framework, Group Credit Risk identified the model segments where results were overly conservative based on historical benchmarks and defined the worst economic inputs where the model output is considered reliable. For example, in the case of Bank and Sovereign PD models, based on the historical calibration data, the model was defined as producing meaningful results when the GDP growth input is not worse than five standard deviations below the long-term average. Re-running the models with these capped economic limits established boundary conditions used by credit experts as a starting point for further overlays based on their own structured judgement and granular analysis. For the wholesale portfolio, this analysis produced a 'credit experts best estimate' to act as a benchmark against the modelled outcomes, and inform post-model adjustments. In the short term, the focus is on refining model inputs and outputs in a consistent and explainable manner, using post-model adjustments. Wider-ranging model changes will take time to develop and need more real data on which models can be trained.

Models will be recalibrated over time once the full impacts of the pandemic are observed but that will not occur in 2020. Therefore, we anticipate significant in-model and post-model adjustments for the foreseeable future.

Post-model adjustments

In the context of HKFRS 9, post-model adjustments are short-term increases or decreases to the ECL at either a customer or portfolio level to account for late breaking events, model deficiencies and expert credit judgement applied following management review and challenge. We have internal governance in place to regularly monitor post-model adjustments and where possible to reduce the reliance on these through model recalibration or redevelopment, as appropriate. Depending on the path of the pandemic and the shape of the economic recovery, we anticipate the composition of modelled ECLs and post-model adjustments may be revised significantly over 2020, particularly when the economy resumes positive GDP growth and the uncertainty over long-term unemployment abates.

The following table quantifies the judgemental adjustments that have been made to modelled ECL at 30 June 2020.

Net post-model additions/ (reductions) in ECL (HK$m)	Retail	Wholesale	Total
Low-risk counterparties and economies (banks, sovereigns and government entities)	(1,775)	(1,079)	(2,854)
Corporate lending adjustments	–	(9,273)	(9,273)
Retail lending adjustments	988	–	988
Total	(787)	(10,352)	(11,139)

The low-risk counterparties and economies adjustment (including exposures under WPB insurance business) relates to low credit risk exposures to highly rated banks and sovereigns, where modelled credit factors do not fully reflect the effect of government support and economic programmes in the Covid-19 environment. For certain highly rated sovereign exposures, existing models do not produce plausible outputs under current conditions because there is little or no recessionary experience on which to base modelled outcomes.

Adjustments to corporate exposures principally reflect the outcome of the credit expert best estimates ('CEBE') review on wholesale corporate exposures. Post-model adjustments have been made where modelled rating migration and ECL outputs based on historical relationships produced results that were overly conservative, which is often the case when using economic inputs that are well outside the range of historical experience. For retail lending, the net impact of model adjustments was much less significant. The main material post-model adjustment for retail lending was related to Hong Kong and Australia. The adjustment for Hong Kong was taken to neutralise model predicted ECL release. This was partially offset by an underlay in Australia where modelled results included economic forecasts significantly beyond those observed during model development.

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 actual ECL outcomes. The impact of defaults that might occur in 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 LGD 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, and 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 sensitivity analysis is stated inclusive of post-model adjustments as appropriate to each scenario.

In both the Wholesale and Retail analysis, the comparative period results for Alternative downsides are not directly comparable.

Wholesale analysis

HKFRS 9 ECL sensitivity to future economic conditions[1]

ECL coverage of financial instruments subject to significant measurement uncertainty at 30 June 2020[2]	Hong Kong HK$m	Mainland China HK$m
Reported ECL	4,162	1,217
Consensus scenarios		
Central scenario	3,480	946
Upside scenario	2,697	589
Downside scenario	5,324	1,635
Alternative scenarios		
Global Downside scenario	13,222	9,866

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 2020, the global downside 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.

ECL sensitivities demonstrated an increase from year end 2019, across all countries, primarily due to the deterioration of economic forecasts under all scenarios.

The higher ECL sensitivities can all be observed for the global downside scenario, which represents a prolonged recovery period and sharper impact, comparative to other scenarios.

Retail analysis

HKFRS 9 ECL sensitivity to future economic conditions[1]

ECL of loans and advances to customers at 30 June 2020[2]	Hong Kong HK$m	Malaysia HK$m	Singapore HK$m	Australia HK$m
Reported ECL	2,984	946	543	473
Consensus scenarios				
Central scenario	2,705	930	543	372
Upside scenario	2,472	884	519	248
Downside scenario	3,240	977	620	643
Alternative scenarios				
Global Downside scenario	5,983	1,240	922	1,674

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. In Retail during the first half of 2020, there has been a significant increase in reported expected credit losses across all markets, due to the global Covid-19 pandemic.*

At 30 June 2020, the global downside scenario reflects the most significant level of ECL sensitivity in Hong Kong due to the level of exposures. Across all countries and markets, primarily due to the worsening of the economic forecasts, ECL sensitivities demonstrated an increase from year end 2019.

Customer relief programmes

In response to the Covid-19 pandemic, governments around the world have introduced a number of support measures for both personal and wholesale customers. The following table presents the number of personal accounts/wholesale customers and the associated drawn loan values of customers under these schemes and schemes independently implemented by the group at 30 June 2020.

		Hong Kong	Malaysia	Other major markets[1]
Personal lending				
Number of customer accounts granted mortgage customer relief schemes	000s	3	41	7
Drawn loan value of customers granted mortgage customer relief schemes	HK$m	9,542	17,099	12,373
Customer relief as a proportion of total mortgages	%	1.4%	83.4%	3.8%
Number of customer accounts granted other personal lending customer relief schemes	000s	1	92	101
Drawn loan value of customers granted other personal lending customer relief schemes	HK$m	740	14,081	1,915
Customer relief as a proportion of total other personal lending	%	0.3%	63.5%	2.3%
Wholesale lending				
Number of customers under customer relief schemes	000s	9	2	1
Drawn loan value of customers under customer relief schemes	HK$m	193,195	10,786	8,894
Customer relief as a proportion of total wholesale loans and advances to customers	%	13.2%	18.3%	1.1%

1 *Other major markets include Australia, India, Indonesia, mainland China, Singapore and Taiwan.*

The initial granting of customer relief does not automatically trigger a migration to stage 2 or 3. However, information provided by payment deferrals is considered in the context of other reasonable and supportable information, as part of the overall assessment for significant increase in credit risk and for credit impairment, to identify loans for which lifetime ECL is appropriate. An extension in payment deferral does not automatically result in stage 2 or stage 3. The key accounting and credit risk judgement to ascertain whether a significant increase in credit risk has occurred is whether the economic effects of Covid-19 on the customer are likely to be temporary over the lifetime of the loan, and do not indicate that a concession is being made in respect of financial difficulty that would be consistent with stage 3.

Hong Kong

Wholesale

Given the continued challenges encountered by the Hong Kong business community on the back of the Covid-19 outbreak, we have rolled out certain temporary relief measures in 2020 to support our corporate clients during this period. The overarching premise of these initiatives was to support the immediate cash flow and liquidity of our customers, without increasing the overall quantum of exposure/ risk appetite to these clients. Eligible customers were required to meet a set of credit criteria.

These arrangements are more proactive and flexible approaches to commercial restructuring as opposed to forbearance / renegotiated loans / distressed restructuring.

The relief measures are as follows:

- Programmes implemented in February 2020 for ‘eligible clients’ including extension of trade loans, conversion of trade facilities to overdraft facilities, and a principal moratorium for commercial loans of up to six months with no change to the existing interest rate charge;
- A supplemental industry-wide relief programme initiated by the Hong Kong Monetary Authority ('HKMA') for eligible small and mid-sized corporates with turnover not exceeding HK$800m and no past dues beyond 30 days was launched in May 2020. The Pre-approved Principal Payment Holiday Scheme ('PPPHS') entailed essentially a three-month principal payment holiday for trade facilities and a six-month principal holiday for other loans, with no change to the existing interest rate charge;
- A special 100% Loan Guarantee under the Small and Medium Enterprise (‘SME’) Financing Guarantee Scheme (SFGS100) was launched in April 20. The guarantee covers a maximum tenure of three years and maximum loan size of HK$4m, and involves transfer of title of the loan to the Hong Kong Mortgage Corporation, a quasi-government agency, immediately after drawdown.

Retail

Customer relief granted on Hong Kong mortgages consists of deferred principal repayment of up to 12 months. This relief programme is available to existing HSBC mortgage loan customers who have a good repayment record in the past six months.

Malaysia

Wholesale

We have launched a credit support programme by providing a 30-day extension of import trade loans for eligible clients in March 2020, and further extended in April with enhancement to allow up to a 60-day extension of import trade loans.

The Bank has also supported SME clients through the following measures:

- Special Relief Facility ('SRF') of up to MYR5bn in aggregate – to help alleviate short-term cash flow problems faced by SMEs adversely affected by the Covid-19 outbreak;
- SME Automation and Digitization Facility ('ADF') of up to MYR300m in aggregate – to incentivise SMEs to automate processes and digitalise operations to increase productivity and efficiency;
- Agrofood Facility ('AF') of up to MYR1bn in aggregate – to increase food production for both domestic consumption and exports;
- Government Guarantee Scheme ('GGS') – Prihatin, of up to MYR5bn in aggregate since the funds allotted to the above SRF scheme have been exhausted, and this scheme was launched to further assist SMEs negatively affected by the Covid-19 outbreak to obtain financing facilities.

These support measures were further supplemented by an industry-wide relief programme in April 2020 initiated by the government for all SME corporates (except those opting out from the programme) by way of a pre-approved six-month principal and interest moratorium in conventional or Islamic financing payment obligations for loans/financing that meet a set of credit criteria.

Retail

In Malaysia, the relief programmes are mandated by Bank Negara’s Guideline dated 24 March 2020. HSBC offers a deferment of all loan/financing repayments for a period of six months, with effect from 1 April 2020 for customers who are not in arrears exceeding 90 days. For credit card balances not exceeding 60 days past due as of 1 April 2020, customers can opt-in for conversion to a term loan/financing of up to a three-year tenure, while accounts between 60 days past due to 89 days past due are automatically converted. These customers also have the option of a six-month moratorium subject to the Bank’s assessment.

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.

We maintain a comprehensive liquidity and funding risk management framework ('LFRF'), which aims to allow us to withstand severe liquidity stresses. It is based on global policies that are designed to be adaptable to different business models, markets and regulations. The LFRF comprises policies, metrics and controls designed to ensure that group and entity management have oversight of our liquidity and funding risks in order to manage them appropriately.

We manage liquidity and funding risk at an operating entity level to ensure 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 individual liquidity adequacy assessment process, which is used to ensure 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, so as to ensure they maintain adequate levels of liquidity buffers. It informs the validation of risk tolerance and the setting of risk appetite.

The LFRF requires all operating entities to monitor material single currency Liquidity Coverage Ratio ('LCR'). Limits are set to ensure that outflows can be met, given assumptions on stressed capacity in the FX swap markets.

There were no material changes to the policies and practices for the management of liquidity risk in the first half of 2020.

A summary of our current policies and practices for the management of liquidity and funding risk is set out in 'Liquidity and funding risk' on pages 40 to 41 of the Annual Report and Accounts 2019.

Sources of funding

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

Additional collateral obligations

Under the terms of our current collateral obligations under derivative contracts (which are International Swaps and Derivatives Association ('ISDA') compliant Credit Support Annex ('CSA') contracts), the additional collateral required to post in the event of a one-notch and two-notch downgrade in credit ratings is not significant.

Liquidity and funding risk in the first half of 2020

The management of liquidity risk was enhanced during the first half of 2020 in response to the Covid-19 outbreak to ensure the bank anticipated, monitored and responded to the impacts both at group and entity level.

The group is required to calculate its LCR and Net Stable Funding Ratio ('NSFR') on a consolidated basis in accordance with rule 11(1) of The Banking (Liquidity) Rules ('BLR'). The group 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 2020	31 Dec 2019
	%	%
Average LCR	**162.0**	163.5

The liquidity position of the group remained strong in the first half of 2020. The average LCR decreased slightly by 1.5% from 163.5% for the quarter ended 31 December 2019 to 162.0% for the quarter ended 30 June 2020.

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. From 1 January 2020, listed ordinary shares and triple-B rated marketable debt securities that meet HKMA requirements are also included in HQLA as Level 2B assets.

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

	Weighted amount (average value) at quarter ended	
	30 Jun 2020	31 Dec 2019
	HK$m	HK$m
Level 1 assets	**1,605,095**	1,528,908
Level 2A assets	**90,526**	80,174
Level 2B assets	**35,249**	10,788
Total	**1,730,870**	1,619,870

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

	At	
	30 Jun 2020	31 Dec 2019
	%	%
Net stable funding ratio	**150.4**	145.8

The funding position of the group remained robust in the first half of 2020, highlighting a surplus of stable funding available relative to stable funding requirement. The NSFR increased by 4.6% from 145.8% for the quarter ended 31 December 2019 to 150.4% for the quarter ended 30 June 2020.

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 2020*, which will be available in the Regulatory Disclosure Section of our website: www.hsbc.com.hk.

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. Exposure to market risk is separated into two portfolios: trading portfolios and non-trading portfolios.

There were no material changes to our policies and practices for the management of market risk in the first half of 2020.

A summary of our current policies and practices for the management of market risk is set out in 'Market risk management' on pages 41 to 42 of the Annual Report and Accounts 2019.

Market risk in the first half of 2020

Global financial conditions worsened rapidly with the onset of the Covid-19 pandemic from mid-February. Market volatility reached extreme levels across most asset classes and equity prices fell sharply from the previous historic peak levels. The costs of US dollar funding in the foreign exchange markets surged sharply. In credit markets, spread and yields reached multi-year highs. The gold market experienced disruption related to Covid-19, with refining and transportation affecting the relative pricing of gold futures contracts, and oil prices collapsed due to rising over-supply as demand reduced materially due to the economic slowdown. Financial markets stabilised from April onwards, as governments in major developed countries announced economic recovery programmes and key central banks intervened to provide liquidity and support asset prices.

We managed market risk prudently in the first half of 2020. Key sensitivity exposures remained within appetite as the business pursued its core market-making activity in support of our customers during the pandemic. Market risk continued to be managed using a complementary set of exposure measures and limits, including stress and scenario analysis.

The fixed income business continued to be the key driver of trading value at risk ('VaR') from its interest rate and credit risk sensitivity exposures. The equity and foreign exchange components provided marginal contributions to overall market risk in the trading book.

Trading portfolios

Value at risk of the trading portfolios

Trading VaR predominantly resides within Global Markets. Total trading VaR was higher as at 30 June 2020 compared to 31 December 2019, mainly contributed by Interest Rate VaR and Credit VaR with higher market volatility.

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 2020						
Period end	**40**	**184**	**38**	**39**	**(116)**	**209**
Average	**48**	**143**	**41**	**52**		**185**
Maximum	**96**	**248**	**83**	**90**		**251**
Half-year to 31 Dec 2019						
Period end	48	90	50	24	(110)	140
Average	41	93	36	34		149
Maximum	58	126	59	81		185

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 includes HK$24m Risk not in VaR ('RNIV') for half-year end 2020 and HK$38m Risk not in VaR ('RNIV') for year end 2019.*

Insurance manufacturing operations risk management

Overview

The majority of the risk in our insurance business derives from manufacturing activities and can be categorised as financial risk and insurance risk. Financial risks include market risk, credit risk and liquidity risk. Insurance risk is the risk, other than financial risk, of loss transferred from the holder of the insurance contract to HSBC, the issuer. The cost of claims and benefits can be influenced by many factors, including mortality and morbidity experience, as well as lapses and surrender rates.

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 46 to 47 of the Annual Report and Accounts 2019.

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 2019.*

Insurance manufacturing operations risk profile in the first half of 2020

The risk profile of our insurance manufacturing businesses is measured using an economic capital approach. Assets and liabilities are measured on a market value basis, and a capital requirement is defined to ensure that there is a less than one in 200 chance of insolvency over a one-year time horizon, given the risks to which the businesses are exposed. The methodology for the economic capital calculation is largely aligned to the pan-European Solvency II insurance capital regulations. A key risk appetite metric is the economic capital coverage ratio, which is calculated by dividing the economic net asset value by the economic capital requirement.

Covid-19 impacts on financial markets have in turn impacted the profitability of manufactured insurance products and have caused overall capital levels to fall in several of the insurance entities. At 30 June 2020 regulatory capital levels were above risk appetite and the group economic capital level was above risk tolerance. A variety of management actions was taken during the period to actively manage the risk profile of the insurance entities and enhanced risk management and oversight will continue.

Insurance entities in the group manage their economic capital cover ratios against their appetite and tolerance as approved by their respective Boards. The tables below show the composition of assets and liabilities by contract type and 93% (2019: 92%) of both assets and liabilities are derived from Hong Kong.

Balance sheet of insurance manufacturing subsidiaries by type of contract

	Non-linked	Unit-linked	Shareholders' assets and liabilities	Total
	HK$m	HK$m	HK$m	HK$m
At 30 Jun 2020				
Financial assets	**535,348**	**38,626**	**39,260**	**613,234**
– financial assets designated and otherwise mandatorily measured at fair value	**95,952**	**37,363**	**369**	**133,684**
– derivatives	**2,224**	**35**	**10**	**2,269**
– financial investments measured at amortised cost	**405,692**	**207**	**31,118**	**437,017**
– financial investments measured at fair value through other comprehensive income	**4,003**	**—**	**405**	**4,408**
– other financial assets[1]	**27,477**	**1,021**	**7,358**	**35,856**
Reinsurance assets	**28,624**	**34**	**—**	**28,658**
PVIF[2]	**—**	**—**	**65,510**	**65,510**
Other assets and investment properties	**12,913**	**12**	**4,849**	**17,774**
Total assets	**576,885**	**38,672**	**109,619**	**725,176**
Liabilities under investment contracts designated at fair value	**31,185**	**6,786**	**—**	**37,971**
Liabilities under insurance contracts	**515,187**	**31,342**	**—**	**546,529**
Deferred tax[3]	**392**	**116**	**10,466**	**10,974**
Other liabilities	**—**	**—**	**35,140**	**35,140**
Total liabilities	**546,764**	**38,244**	**45,606**	**630,614**
Total equity	**—**	**—**	**94,562**	**94,562**
Total equity and liabilities	**546,764**	**38,244**	**140,168**	**725,176**
At 31 Dec 2019				
Financial assets	501,625	41,893	34,940	578,458
– financial assets designated at fair value	103,902	40,563	124	144,589
– derivatives	957	4	4	965
– financial investments measured at amortised cost	374,630	342	31,508	406,480
– financial investments measured at fair value through other comprehensive income	4,126	—	395	4,521
– other financial assets[1]	18,010	984	2,909	21,903
Reinsurance assets	28,031	44	—	28,075
PVIF[2]	—	—	61,075	61,075
Other assets and investment properties	13,015	2	3,898	16,915
Total assets	542,671	41,939	99,913	684,523
Liabilities under investment contracts designated at fair value	30,231	6,793	—	37,024
Liabilities under insurance contracts	494,181	34,579	—	528,760
Deferred tax[3]	20	118	9,780	9,918
Other liabilities	—	—	17,116	17,116
Total liabilities	524,432	41,490	26,896	592,818
Total equity	—	—	91,705	91,705
Total equity and liabilities	524,432	41,490	118,601	684,523

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.

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') issued in Hong Kong. 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. Where local rules require, these reserves are held as part of liabilities under insurance contracts. Any remainder is accounted for as a deduction from PVIF on the relevant product.

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 2020		31 Dec 2019	
	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	(1,717)	(2,150)	(538)	(929)
-100 basis points parallel shift in yield curves	894	1,328	38	429
10% increase in equity prices	1,596	1,596	1,814	1,814
10% decrease in equity prices	(1,596)	(1,596)	(1,840)	(1,840)
10% increase in USD exchange rate compared to all currencies	45	45	327	327
10% decrease in USD exchange rate compared to all currencies	(45)	(45)	(327)	(327)

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 2020	31 Dec 2019
	%	%
Capital ratios		
Common equity tier 1 ('CET1') ratio	**16.7**	17.2
Tier 1 ratio	**18.3**	18.8
Total capital ratio	**20.3**	21.0
	HK$m	HK$m
RWAs	**2,942,719**	2,851,380

The following table sets out the composition of the group's capital base under Basel III at 30 June 2020.

Capital base

	At	
	30 Jun 2020	31 Dec 2019
	HK$m	HK$m
Common equity tier 1 ('CET1') capital		
Shareholders' equity	**685,616**	690,104
– shareholders' equity per balance sheet	**813,007**	814,678
– revaluation reserve capitalisation issue	**(1,454)**	(1,454)
– other equity instruments	**(44,615)**	(44,615)
– unconsolidated subsidiaries	**(81,322)**	(78,505)
Non-controlling interests	**27,701**	27,459
– non-controlling interests per balance sheet	**63,460**	64,603
– non-controlling interests in unconsolidated subsidiaries	**(10,357)**	(10,316)
– surplus non-controlling interests disallowed in CET1	**(25,402)**	(26,828)
Regulatory deductions to CET1 capital	**(221,723)**	(225,922)
– valuation adjustments	**(1,536)**	(1,554)
– goodwill and intangible assets	**(20,478)**	(20,132)
– deferred tax assets net of deferred tax liabilities	**(3,085)**	(2,214)
– cash flow hedging reserve	**(33)**	41
– changes in own credit risk on fair valued liabilities	**(1,745)**	2,013
– defined benefit pension fund assets	**(26)**	(45)
– significant Loss-absorbing capacity ('LAC') investments in unconsolidated financial sector entities	**(109,767)**	(105,426)
– property revaluation reserves[1]	**(68,897)**	(74,626)
– regulatory reserve	**(16,156)**	(23,979)
Total CET1 capital	**491,594**	491,641
Additional tier 1 ('AT1') capital		
Total AT1 capital before regulatory deductions	**45,942**	45,819
– perpetual subordinated loans	**44,615**	44,615
– allowable non-controlling interests in AT1 capital	**1,327**	1,204
Regulatory deductions to AT1 capital	**(29)**	—
– significant LAC investments in unconsolidated financial sector entities	**(29)**	—
Total AT1 capital	**45,913**	45,819
Total tier 1 capital	**537,507**	537,460
Tier 2 capital		
Total tier 2 capital before regulatory deductions	**66,907**	68,340
– perpetual subordinated debt[2]	**3,100**	3,114
– term subordinated debt	**15,121**	14,839
– property revaluation reserves[1]	**31,658**	34,236
– impairment allowances and regulatory reserve eligible for inclusion in tier 2 capital	**16,328**	16,151
– allowable non-controlling interests in tier 2 capital	**700**	—
Regulatory deductions to tier 2 capital	**(7,599)**	(6,866)
– significant LAC investments in unconsolidated financial sector entities	**(7,599)**	(6,866)
Total tier 2 capital	**59,308**	61,474
Total capital	**596,815**	598,934

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 will be phased out in full after 31 December 2021.*

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 have been prepared in accordance with Hong Kong Accounting Standard ('HKAS') 34 'Interim Financial Reporting'; 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 issued by the UK Financial Conduct Authority, being an indication of important events that have occurred during the first six months of the financial year ending 31 December 2020 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.

Laura May Lung Cha*, GBM (Chairman)

Peter Tung Shun Wong (Deputy Chairman & Chief Executive)

Zia Mody* (Deputy Chairman)

Graham John Bradley*

Louisa Wai Wan Cheang

Dr Christopher Wai Chee Cheng*, GBS, OBE

Dr Raymond Kuo Fung Ch'ien*, GBS, CBE

Yiu Kwan Choi*

Irene Yun-lien Lee*

Jennifer Xinzhe Li*

Victor Tzar Kuoi Li#

Bin Hwee Quek (née Chua)*, PBM, BBM, JP

Kevin Anthony Westley*, BBS

Tan Sri (Sir) Francis Sock Ping Yeoh*, KBE, CBE

* independent non-executive Director

non-executive Director

On behalf of the Board

Laura Cha

Chairman

3 August 2020

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 41, 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 2020 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 consolidated 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 this 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 2020 rather than in the notes on the Interim condensed consolidated financial statements. These are cross-referenced from the Interim condensed consolidated financial statements and is identified as reviewed.*

Scope of Review

We conducted our review in accordance with International Standard on Review Engagements (UK and Ireland) 2410, 'Review of Interim Financial Information Performed by the Independent Auditor of the Entity' issued by the United Kingdom's Auditing Practices Board. 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

3 August 2020

Interim condensed consolidated financial statements

Consolidated income statement

	Half-year to	
	30 Jun 2020	30 Jun 2019
	HK$m	HK$m
Net interest income	**60,958**	64,589
– interest income	**83,617**	95,534
– interest expense	**(22,659)**	(30,945)
Net fee income	**20,678**	21,589
– fee income	**25,700**	27,231
– fee expense	**(5,022)**	(5,642)
Net income from financial instruments held for trading or managed on a fair value basis[1]	**19,277**	18,128
Net (expense)/income from assets and liabilities of insurance businesses, including related derivatives, measured at fair value through profit or loss	**(3,999)**	8,730
Changes in fair value of designated debts issued and related derivatives[1]	**119**	318
Changes in fair value of other financial instruments mandatorily measured at fair value through profit or loss	**172**	103
Gains less losses from financial investments	**1,341**	359
Net insurance premium income	**30,763**	36,186
Other operating income	**5,128**	8,321
Total operating income	**134,437**	158,323
Net insurance claims and benefits paid and movement in liabilities to policyholders	**(31,491)**	(46,136)
Net operating income before change in expected credit losses and other credit impairment charges	**102,946**	112,187
Change in expected credit losses and other credit impairment charges	**(14,112)**	(2,039)
Net operating income	**88,834**	110,148
Employee compensation and benefits	**(17,453)**	(19,615)
General and administrative expenses	**(21,030)**	(20,859)
Depreciation and impairment of property, plant and equipment	**(4,657)**	(4,040)
Amortisation and impairment of intangible assets	**(2,076)**	(1,170)
Total operating expenses	**(45,216)**	(45,684)
Operating profit	**43,618**	64,464
Share of profit in associates and joint ventures	**8,049**	8,403
Profit before tax	**51,667**	72,867
Tax expense	**(7,395)**	(12,266)
Profit for the period	**44,272**	60,601
Attributable to:		
– ordinary shareholders of the parent company	**39,270**	54,227
– other equity holders	**1,576**	1,262
– non-controlling interests	**3,426**	5,112
Profit for the period	**44,272**	60,601

1 *In the second half of 2019, the definition of 'Changes in fair value of designated debts issued and related derivatives' has been updated to include debt instruments which are issued for funding purposes and are designated under the fair value option to reduce an accounting mismatch, previously reported under 'Net income from financial instruments held for trading or managed on a fair value basis'. Comparatives have been re-presented to conform to the current year's presentation.*

Consolidated statement of comprehensive income

	Half-year to	
	30 Jun 2020	30 Jun 2019
	HK$m	HK$m
Profit for the period	**44,272**	60,601
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	**3,161**	1,485
– fair value gains[1]	**5,010**	6,864
– fair value gains transferred to the income statement on disposal[1]	**(1,343)**	(4,965)
– expected credit recoveries recognised in the income statement	**262**	23
– income taxes	**(768)**	(437)
Cash flow hedges	**913**	(10)
– fair value gains	**1,708**	192
– fair value gains reclassified to the income statement	**(618)**	(206)
– income taxes	**(177)**	4
Share of other comprehensive (expense)/income of associates and joint ventures	**(267)**	207
Exchange differences	**(9,949)**	(725)
Items that will not be reclassified subsequently to profit or loss:		
Property revaluation	**(4,464)**	3,307
– fair value (losses)/gains	**(5,344)**	3,972
– income taxes	**880**	(665)
Equity instruments designated at fair value through other comprehensive income	**(910)**	2,059
– fair value (losses)/gains	**(903)**	2,063
– income taxes	**(7)**	(4)
Changes in fair value of financial liabilities designated at fair value upon initial recognition arising from changes in own credit risk	**3,602**	(809)
– before income taxes	**4,303**	(969)
– income taxes	**(701)**	160
Remeasurement of defined benefit asset/liability	**(866)**	(295)
– before income taxes	**(1,030)**	(351)
– income taxes	**164**	56
Other comprehensive (expense)/income for the period, net of tax	**(8,780)**	5,219
Total comprehensive income for the period	**35,492**	65,820
Attributable to:		
– ordinary shareholders of the parent company	**31,266**	58,618
– other equity holders	**1,576**	1,262
– non-controlling interests	**2,650**	5,940
Total comprehensive income for the period	**35,492**	65,820

1 *At 30 June 2020, the impact from fair value hedge on debt instruments was included in 'fair value gains'. This was previously included in 'fair value gains transferred to the income statement on disposal'. Comparatives have not been re-presented.*

Consolidated balance sheet

		At	
		30 Jun	31 Dec
		2020	2019
	Notes	**HK$m**	HK$m
Assets			
Cash and balances at central banks		**214,250**	202,746
Items in the course of collection from other banks		**35,137**	21,140
Hong Kong Government certificates of indebtedness		**306,284**	298,944
Trading assets		**516,308**	622,761
Derivatives		**374,251**	280,642
Financial assets designated and otherwise mandatorily measured at fair value through profit or loss		**140,898**	153,511
Reverse repurchase agreements – non-trading		**491,343**	422,333
Loans and advances to banks		**401,822**	328,905
Loans and advances to customers	*3*	**3,679,364**	3,720,875
Financial investments	*4*	**2,090,518**	1,900,298
Amounts due from Group companies		**148,670**	87,632
Interests in associates and joint ventures	*5*	**156,009**	151,917
Goodwill and intangible assets		**87,308**	81,643
Property, plant and equipment		**130,254**	137,930
Deferred tax assets		**3,175**	2,179
Prepayments, accrued income and other assets		**321,747**	248,258
Total assets		**9,097,338**	8,661,714
Liabilities			
Hong Kong currency notes in circulation		**306,284**	298,944
Items in the course of transmission to other banks		**40,959**	25,576
Repurchase agreements – non-trading		**111,322**	106,396
Deposits by banks		**233,635**	179,819
Customer accounts	*6*	**5,604,067**	5,432,424
Trading liabilities		**74,985**	87,532
Derivatives		**360,616**	292,231
Financial liabilities designated at fair value		**159,381**	160,291
Debt securities in issue		**102,972**	106,933
Retirement benefit liabilities		**3,635**	2,595
Amounts due to Group companies		**333,467**	311,111
Accruals and deferred income, other liabilities and provisions		**301,648**	203,252
Liabilities under insurance contracts		**546,529**	528,760
Current tax liabilities		**5,523**	12,614
Deferred tax liabilities		**31,844**	29,889
Subordinated liabilities		**4,004**	4,066
Total liabilities		**8,220,871**	7,782,433
Equity			
Share capital		**172,335**	172,335
Other equity instruments		**44,615**	44,615
Other reserves		**122,093**	133,099
Retained earnings		**473,964**	464,629
Total shareholders' equity		**813,007**	814,678
Non-controlling interests		**63,460**	64,603
Total equity		**876,467**	879,281
Total liabilities and equity		**9,097,338**	8,661,714

Consolidated statement of cash flows

	Half-year to	
	30 Jun 2020	30 Jun 2019
	HK$m	HK$m
Profit before tax	**51,667**	72,867
Adjustments for non-cash items:		
Depreciation and amortisation	**6,733**	5,210
Net gain from investing activities	**(648)**	(673)
Share of profits in associates and joint ventures	**(8,049)**	(8,403)
Loss on disposal of subsidiaries, businesses, associates and joint ventures	**1**	13
Change in expected credit losses gross of recoveries and other credit impairment charges	**14,433**	2,039
Provisions	**(235)**	19
Share-based payment expense	**328**	409
Other non-cash items included in profit before tax	**(5,067)**	(6,314)
Change in operating assets	**(160,147)**	(293,035)
Change in operating liabilities	**370,792**	325,976
Elimination of exchange differences	**12,577**	953
Dividends received from associates	**83**	84
Contributions paid to defined benefit plans	**(167)**	(176)
Tax paid	**(14,390)**	(4,922)
Net cash from operating activities	**267,911**	94,047
Purchase of financial investments	**(446,254)**	(457,815)
Proceeds from the sale and maturity of financial investments	**409,753**	372,990
Purchase of property, plant and equipment	**(1,711)**	(1,421)
Proceeds from sale of property, plant and equipment and assets held for sale	**27**	1,824
Proceeds from disposal of customer loan portfolios	**2,920**	1,066
Net investment in intangible assets	**(2,894)**	(2,321)
Net cash inflow on sale of subsidiaries	**—**	299
Net cash from investing activities	**(38,159)**	(85,378)
Issue of other equity instruments	**—**	8,617
Dividends paid to shareholders of the parent company and non-controlling interests	**(38,107)**	(41,802)
Net cash from financing activities	**(38,107)**	(33,185)
Net increase/(decrease) in cash and cash equivalents	**191,645**	(24,516)
Cash and cash equivalents at 1 Jan	**677,664**	721,609
Exchange differences in respect of cash and cash equivalents	**(8,901)**	2,798
Cash and cash equivalents at 30 Jun[2,3]	**860,408**	699,891

Interest received in the first half of 2020 was HK$87,960m (first half of 2019: HK$94,234m), and interest paid in the first half of 2020 was HK$29,940m (first half of 2019: HK$29,218m).

Dividends received in the first half of 2020, which included dividend income from trading activities to align with Group's presentation, were HK$1,165m (first half of 2019: HK$2,017m). Comparatives have been re-presented to conform to the current year's presentation.

1 *There is no change in subordinated loan capital during the first half of 2020. During the first half of 2019, the change in subordinated liabilities included amounts from repayment of HK$92,384m and re-issuance of HK$92,343m to Group companies with no cash movement. Changes in subordinated liabilities included non-cash changes from foreign exchange loss of HK$972m in the first half of 2020 (first half of 2019: HK$359m) and fair value gain after hedging of HK$7,466m in the first half of 2020 (first half of 2019: fair value loss HK$120m).*

2 *The amount of cash and cash equivalents that are subject to exchange control and regulatory restrictions amounted to HK$128,039m at 30 June 2020 (at 30 June 2019: HK$102,325m).*

3 *From the fourth quarter of 2019, settlement accounts with bank counterparties of one month or less are included on a net basis to align with Group's presentation. Comparatives have not been re-presented.*

Consolidated statement of changes in equity

	Half-year to 30 Jun 2020										
				Other reserves							
	Share capital	Other equity instru-ments	Retained earnings	Property revaluation reserve	Financial assets at FVOCI reserve	Cash flow hedge reserve	Foreign exchange reserve	Other[1]	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 2020	**172,335**	**44,615**	**464,629**	**72,013**	**6,959**	**(104)**	**(28,118)**	**82,349**	**814,678**	**64,603**	**879,281**
Profit for the period	**—**	**—**	**40,846**	**—**	**—**	**—**	**—**	**—**	**40,846**	**3,426**	**44,272**
Other comprehensive income/ (expense) (net of tax)	**—**	**—**	**2,870**	**(4,128)**	**2,278**	**826**	**(9,778)**	**(72)**	**(8,004)**	**(776)**	**(8,780)**
– debt instruments at fair value through other comprehensive income	**—**	**—**	**—**	**—**	**3,047**	**—**	**—**	**—**	**3,047**	**114**	**3,161**
– equity instruments designated at fair value through other comprehensive income	**—**	**—**	**—**	**—**	**(581)**	**—**	**—**	**—**	**(581)**	**(329)**	**(910)**
– cash flow hedges	**—**	**—**	**—**	**—**	**—**	**826**	**—**	**—**	**826**	**87**	**913**
– changes in fair value of financial liabilities designated at fair value upon initial recognition arising from changes in own credit risk	**—**	**—**	**3,601**	**—**	**—**	**—**	**—**	**—**	**3,601**	**1**	**3,602**
– property revaluation	**—**	**—**	**—**	**(4,128)**	**—**	**—**	**—**	**—**	**(4,128)**	**(336)**	**(4,464)**
– remeasurement of defined benefit asset/liability	**—**	**—**	**(724)**	**—**	**—**	**—**	**—**	**—**	**(724)**	**(142)**	**(866)**
– share of other comprehensive expense of associates and joint ventures	**—**	**—**	**(7)**	**—**	**(188)**	**—**	**—**	**(72)**	**(267)**	**—**	**(267)**
– exchange differences	**—**	**—**	**—**	**—**	**—**	**—**	**(9,778)**	**—**	**(9,778)**	**(171)**	**(9,949)**
Total comprehensive income/ (expense) for the period	**—**	**—**	**43,716**	**(4,128)**	**2,278**	**826**	**(9,778)**	**(72)**	**32,842**	**2,650**	**35,492**
Dividends to shareholders[3]	**—**	**—**	**(34,416)**	**—**	**—**	**—**	**—**	**—**	**(34,416)**	**(3,695)**	**(38,111)**
Movement in respect of share-based payment arrangements	**—**	**—**	**79**	**—**	**—**	**—**	**—**	**276**	**355**	**10**	**365**
Transfers and other movements[4]	**—**	**—**	**(44)**	**(1,482)**	**2**	**—**	**—**	**1,072**	**(452)**	**(108)**	**(560)**
At 30 Jun 2020	**172,335**	**44,615**	**473,964**	**66,403**	**9,239**	**722**	**(37,896)**	**83,625**	**813,007**	**63,460**	**876,467**
	Half-year to 30 Jun 2019										
At 31 Dec 2018	172,335	35,879	429,595	57,914	2,953	(99)	(24,649)	78,830	752,758	60,162	812,920
Impact on transition to HKFRS 16	—	—	—	13,483	—	—	—	—	13,483	—	13,483
At 1 Jan 2019	172,335	35,879	429,595	71,397	2,953	(99)	(24,649)	78,830	766,241	60,162	826,403
Profit for the period	—	—	55,489	—	—	—	—	—	55,489	5,112	60,601
Other comprehensive income/ (expense) (net of tax)	—	—	(1,079)	3,014	3,213	(36)	(713)	(8)	4,391	828	5,219
– debt instruments at fair value through other comprehensive income	—	—	—	—	1,462	—	—	—	1,462	23	1,485
– equity instruments designated at fair value through other comprehensive income	—	—	—	—	1,536	—	—	—	1,536	523	2,059
– cash flow hedges	—	—	—	—	—	(36)	—	—	(36)	26	(10)
– changes in fair value of financial liabilities designated at fair value upon initial recognition arising from changes in own credit risk	—	—	(810)	—	—	—	—	—	(810)	1	(809)
– property revaluation	—	—	—	3,014	—	—	—	—	3,014	293	3,307
– remeasurement of defined benefit asset/liability	—	—	(269)	—	—	—	—	—	(269)	(26)	(295)
– share of other comprehensive income/(expense) of associates and joint ventures	—	—	—	—	215	—	—	(8)	207	—	207
– exchange differences	—	—	—	—	—	—	(713)	—	(713)	(12)	(725)
Total comprehensive income/ (expense) for the period	—	—	54,410	3,014	3,213	(36)	(713)	(8)	59,880	5,940	65,820
Other equity instruments issued[2]	—	44,615	—	—	—	—	—	—	44,615	—	44,615
Other equity instruments repaid[2]	—	(35,879)	—	—	—	—	—	—	(35,879)	—	(35,879)
Dividends to shareholders[3]	—	—	(38,183)	—	—	—	—	—	(38,183)	(3,619)	(41,802)
Movement in respect of share-based payment arrangements	—	—	(75)	—	—	—	—	68	(7)	—	(7)
Transfers and other movements[4]	—	—	(1,247)	(1,355)	—	—	—	2,672	70	(162)	(92)
At 30 Jun 2019	172,335	44,615	444,500	73,056	6,166	(135)	(25,362)	81,562	796,737	62,321	859,058

Consolidated statement of changes in equity (continued)

	Half-year to 31 Dec 2019										
				Other reserves							
	Share capital	Other equity instruments	Retained earnings	Property revaluation reserve	Financial assets at FVOCI reserve	Cash flow hedge reserve	Foreign exchange reserve	Other[1]	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 2019	172,335	44,615	444,500	73,056	6,166	(135)	(25,362)	81,562	796,737	62,321	859,058
Profit for the period	—	—	50,233	—	—	—	—	—	50,233	4,206	54,439
Other comprehensive income/(expense) (net of tax)	—	—	(870)	381	793	31	(2,756)	17	(2,404)	84	(2,320)
– debt instruments at fair value through other comprehensive income	—	—	—	—	214	—	—	—	214	(25)	189
– equity instruments designated at fair value through other comprehensive income	—	—	—	—	633	—	—	—	633	162	795
– cash flow hedges	—	—	—	—	—	31	—	—	31	(16)	15
– changes in fair value of financial liabilities designated at fair value upon initial recognition arising from changes in own credit risk	—	—	(1,248)	—	—	—	—	—	(1,248)	(3)	(1,251)
– property revaluation	—	—	—	381	—	—	—	—	381	(15)	366
– remeasurement of defined benefit asset/liability	—	—	381	—	—	—	—	—	381	106	487
– share of other comprehensive income/(expense) of associates and joint ventures	—	—	(3)	—	(54)	—	—	17	(40)	—	(40)
– exchange differences	—	—	—	—	—	—	(2,756)	—	(2,756)	(125)	(2,881)
Total comprehensive income/(expense) for the period	—	—	49,363	381	793	31	(2,756)	17	47,829	4,290	52,119
Dividends to shareholders[3]	—	—	(30,186)	—	—	—	—	—	(30,186)	(2,027)	(32,213)
Movement in respect of share-based payment arrangements	—	—	33	—	—	—	—	181	214	2	216
Transfers and other movements[4]	—	—	919	(1,424)	—	—	—	589	84	17	101
At 31 Dec 2019	172,335	44,615	464,629	72,013	6,959	(104)	(28,118)	82,349	814,678	64,603	879,281

1 *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.*
2 *In the first half of 2019, there were US$1,100m additional tier 1 capital instruments issued. In addition, US$4,600m of additional tier 1 capital instruments were repaid and re-issued in the first half of 2019 with no actual cash movement.*
3 *Including distributions paid on perpetual subordinated loans classified as equity under HKFRS.*
4 *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 in accordance with HKAS 34 'Interim Financial Reporting' as issued by the Hong Kong Institute of Certified Public Accountants ('HKICPA'). These financial statements should be read in conjunction with the *Annual Report and Accounts 2019*.

Standards applied during the half-year to 30 June 2020

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, the provisions for liabilities, interests in associates and the 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 2019, which are stated in note 1 of the *Annual Report and Accounts 2019.* However, the level of estimation uncertainty and judgement for the calculation of expected credit losses has increased since 31 December 2019 as a result of the economic effects of the Covid-19 outbreak as set out in 'Measurement uncertainty and sensitivity analysis' on pages 14 to 17.

(c) Composition of the group

There were no material changes in the composition of the group in the half-year to 30 June 2020.

(d) Future accounting developments

HKFRS 17 'Insurance Contracts' was issued in January 2018 and sets out the requirements that an entity should apply in accounting for insurance contracts it issues and reinsurance contracts it holds. HKFRS 17 is currently effective from 1 January 2021. However, amendments to the standard are expected, including to delay the mandatory effective date to 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.

(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 parent company 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 that reflect the increasing uncertainty that Covid-19 has had on the group's operations, 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 2019*, 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 2020* as follows:

- Consolidated income statement and balance sheet data by global business 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 13 to 14.
- 'Measurement uncertainty and sensitivity analysis' included in 'Risk' section on pages 14 to 17.

2 Dividends

	Half-year to			
	30 Jun 2020		30 Jun 2019	
	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	**0.58**	**27,026**	0.47	21,958
– first interim dividend paid	**0.13**	**5,814**	0.32	14,963
Total	**0.71**	**32,840**	0.79	36,921
Total coupons on other equity instruments		**1,576**		1,262
Dividends to shareholders		**34,416**		38,183

The Directors declared a second interim dividend in respect of the half-year ended 30 June 2020 of HK$0.19 per ordinary share (HK$8,915m) (half-year ended 30 June 2019 of HK$0.32 per ordinary share (HK$14,963m)).

Total coupons on other equity instruments

		Half-year to	
		30 Jun 2020	30 Jun 2019
		HK$m	HK$m
US$1,900m	Floating rate perpetual subordinated loans (interest rate at one year US dollar LIBOR plus 3.84%)[1]	**—**	497
US$1,400m	Floating rate perpetual subordinated loans (interest rate at three months US dollar LIBOR plus 3.51%)[1]	**—**	373
US$600m	Floating rate perpetual subordinated loan (interest rate at three months US dollar LIBOR plus 3.62%)[1]	**—**	178
US$700m	Floating rate perpetual subordinated loan (interest rate at three months US dollar LIBOR plus 4.98%)[1]	**—**	214
US$1,000m	Fixed rate perpetual subordinated loan (interest rate fixed at 6.09%)[2]	**370**	—
US$1,200m	Fixed rate perpetual subordinated loans (interest rate fixed at 6.172%)[2]	**445**	—
US$600m	Fixed rate perpetual subordinated loan (interest rate fixed at 5.91%)[2]	**249**	—
US$1,100m	Fixed rate perpetual subordinated loan (interest rate fixed at 6%)[2]	**512**	—
Total		**1,576**	1,262

1 *These subordinated loans were early repaid in the first half of 2019 and distributions were made on repayment.*
2 *These subordinated loans were issued in June 2019.*

3 Loans and advances to customers

	At 30 Jun 2020 HK$m	At 31 Dec 2019 HK$m
Gross loans and advances to customers	**3,706,354**	3,738,269
Expected credit loss allowances	**(26,990)**	(17,394)
	3,679,364	3,720,875

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

Analysis of gross loans and advances to customers

	At 30 Jun 2020 HK$m	At 31 Dec 2019 HK$m
Residential mortgages	**1,039,368**	1,027,087
Credit card advances	**83,072**	94,582
Other personal	**271,524**	281,087
Total personal	**1,393,964**	1,402,756
Real estate	**648,108**	666,380
Wholesale and retail trade	**400,127**	418,669
Manufacturing	**403,278**	418,822
Transportation and storage	**91,723**	86,912
Other	**511,421**	494,416
Total corporate and commercial	**2,054,657**	2,085,199
Non-bank financial institutions	**257,733**	250,314
	3,706,354	3,738,269
By geography[1]		
Hong Kong	**2,403,956**	2,399,867
Rest of Asia Pacific	**1,302,398**	1,338,402

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

Gross loans and advances to customers decreased by HK$32bn, or 1%, which included unfavourable foreign exchange translation effects of HK$39bn. Excluding this impact, the underlying increase of HK$7bn was driven by an increase in residential mortgages of HK$21bn mainly in Hong Kong and Australia, partly offset by a decrease in credit card advances of HK$11bn mainly in Hong Kong. Non-bank financial institution lending also increased by HK$11bn, partly offset by a decrease in corporate and commercial lending of HK$8bn.

4 Financial investments

Carrying amounts of financial investments

	At 30 Jun 2020 HK$m	At 31 Dec 2019 HK$m
Financial investments measured at fair value through other comprehensive income	**1,629,300**	1,465,998
– treasury and other eligible bills	**774,802**	606,738
– debt securities	**846,863**	850,623
– equity securities	**7,635**	8,637
Debt instruments measured at amortised cost	**461,218**	434,300
– treasury and other eligible bills	**4,351**	5,049
– debt securities	**456,867**	429,251
	2,090,518	1,900,298

5 Interests in associates and joint ventures

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

The group's investment in BoCom is classified as an associate. Significant influence in BoCom was established via 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 2020, the fair value of the group's investment in BoCom had been below the carrying amount for approximately eight years. As a result, the group performed an impairment test on the carrying amount, which confirmed that there was no impairment at 30 June 2020 as the recoverable amount, as determined by a value-in-use ('VIU') calculation, was higher than the carrying value.

	At					
	30 Jun 2020			31 Dec 2019		
	VIU	**Carrying value**	**Fair value**	VIU	Carrying value	Fair value
	HK$bn	**HK$bn**	**HK$bn**	HK$bn	HK$bn	HK$bn
BoCom	**159.0**	**152.7**	**67.6**	167.8	148.4	78.3

The decrease in VIU for the first half of 2020 was principally driven by BoCom's actual performance which was lower than earlier forecasts due to the impact of Covid-19 and the disruption to global economic activity, and downward revisions to management's best estimates of BoCom's future earnings.

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 under-performance 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 future asset growth or profitability. An increase in the discount rate as a result of an increase in the risk premium or risk-free rates 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. Earnings beyond the short to medium term are then extrapolated in 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 regulatory capital requirements over the forecast period (i.e. 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 minimum regulatory capital requirements. An increase in the CMC as a result of a change to these principal inputs would reduce VIU. Additionally, management considers other factors (including 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 2019: 3%) for periods after 2023, which does not exceed forecast GDP growth in mainland China and is consistent with forecasts by external analysts.
- Long-term asset growth rate: 3% (31 December 2019: 3%) for periods after 2023, which is the rate that assets are expected to grow to achieve long-term profit growth of 3%.
- Discount rate: 11.24% (31 December 2019: 11.24%) which is based on a Capital Asset Pricing Model ('CAPM') calculation for BoCom, using market data. Management also compares the rate derived from the CAPM with discount rates from external sources. The discount rate used is within the range of 10.3% to 15.0% (31 December 2019: 10.0% to 15.0%) indicated by external sources.
- Expected credit losses as a percentage of customer advances: ranges from 0.95% to 1.10% (31 December 2019: 0.95%) in the short to medium term and reflect increases due to Covid-19 and BoCom's actual results. For periods after 2023, the ratio is 0.76% (31 December 2019: 0.76%) which is slightly higher than the historical average.
- Risk-weighted assets as a percentage of total assets: ranges from 61% to 62% (31 December 2019: 61%) in the short to medium term and reflect increases which may arise from higher expected credit losses as a percentage of customer advances. For periods after 2023, the ratio is 61% (31 December 2019: 61%). These rates are similar to BoCom's actual results in recent years and forecasts disclosed by external analysts.
- Operating income: ranges from 1.3% to 6.2% (31 December 2019: 4.9% to 9.4%) in the short to medium term, and are lower than BoCom's actual results in recent years and the forecasts disclosed by external analysts, reflecting pressures from Covid-19 and industry developments in mainland China.
- Cost-income ratio: ranges from 36.2% to 36.6% (31 December 2019: 37.1% to 38.8%) in the short to medium term. These rates are similar to BoCom's actual results and slightly higher than the forecasts disclosed by external analysts.

- Effective tax rate: ranges from 11.0% to 17.9% (31 December 2019: 12.0% to 17.0%) in the short to medium term reflecting BoCom's actual results and an expected increase towards the long-term assumption. For periods after 2023, the rate is 22.5% (31 December 2019: 22.5%) which is slightly higher than the historical average.
- Capital requirements: Capital adequacy ratio: 11.5% (31 December 2019: 11.5%) and tier 1 capital adequacy ratio: 9.5% (31 December 2019: 9.5%), based on the minimum regulatory requirements.

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 33 basis points
• Long-term asset growth rate	• Increase by 29 basis points
• Discount rate	• Increase by 38 basis points
• Expected credit losses as a percentage of customer advances	• Increase by 5 basis points
• Risk-weighted assets as a percentage of total assets	• Increase by 216 basis points
• Operating income	• Decrease by 57 basis points
• Cost-income ratio	• Increase by 128 basis points
• Long-term effective tax rate	• Increase by 294 basis points
• Capital requirements – capital adequacy ratio	• Increase by 41 basis points
• Capital requirements – tier 1 capital adequacy ratio	• Increase by 134 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 largely based on external analysts' forecasts 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 2020						
Long-term profit growth rate	**—**	**—**	**159.0**	**-50**	**(9.5)**	**149.5**
Long-term asset growth rate	**-50**	**9.9**	**168.9**	**—**	**—**	**159.0**
Discount rate	**-24**	**4.4**	**163.4**	**+86**	**(13.7)**	**145.3**
Expected credit losses as a percentage of customer advances	**2020 to 2023: 93 2024 onwards: 75**	**3.4**	**162.4**	**2020 to 2023: 108 2024 onwards: 92**	**(17.4)**	**141.6**
Risk-weighted assets as a percentage of total assets	**-190**	**4.0**	**163.0**	**+93**	**(4.1)**	**154.9**
Operating income	**+64**	**7.5**	**166.5**	**-69**	**(7.4)**	**151.6**
Cost-income ratio	**-205**	**11.8**	**170.8**	**+179**	**(10.1)**	**148.9**
Long-term effective tax rate	**-433**	**9.4**	**168.4**	**+250**	**(5.4)**	**153.6**
Capital requirements – capital adequacy ratio	**—**	**—**	**159.0**	**+266**	**(46.8)**	**112.2**
Capital requirements – tier 1 capital adequacy ratio	**—**	**—**	**159.0**	**+289**	**(35.0)**	**124.0**
At 31 December 2019						
Long-term profit growth rate	—	—	167.8	-50	(10.6)	157.2
Long-term asset growth rate	-50	10.6	178.4	—	—	167.8
Discount rate	-54	10.9	178.7	+56	(9.9)	157.9
Expected credit losses as a percentage of customer advances	2019 to 2023: 90 2024 onwards: 70	7.5	175.3	2019 to 2023: 108 2024 onwards: 81	(9.4)	158.4
Risk-weighted assets as a percentage of total assets	-96	2.9	170.7	+12	(0.4)	167.4
Operating income	+14	1.9	169.7	-102	(14.1)	153.7
Cost-income ratio	-175	7.7	175.5	+95	(9.4)	158.4
Long-term effective tax rate	-352	7.8	175.6	+250	(5.6)	162.2
Capital requirements – capital adequacy ratio	—	—	167.8	+337	(64.1)	103.7
Capital requirements – tier 1 capital adequacy ratio	—	—	167.8	+322	(47.2)	120.6

Considering the interrelationship of the changes set out in the table above, management estimates that the reasonably possible range of VIU is HK$134.2bn to HK$169.8bn (31 December 2019: HK$144.3bn to HK$177.2bn). The range is based on the favourable/unfavourable change in the earnings in the short-to medium-term and long-term expected credit losses as a percentage of customer advances as set out in the table above. All other long-term assumptions, the discount rate 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 2020	31 Dec 2019
	HK$m	HK$m
Hong Kong	**3,986,633**	3,894,175
Singapore	**413,999**	378,303
Mainland China	**368,587**	376,390
Australia	**197,230**	180,637
India	**139,870**	116,330
Malaysia	**113,839**	113,907
Taiwan	**114,084**	114,250
Indonesia	**34,617**	36,861
Other	**235,208**	221,571
	5,604,067	5,432,424

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 2020 are consistent with those applied for the *Annual Report and Accounts 2019.*

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 2020						
Assets						
Trading assets[1]	**324,870**	**190,393**	**1,045**	**516,308**	**—**	**516,308**
Derivatives	**3,377**	**300,189**	**1,070**	**304,636**	**69,615**	**374,251**
Financial assets designated and otherwise mandatorily measured at fair value through profit or loss	**72,635**	**30,960**	**37,303**	**140,898**	**—**	**140,898**
Financial investments	**1,273,522**	**350,843**	**4,935**	**1,629,300**	**—**	**1,629,300**
Liabilities						
Trading liabilities[1]	**68,263**	**6,722**	**—**	**74,985**	**—**	**74,985**
Derivatives	**3,050**	**274,322**	**2,376**	**279,748**	**80,868**	**360,616**
Financial liabilities designated at fair value[1]	**—**	**139,332**	**20,049**	**159,381**	**—**	**159,381**
At 31 Dec 2019						
Assets						
Trading assets[1]	426,072	196,132	557	622,761	—	622,761
Derivatives	2,282	213,242	833	216,357	64,285	280,642
Financial assets designated and otherwise mandatorily measured at fair value through profit or loss	89,152	32,068	32,291	153,511	—	153,511
Financial investments	1,096,572	363,804	5,622	1,465,998	—	1,465,998
Liabilities						
Trading liabilities[1]	78,111	9,421	—	87,532	—	87,532
Derivatives	2,892	219,498	2,422	224,812	67,419	292,231
Financial liabilities designated at fair value[1]	—	139,720	20,571	160,291	—	160,291

1 *Amounts with HSBC Group entities are not reflected 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
At 30 Jun 2020							
Transfers from Level 1 to Level 2	**9,081**	**10,315**	**1,684**	**—**	**130**	**—**	**—**
Transfers from Level 2 to Level 1	**18,025**	**16,050**	**516**	**5**	**80**	**—**	**—**
At 31 Dec 2019							
Transfers from Level 1 to Level 2	32,281	9,198	—	—	131	—	—
Transfers from Level 2 to Level 1	16,872	15,069	2,359	—	599	—	—

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

Movements in Level 3 financial instruments

There were no material transfers from Level 3 to Levels 1 and 2, and vice versa, as a result of change in observability of valuation inputs, purchases, sales, issues or settlement, nor gains/losses recognised in the income statement/other comprehensive income during the first half of 2020 in relation to financial instruments carried at fair value in Level 3 (first half of 2019: immaterial).

8 Fair values of financial instruments not carried at fair value

	At			
	30 Jun 2020		31 Dec 2019	
	Carrying amount	Fair value	Carrying amount	Fair value
	HK$m	HK$m	HK$m	HK$m
Assets				
Reverse repurchase agreements – non-trading	**491,343**	**491,730**	422,333	422,679
Loans and advances to banks	**401,822**	**402,267**	328,905	328,805
Loans and advances to customers	**3,679,364**	**3,663,671**	3,720,875	3,711,191
Financial investments – at amortised cost	**461,218**	**509,060**	434,300	459,832
Liabilities				
Repurchase agreements – non-trading	**111,322**	**111,325**	106,396	106,398
Deposits by banks	**233,635**	**233,640**	179,819	179,823
Customer accounts	**5,604,067**	**5,607,903**	5,432,424	5,432,803
Debt securities in issue	**102,972**	**103,708**	106,933	107,641
Subordinated liabilities	**4,004**	**3,886**	4,066	3,951

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. Details of how the fair values of financial instruments that are not carried at fair value on the balance sheet are calculated can be found in note 35 of the *Annual Report and Accounts 2019.*

9 Contingent liabilities, contractual commitments and guarantees

	At	
	30 Jun 2020	31 Dec 2019
	HK$m	HK$m
Guarantees and contingent liabilities	**310,050**	318,770
Commitments	**2,875,910**	2,750,332
	3,185,960	3,069,102

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 2020 included amounts in relation to legal and regulatory matters as set out in note 12.

10 Segmental analysis

The Executive Committee ('EXCO') is considered the Chief Operating Decision Maker ('CODM') for the purpose of identifying the group's reportable segments. The global businesses are considered our reportable segments under HKFRS 8 'Operating Segments'. The basis of identifying segments and measuring segmental results is set out in note 32 'Segmental Analysis' of the *Annual Report and Accounts 2019*.

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 global businesses. 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 global businesses 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 global businesses are presented in Corporate Centre.

Change in reportable segments

Effective from the second quarter of 2020, we made the following realignments within our internal reporting to the CODM:

- Simplification of our matrix organisational structure by merging Retail Banking and Wealth Management ('RBWM') and Global Private Banking ('GPB') to form Wealth and Personal Banking ('WPB').
- Re-allocation of Balance Sheet Management from Corporate Centre to the global businesses.

Our global businesses

The group provides a comprehensive range of banking and related financial services to its customers in its three global businesses. The products and services offered to customers are organised by these global businesses.

- Wealth and Personal Banking ('WPB') offers a full range of products and services to meet the personal banking and wealth management needs of 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.
- Commercial Banking ('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.
- Global Banking and Markets ('GBM') 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, a markets business that provides services in credit, rates, foreign exchange, equities, money markets and securities services, and principal investment activities.

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

Geographical regions

	Hong Kong	Rest of Asia-Pacific	Intra-segment elimination	Total
	HK$m	HK$m	HK$m	HK$m
Half-year to 30 Jun 2020				
Total operating income	**95,357**	**39,152**	**(72)**	**134,437**
Profit before tax	**35,987**	**15,680**	**—**	**51,667**
At 30 Jun 2020				
Total assets	**6,489,110**	**3,295,482**	**(687,254)**	**9,097,338**
Total liabilities	**5,999,611**	**2,908,514**	**(687,254)**	**8,220,871**
Credit commitments and contingent liabilities (contract amounts)	**1,800,026**	**1,385,934**	**—**	**3,185,960**
Half-year to 30 Jun 2019				
Total operating income	116,843	41,728	(248)	158,323
Profit before tax	47,964	24,903	—	72,867
At 30 Jun 2019				
Total assets	6,203,675	3,125,360	(656,242)	8,672,793
Total liabilities	5,716,131	2,753,846	(656,242)	7,813,735
Credit commitments and contingent liabilities (contract amounts)	1,642,648	1,303,733	—	2,946,381

11 Related party transactions

There were no changes in the related party transactions as described in the *Annual Report and Accounts 2019* that have had a material effect on the financial position or performance of the group in the half-year to 30 June 2020. All related party transactions that took place in the half-year to 30 June 2020 were similar in nature to those described in the *Annual Report and Accounts 2019.*

12 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 2019*. 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 2020. 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, among other agreements, HSBC Holdings plc ('HSBC Holdings') agreed to an undertaking with the UK Financial Services Authority, which was replaced by a Direction issued by the UK Financial Conduct Authority ('FCA') in 2013, and again in July 2020, and consented to 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. HSBC also agreed to retain an independent compliance monitor (who is, for FCA purposes, a 'Skilled Person' under section 166 of the Financial Services and Markets Act and, for FRB purposes, an 'Independent Consultant') to produce periodic assessments of the Group's AML and sanctions compliance programme (the 'Skilled Person/Independent Consultant'). In December 2012, HSBC Holdings also entered into an agreement with the Office of Foreign Assets Control ('OFAC') regarding historical transactions involving parties subject to OFAC sanctions. HSBC's engagement with the Skilled Person appointed pursuant to the 2013 Direction was terminated in February 2020 and a new Skilled Person with a narrower mandate has been appointed to assess the remaining areas that require further work in order for HSBC to transition fully to business-as-usual financial crime risk management. The Independent Consultant will continue to carry out an annual OFAC compliance review at the FRB's discretion.

Through the Skilled Person/Independent Consultant's prior reviews, as well as internal reviews conducted by HSBC, certain potential AML and sanctions compliance issues have been identified that HSBC is reviewing further with the FRB, FCA and/or OFAC. The Financial Crimes Enforcement Network of the US Treasury Department, as well as the Civil Division of the US Attorney's Office for the Southern District of New York are investigating the collection and transmittal of third-party originator information in certain payments instructed over HSBC's proprietary payment systems. HSBC is cooperating with all of these investigations.

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'), Singapore Swap Offer Rate ('SOR') and Australia Bank Bill Swap Rate ('BBSW')

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

In the Sibor/SOR litigation, following a decision on the defendants' motion to dismiss in October 2018, the claims against a number of HSBC entities were dismissed, and the Bank remained as the only HSBC defendant in this action. In October 2018, the Bank filed a motion for reconsideration of the decision based on the issue of personal jurisdiction. This motion was denied in April 2019. Also in October 2018, the plaintiffs filed a third amended complaint, naming only the Sibor panel members, including the Bank, as defendants. The court dismissed the third amended complaint in its entirety in July 2019 against all defendants. In August 2019, the plaintiffs filed an appeal to the Second Circuit Court of Appeals, which remains pending.

In the BBSW litigation, in November 2018, the court dismissed all foreign defendants, including all the HSBC entities, on personal jurisdiction grounds. In April 2019, the plaintiffs filed an amended complaint, which the defendants moved to dismiss. In February 2020, the court again dismissed the plaintiffs' amended complaint against all the HSBC entities.

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

United States Bankruptcy Court for the Southern District of New York litigation

In June 2018, a claim was issued against the Bank in the United States Bankruptcy Court for the Southern District of New York by the Chapter 11 Trustee of CFG Peru Investments Pte. Ltd. (Singapore) (the 'Trustee Complaint'). The Trustee Complaint makes allegations under the Peruvian Civil Code, Hong Kong and U.S. common law and the Bankruptcy Code concerning the Bank's alleged conduct in commencing the winding-up proceedings and pursuing the appointment of joint provisional liquidators for affiliates of CFG Peru Investments Pte. Ltd. The Trustee is seeking damages and equitable subordination or disallowance of the Bank's Chapter 11 claims in a related bankruptcy proceeding.

The Bank is seeking to dismiss the Trustee Complaint. Based on the facts currently known, it is not practicable at this time to predict the resolution of this matter, including the timing or any possible impact, which could be significant.

Foreign exchange rate investigations

In January 2018, HSBC Holdings entered into a three-year deferred prosecution agreement with the Criminal Division of the US Department of Justice ('DoJ') (the 'FX DPA'), regarding fraudulent conduct in connection with two particular transactions in 2010 and 2011. This concluded the DoJ's investigation into HSBC's historical foreign exchange activities. Under the terms of the FX DPA, HSBC has a number of ongoing obligations, including implementing enhancements to its internal controls and procedures in its Global Markets business, which will be the subject of annual reports to the DoJ. In addition, HSBC agreed to pay a financial penalty and restitution.

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.

13 Interim Report 2020 and statutory accounts

The information in this *Interim Report 2020* is unaudited and does not constitute statutory accounts. The *Interim Report 2020* was approved by the Board of Directors on 3 August 2020. The Bank's statutory annual consolidated accounts for the year ended 31 December 2019 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 18 February 2020. 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).

14 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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