



ANNUAL REPORT 2018

NEW VOICES

Amplifying our services and solutions through the innovative application of AI, digital and mobile communications technologies.

Enhancing service convenience, access and choice across our distribution channels.

A new focus on creativity and collaboration to unlock the potential of our people.

Founded in 1933, Hang Seng is one of Hong Kong's largest listed companies. Our market capitalisation as at 31 December 2018 was HK\$336.1 billion.

We serve over half the adult residents of Hong Kong – more than 3.5 million people – through about 280 service outlets. We also maintain branches in Macau and Singapore and a representative office in Taipei.

Established in May 2007, wholly owned subsidiary Hang Seng Bank (China) Limited is headquartered in Pudong, Shanghai, and operates a mainland China network with outlets in the Pearl River Delta, the Yangtze River Delta, the Bohai Rim Region and midwest China.

Hang Seng is a principal member of the HSBC Group, one of the world's largest banking and financial services organisations.

STANDARD & POOR'S
LONG-TERM COUNTERPARTY CREDIT (local and foreign currency) AA-
SHORT-TERM COUNTERPARTY CREDIT (local and foreign currency)
A-1+
OUTLOOK Stable

RATINGS

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* Where possible, percentages in this section have been rounded to the nearest percentage point to facilitate easy reading. Percentage-based indicators remain at 1 or 2 decimal places as appropriate. The abbreviations 'HK\$m' and 'HK\$bn' represent millions and billions of Hong Kong dollars respectively.

Results in Brief

For the Year

Profit attributable to shareholders	Profit before tax
24,211 HK\$m	28,432 нк\$m
2017 20,018 HK\$m	2017 23,674 HK\$m
Operating profit	Net operating income before change in expected credit losses and other credit impairment charges
27,947 нк\$m	41,215 нк\$m
2017 23,547 HK\$m	2017 35,357 HK\$m
Return on average ordinary shareholders' equity	Cost efficiency ratio
16.0%	29.5 %
2017 14.2%	2017 30.5%
Earnings per share	Dividends per share
12.48 нк\$	7.50 нк\$
2017 10.30 HK\$	2017 6.70 HK\$

The Group adopted the requirements of HKFRS 9 "Financial Instruments" from 1 January 2018, with the exception of the provisions relating to the presentation of gains and losses on financial

liabilities designated at fair value, which were adopted from 1 January 2017. The impact of HKFRS 9 at 1 January 2018 on the consolidated financial statements of the Group was a decrease

• An increase of HK\$46m from the remeasurement of financial assets and liabilities as a consequence

Refer to "Standards adopted during the year ended 31 December 2018" and "Effects of reclassification

At Year-End (at 31 December)

Shareholders' equity

162,082 HK\$m

2017 152,030 HK\$m

Total assets **1,571,297** нк\$m 2017 1,478,418 НК\$m

Capital ratios

Common Equity Tier 1 ("CET1") Capital Ratio

16.6%

2017 16.5%

Tier 1 Capital Ratio

17.8%2017 17.7%

2017 11.170

Total Capital Ratio

20.2%

2017 20.1%

Liquidity ratios

Liquidity Coverage Ratio

214.7%

2017 232.3%

Net Stable Funding Ratio

2017 N/A

Profit attributable to shareholders

Change to presentation from 1 January 2018

in net assets of HK\$854m, arising from:

of classification changes; and

Hong Kong Financial Reporting Standard 9 ("HKFRS 9")

An increase in net deferred tax assets of HK\$177m.

upon adoption of HKFRS 9" in Notes 1 and 3 for further details.

• A decrease of HK\$1,077m from additional impairment allowances;

121%

Net operating income before change in expected credit losses and other credit impairment charges



Return on average ordinary shareholders' equity

16.0% **1.8**pp

Cost efficiency ratio

29.5% 1.0pp

Five-Year Financial Summary

	2014	2015	2016	2017	2018
For the Year	HK\$bn	HK\$bn	HK\$bn	HK\$bn	HK\$bn
Operating profit	19.4	19.4	19.0	23.5	27.9
Profit before tax	18.0	30.5	19.1	23.7	28.4
Profit attributable to shareholders	15.1	27.5	16.2	20.0	24.2
At Year-end	HK\$bn	HK\$bn	HK\$bn	HK\$bn	HK\$bn
Shareholders' equity	139.2	142.0	140.6	152.0	162.1
Issued and paid up capital	9.7	9.7	9.7	9.7	9.7
Total assets	1,264.0	1,334.4	1,377.2	1,478.4	1,571.3
Total liabilities	1,124.8	1,192.4	1,236.6	1,326.3	1,409.2
Per Share	HK\$	HK\$	HK\$	HK\$	HK\$
Earnings per share	7.91	14.22	8.30	10.30	12.48
Dividends per share					
 1st to 4th interim dividends 	5.60	5.70	6.10	6.70	7.50
- special interim dividend	-	3.00	-	-	-
Ratios	%	%	%	%	%
Return on average ordinary shareholders' equity	13.4	20.7	12.1	14.2	16.0
Post-tax return on average total assets	1.3	2.1	1.2	1.4	1.6
Capital ratios					
– Common Equity Tier 1 ("CET1") Capital Ratio	15.6	17.7	16.6	16.5	16.6
– Tier 1 Capital Ratio	15.6	19.1	17.9	17.7	17.8
– Total Capital Ratio	15.7	22.1	20.8	20.1	20.2
Cost efficiency ratio	31.8	33.8	33.5	30.5	29.5



Total Assets and Return on Average Total Assets



Attributable Profit and Earnings per Share



Shareholders' Equity and Return on Average Ordinary Shareholders' Equity



Dividends per Share



Total Capital Ratio

Chairman's Statement



The global economy recorded a moderate pace of expansion during 2018. Continuing concerns over international trade flows and increased volatility in the world's financial markets created more challenging operating conditions in the second half, with economic indicators signalling slower growth in 2019. To advance our long-term growth strategy, we invested in further leveraging our competitive strengths and building better operational infrastructure to sustain good business momentum in variable market conditions. Our improved ability to anticipate the changing needs of customers and deliver an enhanced service experience supported good income and profit growth.

Attributable profit increased by 21% to HK\$24,211m. Earnings per share also rose by 21% to HK\$12.48 per share.

Return on average ordinary shareholders' equity was 16.0%, compared with 14.2% in 2017. Return on average total assets was 1.6%, compared with 1.4% for the previous year.

The Directors have declared a fourth interim dividend of HK\$3.60 per share. This brings the total distribution for 2018 to HK\$7.50 per share, compared with HK\$6.70 per share in 2017.

Economic Outlook

After reaching a seven-year high of 4.6% in the first quarter of 2018, economic growth in Hong Kong slowed to a two-year low of 2.9% in the third quarter of the year. Given the city's highly open economy, heightened uncertainty over external economic and geopolitical factors may weigh on short-term growth prospects, although the tight employment market reflects solid fundamentals that continue to support the domestic economy. We forecast full-year GDP growth of 2.7% for 2019, down from an expected rate of 3.3% for 2018.

As mainland China's economy shifts away from a heavy reliance on exports to focus more on services and consumption, private spending is playing an increasingly important role in driving growth. While softer global growth and potential shifts in international trade continue to pose downside risks, the economy should broadly maintain the 'new normal' pace of growth recorded in recent years. We expect full-year GDP growth of between 6.2% and 6.5% in 2019, compared with 6.6% for 2018. In a dynamic operating environment, we remain focused on executing our progressive strategy for sustainable growth. Our actions to uphold high standards of service excellence, optimise efficiency and take full advantage of new market opportunities will ensure we consistently deliver on the objectives and expectations of our customers and shareholders over the long term.

Raymond K.J. Chin

Raymond Ch'ien Chairman 19 February 2019

Chief Executive's Report

Hang Seng recorded strong full-year results for 2018. Our investments in technology, staff engagement and operational infrastructure are delivering on our commitment to providing customers with better financial services, growing our market leadership and reinforcing our status as a progressive and preferred brand.

We have adopted a dynamic, yet strategic, approach to capture new business, mitigate risk and drive business momentum in various market conditions for long-term sustainable growth.

Attributable profit rose by 21% year on year, with growth in both net interest income and non-interest income. All business lines achieved increases in revenue and profitability.

Enhanced data analytics gave us greater insight into the priorities and aspirations of our more than 3.5 million customers in Hong Kong. Supported by our comprehensive product range and extensive distribution network, we delivered timely tailor-made financial solutions that deepened existing relationships and won us new customers.

We expanded the digitisation of our services and distribution channels, focusing particularly on mobile platforms, to provide easier access and greater choice. This increased our engagement with customers and strengthened our appeal among younger generations and other target segments.

New digital services such as our all-in-one payment platforms offer retail and commercial customers greater flexibility and ease in making and receiving digital payments. Our AI chatbots, timely market alerts and 'anytime, anywhere' services enable customers to act swiftly on business and investment opportunities.

As part of our forward-thinking strategy, we have teamed up with industry peers and strategic partners such as Tencent and Hong Kong Science and Technology Parks to strengthen our digital



capabilities, create new business opportunities and help advance fintech development in Hong Kong.

Our well-integrated cross-border capabilities and closer cross-business collaboration reinforced our mainland China operations. Hang Seng China recorded strong profit growth, reflecting an increase in non-interest income and effective management of overall credit quality.

Our initiatives to enhance the working environment and employee benefits continued to improve staff engagement and well-being. Our 'digital floor', which opened in January this year, is a new type of workspace that facilitates the generation of ideas, promotes closer collaboration and supports different ways of working based on individual preferences and needs. We also launched H@SE, our in-house social media platform, to encourage open communication among colleagues.

Our commitment to excellence is recognised by *The Asset*, which has named us 'Best Domestic Bank in Hong Kong' for 19 consecutive years.

Financial Performance

Attributable profit grew by 21% to HK\$24,211m and earnings per share rose by 21% to HK\$12.48 per share.

Operating profit was up 19% at HK\$27,947m and operating profit excluding change in expected credit losses and other credit impairment charges grew by 18% to HK\$28,943m. Profit before tax rose by 20% to HK\$28,432m.

Net operating income rose by 17% to HK\$40,219m.

Net interest income was up 22% at HK\$30,047m, reflecting the 9% increase in average interest-earning assets and the acquisition of new customers, which helped drive solid growth in loans and deposits. The net interest margin improved by 24 basis points to 2.18%.

Non-interest income grew by 4% to HK\$11,168m, with our strong performance in the first half partly offset by the downturn in investment sentiment later in the year. The drop in international financial markets in 2018, compared with a significant gain in 2017, reduced investment returns from the life insurance portfolio. To mitigate the impact of this challenge, we leveraged our deep customer knowledge and diverse range of wealth-and-health products to record a 4% increase in wealth management income to HK\$9,063m.

We made significant investments for the future. Operating expenses rose by 13% to HK\$12,168m, reflecting investments in our people and technology to drive our long-term growth strategy. Depreciation charges on business premises also increased. With the growth in net operating income outpacing the rise in operating costs, we achieved positive jaws.

Our cost efficiency ratio was 29.5% – the lowest since 2007.

We continue to maintain a strong capital position. At 31 December 2018, our common equity tier 1 capital ratio, tier 1 capital ratio and total capital ratio were 16.6%, 17.8% and 20.2% respectively, compared with 16.5%, 17.7% and 20.1% at the end of 2017.

A Dynamic Approach for Driving Future Growth

Looking ahead, we expect the operating environment to remain challenging. Increased volatility in the financial markets and concerns over geopolitical developments and international trade suggest that global growth will slow in 2019.

Our investments in staff, technology and operational infrastructure are further strengthening us as a forward-thinking organisation that is setting high standards of service excellence in this new era of banking. We are building a dynamic operational environment that facilitates the execution of our progressive strategy. We are better placed to further leverage our leading market position and our large and loyal customer base. We have the business resilience necessary to achieve long-term growth in a diverse range of market conditions.

By putting customers first, promoting greater efficiency and driving innovation, we are in a stronger position to achieve our business objectives. We will uphold the values of our trusted brand. We will continue to invest in initiatives and opportunities that will support future growth and deliver long-term results.

Our emphasis on improving convenience and choice is delivering an enhanced service experience that integrates with the increasingly mobile lifestyle of customers. As Hong Kong's leading domestic bank, we will continue to act as a driving force for fintech innovation in collaboration with strategic partners.

Our new Green Financing Promotion Scheme demonstrates our commitment to launching products and services that anticipate increasing market demand as customers focus on new priorities and concerns.

All these actions are fundamental to our customercentric business strategy. They also reflect our broader undertaking as a good corporate citizen to continue to contribute to the future growth of Hong Kong.

We are doing more to bring out the best in our employees. Our new workspace model will drive innovation and create a more dynamic corporate culture. With flexi-hours, improved medical coverage and various well-being programmes, we aim to provide working conditions that ensure our people will reach their potential and play an active role in growing our business.

I wish to thank the Bank's more than 10,000 colleagues for their many contributions during 2018. Their commitment to our dynamic business approach will continue to strengthen Hang Seng's position as a vibrant, inclusive and progressive financial institution.

Joursa Cheang

Louisa Cheang Vice-Chairman and Chief Executive 19 February 2019

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ADVANCED

Digital banking innovations designed around the needs and expectations of our customers, including first-tomarket AI chatbots for retail banking, are reinforcing our strong position in digital financial services.



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Care

15:23 Thursday

Business 16:17 Wednesday

NEW

VOICES



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Convenience atl To The Work

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Mobility



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Explore 14:55 Sunday





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Invest 11:18 Monday





13:35 Friday

Empower



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Communicate 21:30 Friday









New member



INSIGHTFUL

Deep customer knowledge and putting clients first remain key competitive advantages of our trusted brand, enabling us to continue to deliver on our growth objectives.







Seamless services

CONCERTED

Deployment of faster, more efficient and more secure global payment technologies is strengthening engagement with our SME customers, helping us achieve solid growth in our commercial banking business, and positioning us to capitalise on future opportunities in the Greater Bay Area.

We are working in concert with strategic partners and peers to develop industrywide fintech initiatives that will improve financing accessibility.











DYNAMIC

A more open management culture and work environment that prioritise communication, well-being and productivity are promoting greater staff engagement and reinforcing our progressive approach to business in a rapidly evolving market.



Well-being





RESPONSIVE

As we grow with today's 'sharing economy' we listen closely and respond responsibly to the diverse voices within our community.



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Empowering





Inspiring

Business Review

Ongoing uncertainties over global trade policies and greater volatility in international financial markets created more challenging operating conditions in 2018, particularly during the second half of the year. Our investments to build a more dynamic and responsive operational structure played a pivotal role in our ability to sustain well-balanced growth momentum. Our large and diverse customer base enjoy fast and easy service access and financial solutions that are tailored to their specific needs. Our improved ability to meet our clients where they are – both on their financial journey and in their daily lives – reinforced customer loyalty and our position as the leading domestic bank in Hong Kong.

Facilitated by our competitive strengths in core banking services, strong customer relationships and in-depth industry sector knowledge, we achieved a 9% year-on-year increase in gross loans and advances to HK\$877.1bn, with solid growth in lending to both commercial and retail clients. We maintained a high level of asset quality by actively managing our credit risk and the composition of our lending portfolios. We leveraged our deeper engagement with customers and our trusted brand to acquire new deposits business, leading to a 7% rise in customer deposits, including certificates of deposit and other debt securities in issue, to HK\$1,191.2bn.

Retail Banking and Wealth Management

Retail Banking and Wealth Management recorded a 16% increase in operating profit to HK\$14,353m. Operating profit excluding change in expected credit losses and other credit impairment charges rose by 15% to HK\$14,724m and profit before tax was up 18% at HK\$14,557m.

Our investments in digital infrastructure are making financial management faster, easier and more convenient for customers. Our 'mobile-first' strategy ensures all digital products and services are available on our mobile platform at the time they are launched, and over 50% of mobile banking customers use our secure biometric authentication to access their accounts. Year on year, the number of active mobile banking users increased by 35%.

Offering customers unprecedented flexibility in making and receiving digital payments, the Hang Seng P.P Payment Platform has driven a four-fold increase in mobile-based transfer transactions since its launch. We further enhanced the capabilities of our first-to-market AI retail banking chatbots to provide interactive assistance with a greater range of financial services – including peer-to-peer payment transfers. Year on year, the number of Personal e-Banking customers increased by 8% in Hong Kong.

Powered by machine learning, enhanced data analytics enriched our customer segmentation strategy, enabling us to deepen client relationships by providing more personalised financial solutions.

Our value-added wealth management proposition helped us grow our Prestige Signature customer base by 25% year on year in Hong Kong.

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FINANCIAL Management on the move

Increasingly mobile lifestyles are driving service expectations. Providing on-the-move access to financial management is central to our multi-channel customer engagement strategy. Using simple and secure interfaces, our mobile platforms offer a wide range of wealth management products and services. Hang Seng Mobile Banking delivers on-the-go flexibility, convenience and choice for an enhanced customer experience in a busy world.

ENGAGING Tomorrow's Customers

HARO

Young people growing up in the digital era have unprecedented access to information, and value individuality and choice. We are engaging this technologically savvy group of future entrepreneurs, community leaders and customers by offering them relatable and real-time banking services that align with their priorities and interests.







BUILDING THE Future face of Finance

Technology is driving new highs of customer-centric service excellence by facilitating greater speed, convenience and personalisation. We spearheaded the use of AI chatbots to offer retail customers interactive assistance. Biometric authentication makes access to services easy and secure. Our one-stop Hang Seng P.P Payment Platform gives retail customers greater flexibility in choosing how to make and receive digital payments.

HANG SENG P.P. PAYMENT PLATFORM



DOR







Entrepreneurial local businesses are integral to the Hong Kong success story. Our seamless and comprehensive digital services enable SMEs to track the market's pulse and act swiftly on new opportunities. Our WeChat Account and 24/7 online AI virtual assistant and Live Chat strengthen customer engagement. Our all-in-one Hang Seng One Collect payment collection service and enhanced digital platforms deliver cash management capabilities and real-time information to facilitate decision making.





Net interest income grew by 21% to HK\$16,515m. We uplifted core banking relationships with clients to achieve strong deposit and loan growth compared with 2017 year-end. Our success with new deposits acquisition resulted in increased market share.

Despite adverse financial market conditions in the second half, we recorded a 3% year-on-year increase in wealth management business and kept non-interest income broadly in line with 2017 at HK\$5,600m by leveraging our diverse investment and insurance product portfolio and large base of loyal customers. Sales and penetration of fixed-income products both increased significantly year on year.

Investment services income was on par with the previous year. In the increasingly challenging market environment, we grew securities turnover and revenue by 1% and 3% respectively. Investment services revenue excluding securities-related income declined by 5%.

Insurance income rose by 8%. Solid business growth, including a 25% increase in life insurance new annualised premiums, outweighed lower returns from the life insurance investment portfolio. We continued to enhance our insurance product suite, including the launch of a new whole-life insurance plan, and to enrich our total-solution retirement planning propositions.

To counter the slowdown in the property market, we strengthened our mortgage distribution capabilities and identified new business opportunities. This drove an 11% increase in mortgage balances in Hong Kong compared with 2017 year-end. Our new mortgage business continued to rank among the top three in Hong Kong.

Enhanced analytics gave us a greater understanding of the needs and spending patterns of different customer segments. This supported more effective credit card marketing, resulting in a 9% year-on-year increase in card spending, and helped us grow the personal and tax loan portfolio by 12% in Hong Kong.

Commercial Banking

Commercial Banking recorded a 35% increase in operating profit to HK\$8,575m. Operating profit excluding change in expected credit losses and other credit impairment charges grew by 33% to HK\$9,177m and profit before tax was up 35% at HK\$8,575m.

Net interest income rose by 33% to HK\$9,331m, reflecting balanced growth in average customer loans and deposits. Our industry sector expertise supported a solid year-on-year expansion in syndicated lending.

We leveraged our analytics capabilities to identify new opportunities to support SME customers. The expansion of lending drove a 33% increase in credit facilities fees. Insurance income and remittance fees rose by 24% and 16% respectively. This diverse base of revenue streams led to a 14% rise in non-interest income to HK\$3,051m.

Our investments in digital services enabled customers to track market trends more closely and enjoy easy access to information and assistance. Our AI chatbot and Live Chat online messaging service provide 24/7 banking services support. Customers can also enjoy instant mobile updates via our WeChat Account and the convenience of initiating the account-opening process online. In mainland China, we launched our mobile banking app and Mobile Collection – a new digital payments service – in 2018.

Enhancements to transactional banking services helped customers to manage their cash flow more effectively in changing market conditions. We launched Hang Seng One Collect, which enables merchants to accept a wide range of digital payment methods through one integrated terminal. eTradeConnect, a trade finance platform developed in partnership with the Hong Kong Monetary Authority and industry peers, offers customers greater transactional efficiency and security.

Our new Green Financing Promotion Scheme, which offers incentives on financing for the acquisition of environmentally friendly equipment, helps customers meet their financial needs while upholding their business values. It also demonstrates our commitment to launching products and services that anticipate future market demand as customers focus on new priorities and concerns.

We upgraded our physical outlets to improve the customer experience and expanded our Kwun Tong Business Banking Centre to capitalise on the growth in commercial activity in East Kowloon.

In the increasingly challenging credit environment, our proactive credit risk management strategy helped us uphold good asset quality and improve overall returns on risk assets.

Global Banking and Markets

Global Banking and Markets reported a 12% rise in operating profit to HK\$5,320m. Operating profit excluding change in expected credit losses and other credit impairment charges and profit before tax also both rose by 12% to HK\$5,343m and HK\$5,320m respectively.

Global Banking

Global Banking recorded a 19% increase in operating profit to HK\$2,110m. Operating profit excluding change in expected credit losses and other credit impairment charges grew by 20% to HK\$2,135m. Profit before tax was up 19% at HK\$2,110m.

Net interest income grew by 20% to HK\$2,318m, reflecting an increase in loans-related income resulting from enhancements to the lending portfolio mix and growth in the loans balance.

Non-interest income remained broadly steady – underpinned in part by increased fee income from credit facilities on the back of solid lending growth.

With our deep market knowledge and in close consultation with our clients, we continued to develop new products and services to meet the current and future needs of customers, including the establishment of a new product team to enhance our debt product capabilities.





UNLEASHING Employee Potential

SPEAK-UP HERO

Collaboration, creativity and expertise drive business success in a fast-moving market. Our workplace enhancement initiatives promote employee wellness and agile working by integrating technology and workspace design to facilitate interactive and efficient working styles. Along with flexi-hours and a good work-life balance, our people enjoy working conditions that facilitate the sharing of ideas, encourage innovation and unleash the energy that gives us the business agility to exceed customer expectations.





H@SE

Global Markets

Global Markets reported an 8% increase in operating profit to HK\$3,210m. Operating profit excluding change in expected credit losses and other credit impairment charges and profit before tax also both grew by 8% to HK\$3,208m and HK\$3,210m respectively.

Net interest income rose by 12% to HK\$2,248m. Employing a diverse investment strategy, our balance sheet management team identified good opportunities for achieving enhanced yields. Our interest rate management team achieved strong growth in interest income through the proactive management of the fixed-income portfolio.

Best Bank – Domestic (Hong Kong) (19th consecutive year) THE ASSET	Hong Kong Domestic Trade Finance Bank of the Year ASIAN BANKING & FINANCE	Best Foreign Bank in Wealth Management – China Financial Innovation Award 2018 CHINA FINANCIAL HERALD
Best Domestic Bank (Hong Kong) ASIAMONEY	Best Green Loan THE ASSET	Best Trade Finance Foreign Bank TRADING FINANCE
Safest Bank in Hong Kong GLOBAL FINANCE	Trusted Brands Gold Award – Bank (Hong Kong) READER'S DIGEST	

For Corporate Sustainability awards and recognition, please refer to page 100.

Non-interest income grew by 5% to HK\$1,530m. Close collaboration with retail, commercial and global banking divisions to cross-sell Global Markets' products drove an 18% increase in non-fund income from sales and trading activities. This outweighed the less favourable returns from balance sheet management funding swap activities.

The active Hong Kong stock market in the first half of 2018 supported an 8% year-on-year rise in income from equity-linked products. Along with stronger customer demand for interest rate products, our active management of interest rate risk led to good growth in interest rate-related income.

Hang Seng Indexes

Wholly owned subsidiary Hang Seng Indexes Company Limited (Hang Seng Indexes) developed more indexes to serve as market performance indicators and as the basis for the development of index-linked products by local and global market participants.

Eight new exchange-traded products based on the Hang Seng Family of Indexes were listed in 2018, taking the total number of such products to 74 worldwide – with listings on 17 different stock exchanges. As at the end of 2018, assets under management in products passively tracking indexes in the Hang Seng Family of Indexes had reached a total of about US\$34bn.

The total number of futures and options contracts traded on the Hang Seng Index (HSI) and the Hang Seng China Enterprises Index (HSCEI) in 2018 was over 139 million, representing an increase of 47% compared with the previous year. This was mainly attributable to HSI futures contracts, which grew by 82%. HSCEI futures and index options registered increases of 30% and 24% respectively. To complete the value chain of futures offerings, four new Total Return Index products were launched during the year.

Leveraging its deep understanding of current and future market demand, Hang Seng Indexes launched new indexes with cross-market coverage or targeting innovative investment themes, including the Hang Seng SCHK New Economy Index, the Hang Seng China New Economy Index, the Hang Seng Stock Connect Big Bay Area Composite Index, and the Hang Seng Stock Connect Hong Kong Big Bay Area Index. The HSCEI Volatility Index was also launched to reflect investor sentiment towards the overall performance of Mainland enterprises listed in Hong Kong.

To make the HSCEI more representative of the performance of Mainland enterprises listed in Hong Kong, its universe of eligible constituents was extended to Red-chips and P-chips with effect from the February 2018 index review.

In May, following a series of consultations with market participants, Hang Seng Indexes announced its consultation conclusions on the eligibility of foreign companies, stapled securities and weighted voting right companies for inclusion in the Hang Seng Composite Index.

As at 2018 year-end, Hang Seng Indexes was compiling 566 indexes, including 112 real-time indexes. Hang Seng Indexes' two flagship indexes will reach major milestones in 2019. The HSI, the leading barometer of the Hong Kong stock market, will celebrate its 50th anniversary since launch, and the HSCEI, the China Index of Hong Kong market, will mark its 25th anniversary.

Financial Performance

Income Statement Summary of Financial Performance

Figures in HK\$m	2018	2017
Total operating income	55,432	50,076
Operating expenses	12,168	10,768
Operating profit	27,947	23,547
Profit before tax	28,432	23,674
Profit attributable to shareholders	24,211	20,018
Earnings per share (in HK\$)	12.48	10.30

In challenging operating conditions, Hang Seng Bank Limited ("the Bank") and its subsidiaries ("the Group") maintained good business momentum and achieved strong results for 2018.

Profit attributable to shareholders grew by HK\$4,193m, or 21%, to HK\$24,211m. Profit before tax increased by HK\$4,758m, or 20%, to HK\$28,432m. Operating profit rose by HK\$4,400m, or 19% to HK\$27,947m. Operating profit excluding change in expected credit losses and other credit impairment charges increased by HK\$4,354m, or 18% to HK\$28,943m, with solid growth in both net interest income and non-interest income partly offset by higher operating expenses. All business lines achieved increases in revenue and profitability.

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Net interest income increased by HK\$5,470m, or 22%, to HK\$30,047m, reflecting an improved net interest margin and increased average interest-earning assets.

Figures in HK\$m	2018	2017
Net interest income/(expense) arising from:		
– financial assets and liabilities that are not at fair value through profit and loss	31,585	25,924
– trading assets and liabilities	192	(1,314)
- financial instruments designated and otherwise mandatorily measured at fair value	(1,730)	(33)
	30,047	24,577
Average interest-earning assets	1,376,091	1,267,484
Net interest spread	2.03%	1.85%
Net interest margin	2.18%	1.94%

Average interest-earning assets rose by HK\$109bn, or 9%, when compared with 2017. Average customer lending increased by 15%, with notable growth in corporate and commercial and mortgage lending. Average interbank placement and financial investments remained broadly in line with last year.

Net interest margin improved by 24 basis points to 2.18%, mainly due to wider customer deposit spreads and a change in asset portfolio mix as average customer lending grew. Treasury realised opportunities in the interbank market and proactively managed the interest rate risk to enhance the portfolios yield. Average loan spread on customer lending reduced, notably on corporate and commercial term lending.

Compared with the first half of 2018, net interest income in the second half of 2018 increased by HK\$1,591m, or 11%, mainly supported by increase in average interest-earning assets and widening of net interest margin together with the effect of more calendar days in the second half of 2018. There was an improvement in deposit spreads following the rise in market interest rates in the second half, coupled with increased income from effective balance sheet management, partly offset by compressed lending spreads.

The HSBC Group reports interest income and interest expense arising from financial assets and financial liabilities held for trading and income arising from financial instruments designated at fair value through profit and loss as "Net income from financial instruments measured at fair value" (other than for debt securities in issue and subordinated liabilities, together with derivatives managed in conjunction with them).

Figures in HK\$m	2018	2017
Net interest income and expense reported as "Net interest income"		
– Interest income	36,711	28,745
– Interest expense	(5,158)	(2,865)
– Net interest income	31,553	25,880
Net interest income and expense reported as "Net income from financial instruments measured at fair value"	(1,506)	(1,303)
Average interest-earning assets	1,328,533	1,223,050
Net interest spread	2.24%	2.04%
Net interest margin	2.37%	2.12%

The table below presents the net interest income of Hang Seng Bank, as included in the HSBC Group accounts:

Net fee income grew by HK\$312m, or 5%, to HK\$7,067m, with the Group's strong performance in the first half partly offset by the downturn in investment activity in the second half of the year. Income from stockbroking and related services rose by 2% year on year. Gross fee income from credit card business increased by 10%, supported by the rise in cardholder spending and merchant acquiring volume. Credit facilities fee income grew by 30%, due mainly to higher fees from corporate lending. Enhanced cross-border commercial payment capabilities resulted in a 10% increase in remittance-related fees. Fees from insurance-related business, account services and trade services rose by 13%, 8% and 6% respectively. The less favourable investment environment in the second half resulted in an 11% year-on-year decline in retail investment fund sales.

Net income from financial instruments measured at fair value decreased by HK\$2,452m, or 59%, to HK\$1,705m.

The Bank has considered market practices for the presentation of certain financial liabilities that contain both deposit and derivative components. It was determined that a change in accounting policy and presentation with respect to "Trading liabilities – structured deposits and structured debt securities in issue" was appropriate to better align with the presentation of similar financial instruments by industry peers and, thereby, provide more comparative information to the market about the effect of these financial liabilities on the Bank's financial position and performance. This change in accounting policy and presentation took effect on 1 January 2018. Accordingly, rather than classifying "Trading liabilities – structured deposits and structured debt securities in issue" as held for trading, such financial liabilities are now designated as at fair value through profit or loss since they are managed and their performance is evaluated on a fair-value basis. Further information is set out in the "Additional information" section of the press release and the "Accounting policies" section of the Group's 2018 Annual Report.

Net income from assets and liabilities of insurance business measured at fair value recorded a loss of HK\$437m compared with a gain of HK\$1,768m in 2017. Investment returns on financial assets supporting insurance contract liabilities were adversely affected by unfavourable movements in the equity markets. To the extent that these investment returns were attributable to policyholders, there was an offsetting movement in net insurance claims and benefits paid and movement in liabilities to policyholders or movement in present value of in-force long-term insurance business ("PVIF").

Net trading income and net income from financial instruments designated at fair value together declined by HK\$246m, or 10%, to HK\$2,143m. Foreign exchange income increased steadily but was more than offset by the loss on equity-linked derivatives due to unfavourable equity market movements. Income from foreign exchange derivatives was also down compared with a year earlier.

Figures in HK\$m	2018	2017 (restated)
Investment services income#:		
– retail investment funds	1,670	1,765
- structured investment products	561	582
- securities broking and related services	1,665	1,638
– margin trading and others	89	92
	3,985	4,077
Insurance income:		
- life insurance:		
- net interest income and fee income	3,777	3,573
 investment returns on life insurance funds (including share of associate's profit and surplus on property revaluation backing insurance contracts) 	(605)	1,761
- net insurance premium income	14,530	12,817
- net insurance claims and benefits paid and movement in liabilities to policyholders	(14,217)	(14,719)
- movement in present value of in-force long-term insurance business	1,324	910
	4,809	4,342
– general insurance and others	269	298
	5,078	4,640
Total	9,063	8,717

Analysis of income from wealth management business

Income from retail investment funds and securities broking and related services are net of fee expenses. Income from structured investment products includes income reported under net fee income on the sales of third-party structured investment products. It also includes profits generated from the selling of structured investment products in issue, reported under net income from financial instruments measured at fair value. The Group's diverse range of products and swift response to the changing market generated a 4% increase in wealth management income amidst uncertain market conditions.

Despite subdued investor sentiment and global economic uncertainties in the second half of 2018, the Group maintained wealth management business flows, recording a 2% decline in investment services income. The increase in securities broking and related service income was more than offset by the decrease in retail investment funds income.

Insurance business income increased by 9%, reflecting new and renewal premiums, but being offset by the unfavourable investment returns on life insurance funds.

For life insurance, net interest income and fee income from life insurance business rose by 6%. Investment returns on life insurance business recorded a loss of HK\$605m compared with a gain of HK\$1,761m in 2017, reflecting the less favourable movements in the equity markets in the second half of 2018. To the extent that these investment returns were attributable to policyholders, there was an offsetting movement in net insurance claims and benefits paid and movement in liabilities to policyholders or movement in PVIF under other operating income.

Net insurance premium income increased by 13%, reflecting higher new premiums attributable to the success of our total-solution retirement planning propositions covering a wide range of retirement and protection products as well as an increase in renewal premiums. This growth was partly offset by the increase in reinsurance premiums arising from tactical reinsurance arrangements executed in 2018. Excluding reinsurance premiums, gross insurance premium income rose by 19%.

Net insurance claims and benefits paid and movement in liabilities to policyholders decreased by 3%. Despite the increase in new and renewal business written, the net decrease was mainly due to regular review of discount rate reflecting the higher prevalent interest rate. This would have an offsetting impact in reduction of PVIF and overall financial impact should not be significant.

The 45% rise in movement in PVIF reflects the combined effect of several factors. Higher new business sales and a positive adjustment to PVIF to account for the sharing of unfavourable investment returns attributable to policyholders as mentioned above were the major increase drivers. These were partially offset by the reduction of PVIF arising from the revision of the discount rate on insurance contract liabilities.

Income from general insurance and others decreased by 10%, reflecting lower MPF business distribution.

Change in expected credit losses and other credit impairment charges/loan impairment charges and other credit risk provisions was HK\$996m, compared with HK\$1,042m in 2017.

Figures in HK\$m	2018	2017
Change in expected credit losses/ Loan impairment charges		
New allowances net of allowance releases	1,139	1,141
Recoveries of amounts previously written off	(143)	(99)
	996	1,042
Impairment allowances/(releases) of available-for-sale debt securities	N/A	-
Change in expected credit losses and other credit impairment charges/ Loan impairment charges and other credit risk provisions	996	1,042
Attributable to:		
– loans and advances to banks and customers	1,023	1,042
– other financial assets	(2)	-
- loan and other credit related commitments and guarantees	(25)	-
Change in expected credit losses and other credit impairment charges/ Loan impairment charges and other credit risk provisions	996	1,042

Under Hong Kong Financial Reporting Standard 9 ("HKFRS 9") *"Financial Instruments"*, the recognition and measurement of expected credit losses ("ECL") is different to that required under Hong Kong Accounting Standard 39 ("HKAS 39") *"Financial Instruments: Recognition and Measurement"*. The change in expected credit losses relating to financial assets under HKFRS 9 is more forward-looking and recorded in the income statement under "Change in expected credit losses and other credit impairment charges". As relevant figures in the prior period have not been restated, changes in impairment of financial assets in the comparative period have been reported in accordance with HKAS 39 under "Loan impairment charges and other credit risk provisions" and are therefore not necessarily comparable to the change in ECL recorded for the current period.

Although the Group has not restated prior year figures, comparisons are made to the balances of gross impaired loans and advances, ECL and gross loans and advances to customers as at 1 January 2018. Gross impaired loans and advances decreased by HK\$14m, or 1%, to HK\$2,160m when compared with 1 January 2018 using HKFRS 9. Gross impaired loans and advances as a percentage of gross loans and advances to customers stood at 0.25% at the end of 31 December 2018, compared with 0.27% at 1 January 2018 using HKFRS 9. Overall credit quality remained robust and we remain alert to and monitor portfolio indicators for early signs of weakness.

Change in expected credit losses and other credit impairment charges recorded a charge of HK\$996m for 2018. Retail Banking and Wealth Management ("RBWM") recorded an ECL charge of HK\$371m, mainly in credit card and personal loan portfolios. ECL for the Commercial Banking ("CMB") and Global Banking and Markets business segments collectively recorded a net charge of HK\$625m. Additional ECL arising from the downgrading of several CMB customers was partly offset by the decrease in ECL resulting from the updating of macroeconomic forecasts in expected credit losses assessment models.

Loan impairment charges and other credit risk provisions were HK\$1,042m for 2017. Individually assessed impairment charges were HK\$443m, with the adverse impact of the downgrading of several CMB customers partly offset by a release in impairment charges. Collectively assessed impairment charges were HK\$599m, with credit card and personal loan portfolios accounting for HK\$510m and the remaining related to collectively assessed impairment charges for loans not individually identified as impaired.

HKFRS 9 requires the recognition of impairment earlier in the lifecycle of a financial asset, taking forward-looking information into consideration. As a result, measurement involves more complex judgement with impairment likely to be more volatile as the economic outlook changes. The Bank's senior management will continue to closely monitor market developments and shifts in the economic environment in its management and assessment of the credit performance of financial assets.

Expected credit losses/loan impairment allowances as a percentage of gross loans and advances to customers are as follow:

	At 31 December 2018	At 31 December 2017
Expected credit losses/loan impairment allowances as a percentage of gross loans and advances to customers	0.31%	0.20%

Expected credit losses at 1 January 2018 to reflect the adoption of HKFRS 9 from that date was HK\$2,540m and the corresponding ratio of expected credit losses as a percentage of gross loans and advances to customers was 0.31%.

Figures in HK\$m	At 31 December 2018	At 31 December 2017
Gross impaired loans and advances	2,160	1,970
Gross impaired loans and advances as a percentage of gross loans and advances to customers	0.25%	0.24%

Gross impaired loans and advances at 1 January 2018 to reflect the adoption of HKFRS 9 from that date was HK\$2,174m and the corresponding ratio of gross impaired loans and advances as a percentage of gross loans and advances to customers was 0.27%.



Operating expenses increased by HK\$1,400m, or 13%, to HK\$12,168m, due mainly to the Bank's continued investment in technology, people and services enhancement, as well as increased professional and consultancy expenses on initiatives to support business growth and investment in regulatory compliance and transformation programmes.

Staff costs were up 10%, reflecting the salary increment, higher performance-related pay expenses and an increase in headcount.

Depreciation charges increased by 11%, due mainly to higher depreciation charges on business premises following the upward commercial property revaluation in 2017. General and administrative expenses rose by 17%, reflecting increases in marketing and advertising expenses, processing charges, professional and consultancy fees, and continued investment in technology, regulatory compliance and transformation programmes.

The rise in costs was outpaced by the 17% growth in net operating income before change in expected credit losses and other credit impairment charges. With positive jaws of 3.6 percentage points, our cost efficiency ratio improved by 1.0 percentage point compared with 2017 to 29.5%. The Group continues to focus on enhancing operational efficiency while maintaining growth momentum.

Operating Expenses



Full-time equivalent staff numbers by region

	At 31 December 2018	At 31 December 2017
Hong Kong and others	8,611	8,215
Mainland	1,741	1,765
Total	10,352	9,980

Profit before tax increased by HK\$4,758m, or 20%, to HK\$28,432m after taking into account the following major items:

- a HK\$137m increase in net surplus on property revaluation; and
- a gain of HK\$207m compared with a loss of HK\$14m in 2017 in share of profits/(losses) from associates, mainly reflecting the revaluation surplus of a property investment company in 2018 compared with a revaluation loss in 2017.

Second half of 2018 compared with first half of 2018

Hang Seng recorded good results in the first half of 2018, supported by a buoyant investment environment. However, the slowdown of the global economy and less favourable investment environment posted significant challenges in the second half, leading to a 9.0% drop in attributable profit when compared with the first half of the year.

Net interest income increased by HK\$1,591m, or 11%, benefiting from the increase in average interest-earning assets and improvement in the net interest margin as well as more calendar days in the second half of 2018. There was an improvement in deposit spreads following rises in Hong Kong dollar and US dollar interest rates, coupled with increased income from effective balance sheet management. However, the impact of these supportive developments was partly offset by increased competitive pressure on lending margins.

The worldwide economic slowdown and increased volatility in global financial markets adversely affected the Bank's wealth management income in the second half. Non-interest income was down 26% when compared with first half. With the changing risk appetites of investors, investment funds income decreased by 43% in the second half. The slowdown in equity market transactions in the second half against the high base established in the first half, resulted in a 38% decline in income from stockbroking and related services. Insurance income was down by 21%, attributable to lower sales alongside the volatile equity markets in the second half. We have enriched our wealth management product portfolios to mitigate the effect of the market conditions.

Operating expenses rose by HK\$724m, or 13%, in the second half compared with the first half, due mainly to higher investment in IT-related costs to support business growth as well as investment in regulatory compliance and transformation programmes.

ECL charge increased by HK\$520m, reflecting higher impairment charges for CMB due to the downgrading of several CMB customers. The Group maintains a cautious outlook on the credit environment and will uphold its prudent approach to growing the loan portfolio and take proactive steps to enhance asset quality.

Segmental Analysis

The table below sets out the profit before tax contributed by the business segments for the years stated.

Figures in HK\$m	Retail Banking and Wealth Management	Commercial Banking	Global Banking and Markets	Other	Total
Year ended 31 December 2018					
Profit/(loss) before tax	14,557	8,575	5,320	(20)	28,432
Share of profit/(loss) before tax	51.2%	30.2%	18.7 %	(0.1)%	100.0%
Year ended 31 December 2017 (restated)					
Profit before tax	12,353	6,342	4,755	224	23,674
Share of profit before tax	52.2%	26.8%	20.1%	0.9%	100.0%
Retail Banking and Wealth Management ("RBWM") recorded an 18% increase in profit before tax to HK\$14,557m. Operating profit increased by 16% to HK\$14,353m. Operating profit excluding change in expected credit losses and other credit impairment charges rose by 15% to HK\$14,724m.

Net interest income increased by 21% year on year to HK\$16,515m. Leveraging our extensive network, and enhanced core banking relationships with customers, we achieved strong growth in deposit and loan balances of 9% and 10% respectively compared with 2017 year-end.

Non-interest income dropped by 1% to HK\$5,600m, reflecting the adverse impact of the more volatile investment markets in the second half of 2018. Despite the increasingly unfavourable market conditions, we achieved a 3% year-on-year increase in wealth management business by leveraging our all-weather portfolio of investment and insurance products.

To mitigate the effects of a slower property market in 2018, we continued to uplift our mortgage distribution capabilities in strategic segments and identify new business opportunities. This resulted an 11% increase in mortgage balances in Hong Kong compared with 2017 year-end. Our new mortgage business continued to rank among the top three in Hong Kong.

Effective marketing campaigns and our deeper understanding of our client base through enhanced analytics enabled us to grow card spending by 9% year on year. The personal and tax loan portfolio increased by 12% in Hong Kong.

With growing volatility in global financial markets in 2018, our diverse range of product offerings enabled us to maintain investment services income in line with the previous year. We grew securities turnover and revenue by 1% and 3% respectively compared with 2017. Investment services revenue excluding securities-related income dropped by 5%.

Life insurance annualised new premiums grew by 25% year on year. Leveraging our extensive distribution network, we offered customers greater peace of mind for retirement with our all-round planning and protection solutions. With sales of annuity products driving new business growth, we continued to enrich our suite of insurance offerings, including with the launch of a new whole-life insurance product. Insurance income increased by 8% compared with 2017.

Strengthened analytics, powered by machine learning, and our sophisticated customer segmentation strategy helped us deepen client relationships and our ability to provide needs-based financial products and services. In the Prestige Banking segment, we leveraged our high-value proposition and premium wealth management solutions to drive new business. We grew our Prestige Signature customer base by 25% year on year in Hong Kong. In mainland China, the Prestige customer base grew by 3% compared with a year earlier.

We continued to invest in fintech and the building of a robust infrastructure to provide safe, fast and convenient end-to-end digital banking services and increase customer engagement. Following our introduction of Hong Kong's first retail banking artificial intelligence ("AI") chatbots – "HARO" and "DORI" – in early 2018, we further enhanced HARO's capabilities to assist customers with managing their personal finances in a simpler way, including making peer-to-peer payment transfers through personal e-banking accounts. Leveraging Hong Kong's Faster Payment System, our new digital payment platform for customers delivers greater convenience and flexibility for fund transfer. We continued to uplift the mobile banking and e-banking user experience to provide customers with smarter, easier and more relevant banking services. The number of personal e-banking customers increased by 8% year on year in Hong Kong, and the number of active mobile users increased by 35%.

Commercial Banking ("CMB") recorded a 35% increase in both profit before tax and operating profit to HK\$8,575m. Operating profit excluding change in expected credit losses and other credit impairment charges grew by 33% to HK\$9,177m.

Net interest income increased by 33% to HK\$9,331m, with balanced growth in average customer loans and average customer deposits, which rose by 16% and 11% respectively. Our industry sector expertise supported a solid year-on-year expansion in syndicated lending.

Supported by improved analytics for assessing customer needs and our commitment to service enhancement through digital transformation, we successfully identified new business opportunities among SME customers. The expansion of lending led to a 33% increase in credit facilities fees. Insurance income and remittance fees rose by 24% and 16% respectively. This business growth drove a 14% increase in non-interest income to HK\$3,051m.

We continue to strengthen our capabilities in transactional banking. The launch of eTradeConnect, a blockchainbased trade finance platform developed in collaboration with the Hong Kong Monetary Authority and our industry peers, aims to enhance efficiency and reduce risk by digitalising trade documents and automating the trade finance process. Hang Seng One Collect, our new all-in-one payment collection service, enables merchants to accept a wide range of digital payment methods – including contactless mobile and QR code payments – through one integrated point-of-sale (POS) terminal.

In line with the Bank's values as a good corporate citizen and to support the sustainability objectives of our customers, we launched our Green Financing Promotion Scheme, which offers customers incentives for the acquisition of environmental friendly equipment.

Our investments in digital services enabled customers to track market trends more closely and enjoy easy access to information and assistance. Our AI chatbot and live chat online messaging service provide 24/7 banking services support. Customers can also enjoy instant mobile updates via our WeChat Account and the convenience of initiating the account-opening process online. On the Mainland, we launched our mobile banking app and Mobile Collection – a new digital payments service that allows customers to collect electronic payments through a broad range of channels online or at point of sales terminals – in 2018.

We also upgraded our physical commercial banking outlets to enhance the customer experience. We expanded our business banking centre in Kwun Tong to capture the growth in business opportunities in and around the Kowloon East commercial hub.

The credit environment remained challenging. We upheld good asset quality by adopting proactive credit risk management and improved our overall return on risk assets.

Our continuing commitment to service excellence in 2018 was recognised with "Hong Kong Domestic Trade Finance Bank of the Year" and "Hong Kong Domestic Technology & Operations Bank of the Year" awards from Asian Banking & Finance. We also received the "Outstanding Import & Export Industry Partner Award" from The Hong Kong Chinese Importers & Exporters Association.

Global Banking and Markets ("GBM") reported a 12% rise in both profit before tax and operating profit to HK\$5,320m. Operating profit excluding change in expected credit losses and other credit impairment charges rose by 12% to HK\$5,343m.

Global Banking ("GB") recorded a 19% increase in both profit before tax and operating profit to HK\$2,110m. Operating profit excluding change in expected credit losses and other credit impairment charges grew by 20% to HK\$2,135m.

Net interest income grew by 20% to HK\$2,318m, reflecting an increase in loans-related income resulting from enhancements to the lending portfolio mix and growth in the loans balance.

Non-interest income remained broadly steady. Fee income from credit facilities increased by 16% on the back of solid lending growth. In competitive operating conditions, fees from merchant card products declined by 26%.

Global Markets ("GM") reported an 8% increase in both profit before tax and operating profit to HK\$3,210m. Operating profit excluding change in expected credit losses and other credit impairment charges grew by 8% to HK\$3,208m.

Net interest income increased by 12% to HK\$2,248m. Our balance sheet management team identified good opportunities for achieving enhanced yields under its diverse investment strategy. In addition, our interest rate management team proactively managed its fixed-income portfolio, resulting in strong growth in interest income.

Non-interest income increased by 5% to HK\$1,530m. Increase in non-fund income from sales and trading activities outweighed the less favourable returns on balance sheet management-related funding swap activities. Strong collaboration with the RBWM, CMB and GB teams supported effective cross-selling of GM products to a diverse range of customers.

Supported by stronger customer demand for interest rate products and active management of interest rate risk, we recorded significant growth in interest rate-related income.

The active stock market in Hong Kong in the first half of the year supported an 8% year-on-year rise in income from equity-linked products.

Balance Sheet Analysis

Assets

Total assets increased by HK\$93bn, or 6%, to HK\$1,571bn compared with end of 2017, with the Group maintaining good business momentum by continuing to execute its strategy for enhancing profitability through sustainable growth.

Cash and sight balances at central banks decreased by HK\$5bn, or 24%, to HK\$16bn, due mainly to the decrease in the commercial surplus placed with the Hong Kong Monetary Authority ("HKMA"). Placings with banks fell by HK\$24bn, or 23%, to HK\$79bn, and trading assets dropped by HK\$7bn, or 12%, to HK\$47bn, reflecting redeployment of these assets to customer loans and advances and financial investments.

Net customer loans and advances (net of ECL allowances) grew by HK\$68bn, or 8%, to HK\$874bn compared with the end of 2017. Gross loans for use in Hong Kong increased by 11% to HK\$663bn. Lending to industrial, commercial and financial sectors grew by 11%, with increased lending across a diverse range of industries, including property development and investment, wholesale and retail trade sectors and working capital financing for large conglomerate customers. Lending to individuals increased by 12%. Amid a slowdown in the property market in the second half of 2018, the Group maintained its market share for mortgage business, with residential mortgages and Government Home Ownership Scheme/Private Sector Participation Scheme/Tenants Purchase Scheme lending recording satisfactory growth of 12% and 16% respectively compared with the previous year-end. Credit card advances grew by 2%. Other loans to personal customers grew by 22%. Trade finance lending fell by 23%. Loans and advances for use outside Hong Kong increased by 8%, due mainly to lending by our Hong Kong operation.

Financial investments increased by HK\$43bn, or 11%, to HK\$429bn, reflecting the partial redeployment of the commercial surplus in debt securities for yield enhancement and the increase in the insurance financial instruments portfolio.

Figures in HK\$m	2018	%	2017	%
Cash and sight balances at central banks	16,421	1.0	21,718	1.5
Placings with and advances to banks	79,400	5.1	103,113	7.0
Trading assets	47,164	3.0	53,704	3.6
Financial assets designated and otherwise mandatorily measured at fair value	13,070	0.8	N/A	N/A
Financial assets designated at fair value	N/A	N/A	9,313	0.6
Loans and advances to customers	874,456	55.7	806,573	54.5
Financial investments	428,532	27.3	385,261	26.1
Other assets	112,254	7.1	98,736	6.7
Total assets	1,571,297	100.0	1,478,418	100.0
Return on average total assets	_	1.6%	-	1.4%

Assets Deployment

Loans and Advances to Customers and Customer Deposits



Assets Deployment



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Loans and Advances to Customers

Gross loans and advances to customers increased by HK\$69.0bn, or 9%, to HK\$877.1bn compared with the end of 2017.

Loans and advances for use in Hong Kong rose by 11%. Lending to industrial, commercial and financial sectors grew by 11%. Lending to property development and property investment sectors remained active, both increased by 7% despite property market sentiment slowdown in second half of 2018. The Bank's continued efforts to support local business saw lending to wholesale and retail trade sector grow by 13%. Lending to information technology sector increased by 24% while lending to transport and transport equipment fell by 8%. Lending to "Other" sector grew by 30%, due mainly to the granting of certain new working capital financing facilities to large conglomerate customers.

Lending to individuals increased by 12%. We grew our residential mortgages and Government Home Ownership Scheme/Private Sector Participation Scheme/Tenants Purchase Scheme mortgages lending by 12% and 16% respectively, and maintained our top-three market position in terms of new mortgage business in Hong Kong. Credit card advances grew by 2% and other loans to personal customers grew by 22% when compared with last year-end.

Loans and advances for use outside Hong Kong increased by 8%, mainly reflecting lending by our Hong Kong operation to finance the work capital, property development and investment of large conglomerate customers for loan use in mainland China.

Customer Deposits

Customer deposits, including certificates of deposit and other debt securities in issue, increased by HK\$76bn, or 7%, to HK\$1,191bn against end of 2017. Growth in time deposits was partly offset by the decrease in current and savings account deposits. At 31 December 2018, the advances-to-deposits ratio was 73.4%, compared with 72.3% at 31 December 2017.

Customer Deposits



- Time and other deposits
- Demand and current accounts
- Certificates of deposit and other debt securities in issue

Shareholders' equity

Figures in HK\$m	At 31 December 2018	At 31 December 2017
Share capital	9,658	9,658
Retained profits	123,350	113,646
Other equity instruments	6,981	6,981
Premises revaluation reserve	19,822	18,379
Cash flow hedge reserve	(11)	(99)
Available-for-sale investment reserve		
– on debt securities	N/A	(90)
– on equity securities	N/A	2,206
Financial assets at fair value through other comprehensive income reserve	1,570	N/A
Other reserves	712	1,349
Total reserves	152,424	142,372
Total shareholders' equity	162,082	152,030
Return on average ordinary shareholders' equity	16.0%	14.2%

At 31 December 2018, shareholders' equity increased by HK\$10bn, or 7%, to HK\$162bn compared with 2017 year-end. Retained profits grew by HK\$10bn, or 9%, resulting from the 2018 attributable profit after the appropriation of 2018 interim dividends paid during the year. The premises revaluation reserve increased by HK\$1.4bn, or 8%, reflecting the upward trend in the commercial property market. Financial assets at fair value through other comprehensive income reserve/available-for-sale investment reserve decreased by HK\$0.5bn, or 26%, due mainly to the fair-value movement of the Group's investments in financial assets measured at fair value through other comprehensive income. Other reserves (including foreign exchange reserve) decreased by HK\$0.6bn, or 47%, due mainly to a decline in the foreign exchange reserve with the depreciation of the renminbi.

There was no purchase, sale or redemption by the Bank, or any of its subsidiaries, of the Bank's listed securities during 2018.

The Bank has issued perpetual capital instrument of HK\$6,981m that was included in the Group's capital base as Basel III compliant additional tier 1 capital ("AT1") under the Banking (Capital) Rules to its immediate holding company reported under "Other equity instruments".

All the Group's activities involve to varying degrees, the measurement, evaluation, acceptance and management of risk or combination of risks. As a provider of banking and financial services, we actively manage risk as a core part of our day-to-day activities. The principal types of risk faced by the Group are credit risk, liquidity and funding risk, market risk, insurance risk, operational risk and reputational risk.

Risk management framework

The Group's risk management policy is designed to identify and analyse risks, to set appropriate risk limits and to monitor these risks exposures continually by means of reliable and up-to-date management information systems. The Group's risk management framework/policies and risk appetite statement or major risk limits are approved by the Board of Directors and they are monitored and reviewed regularly by various Board or management committees, including the Executive Committee, Risk Committee, Asset and Liability Management Committee ("ALCO") and Risk Management Meeting ("RMM").

Robust risk governance and accountability are embedded throughout the Group through an established enterprise risk management framework that ensures appropriate oversight of and accountability for the effective management of risk at all levels of the organisation and across all risk types.

The Group has long recognised the importance of a strong risk culture, the fostering of which is a key responsibility of senior executives. We use clear and consistent employee communications on risk to convey strategic messages and set the tone from senior management. A suite of mandatory training on risk and compliance topics is deployed to embed skills and understanding in order to strengthen our risk culture and reinforce the attitude to risk in the behaviour expected of employees.

The Board has ultimate responsibility for approving the Group's risk appetite statement and the effective management of risk. The Risk Committee advises the Board on risk appetite and its alignment with strategy, risk governance and internal controls and high-level risk related matters.

The ongoing monitoring, assessment and management of the risk environment and the effectiveness of risk management policies resides with the Risk Management Meeting. It monitors risk inherent to the financial services business, receives reports, determines action to be taken and reviews the efficiency of the risk management framework.

Day-to-day responsibility for risk management is delegated to senior management with individual accountability. These managers are supported by functions by the "Three lines of defence" model on risk management described under Operational Risk section.

A Product Oversight Committee reporting to the RMM and comprising senior executives from Risk, Legal, Compliance, Finance, and Operations/IT, is responsible for reviewing and approving the launch of such new products and services. Each new service and product launch is also subject to an operational risk self-assessment process, which includes identification, evaluation and mitigation of risk arising from the new initiative. Internal Audit is consulted on the internal control aspect of new products and services in development prior to implementation.

Risk management tools

The Group uses a range of tools to identify, monitor and manage risk. The key tools are summarised below.

Risk appetite

The Group's Risk Appetite Statement ("RAS") sets out the type and quantum of risk that is willing to accept in achieving our medium and long-term strategic goals. Our risk appetite encapsulates consideration of both financial and non-financial risks and is expressed in both quantitative and qualitative terms. It is integrated with other risk management tools such as stress testing, top and emerging risks report, to ensure consistency in risk management practices. This is reviewed on a semi-annual basis, with formal approval from the Board on an annual basis on the recommendation of the Risk Committee.

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

Risk map

The Group uses a risk map to provide a point-in-time view of its residual risk profile across both financial and nonfinancial risks. This highlights the potential for these risks to materially affect our financial results, reputation or business sustainability on current and projected bases. Risk stewards assign current and projected risk ratings, supported by commentary. Risks that have an "Amber" or "Red" risk rating require monitoring and mitigating action plans being either in place or initiated to manage the risk down to acceptable levels.

Top and emerging risks

The Group uses a top and emerging risks analysis process to provide a forward-looking view of issues that are often large scale events or external circumstances, difficult to predict and are often beyond the Group's ability to directly control.

Top risk is defined as a thematic issue that may arise across any number of risk types, regions or global businesses which has the potential to have a material impact on the financial results, reputation or long term business model to the Group, and which may form and crystallise between 6 months and one year. The risk impact may be well understood by senior management, with some mitigating actions already in place. Stress tests of varying granularity may also have been carried out to assess impact.

An emerging risk is defined as a thematic issue that has large unknown components, which may form and crystallise beyond a one year time horizon. If these risks were to materialise, they could have a significant impact on a combination of the Group's long term strategy, profitability and reputation. Existing management action plans are likely to be minimal, reflecting the uncertain nature of these risks. Some high-level analysis or stress testing may have been carried out to try to assess and quantify impact.

Stress Testing

Stress testing and scenario analysis programme examines the sensitivities and resilience of our capital plan under adverse macroeconomic events to assess the sensitivities and resilience of capital adequacy. Action plans are developed to mitigate identified risks where needed. Reverse stress testing is conducted on Group level and is used to strengthen our resilience by identifying potential stresses and vulnerabilities which the Group might face and helping to inform early-warning triggers and design contingency plan to mitigate their effect were they to occur.

Independent risk function

The Group's Risk function, headed by the Group's Chief Risk Officer, is responsible for enterprise-wide risk oversight. This includes establishing and monitoring of risk profiles and forward-looking risk identification and management. The Group's Risk function is made up of sub-functions covering all risks to our operations and forms part of the second line of defence. They are independent from the sales and trading functions, ensuring the necessary balance in risk/return decisions.

Risks managed by the Group

The principal risks associated with our banking and insurance manufacturing operations are described in the tables below:

Description of risks – banking operations

(audited)

Risks	Arising from	Measurement, monitoring and management of risk
Credit risk		
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 certain other products such as guarantees and derivatives.	 Credit risk is: measured as the amount which could be lost if a customer or counterparty fails to make repayments; monitored within limits, approved by individuals within a framework of delegated authorities; and managed through a robust risk control framework which outlines clear and consistent policies, principles and guidance for risk managers.
Liquidity and funding risk		
Liquidity risk is the risk that the Group does not have sufficient financial resources to meet its obligations as they fall due or that it can only do so at an excessive cost. Funding risk is the risk that funding considered to be sustainable, and therefore used to fund assets, is not sustainable over time.	Liquidity risk arises from mismatches in the timing of cash flows. Funding risk arises when illiquid asset positions cannot be funded at the expected terms and when required.	 Liquidity and funding risk is: measured using a range of metrics including liquidity coverage ratio and net stable funding ratio; assessed through the internal liquidity adequacy assessment process; monitored against the Group's liquidity and funding risk framework; and managed on a standalone basis with no reliance on any Group entity (unless pre-committed) or central bank unless this represents routine established business-as-usual market practice.
Market risk		
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 – Non-trading portfolios	 Market risk is: measured in terms of value at risk ("VaR"), which measures the potential losses on risk positions over a specified time horizon for a given level of confidence, and assessed using stress testing; monitored using VaR, stress testing and other measures including the sensitivity of net interest income and the sensitivity of structural foreign
		exchange; and – managed using risk limits approved by the Group's Chief Risk Officer. These limits are allocated across business lines and to the Group's legal entities.

B		
Description of risks	s – banking operations	continued

Risks	Arising from	Measurement, monitoring and management of risk
Operational risk		
Operational risk is the risk to achieving our strategy or objectives as a result of inadequate or failed internal processes, people and systems or from external events.	Operational risk arises from day to day operations or external events, and is relevant to every aspect of our business. Regulatory compliance risk and financial crime risk are discussed below.	 Operational risk is: measured using the risk and control assessment process, which assesses the level of risk and effectiveness of controls; monitored using key indicators and other internal control activities; and primarily managed by business and functional managers. They identify and assess risks, implement controls to manage them and monitor the effectiveness of these controls utilising the operational risk management framework.
Regulatory compliance risk		
Regulatory compliance risk is the risk that we fail to observe the letter and spirit of all relevant laws, codes, rules, regulations and standards of good market practice, and incur fines and penalties and suffer damage to our business as a consequence.	Regulatory compliance risk is part of operational risk and arises from the provision of products and services to clients and counterparties.	 Regulatory compliance risk is: measured by reference to identified metrics, incident assessments, regulatory feedback and the judgement and assessment of our Regulatory Compliance teams; monitored against our compliance risk assessments and metrics, the results of the monitoring and control activities of the second line of defence functions, and the results of internal and external audits and regulatory inspections; and managed by establishing and communicating appropriate policies and procedures, training employees in them, and monitoring activity to assure their observance. Proactive risk control and/ or remediation work is undertaken where required.
Financial crime risk		
Financial crime risk is the risk that we knowingly or unknowingly help parties to commit or to further potentially illegal activity through the Group.	Financial crime risk is part of operational risk and arises from day to day banking operations.	 Financial crime risk is: measured by reference to identified metrics, incident assessments, regulatory feedback and the judgement and assessment of our Financial Crime Compliance teams; monitored against our financial crime risk appetite statements and metrics, the results of the monitoring and control activities of the second line of defence functions, and the results of internal and external audits and regulatory inspections; and managed by establishing and communicating appropriate policies and procedures, training employees in them, and monitoring activity to assure their observance. Proactive risk control and/ or remediation work is undertaken where required.

Description of risks – banking operations continued

Risks	Arising from	Measurement, monitoring and management of risk
Other material risks		
Reputational risk		
Reputational risk is the risk of failure to meet stakeholder expectations as a result of any event, behaviour, action or inaction,	Primary reputational risks arise directly from an action or inaction by the Group, its employees or associated parties that are not the	Reputational risk is: – measured by reference to our reputation as indicated by our dealings with all relevant stakeholders, including media, regulators, customers and employees;
either by the Group itself, our employees or those with whom we are associated, that might cause	consequence of another type ofrisk. Secondary reputational risks are those arising indirectly and are a result of a	 monitored through a reputational risk management framework, taking into account the results of the compliance risk monitoring activity; and
stakeholders to form a negative view of the Group.	failure to control any other risks.	 managed by every member of staff and is covered by a number of policies and guidelines. There is a clear structure of committees and individuals charged with mitigating reputational risk.
Pension risk		
Pension risk is the risk that the performance of assets held in pension funds is insufficient to cover existing	Pension risk arises from investments delivering an inadequate return, adverse changes in interest rates or	Pension risk is: – measured in terms of the schemes' ability to generate sufficient funds to meet the cost of their accrued benefits;
pension liabilities resulting in an increase in obligation to	inflation, or members living longer than expected. Pension	– monitored through the specific risk appetite; and
support the plan.	risk includes operational risks listed above.	 managed through the appropriate pension risk governance structure.
Sustainability risk		
Sustainability risk is the risk that financial services provided to customers by the Group indirectly result in unacceptable impacts on people or on the environment.	Sustainability risk arises from the provision of financial services to companies or projects which indirectly result in unacceptable impacts on people or on the environment.	Sustainability risk is: – measured by assessing the potential sustainability effect of a customer's activities and assigning a Sustainability Risk Rating to all high risk transactions; – monitored by the RMM and by group sustainability risk function; and
		 managed using sustainability risk policies covering project finance lending and sector-based sustainability policies for sectors and themes with potentially high environmental or social impacts.

Our insurance manufacturing subsidiary is separately regulated from our banking operations. Risks in the insurance entities are managed using methodologies and processes appropriate to insurance manufacturing operations, but remain subject to oversight at Group level. Our insurance operations are also subject to some of the same risks as our banking operations, which are covered by the Group's respective risk management processes.

Description of risks – insurance manufacturing operations

Risks	Arising from	Measurement, monitoring and management of risk
Insurance risk		
Insurance risk is the risk that, over time, the cost of acquiring and administering an insurance contract, and paying claims and benefits may exceed the total amount of premiums received and investment income.	The cost of claims and benefits can be influenced by many factors, including mortality and morbidity experience, lapse and surrender rates and, if the policy has a savings element, the performance of the assets held to support the liabilities.	 Insurance risk is: measured using an economic capital approach; monitored according to a defined risk appetite, which is aligned to the Company's risk appetite and enterprise risk management framework, and overseen by the Risk Management Meeting of the Insurance operations; and managed both centrally and locally using asset and liability management, product design, pricing and overall proposition management, underwriting policy, reinsurance and claims management process.
Financial risk		
Our ability to effectively match the liabilities arising under insurance contracts with the asset portfolios that back them are contingent on the management of financial risks such as market, credit and liquidity risks, and the extent to which these risks are not borne by the policyholders. Contracts with discretionary participating feature share the performance of the underlying assets between policyholders and the shareholder in line with the type of contract and the specific contract terms.	 Exposure to financial risks arises from: market risk of changes in the fair values of financial assets or their future cash flows from fluctuations in variables such as interest rates, foreign exchange rates and equity prices; credit risk and the potential for financial loss following the default of third parties in meeting their obligations; and liquidity risk of entities not being able to make payments to policyholders as they fall due as there are insufficient assets that can be realised as cash within the required timeframe. 	 Financial risk is: measured separately for each type of risk: market risks are measured in terms of exposure to fluctuations in key financial variables; credit risk is measured as the amount which could be lost if counterparty fails to make required payments; and liquidity risk is measured using internal metrics including stressed operational cash flow projections; monitored within limits approved by individuals within a framework of delegated authorities; managed through a robust risk control framework which outlines clear and consistent policies, principles and guidance for risk managers. Subsidiary manufacturing products with guarantees are usually exposed to falls in market interest rates and equity prices to the extent that the market exposure cannot be managed by utilising any discretionary participation (or bonus) features within the policy contracts they issue; and can be mitigated through sharing of risk with policyholders under the discretionary participation features for participating products.

The following information described the Group's management and control of risks, in particular, those associated with its use of financial instruments ("Financial risks"). Major types of risks to which the Group was exposed include credit risk, liquidity risk, market risk, insurance risk and operational risk.

(a) Credit Risk

(audited)

Credit risk is the risk that financial loss arises from the failure of a customer or counterparty to meet its obligations under a contract. It arises principally from lending, trade finance and leasing business, and also from certain other products, such as guarantees and derivatives. The Group has dedicated standards, policies and procedures in place to control and monitor risk from all such activities.

There are dedicated functions, reported to Chief Risk Officer, responsible for centralised management of credit risk through:

- formulating credit policies on approval process, post disbursement monitoring, recovery process and large exposure;
- issuing guidelines on lending to specified market sectors, industries and products; the acceptability of specific classes of collateral or risk mitigations and valuation parameters for collateral;
- undertaking an independent review and objective assessment of credit risk for all commercial non-bank credit facilities in excess of designated amount prior to the facilities being committed to customers;
- controlling exposures to selected industries, counterparties, countries and portfolio types etc by setting limits;
- maintaining and developing credit risk rating/facility grading process to categorise exposures and facilitate focused management;
- reporting to senior executives and various committees on aspects of the Group's loan portfolio;
- managing and directing credit-related systems initiatives; and
- providing advice and guidance to business units on various credit-related issues.

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 certain other products, such as guarantees and derivatives.

Credit risk in 2018

The Group has adopted the requirements of HKFRS 9 from 1 January 2018. Under HKFRS 9, the scope of impairment now covers amortised cost financial assets, loan commitments and financial guarantees, as well as debt instruments measured at Fair Value through Other Comprehensive Income ("FVOCI"). Impairment is calculated in three stages and financial instruments are allocated into one of the three stages where the transfer mechanism depends on whether there is a significant increase/decrease in credit risk in the relevant reporting period. After the allocation, the measurement of expected credit loss ("ECL"), which is the product of probability of default ("PD"), loss given default ("LGD") and exposure at default ("EAD"), will reflect the change in risk of default occurring over the remaining life of the instruments.

Summary of credit risk

The following tables analyse the financial instruments to which the impairment requirements of HKFRS 9 are applied and the related allowance for expected credit losses ("ECL").

Summary of financial instruments to which the impairment requirements in HKFRS 9 are applied

	Gross carrying/ nominal amount	Allowance for ECL ¹
Loans and advances to customers at amortised cost:	877,134	(2,678)
- personal	317,463	(1,023)
- corporate and commercial	540,530	(1,613)
 non-bank financial institutions 	19,141	(42)
Placings with and advances to banks at amortised cost	70,608	(2)
Other financial assets measured at amortised costs:	142,834	(42)
 cash and sight balances at central banks 	16,421	-
 reverse repurchase agreements – non-trading 	-	-
- financial investments	99,389	(37)
- other assets ²	27,024	(5)
Total gross carrying amount on balance sheet	1,090,576	(2,722)
Loans and other credit related commitments	314,620	(55)
Financial guarantee and similar contracts	4,168	(1)
Total nominal amount off balance sheet ³	318,788	(56)
At 31 December 2018	1,409,364	(2,778)

	Fair value	Memorandum Allowance for ECL
At 31 December 2018		
Debt instruments measured at Fair Value through Other Comprehensive Income ("FVOCI") ⁴	325,036	(5)

1 For retail unsecured revolving facilities, e.g. overdrafts and credit cards, the total ECL is recognised against the financial asset unless the total ECL exceeds the gross carrying amount of the financial asset, in which case the ECL is recognised against the loan commitments.

2 Includes only those financial instruments which are subject to the impairment requirements of HKFRS 9. "Other assets" as presented within the consolidated balance sheet includes both financial and non-financial assets.

3 The figure does not include some loan commitments and financial guarantee contracts not subject to impairment requirements under HKFRS 9. As such, the amount does not agree with the figure shown in note 45 of the financial statements, which represents the maximum amount at risk should the contracts be fully drawn upon and clients default.

4 For debt instruments measured at FVOCI, the allowance for ECL is a memorandum item and the debt instruments continue to be measured at fair value without netting off the ECL in the consolidated balance sheet.

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

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: 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 since initial recognition on which a lifetime ECL is recognised.
- Stage 3: Objective evidence of impairment, and are therefore considered to be in default or otherwise credit-impaired on which a lifetime ECL is recognised.
- POCI: Purchased or originated at a deep discount that reflects the incurred credit losses on which a lifetime ECL is recognised.

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

	Gros	s carryin	g/nomina	l amou	nt		Allowa	ance for E	CL			ECI	_ coverag	e %	
	Stage 1	Stage 2	Stage 3	POCI	Total	Stage 1	Stage 2	Stage 3	POCI	Total	Stage 1	Stage 2	Stage 3	POCI	Total
Loans and advances to customers at amortised cost:	826,192	48,782	2,154	6	877,134	(732)	(987)	(959)	_	(2,678)	0.09%	2.02%	44.52%	0.00%	0.31%
– Personal	306,695	10,207	561	-	317,463	(301)	(618)	(104)	-	(1,023)	0.10%	6.05%	18.54%	N/A	0.32%
 Corporate and commercial 	502,839	36,092	1,593	6	540,530	(403)	(355)	(855)	-	(1,613)	0.08%	0.98%	53.67%	0.00%	0.30%
 non-bank financial institutions 	16,658	2,483	-	-	19,141	(28)	(14)	-	-	(42)	0.17%	0.56%	N/A	N/A	0.22%
Placings with and advances to banks at amortised cost	70,409	199	-	-	70,608	(2)	-	-	_	(2)	0.00%	0.00%	N/A	N/A	0.00%
Other financial assets measured at amortised cost	141,889	944	1	_	142,834	(34)	(8)	_	_	(42)	0.02%	0.85%	0.00%	N/A	0.03%
Loans and other credit-related commitments	310,118	4,502	-	-	314,620	(42)	(13)	-	_	(55)	0.01%	0.29%	N/A	N/A	0.02%
– Personal	219,048	-	-	-	219,048	-	-	-	-	-	0.00%	N/A	N/A	N/A	0.00%
 Corporate and commercial 	90,433	4,501	-	-	94,934	(42)	(13)	-	-	(55)	0.05%	0.29%	N/A	N/A	0.06%
 non-bank financial institutions 	637	1	-	-	638	-	-	-	-	-	0.00%	0.00%	N/A	N/A	0.00%
Financial guarantee and similar contracts:	3,865	303	-	-	4,168	(1)	-	-	-	(1)	0.03%	0.00%	N/A	N/A	0.02%
– Personal	7	-	-	-	7	-	-	-	-	_	0.00%	N/A	N/A	N/A	0.00%
 Corporate and commercial 	3,848	299	-	-	4,147	(1)	-	-	-	(1)	0.03%	0.00%	N/A	N/A	0.02%
 non-bank financial institutions 	10	4	-	-	14	-	-	-	-	-	0.00%	0.00%	N/A	N/A	0.00%
At 31 December 2018	1,352,473	54,730	2,155	6	1,409,364	(811)	(1,008)	(959)	-	(2,778)	0.06%	1.84%	44.50%	0.00%	0.20%

Unless identified at an earlier stage, all financial assets are deemed to have suffered a significant increase in credit risk when they are 30 days past due ("DPD") and are transferred from stage 1 to stage 2. The disclosure below presents the aging of stage 2 loans and advances to customers by those less than 30 and greater than 30 days past due and therefore presents those amounts classified as stage 2 due to aging (30 days past due) and those identified at an earlier stage (less than 30 days past due).

Stage 2 days past due analysis for loans and advances to customers at 31 December 2018

	Gross carrying amount			Allo	Allowance for ECL			ECL coverage %			
	Stage 2	Of which: 1 to 29 DPD	Of which: 30 and > DPD	Stage 2	Of which: 1 to 29 DPD	Of which: 30 and > DPD	Stage 2	Of which: 1 to 29 DPD	Of which: 30 and > DPD		
Loans and advances to customers at amortised cost											
– Personal	10,207	1,287	457	(618)	(45)	(37)	6.05%	3.50%	8.10%		
 Corporate and commercial 	36,092	194	51	(355)	(17)	(21)	0.98%	8.76 %	41.18 %		
 non-bank financial institutions 	2,483	-		(14)	_	-	0.56%	N/A	N/A		

Concentration of credit risk

Concentration of credit risk exists when changes in geographic, economic or industry factors similarly affect groups of counterparties whose aggregate credit exposure is material in relation to the Group's total exposures. The Group's portfolio of financial instrument is diversified along geographic, industry and product sectors. Analysis of geographical concentration of the Group's assets is disclosed in note 21 to the financial statements and credit risk concentration of respective financial assets is disclosed in notes 25, 26, 28 and 29.

(i) Maximum exposure to credit risk before collateral held or other credit enhancements (audited)

Our credit exposure is spread across a broad range of asset classes, including derivatives, trading assets, loans and advances to customers, loans and advances to banks and financial investments.

The following table presents the maximum exposure to credit risk from balance sheet and off-balance sheet financial instruments, before taking account of any collateral held or other credit enhancements (unless such credit enhancements meet accounting offsetting requirements). For financial assets recognised on the balance sheet, the maximum exposure to credit risk equals their carrying amount; for financial guarantees and similar contracts granted, it is the maximum amount that we would have to pay if the guarantees were called upon. For loan commitments and other credit-related commitments that are irrevocable over the life of the respective facilities, it is generally the full amount of the committed facilities.

	2018	2017
Cash and sight balances at central banks	16,421	21,718
Placings with and advances to banks	79,400	103,113
Trading assets	47,148	53,680
Financial assets designated and otherwise mandatorily measured at fair value/ financial assets designated at fair value	1,331	792
Derivative financial instruments	8,141	10,836
Loans and advances to customers	874,456	806,573
Financial investments	424,388	379,050
Other assets	27,019	18,913
Financial guarantees and other credit related contingent liabilities	4,167	3,409
Loan commitments and other credit related commitments	594,457	516,588
	2,076,928	1,914,672

(ii) Measurement uncertainty and sensitivity analysis of ECL estimates

Expected credit loss impairment allowances recognised in the financial statements reflect the effect of a range of possible economic outcomes, calculated on a probability-weighted basis, based on the economic scenarios described below. The recognition and measurement of expected credit losses ("ECL") involves the use of significant judgement and estimation. It is necessary to formulate multiple forward-looking economic forecasts and incorporate them into the ECL estimates. The Group uses a standard framework to form economic scenarios to reflect assumptions about future economic conditions, supplemented with the use of management judgement, which may result in using alternative or additional economic scenarios and/or management adjustments.

Methodology

The Group has adopted the use of three scenarios, representative of our view of forecast economic conditions, sufficient to calculate unbiased expected loss in most economic environments. They represent a "most likely outcome" (the Central scenario), and two, less likely "outer" scenarios, referred to as the Upside and Downside scenarios. Each outer scenario is consistent with a probability of 10%, while the Central scenario is assigned the remaining 80%, according to the decision of the Group's senior management. This weighting scheme is deemed appropriate for the unbiased estimation of ECL in most circumstances. Key scenario assumptions are set using the average of forecasts of external economists, helping to ensure that the HKFRS 9 scenarios are unbiased and maximise the use of independent information. The Central, Upside and Downside scenarios selected with reference to external forecast distributions using the above approach are termed the "consensus economic scenarios".

For the Central scenario, the Group sets key assumptions such as GDP growth, inflation, unemployment and policy interest rates, using either the average of external forecasts (commonly referred to as consensus forecasts) for most economies, or market prices. An external provider's global macro model, conditioned to follow the consensus forecasts, projects the other paths required as inputs to credit models. This external provider is subject to the Group's risk governance framework, with oversight by a specialist internal unit.

The Upside and Downside scenarios are designed to be cyclical, in that GDP growth, inflation and unemployment usually revert back to the Central scenario after the first three years for major economies. The Group determines the maximum divergence of GDP growth from the Central scenario using the 10th and the 90th percentile of the entire distribution of forecast outcomes for major economies. While key economic variables are set with reference to external distributional forecasts, the Group also aligns the overall narrative of the scenarios to the macroeconomic risks described in the Group's "Top and emerging risks". This ensures that scenarios remain consistent with the more qualitative assessment of these risks. The Group projects additional variable paths using the external provider's global macro model.

The Group applies the following to generate the three economic scenarios:

- Economic risk assessment: The Group develops a shortlist of the upside and downside economic and political risks, most relevant to the Group and the HKFRS 9 measurement objective. These include local and global economic and political risks, which together affect economies that have a material effect on credit risk for the Group, namely Hong Kong, mainland China, US, UK and countries in the eurozone. The Group compiles this shortlist by monitoring developments in the global economy, by reference to our top and emerging risks, and by consulting external and internal subject matter experts.
- Scenario generation: For the Central scenario, the Group obtains a predefined set of economic paths from the average taken from the consensus survey of professional forecasters. Paths for the two outer scenarios are benchmarked to the Central scenario and reflect the economic risk assessment. The Group selects scenarios that in management's judgement are representative of the probability weighting scheme, informed by the current economic outlook, data analysis of past recessions, and transitions in and out of recession. The key assumptions made, and the accompanying paths, represent our "best estimate" of a scenario at a specified probability. Suitable narratives are developed for the Central scenario and the paths of the two outer scenarios.
- Variable enrichment: The Group expands each scenario through enrichment of variables. This includes the production of more than 400 variables that are required to calculate ECL. The external provider expands these scenarios by using as inputs the agreed scenario narratives and the variables aligned to these narratives. Scenarios, once expanded, continue to be benchmarked to latest events and information. Late breaking events could lead to revision of scenarios to reflect management judgement.

(ii) Measurement uncertainty and sensitivity analysis of ECL estimates continued Methodology continued

The Upside and Downside scenarios are generated at the year-end and are only updated during the year if economic conditions change significantly. The Central scenario is generated every quarter. In quarters where only the Central scenario is updated, outer scenarios for use in Wholesale are adjusted such that the relationship between the Central scenario and outer scenarios in the quarter is consistent with that observed at the last full scenario generation. In Retail, three scenarios are run annually to establish the effect of multiple scenarios for each portfolio. This effect is then applied in each quarter with the understanding that the non-linearity of response to economic conditions should not change, unless a significant change in economic conditions occurs.

The Group recognises that the consensus economic scenario approach, using three scenarios, will be insufficient in certain economic environments. Additional analysis may be requested at management's discretion. This may result in a change in the weighting scheme assigned to the three scenarios or the inclusion of extra scenarios. The Group anticipates that there will be only limited instances when the standard approach will not apply. We invoked this additional step during 2018, with an adjustment in respect of trade- and tariff-related tensions. See "Global Trade War scenario" below.

Description of Consensus Economic Scenarios

The economic assumptions presented in this section have been formed internally by the Group specifically for the purpose of calculating expected credit loss.

The consensus Central scenario

The Group's central scenario is one of moderate growth over the forecast period 2019–2023. GDP growth is expected to be 2.6% on average over the period, which is marginally higher than the average growth rate over the period 2013–2017. Across the key markets, we note:

- Expected average rates of GDP growth over the 2019–2023 period are lower than average growth rates achieved over the 2013–2017 period for mainland China and Hong Kong. For mainland China, it is consistent with the theme of ongoing rebalancing from an export-oriented economy to deeper domestic consumption.
- The average unemployment rate over the projection horizon is expected to remain at or below the averages observed in the 2013–2017 period across all of our major markets.
- Inflation is expected to be stable despite steady GDP growth and strong labour markets and will remain close to central bank targets in our core markets over the forecast period.
- Major central banks are expected to gradually raise their main policy interest rate. The US Federal Reserve Board ("FRB") will continue to reduce the size of its balance sheet and the European Central Bank is expected to raise interest rates from the second half of 2019. The Chinese Central Bank is expected to continue to rely on its toolkit of measures to control capital flows and manage domestic credit growth.
- The West Texas Intermediate oil price is forecast to average US\$63 per barrel over the projection period.

(ii) Measurement uncertainty and sensitivity analysis of ECL estimates continued

The consensus Central scenario continued

Key macroeconomic variables are shown in the table below:

Central scenario (average 2019–2023)

	Hong Kong	Mainland China
GDP growth rate (%)	2.6	5.9
Inflation (%)	2.3	2.5
Unemployment (%)	3.1	4.0
Short term interest rate (%)	2.6	4.0
10Y treasury bond yield (%)	3.1	N/A
Property price growth (%)	1.0	5.8
Equity price growth (%)	3.8	9.6

The consensus Upside scenario

Globally, real GDP growth rises in the first two years of the Upside scenario before converging to the Central scenario. Increased confidence, de-escalation of trade tensions and removal of trade barriers, expansionary fiscal policy, positive resolution of economic uncertainty in the UK, stronger oil prices as well as calming of geopolitical tensions are the risk themes that support the 2018 year-end Upside scenario.

Key macroeconomic variables are shown in the table below:

Upside scenario (average 2019–2023)

	Hong Kong	Mainland China
GDP growth rate (%)	2.9	6.1
Inflation (%)	2.6	2.7
Unemployment (%)	2.9	3.7
Short term interest rate (%)	2.6	4.1
10Y treasury bond yield (%)	3.3	N/A
Property price growth (%)	1.4	7.3
Equity price growth (%)	7.1	13.6

(ii) Measurement uncertainty and sensitivity analysis of ECL estimates continued

The Downside scenario

The consensus Downside scenarios

Globally, real GDP growth declines for two years in the Downside scenario before recovering to the Central scenario. House price growth either stalls or contracts and equity markets correct abruptly in our major markets. The global slowdown in demand drives commodity prices lower and results in an accompanying fall in inflation. Central Banks remain accommodative. This is consistent with the key risk themes of the downside, such as an intensification of global protectionism and trade barriers, faster than expected tightening of Fed policy rate, a worsening of economic uncertainty in the UK, China choosing to rebalance with stringent measures, and weaker commodity prices.

Key macroeconomic variables are shown in the table below:

Downside scenario (average 2019–2023)

	Hong Kong	Mainland China
GDP growth rate (%)	2.2	5.8
Inflation (%)	1.9	2.2
Unemployment (%)	3.5	4.2
Short term interest rate (%)	0.6	3.6
10Y treasury bond yield (%)	1.6	N/A
Property price growth (%)	(0.8)	3.3
Equity price growth (%)	(1.6)	2.0

Global trade war Downside scenario

Continued escalation of trade- and tariff-related tensions throughout 2018 resulted in management modelling deeper effects of a trade war scenario than currently captured by the consensus Downside scenario for key Asia-Pacific economies. This additional trade war scenario models the effects of a significant escalation in global tensions, stemming from trade disputes but going beyond increases in tariffs to affect non-tariff barriers, cross-border investment flows and threatens the international trade architecture. This scenario assumes actions that lie beyond currently enacted and proposed tariffs and has been modelled as an addition to the three consensus-driven scenarios for these economies.

Key macroeconomic variables are shown in the table below:

Global Trade War scenario (average 2019–2023)

	Hong Kong	Mainland China
GDP growth rate (%)	1.5	5.4
Inflation (%)	1.6	2.1
Unemployment (%)	4.7	4.3
Short term interest rate (%)	1.0	3.1
10Y treasury bond yield (%)	2.0	N/A
Property price growth (%)	(2.0)	2.9
Equity price growth (%)	(3.5)	1.1

The conditions that resulted in departure from the consensus economic forecasts will be reviewed regularly as economic conditions change in future to determine whether these adjustments continue to be necessary. The tables above show the five-year average of GDP growth rate.

(ii) Measurement uncertainty and sensitivity analysis of ECL estimates continued How economic scenarios are reflected in the wholesale calculation of ECL

The Group has developed a globally consistent methodology for the application of forward economic guidance into the calculation of ECL by incorporating forward economic guidance into the estimation of the term structure of probability of default ("PD") and loss given default ("LGD"). For PDs, we consider the correlation of forward economic guidance to default rates for a particular industry in a country. For LGD calculations, we consider the correlation of forward economic forward economic guidance to collateral values and realisation rates for a particular country and industry. PDs and LGDs are estimated for the entire term structure of each instrument.

For impaired loans, LGD estimates take into account independent recovery valuations provided by external consultants where available, or internal forecasts corresponding to anticipated economic conditions and individual company conditions. In estimating the ECL on impaired loans that are individually considered not to be significant, the Group incorporates forward economic guidance proportionate to the probability-weighted outcome and the Central scenario outcome for non-stage 3 populations.

How economic scenarios are reflected in the retail calculation of ECL

The Group has developed and implemented a globally consistent methodology for incorporating forecasts of economic conditions into ECL estimates. The impact of economic scenarios on PD is modelled at a portfolio level. Historic relationships between observed default rates and macro-economic variables are integrated into HKFRS 9 ECL estimates by leveraging economic response models. The impact of these scenarios on PD is modelled over a period equal to the remaining maturity of underlying asset or assets. The impact on LGD is modelled for mortgage portfolios by forecasting future loan-to-value ("LTV") profiles for the remaining maturity of the asset by leveraging national level forecasts of the house price index and applying the corresponding LGD expectation.

Economic scenarios sensitivity analysis of ECL estimates

The ECL outcome is sensitive to judgement and estimations made with regards to the formulation and incorporation of multiple forward-looking economic conditions described above. As a result, management assessed and considered the sensitivity of the ECL outcome against the forward-looking economic conditions 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 significant increase in credit risk as well as the measurement of the resulting ECL.

The economic scenarios are generated to capture the Group's view of a range of possible forecast economic conditions that is sufficient for the calculation of unbiased and probability-weighted ECL. Therefore, the ECL calculated for each of the scenarios represent a range of possible outcomes that have been evaluated to estimate ECL. As a result, the ECL calculated for the Upside and Downside scenarios should not be taken to represent the lower and upper limits of possible actual ECL outcomes. There is a high degree of estimation uncertainty in numbers representing tail risk scenarios when assigned a 100% weighting, and an indicative range is provided for the tail risk sensitivity analysis. A wider range of possible ECL outcomes reflects uncertainty about the distribution of economic conditions and does not necessarily mean that credit risk on the associated loans is higher than for loans where the distribution of possible future economic conditions is narrower. The recalculated ECL for each of the scenarios should be read in the context of the sensitivity analysis as a whole and in conjunction with the narrative disclosures provided below.

ECL under each scenario is given as a percentage of the probability-weighted ECL impairment allowance as at 31 December 2018.

(ii) Measurement uncertainty and sensitivity analysis of ECL estimates continued

Wholesale analysis

HKFRS 9 ECL sensitivity to future economic conditions¹

	Hong Kong	Mainland China
	%	%
Reported ECL coverage	0.06	0.34
Consensus central scenario	0.06	0.34
Consensus upside scenario	0.06	0.32
Consensus downside scenario	0.06	0.37
Trade war	0.27	0.90

1 Excludes ECL and drawn amounts related to defaulted obligors

ECL coverage rates reflect the underlying observed credit defaults, the sensitivity to economic environment, extent of security and the effective maturity of the book. Hong Kong is typically a short-dated book with low defaults, which is reflected in the low ECL coverage ratio.

Retail analysis

The geographies below were selected based on contribution to overall ECL within our retail lending business.

HKFRS 9 ECL sensitivity to future economic conditions¹

	Hong Kong	Mainland China
	%	%
Reported ECL coverage	0.40	0.08
Consensus central scenario	0.40	0.08
Consensus upside scenario	0.37	0.08
Consensus downside scenario	0.41	0.10
Trade war	0.47	0.10

1 ECL sensitivities exclude portfolios utilising less complex modelling approaches

Under certain economic conditions, economic factors can influence ECL in counter-intuitive ways (for example an increase in GDP growth accompanied by rising interest rates resulting in an increase in PDs) and it may be necessary to apply management judgement to the output, which following management review of the calculated ECL sensitivities, may require modelled output adjustments.

For all the above sensitivity analyses, as the level of uncertainty, economic forecasts, historical economic variable correlations or credit quality changes, corresponding changes in the ECL sensitivity would occur.

(iii) Reconciliation of changes in gross carrying/nominal amount and allowances for loans and advances to banks and customers

The table below provides a reconciliation of the Group's gross carrying/nominal amount and allowances for placings with and advances to banks and loans and advances to customers, including loan commitments and financial guarantees.

The transfers of financial instruments represents the impact of stage transfers upon the gross carrying/nominal amount and associated allowance for ECL. The net remeasurement of ECL arising from stage transfers represents the increase in ECL due to these transfers.

Reconciliation of gross exposure and allowances/provision for loans and advances to banks and customers including loan commitments and financial guarantees (audited)

		Non credit	- impaired			Credit -	impaired		Т	otal
	Stag	je 1	Sta	ge 2	Sta	ge 3	PC		-	
	Gross exposure	Allowance/ provision for ECL								
At 1 January 2018 Transfers of financial instruments: – transfers from Stage 1	1,110,402	(692)	77,109	(1,175)	2,001	(745)	173	(18)	1,189,685	(2,630
to Stage 2 - transfers from Stage 2	(31,781)	61	31,781	(61)	-	-	-	-	-	-
to Stage 1	44,845	(427)	(44,845)	427	_	-	_	-	_	-
 transfers to Stage 3 	(880)	2	(526)	7	1.406	(9)	-	-	_	
 transfers from Stage 3 Net remeasurement of ECL arising from 	-	2	22	_	(22)	-	-	-	-	-
transfer of stage Changes due to modifications not	-	286	-	(219)	-	(5)	-	-	-	62
derecognised Net new and further	-	-	-	-	-	-	-	-	-	-
lending/(repayments) Changes to risk parameters	93,785	(65)	(7,898)	206	(226)	109	(159)	10	85,502	260
(model inputs) Changes to model used	-	54	-	(191)	-	(1,313)	-	2	-	(1,448
for ECL calculation Assets written off Foreign exchange and	-	-	-	-	(999)	999	(6)	6	_ (1,005)	1,005
others	(5,787)	4	(1,857)	6	(6)	5	(2)	-	(7,652)	15
At 31 December 2018	1,210,584	(777)	53,786	(1,000)	2,154	(959)	6	-	1,266,530	(2,736
Change in ECL in income s Add: Recoveries Add/(less): Others	statement (ch	arge)/release	for the year							Tota (1,12) 14 (1)
Total ECL (charge)/release										(996

	At 31 Decemb	For the year ended 31 December 2018	
	Gross carrying/ nominal amount	Allowance for ECL	ECL (charge)/release
Placings with and advances to banks and loans and advances			
to customers, including loan commitments and financial guarantees	1,266,530	(2,736)	(996)
Other financial assets measured at amortised cost	142,834	(42)	2
Summary of financial instruments to which the impairment requirements in HKFRS 9 are applied/Summary consolidated			
income statement	1,409,364	(2,778)	(994)
Debt instruments measured at FVOCI ³	325,191	(5)	-
Performance and other guarantees	12,046	(2)	(2)
Total allowance for ECL/total income statement			
ECL charge for the year	1,746,601	(2,785)	(996)

1 Purchased or originated credit-impaired ("POCI") represented distressed restructuring.

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

3 For the purposes of this disclosure, gross carrying value is defined as the amortised cost of a financial asset, before adjusting for any loss allowance. As such, the gross carrying value of debt instruments at FVOCI as presented above will not reconcile to the Consolidated Balance Sheet as it excludes fair value gains and losses.

(iv) Credit quality of financial instruments (audited)

We assess the credit quality of all financial instruments that are subject to credit risk. The credit quality of financial instruments is a point in time assessment of the probability of default of financial instruments, whereas HKFRS 9 stages 1 and 2 are determined based on relative deterioration of credit quality since initial recognition. Accordingly, for non-credit impaired financial instruments, there is no direct relationship between the credit quality assessments and HKFRS 9 stages 1 and 2, though typically the lowered credit quality bands exhibit a higher proportion in Stage 2.

Five broad classifications describe the credit quality of the Group's lending and debt securities portfolios. These classifications each encompass a range of more granular, internal credit rating grades assigned to wholesale and retail lending business, as well as the external ratings attributed by external agencies to debt securities. For debt securities and certain other financial instruments, external ratings have been aligned to five credit quality classifications based on the mapping of related customer risk ratings ("CRR") to external credit ratings. The mapping is reviewed on a regular basis.

There is no direct correlation between the internal and external ratings at granular level, except insofar as both fall within one of the five classifications.

Under HKAS 39, retail lending credit quality was disclosed based on expected-loss percentages. Under HKFRS 9 retail lending credit quality is now disclosed based on a 12-month probability-weighted PD. The credit quality classifications for wholesale lending are unchanged and are based on internal credit risk ratings.

	Debt securities and other bills	Wholesale	lending	Retail lending		
Credit quality classification	External credit rating	Internal credit rating	12-month Basel probability of default %	Internal credit rating	12-month probability- weighted PD %	
Strong	A- and above	CRR 1 to CRR 2	0–0.169	Band 1–2	0–0.500	
Good	BBB+ to BBB-	CRR 3	0.170-0.740	Band 3	0.501-1.500	
Satisfactory	BB+ to B, and unrated	CRR 4 to CRR 5	0.741-4.914	Band 4–5	1.501-20.000	
Sub-standard	B- to C	CRR 6 to CRR 8	4.915-99.999	Band 6	20.001–99.999	
Credit-impaired	Default	CRR 9 to CRR 10	100	Band 7	100	

Quality classification definitions:

- Strong: Exposures demonstrate a strong capacity to meet financial commitments, with negligible or low probability of default.
- Good: Exposures demonstrate a good capacity to meet financial commitments, with low default risk.
- Satisfactory: Exposures require closer monitoring and demonstrate an average to fair capacity to meet financial commitments, with moderate default risk.
- Sub-standard: Exposures require varying degrees of special attention and default risk of greater concern.
- Credit-impaired: Exposures have been assessed as impaired.

(iv) Credit quality of financial instruments continued (audited)

Distribution of financial instruments by credit quality

	Gross carrying/notional amount								
	Strong	Good	Satisfactory	Sub- standard	Credit impaired	Total	Allowance for ECL	Net	
In-scope for HKFRS 9 impairment Loans and advances to									
customers at amortised cost	434,917	217,902	219,602	2,553	2,160	877,134	(2,678)	874,456	
 personal corporate and 	297,151	11,696	7,851	204	561	317,463	(1,023)	316,440	
 corporate and commercial pop bank financial 	135,183	196,474	204,925	2,349	1,599	540,530	(1,613)	538,917	
 non-bank financial institutions 	2,583	9,732	6,826	-		19,141	(42)	19,099	
Placings with and advances to banks at amortised cost	69,493	1,111	4	_	_	70,608	(2)	70,606	
Cash and sight balances at central banks Financial investments	16,421	-	-	-	-	16,421	-	16,421	
measured at amortised cost	83,590	12,054	3,745	_	_	99,389	(37)	99,352	
Other assets Debt instruments measured at fair	18,369	4,667	3,986	1	1	27,024	(5)	27,019	
value through other comprehensive income ¹	324,037	1,154	-	-	_	325,191	(5)	325,186	
	946,827	236,888	227,337	2,554	2,161	1,415,767	(2,727)	1,413,040	
Out-of-scope for HKFRS 9 impairment Trading assets Other financial assets designated and otherwise mandatorily	47,148	-	-	-	-	47,148	-	47,148	
measured at fair value through profit or loss	300	1,031	-	-	-	1,331	-	1,331	
Derivative financial instruments	4,460	1,603	125	26		6,214	-	6,214	
	51,908	2,634	125	26	_	54,693	-	54,693	
At 31 December 2018	998,735	239,522	227,462	2,580	2,161	1,470,460	(2,727)	1,467,733	
Percentage of total credit quality Loan and other credit –	68%	16 %	16%	0%	0%	100%			
related commitments ²	256,094	32,083	25,954	489	-	314,620	(55)	314,565	
Financial guarantee and similar contracts ²	745	2,845	568	10	-	4,168	(1)	4,167	

1 For the purposes of this disclosure, gross carrying value is defined as the amortised cost of a financial asset, before adjusting for any loss allowance. As such, the gross carrying value of debt instruments at FVOCI as presented above will not reconcile to the Consolidated Balance Sheet as it excludes fair value gains and losses.

2 Figures do not include commitments and financial guarantee contracts not subject to impairment requirements under HKFRS 9. As such, the amounts do not agree with the figures shown in note 45 on the consolidated financial statements.

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

(iv) Credit quality of financial instruments continued (audited)

Distribution of financial instruments to which the impairment requirements in HKFRS 9 are applied, by credit quality and stage distribution

Gross carrying/notional amount								
	Strong	Good	Satisfactory	Sub- standard	Credit impaired	Total	Allowance for ECL	Net
Placings with and								
advances to banks at amortised cost	69,493	1,111	4	-	-	70,608	(2)	70,606
– stage 1	69,421	984	4	-	-	70,409	(2)	70,407
– stage 2	72	127	-	-	-	199	-	199
stage 3POCI		-	-	_	-	_	-	-
Loans and advances								
to customers at amortised cost	434,917	217,902	219,602	2,553	2,160	877,134	(2,678)	874,456
– stage 1	432,339	206,471	186,749	633	_	826,192	(732)	825,460
- stage 2	2,578	11,431	32,853	1,920	_	48,782	(987)	47,795
– stage 3	-	-	-	_	2,154	2,154	(959)	1,195
- POCI	-	-	-	-	6	6	-	6
Other financial assets measured at								
amortised cost	118,380	16,721	7,731	1	1	142,834	(42)	142,792
– stage 1	117,878	16,384	7,627	-	_	141,889	(34)	141,855
– stage 2	502	337	104	1	-	944	(8)	936
– stage 3	-	-	-	-	1	1	-	1
– POCI	-	-	-	-	-	-	-	-
Loan and other credit-related								
commitments ²	256,094	32,083	25,954	489	-	314,620	(55)	314,565
– stage 1	256,094	30,267	23,494	263	-	310,118	(42)	310,076
– stage 2	-	1,816	2,460	226	-	4,502	(13)	4,489
– stage 3	-	-	-	-	-	-	-	-
- POCI	-	-	-	-	-	-	-	-
Financial guarantees								
and similar contracts ²	745	2,845	568	10	-	4,168	(1)	4,167
– stage 1	745	2,765	355	-	-	3,865	(1)	3,864
 stage 2 	-	80	213	10	-	303	-	303
stage 3POCI		_	-	_	-	-	-	-
At 31 December 2018	879,629	270,662	253,859	3,053	2,161	1,409,364	(2,778)	1,406,586
Debt instruments at FVOCI ¹								
- stage 1	324,037	1,154	-	-	-	325,191	(5)	325,186
– stage 2	-	-	-	-	-	-	-	-
– stage 3	-	-	-	-	-	-	-	-
– POCI		-	-	-	-	-	_	-
At 31 December 2018	324,037	1,154	_			325,191	(5)	325,186

For the purposes of this disclosure, gross carrying value is defined as the amortised cost of a financial asset, before adjusting for any loss allowance. As such, the gross carrying value of debt instruments at FVOCI as presented above will not reconcile to the Consolidated Balance Sheet as it excludes fair value gains and losses.
 Figures do not include commitments and financial guarantee contracts not subject to impairment requirements under HKFRS 9. As such, the amounts do not agree with the figures shown in note 45 on the consolidated financial statements.

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

(v) Collateral and other credit enhancements Loans and advances

(audited)

Although collateral can be an important mitigant of credit risk, it is the Group's practice to lend on the basis of the customer's ability to meet their obligations out of their cash flow resources rather than rely on the value of security offered. Depending on the customer's standing and the type of product, facilities may be provided unsecured. However, for certain lending decisions a charge over collateral is usually obtained, and is important for the credit decision and pricing, and it is the Bank's practice to obtain that collateral and sell it in the event of default as a source of repayment. Such collateral has a significant financial effect and the objective of the disclosure below is to quantify these forms. We may also manage our risk by employing other types of collateral and credit risk enhancements, such as second charges, other liens and unsupported guarantees, but the valuation of such mitigants is less certain and their financial effect has not been quantified in the loans shown below.

We have quantified below the value of fixed charges we hold over a specific asset (or assets) of a borrower for which we have a practical ability and history of enforcing in satisfying a debt in the event of a borrower failing to meet their contractual obligations and where the asset is cash or can be realised in the form of cash by sale in an established market.

Personal lending

(audited)

For personal lending the collateral held has been analysed below separately for residential mortgages and other personal lending due to the different nature of collateral held on the portfolios.

(v) Collateral and other credit enhancements continued Residential mortgages

(audited)

The following table shows residential mortgage lending including off-balance sheet loan commitments by level of collateralisation.

Residential mortgages including loan commitments by level of collateral

	Gross carrying/ nominal amount	ECL	ECL coverage %
Stage 1 Fully collateralised LTV ratio:	244,155	(1)	0.00
- Less than 70%	225,705	(1)	0.00
- 71% to 90%	13,968	(0)	0.00
- 91% to 100%	4,482	(0)	0.00
Partially collateralised (A)	17	(0)	0.01
Total	244,172	(1)	0.00
- Collateral value on A	16	-	-
Stage 2 Fully collateralised LTV ratio:	4,533	(1)	0.01
- Less than 70%	4,397	(0)	0.01
- 71% to 90%	126	(0)	0.01
- 91% to 100%	10		
Partially collateralised (B)		-	-
Total	4,533	(1)	0.01
- Collateral value on B	-	-	-
Stage 3 Fully collateralised LTV ratio:	185	(8)	4.45
- Less than 70%	183	(8)	4.48
- 71% to 90%		-	-
- 91% to 100%	2	-	-
Partially collateralised (C)			-
Total	185	(8)	4.45
- Collateral value on C	-	-	-
POCI Fully collateralised LTV ratio:	-	-	-
- Less than 70%		-	-
- 71% to 90%	-	-	-
- 91% to 100%	-		-
Partially collateralised (D)		_	-
Total		-	-
- Collateral value on D		-	-
At 31 December 2018	248,890	(10)	0.00

(v) Collateral and other credit enhancements continued

The collateral included in the table above consists of fixed first charges on residential real estate.

The loan-to-value ("LTV") ratio in the table above is calculated as the gross on-balance sheet carrying amount of the loan and any off-balance sheet loan commitment at the balance sheet date as a percentage of the current value of collateral. The current value of collateral is determined through a combination of professional valuations, physical inspections or house price indices. The collateral valuation excludes any adjustments for obtaining and selling the collateral.

Other personal lending

(audited)

The remainder of our personal lending consists primarily of credit cards, instalment loan, overdraft or revolving loan. Credit cards are generally unsecured. Instalment loan, overdraft and revolving loan could be partially secured by cash or marketable securities.

Corporate and commercial and financial (non-bank) lending (audited)

For corporate and commercial and financial (non-bank) lending, the collateral held has been analysed below separately for commercial real estate and other corporate and commercial and financial (non-bank) lending due to the different nature of collateral held on the portfolios.

Commercial real estate

(audited)

Commercial real estate lending includes the financing of corporate and institutional customers who are investing primarily in income-producing assets and, to a lesser extent, in their construction and development. The Group has aligned the definition of commercial real estate to reflect the internal risk management view, and the comparatives presented under Credit Risk (vi), have been restated.

(v) Collateral and other credit enhancements continued Commercial real estate continued

(audited)

The following table shows commercial real estate lending including off-balance sheet loan commitments by level of collateralisation.

Commercial real estate loans and advances including loan commitments by level of collateral

	Gross carrying/ nominal amount	ECL	ECL coverage %
Stage 1 Not collateralised Fully collateralised	103,278 150,255	(32) (80)	0.03 0.05 0.07
Partially collateralised (A) Total	11,540 265,073	(9)	0.07
- Collateral value on A	8,107	-	-
Stage 2 Not collateralised Fully collateralised Partially collateralised (B)	2,391 10,259 87	(12) (69) (0)	0.49 0.67 0.37
Total	12,737	(81)	0.64
- Collateral value on B	24	-	-
Stage 3 Not collateralised Fully collateralised Partially collateralised (C)	_ 76 _	- - -	- -
Total	76	-	-
- Collateral value on C	-	-	-
POCI Not collateralised Fully collateralised Partially collateralised (D)		- - -	-
Total		_	
- Collateral value on D		_	_
At 31 December 2018	277,886	(202)	0.07

The collateral included in the table above consists of fixed first charges on real estate and charges over cash for the commercial real estate sector. The table includes lending to major property developers which is typically secured by guarantees or is unsecured.

The value of commercial real estate collateral is determined through a combination of professional and internal valuations and physical inspection. Due to the complexity of collateral valuations for commercial real estate, local valuation policies determine the frequency of review based on local market conditions. Revaluations are sought with greater frequency where, as part of the regular credit assessment of the obligor, material concerns arise in relation to the transaction which may reflect on the underlying performance of the collateral, or in circumstances where an obligor's credit quality has declined sufficiently to cause concern that the principal payment source may not fully meet the obligation (i.e. the obligor's credit quality classification indicates it is at the lower end e.g. substandard, or approaching impaired).

(v) Collateral and other credit enhancements continued

Other corporate and commercial and financial (non-bank) lending (audited)

The following table shows corporate, commercial and financial (non-bank) lending including off-balance sheet loan commitments by level of collateralisation.

Other corporate, commercial and non-bank financial institutions loans and advances including loan commitment by level of collateral

	Gross carrying/ nominal amount	ECL	ECL coverage %
Stage 1 Not collateralised Fully collateralised Partially collateralised (A)	284,966 144,968 55,215	(196) (119) (38)	0.07 0.08 0.07
Total	485,149	(353)	0.07
- Collateral value on A	24,860	-	-
Stage 2 Not collateralised Fully collateralised Partially collateralised (B)	19,253 13,591 7,377	(154) (123) (24)	0.80 0.90 0.32
Total	40,221	(301)	0.75
- Collateral value on B	3,283	-	-
Stage 3 Not collateralised Fully collateralised Partially collateralised (C)	987 380 225	(647) (21) (187)	65.78 5.61 83.10
Total	1,592	(855)	53.82
- Collateral value on C	27	-	-
POCI Not collateralised Fully collateralised Partially collateralised (D)	6 - -	- - -	
Total	6	-	_
- Collateral value on D		-	-
At 31 December 2018	526,968	(1,509)	0.29

The collateral used in the assessment of the above primarily includes first legal charges over real estate and charges over cash in the commercial and industrial sector and charges over cash and marketable financial instruments in the financial sector. Government sector lending is typically unsecured.

It should be noted that the table above excludes other types of collateral which are commonly taken for corporate and commercial lending such as unsupported guarantees and floating charges over the assets of a customer's business. While such mitigants have value, often providing rights in insolvency, their assignable value is insufficiently certain. They are assigned no value for disclosure purposes.

(v) Collateral and other credit enhancements continued

Other corporate and commercial and financial (non-bank) lending continued (audited)

As with commercial real estate the value of real estate collateral included in the table above is generally determined through a combination of professional and internal valuations and physical inspection. The frequency of revaluation is undertaken on a similar basis to commercial real estate loans and advances; however, for financing activities in corporate and commercial lending that are not predominantly commercial real estate-oriented, collateral value is not as strongly correlated to principal repayment performance. Collateral values will generally be refreshed when an obligor's general credit performance deteriorates and it is necessary to assess the likely performance of secondary sources of repayment should reliance upon them prove necessary. For this reason, the table above reports values only for customers with CRR 8 to 10, reflecting that these loans and advances generally have valuations which are of comparatively recent vintage. For the purposes of the table above, cash is valued at its nominal value and marketable securities at their fair value.

Placings with and advances to banks

(audited)

Placings with and advances to banks are typically unsecured. At 31 December 2018, HK\$79,400m (2017: HK\$103,113m) of placings with and advances to banks rated CRR 1 to 5, including loan commitments, are uncollateralised.

Derivatives

(audited)

The International Swaps and Derivatives Association ("ISDA") Master Agreement is our preferred agreement for documenting derivatives activity. It provides the contractual framework within which dealing activity across a full range of over the counter ("OTC") products is conducted, and contractually binds both parties to apply close-out netting across all outstanding transactions covered by an agreement if either party defaults or another pre-agreed termination event occurs. It is common, and the Group's preferred practice, for the parties to execute a Credit Support Annex ("CSA") in conjunction with the ISDA Master Agreement. Under a CSA, collateral is passed between the parties to mitigate the counterparty risk inherent in outstanding positions. The majority of our CSAs are with financial institutional clients.

Other credit risk exposures

(audited)

In addition to collateralised lending described above, other credit enhancements are employed and methods used to mitigate credit risk arising from financial assets. These are described in more detail below.

Government, bank and other financial institution issued securities may benefit from additional credit enhancement, notably through government guarantees that reference these assets. Corporate issued debt securities are primarily unsecured. Debt securities issued by banks and financial institutions include covered bonds, which are supported by underlying pools of financial assets.

Trading assets include loans and advances held with trading intent, the majority of which consist of reverse repos and securities borrowing which by their nature are collateralised. Collateral accepted as security that the Group is permitted to sell or repledge under these arrangements is described in Note 30 "Assets transferred, assets charged as security for liabilities, and collateral accepted as security for assets".

The Group's maximum exposure to credit risk includes financial guarantees and similar arrangements that it issues or enters into, and loan commitments to which it is irrevocably committed. Depending on the terms of the arrangement, the Bank may have recourse to additional credit mitigation in the event that a guarantee is called upon or a loan commitment is drawn and subsequently defaults. The risks and exposures from these are captured and managed in accordance with the Group's overall credit risk management policies and procedures.

Collateral and other credit enhancements obtained (audited)

The Group obtained assets by taking possession of collateral held as security, or calling other credit enhancement. The nature of these assets held as at 31 December 2018 are residential properties with carrying amount of HK\$18m (2017: residential properties of HK\$42m).

(vi) Selected 2017 credit risk disclosures

The disclosures below were included in our 2017 external reports and do not reflect the adoption of HKFRS 9. As these tables are not directly comparable to the current 2018 credit risk tables, which are disclosed on an HKFRS 9 basis, these 2017 disclosures have been shown below and not adjacent to 2018 tables.

Distribution of financial instruments by credit quality

	1	Neither past o	due nor impaired					
	Strong	Good	Satisfactory	Sub- standard	Past due but not impaired	Impaired	Impairment allowances	Total
2017								
Items in the course of collection from other banks	6,157	-	307	-	_	_	-	6,464
Trading assets: – treasury bills – debt securities – loans and advances to	33,066 18,509	- -	- -	-	-	- -	- -	33,066 18,509
banks	2,011	84	-	-	-	-	-	2,095
 loans and advances to customers 	10	-	-	-	-	-	_	10
	53,596	84		-	-	-	_	53,680
Financial assets designated at fair value:	(00							(00
 treasury bills debt securities 	400 390	-	- 2	-	-	-	-	400 392
	790	-	2	-	-	-	_	792
Derivatives	8,375	1,745	554	162	-	-	-	10,836
Loans and advances held at amortised cost: - sight balances at	1 (000							1 / 000
central banks – placings with and	14,309	-	-	-	-	-	-	14,309
advances to banks – loans and advances	98,511	3,761	841	-	-	-	(1.507)	103,113
to customers	382,207	215,556	201,116	2,869	4,452	1,970	(1,597)	806,573
Financial investments:	495,027	219,317	201,957	2,869	4,452	1,970	(1,597)	923,995
 treasury and similar bills debt securities 	154,292 210,120	_ 10,255	_ 4,383	- -	- -	- -	- -	154,292 224,758
	364,412	10,255	4,383	_	_	_	_	379,050
Other assets: – acceptances and endorsements – other	373 3,081	2,266 412	2,430 3,763	39 7	- 78	-	-	5,108 7,341
	3,454	2,678	6,193	46	78	_	-	12,449

(vi) Selected 2017 credit risk disclosures continued

Aging analysis of financial instruments which were past due but not impaired

The amounts in the following table reflect exposures designated as past due but not impaired. Examples of exposures designated past due but not impaired include loans that have missed the most recent payment date but on which there is no evidence of impairment; short-term trade facilities past due more than 90 days for technical reasons such as delays in documentation, but where there is no concern over the creditworthiness of the counterparty.

	Up to 29 days	30–59 days	60–89 days	90–180 days	Over 180 days	Total
2017						
Loans and advances to customers held at amortised cost [#] Other assets	4,031 12	338 4	83 16	- 1	- 45	4,452 78
	4,043	342	99	1	45	4,530

* The majority of the loans and advances to customers that are operating within revised terms following restructuring are excluded from this table.

Residential mortgages

(audited)

The following table shows residential mortgage lending including off-balance sheet loan commitments by level of collateralisation.

Residential mortgages	2017
Unimpaired loans Fully collateralised	223,528
Impaired loans	
Fully collateralised	128
– Less than 70% LTV	124
- 71% to 90% LTV	4
- 91% to 100% LTV	-
Total	223,656

The collateral included in the table above consists of fixed first charges on residential real estate.

(vi) Selected 2017 credit risk disclosures continued Corporate and commercial and financial (non-bank) lending

Commercial real estate loans and advances (restated)	2017
Rated – CRR/EL 1 to 7	
Not collateralised	93,947
Fully collateralised	121,359
Partially collateralised (A)	6,489
- Collateral value on A	2,800
	221,795
Rated – CRR/EL 8	1
Fully collateralised	1
	1
Rated – CRR/EL 9 to 10	
Fully collateralised	78
	78
Total	221,874
Other corporate, commercial and financial (non-bank) loans and advances (restated)	2017
Rated – CRR/EL 8	
Not collateralised	9
Fully collateralised	1
Fully collateralised	
	1 10
Rated – CRR/EL 9 to 10	10
Rated – CRR/EL 9 to 10 Not collateralised	10766
Rated – CRR/EL 9 to 10 Not collateralised Fully collateralised	
Rated – CRR/EL 9 to 10 Not collateralised Fully collateralised Partially collateralised (A)	
Rated – CRR/EL 9 to 10 Not collateralised Fully collateralised	10 766 602 136 72
Rated – CRR/EL 9 to 10 Not collateralised Fully collateralised Partially collateralised (A)	

(b) Liquidity and funding risk

(audited)

The purpose of liquidity and funding management is to ensure sufficient cash flows to meet all financial commitment and to capitalise on opportunities for business expansion. This includes the Group's ability to meet deposit withdrawals either on demand or at contractual maturity, to repay borrowings as they mature, to comply with the statutory liquidity ratio, and to make new loans and investments as opportunities arise. The Group maintains a stable and diversified funding base of core retail and corporate customer deposits as well as portfolios of highquality liquid assets.

As part of our Asset, Liability and Capital Management structure, we have established Asset and Liability Management Committee ("ALCO") at Group level and in major operating entities. The terms of reference of all ALCOs include the monitoring and control of liquidity and funding. Management of liquidity is carried out both at Group and Bank levels as well as in individual branches and subsidiaries. The Group requires branches and subsidiaries to maintain a strong liquidity position and to manage the liquidity structure of their assets, liabilities and commitments so that cash flows are approximately balanced and all funding obligations are met when due.

It is the responsibility of the Group's management to ensure compliance with local regulatory requirements and limits set by the Risk Management Meeting ("RMM") and approved by the Board. Liquidity is managed on a daily basis by the Bank's treasury functions and overseas treasury sites.

The Board is ultimately responsible for determining the types and magnitude of liquidity risk that the Group is able to take and ensuring that there is an appropriate organisation structure for managing this risk. Under authorities delegated by the Executive Committee, the Group ALCO is responsible for managing all Asset, Liability and Capital Management issues including liquidity and funding risk management.

The Group ALCO delegates to the Group Tactical Asset and Liability Management Committee ("TALCO") the task of reviewing various analyses of the Group pertaining to liquidity and funding. TALCO's primary responsibilities include but are not limited to:

- reviewing the funding structure of operating entities and the allocation of liquidity among them; and
- monitoring liquidity and funding limit breaches and providing direction to those operating entities that have not been able to rectify breaches on a timely basis.

Compliance with liquidity and funding requirements is monitored by the ALCO and is reported to the RMM, Executive Committee, Risk Committee and the Board of Directors on a regular basis. This process includes:

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

(b) Liquidity and funding risk continued

The Group has an internal liquidity and funding risk management framework ("LFRF") which aims to allow it to withstand very severe liquidity stresses. It is designed to be adaptable to changing business models, markets and regulations.

The key aspects of LFRF which is used to ensure that the Group maintains an appropriate overall liquidity risk profile are:

- standalone management of liquidity and funding by operating entity;
- minimum liquidity coverage ratio ("LCR") requirement;
- minimum net stable funding ratio ("NSFR") requirement;
- depositor concentration limit;
- three-month and twelve-month cumulative rolling term contractual maturity limits covering deposits from banks, deposits from non-bank financial institutions and securities issued;
- minimum LCR requirement by currency;
- intraday liquidity management;
- liquidity funds transfer pricing;
- forward-looking funding assessments; and
- annual Individual Liquidity Adequacy Assessment Process ("ILAAP").

Major operating entities are required to prepare an Individual Liquidity Adequacy Assessment ("ILAA") document, in order to ensure that:

- liquidity resources are adequate, both as to the amount and quality;
- there is no significant risk that liabilities cannot be met as they fall due;
- a prudent structural funding profile is maintained;
- adequate liquidity resources continue to be maintained; and
- the operating entity's liquidity risk framework is adequate and robust.

The key objectives of the ILAA process are to:

- demonstrate that all material liquidity and funding risks are captured within the internal framework; and
- validate the risk tolerance and risk appetite by demonstrating that reverse stress testing scenarios are acceptably remote; and vulnerabilities have been assessed through the use of severe stress scenarios.

The management of liquidity and funding risk Liquidity coverage ratio (unaudited)

The LCR aims to ensure that a bank has sufficient unencumbered high-quality liquid assets ("HQLA") to meet its liquidity needs in a 30-calendar-day liquidity stress scenario. HQLA consist of cash or assets that can be converted into cash at little or no loss of value in markets.

As at 31 December 2018, all the Group's operating entities were within the LCR risk tolerance level established by the Board and applicable under the LFRF.

Net stable funding ratio

(unaudited)

The NSFR measures stable funding relative to required stable funding, and reflects a bank's long-term funding profile (funding with a term of more than a year). It is designed to complement the LCR.

As at 31 December 2018, all the Group's operating entities were within the NSFR risk tolerance level established by the Board and applicable under the LFRF.
(b) Liquidity and funding risk continued

Depositor concentration and term funding maturity concentration

(unaudited)

The LCR and NSFR metrics assume a stressed outflow based on a portfolio of depositors within each deposit segment. The validity of these assumptions is challenged if the portfolio of depositors is not large enough to avoid depositor concentration. Operating entities are exposed to term re-financing concentration risk if the current maturity profile results in future maturities being overly concentrated in any defined period.

As at 31 December 2018, all the Group's operating entities were within the risk tolerance levels set for depositor concentration and term funding maturity concentration. These risk tolerances were established by the Board and applicable under the LFRF.

Sources of funding

(unaudited)

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

Currency mismatch

(unaudited)

The Group allows currency mismatches to provide some flexibility in managing the balance sheet structure and to carry out foreign exchange trading, on the basis that there is sufficient liquidity in the swap market to support currency conversion in periods of stress. The Group sets limits on LCR by currency for all material currencies based on liquidity in the swap markets. These limits are approved and monitored by ALCO.

Additional contractual obligations

(unaudited)

Under the terms of our current collateral obligations under derivative contracts (which are ISDA compliant CSA contracts), the additional collateral required to post in the event of one-notch and two-notch downgrade in credit ratings is immaterial.

Liquidity regulation

(unaudited)

The Banking (Liquidity) Rules ("BLR") were introduced by the HKMA in 2014 and became effective from 1 January 2015. The Group is required to calculate its LCR on a consolidated basis in accordance with rule 11(1) of the BLR. During 2018 the Group was required to maintain a LCR of not less than 90%, increasing to not less than 100% by 1 January 2019.

	Quarter ended							
	31 Dec 2018	30 Sep 2018	30 Jun 2018	31 Mar 2018	31 Dec 2017	30 Sep 2017	30 Jun 2017	31 Mar 2017
Average LCR	209.1%	208.2%	209.6%	207.0%	209.5%	242.3%	256.7%	267.7%

The average LCRs for the periods are as follows:

The liquidity position of the Group remained strong and stable in 2018. The average LCR ranged from 207.0% to 209.6% for the reportable quarters. The LCR at 31 December 2018 was 214.7% (232.3% at 31 December 2017).

(b) Liquidity and funding risk continued

Liquidity regulation continued

(unaudited)

The composition of the Group's high quality liquid assets ("HQLA") as defined under Schedule 2 of the BLR is shown as below. The majority of the HQLA held by the Group are Level 1 assets which consist mainly of government debt securities.

Weighted amount (average value) at quarter ended							
31 Dec 2018	30 Sep 2018	30 Jun 2018	31 Mar 2018	31 Dec 2017	30 Sep 2017	30 Jun 2017	31 Mar 2017
281,615	268,842	262,800	265,754	261,705	269,223	283,481	295,635
10,920	10,786	11,615	12,866	15,520	16,748	14,980	13,669
546	549	551	552	563	393	528	766
293,081	280,177	274,966	279,172	277,788	286,364	298,989	310,070
	2018 281,615 10,920 546	2018 2018 281,615 268,842 10,920 10,786 546 549	31 Dec 2018 30 Sep 2018 30 Jun 2018 281,615 268,842 262,800 10,920 10,786 11,615 546 549 551	31 Dec 2018 30 Sep 2018 30 Jun 2018 31 Mar 2018 281,615 268,842 262,800 265,754 10,920 10,786 11,615 12,866 546 549 551 552	31 Dec 2018 30 Sep 2018 30 Jun 2018 31 Mar 2018 31 Dec 2017 281,615 268,842 262,800 265,754 261,705 10,920 10,786 11,615 12,866 15,520 546 549 551 552 563	31 Dec 2018 30 Sep 2018 30 Jun 2018 31 Mar 2018 31 Dec 2017 30 Sep 2017 281,615 268,842 262,800 265,754 261,705 269,223 10,920 10,786 11,615 12,866 15,520 16,748 546 549 551 552 563 393	31 Dec 2018 30 Sep 2018 30 Jun 2018 31 Mar 2018 31 Dec 2017 30 Sep 2017 30 Jun 2017 281,615 268,842 262,800 265,754 261,705 269,223 283,481 10,920 10,786 11,615 12,866 15,520 16,748 14,980 546 549 551 552 563 393 528

In accordance with the Banking (Liquidity) Rules, the Net Stable Funding Ratio ("NSFR") was implemented in Hong Kong with effect from 1 January 2018. The Group is required to calculate NSFR in a consolidated basis and maintain a NSFR of not less than 100%.

The NSFRs for the reportable periods are as follows:

	At quarter ended						
	31 Dec 2018	30 Sep 2018	30 Jun 2018	31 Mar 2018			
Net stable funding ratio	154.0 %	150.5%	153.6%	152.9%			

The funding position of the Group remained strong and stable in 2018.

To comply with the Banking (Disclosure) Rules, the details of liquidity information can be found in the Regulatory Disclosures section of our website www.hangseng.com.

The below tables are an analysis of undiscounted cash flows on the Group's financial liabilities including future interest payments on the basis of their earliest possible contractual maturities.

The balances in the below tables will not agree with the balances in the balance sheet as the tables incorporate, on an undiscounted basis, all cash flows relating to principal and all future coupon payments (except for trading liabilities and trading derivatives). Also, loan commitments and financial guarantee contracts are generally not recognised on the balance sheet. Trading liabilities and trading derivatives have been included in the "On demand" time bucket, and not by contractual maturity, because trading liabilities are typically held for short periods of time. The undiscounted cash flows on hedging derivative liabilities are classified according to their contractual maturities.

(b) Liquidity and funding risk continued

Cash flows payable in respect of customer accounts are primarily contractually repayable on demand or at short notice. However, in practice, short-term deposit balances remain stable as inflows and outflows broadly match and a significant portion of loan commitments expire without being drawn upon. The undiscounted cash flows potentially payable under loan commitments and financial guarantee are classified on the basis of the earliest date they can be called.

	Repayable on demand	Three months or less but not on demand	Over three months but within one year	Over one year but within five years	Over five years	Total
At 31 December 2018						
Current, savings and other deposit accounts	821,474	247,579	86,342	1,068	_	1,156,463
Repurchase agreements – non-trading	-	410	-	-	-	410
Deposits from banks	1,978	734	-	-	-	2,712
Financial liabilities designated at fair value	-	20,857	9,881	2,606	445	33,789
Trading liabilities	33,649	-	-	-	-	33,649
Derivative financial instruments	7,538	303	141	151	-	8,133
Certificates of deposit and other debt securities in issue	-	3,770	_	_	_	3,770
Other financial liabilities	10,839	29,080	2,074	448	-	42,441
	875,478	302,733	98,438	4,273	445	1,281,367
Loan commitments	378,183	89,502	-	_	-	467,685
Financial guarantee and credit risk related guarantee contracts	16,388	-	-	-	-	16,388
	394,571	89,502	_	_	-	484,073
At 31 December 2017						
Current, savings and other deposit accounts	882,027	154,921	39,564	1,430	_	1,077,942
Repurchase agreements – non-trading	_	2,389	_	_	_	2,389
Deposits from banks	1,738	1,938	-	-	-	3,676
Financial liabilities designated at fair value	3	3	8	517	551	1,082
Trading liabilities	88,270	-	-	-	-	88,270
Derivative financial instruments	10,008	157	401	680	5	11,251
Certificates of deposit and other debt securities in issue	_	603	_	_	_	603
Other financial liabilities	7,545	10,964	1,414	4	-	19,927
	989,591	170,975	41,387	2,631	556	1,205,140
Loan commitments	353,925	84,216	-	-	-	438,141
Financial guarantee and credit risk related guarantee contracts	15,239	88	1	-	_	15,328
	369,164	84,304	1	_	-	453,469

(c) Market risk

(audited)

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

There were no significant changes to our policies and practices for the management of market risk in 2018.

Exposure to market risk is separated into two portfolios:

- Trading portfolios comprise positions arising from market-making and warehousing of customer-derived positions.
- Non-trading portfolios comprise positions that primarily arise from the interest rate management of our retail and commercial banking assets and liabilities, and financial investments designated as fair value through other comprehensive income.

The diagram below illustrates the major trading and non-trading market risk types and market risk measures used to monitor and limit exposures.

Risk Type	Trading Risk	Non-Trading Risk		
	– Foreign exchange & Commodities – Interest rates – Credit spreads	– Structural foreign exchange – Interest rates – Credit spreads		
Risk Measure	Value at risk / Sensitivity analysis / Stress testing	Value at risk / Sensitivity analysis / Stress testing		

Where appropriate, the Group applies similar risk management policies and measurement techniques to both trading and non-trading portfolios. The Group's objective is to manage and control market risk exposures in order to optimise return on risk while maintaining a market profile consistent with the status as a professional banking and financial services organisation.

The nature of the hedging and risk mitigation strategies range from the use of traditional market instruments, such as interest rate swaps, to more sophisticated hedging strategies to address a combination of risk factors arising at portfolio level.

Market risk governance

(audited)

Market risk is managed and controlled through limits approved by the Group's Chief Risk Officer, noting the support of Risk Management Meeting ("RMM"). These limits are allocated across business lines and to the Group's legal entities, including Hang Seng Bank (China) Limited.

The management of market risk is principally undertaken in Global Markets using risk limits allocated from the risk appetite, which is subject to the Board's approval. Limits are set for portfolios, products and risk types where appropriate, with market liquidity and business need being primary factors in determining the level of limits set.

An independent market risk management and control function is responsible for measuring, monitoring and reporting market risk exposures against the prescribed limits on a daily basis.

Market risks arising on each product are transferred to Global Markets for management. Our aim is to ensure that all market risks are consolidated within operations that have the necessary skills, tools, management and governance to manage them.

Market risk governance continued (audited)

Model risk is governed through Model Oversight Committee ("MOC") at the Wholesale Credit and Market Risk ("WCMR") level. The MOC has direct oversight and approval responsibility on traded risk models utilised for risk measurement and management and stress testing to ensure that they remain within our risk appetite and business plans. The WCMR MOC reports into the Group's RMM, which oversees all risk types at Group level.

Our control of market risk in the trading and non-trading portfolios is based on a policy of restricting trading within a list of permissible instruments authorised for each business lines, of enforcing new product approval procedures, and of restricting trading in the more complex derivative products only to business lines with appropriate levels of product expertise and robust control systems.

Market risk measures

(unaudited)

Monitoring and limiting market risk exposures

The Group's objective is to manage and control market risk exposures while maintaining a market profile consistent with the Group's risk appetite. The Group uses a range of tools to monitor and limit market risk exposures including sensitivity analysis, value at risk ("VaR"), and stress testing.

Sensitivity analysis

(unaudited)

Sensitivity analysis measures the impact of individual market factor movements on specific instruments or portfolios including interest rates, foreign exchange rates and equity prices. The Group uses sensitivity measures to monitor the market risk positions within each risk type, for example, the present value of a basis point movement in interest rates for interest rate risk.

Sensitivity limits are set for portfolios, products and risk types, with the depth of the market being one of the principal factors in determining the level of limits set.

Value at risk ("VaR")

VaR is a technique that estimates the potential losses on risk positions as a result of movements in market rates and prices over a specified time horizon and to a given level of confidence. The use of VaR is integrated into market risk management and is calculated for all trading positions regardless of how the Group capitalises those exposures. Where there is no approved internal model, the Group uses the appropriate local rules to capitalise exposures.

In addition, the Group calculates VaR for non-trading portfolios in order to have a complete picture of market risk. Where VaR is not calculated explicitly, alternative tools are used.

Standard VaR is calculated at a 99% confidence level for a one-day holding period while Stressed VaR uses a 10-day holding period and a 99% confidence interval based on a continuous one-year historical significant stress period. The VaR models used by the Group are predominantly based on historical simulation which incorporate the following features:

- historical market rates and prices are calculated with reference to foreign exchange rates and commodity prices, interest rates, equity prices and the associated volatilities;
- potential market movements utilised for Standard VaR are calculated with reference to data from the past two years; and
- Standard VaR is calculated to a 99% confidence level and use a one-day holding period.

The models also incorporate the effect of the option features on the underlying exposures. The nature of the VaR models means that an increase in observed market volatility will lead to an increase in VaR without any changes in the underlying positions.

VaR model limitations

Although a valuable guide to risk, VaR should always be viewed in the context of its limitations. For example:

- the use of historical data as a proxy for estimating future events may not encompass all potential events, particularly those which are extreme in nature;
- the use of a holding period assumes that all positions can be liquidated or the risks offset during that period. This
 may not fully reflect the market risk arising at times of severe illiquidity, when the holding period may be insufficient
 to liquidate or hedge all positions fully;
- the use of a 99% confidence level, by definition does not take into account losses that might occur beyond this level of confidence; and
- VaR is calculated on the basis of exposures outstanding at the close of business and therefore does not necessarily reflect intra-day exposures.

Risk not in VaR ("RNIV") framework

(unaudited)

The RNIV framework aims to manage and capitalise material market risks that are not adequately covered in the VaR model. In such instances the RNIV framework uses stress tests to quantify the capital requirement. On average in 2018, the capital requirement derived from these stress tests represented 1.85% of the total internal model-based market risk requirement. RNIV is not viewed as being a material component of the Group's market risk capital requirement.

Risk factors are reviewed on a regular basis and either incorporated directly in the VaR models, where possible, or quantified through the VaR-based RNIV approach or a stress test approach within the RNIV framework.

Stress testing

(audited)

Stress testing is an important tool that is integrated into the Group's market risk management framework to evaluate the potential impact on portfolio values of more extreme, although plausible, events or movements in a set of financial variables. In such abnormal scenarios, losses can be much greater than those predicted by VaR modelling.

Stress testing is implemented at the legal entity and the overall Group levels. Scenarios are tailored in order to capture the relevant events or market movements. A scoring framework is in place for management to effectively assess the severity of the potential stress losses and the likelihood of occurrence of the stress scenarios. The risk appetite around potential stress losses for the Group is set and monitored against referral limits.

Market risk reverse stress tests are undertaken based upon the premise that there is a fixed loss. The stress test process identifies which scenarios lead to this loss. The rationale behind the reverse stress test is to understand scenarios which are beyond normal business settings that could have contagion and systemic implications.

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

Trading portfolios

(audited)

Value at risk of the trading portfolios

Trading VaR predominantly resides within Global Markets. The VaR at 31 December 2018 remained steady when compared against 31 December 2017. In average terms, the VaR level was higher in 2018 mainly driven by interest rate trading positions.

The daily levels of total trading VaR over the last year are set out in the graph below.

Daily VaR (trading portfolios), 99% 1 day (HK\$m)

(unaudited)

Daily VaR (trading portfolios), 99% 1 day (HK\$m)



The Group's trading VaR for the year is shown in the table below.

Trading, 99% 1 day (audited)

	At 31 December 2018	Minimum during the year	Maximum during the year	Average for the year
VaR				
Trading	20	19	51	34
Foreign exchange trading	11	8	21	14
Interest rate trading	20	13	46	30
Portfolio diversification	(11)	-	-	(10)

	At 31 December 2017	Minimum during the year	Maximum during the year	Average for the year
VaR				
Trading	21	17	41	24
Foreign exchange trading	11	8	23	15
Interest rate trading	18	10	27	18
Portfolio diversification	(8)	-	-	(9)

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 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.

Backtesting

(unaudited)

In 2018, there were three profit exceptions at the Group consolidated level.

The profit side exceptions were identified for actual profit and loss and those were mainly driven by intraday profit arising from trading activities.

The graph below shows the daily trading VaR against actual and hypothetical profit and loss for the Group during 2018.



Backtesting of trading VaR against actual and hypothetical profit and loss for 2018 (HK\$m)

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

The Group would expect on average to see two to three profits, and two or three losses, in excess of VaR at the 99% confidence level over a one-year period. The actual number of profits or losses in excess of VaR over this period can therefore be used to gauge how well the models are performing. VaR backtesting is performed at Group consolidated and solo levels, including entities that do not have local permission to use VaR for regulatory purposes.

Non-trading portfolios

(unaudited)

Non-traded interest rate risk is the risk of an adverse impact to earnings or capital due to changes in market interest rates. The risk arises from timing mismatches in the re-pricing of non-traded assets and liabilities and is the potential adverse impact of changes in interest rates on earnings and capital.

In its management of the risk, the Group aims to mitigate the impact of future interest rate movements which could reduce future net interest income, while balancing the cost of hedging activities to the current revenue stream. Monitoring the sensitivity of projected net interest income under varying interest rate scenarios is a key part of this.

In order to manage structural interest rate risk, non-traded assets and liabilities are transferred to Balance Sheet Management ("BSM") based on their re-pricing and maturity characteristics. For assets and liabilities with no defined maturity or re-pricing characteristics, behaviouralisation is used to assess the interest rate risk profile. BSM manages the banking book interest rate positions transferred to it within the approved limits. The Asset, Liability and Capital Management Committee ("ALCO") is responsible for monitoring and reviewing its overall structural interest rate risk position. Interest rate behaviouralisation policies have to be formulated in line with the Group's behaviouralisation policies and approved at least annually by ALCO.

Sensitivity of net interest income

(audited)

A principal part of the Group's management of non-traded interest rate risk is to monitor the sensitivity of projected net interest income at least quarterly under varying interest rate scenarios (simulation modelling), where all other economic variables are held constant.

The table below sets out the effect on future net interest income of incremental 100 basis points parallel rises or falls in all yield curves at the beginning of year from 1 January 2019 and incremental 25 basis points parallel rises or falls in all yield curves at the beginning of each quarter during the 12 months from 1 January 2019.

Assuming no management actions and all other non-interest rate risk variables remain constant, such a series of incremental parallel rises in all yield curves would increase projected net interest income for the year ending 31 December 2019 by HK\$3,142m for 100 basis points case and by HK\$1,294m for 25 basis points case, while such a series of incremental parallel falls in all-in yield curves would decrease planned net interest income by HK\$3,857m for 100 basis points case and by HK\$1,242m for 25 basis points case and by HK\$3,857m for 100 basis points case and by HK\$1,242m for 25 basis points case.

The sensitivity of projected net interest income is described as follows:

	100bp parallel increase	100bp parallel decrease	25bp increase at the beginning of each quarter	25bp decrease at the beginning of each quarter
Change in 2019 projected net interest income				
– HKD	2,247	(2,448)	879	(882)
– USD	356	(809)	220	(220)
– other	539	(600)	195	(140)
Total	3,142	(3,857)	1,294	(1,242)
Change in 2018 projected net interest income				
– HKD	2,045	(3,858)	515	(893)
– USD	555	(1,154)	135	(281)
– other	716	(601)	189	(146)
Total	3,316	(5,613)	839	(1,320)

The interest rate sensitivities set out in the table above represent the effect of the pro forma movements in projected yield curves based on a static balance sheet size and structure assumption. This effect, however, does not incorporate actions which would probably be taken by BSM or in the business units to mitigate the effect of interest rate risk. In reality, BSM proactively seeks to change the interest rate risk profile to optimise net revenues. The net interest income sensitivity calculations assume that interest rates of all maturities move by the same amount in the "up-shock" scenario. Rates are not assumed to become negative in the "down-shock" scenario unless the central bank rate is already negative and then not assumed to go further negative, which may, in certain currencies, effectively result in non-parallel shock. In addition, the net interest income sensitivity calculations take into account of the effect on net interest income of anticipated differences in changes between interbank interest rates and interest rates over which the entity has discretion in terms of the timing and extent of rate changes.

Key assumptions used in the measurement of interest rate sensitivities include business line interest rate pass-on assumptions, re-investment of maturing assets and liabilities at market rates per shock scenario and prepayment risk. BSM is modelled based on no management actions i.e. the risk profile at the month end is assumed to remain constant throughout the forecast horizon. The projections make other assumptions, including that contractually fixed term positions run to maturity, managed rate products and non-interest bearing balances, such as interest-free current accounts, are subject to interest rate risk behaviouralisation.

Sensitivity of reserves

The Group measures the potential downside risk to the CET1 ratio due to interest rate and credit spread risk in the Hold to Collect and Sell ("HTC&S") portfolio by the portfolio's stressed VaR, using 99% confidence level and an assumed holding period of one quarter. At 31 December 2018, the stressed VaR of the portfolio was HK\$1,022m.

The Group monitors the sensitivity of reported cash flow hedge reserves to interest rate movements on a semiannually basis by assessing the expected reduction in valuation of cash flow hedge due to parallel movements of plus or minus 100bps in all yield curves. These particular exposures form only a part of the Group's overall interest rate risk exposures.

The following table describes the sensitivity of reported cash flow hedge reserves to the stipulated movements in yield curves. The sensitivities are indicative and based on simplified scenarios.

	At 31 December 2018	Maximum impact	Minimum impact
+ 100 basis points parallel move in all yield curves	(139)	(198)	(139)
As a percentage of shareholders' equity at 31 December 2018 (%)	(0.09)	(0.12)	(0.09)
– 100 basis points parallel move in all yield curves	259	361	259
As a percentage of shareholders' equity at 31 December 2018 (%)	0.16	0.22	0.16

	At 31 December 2017	Maximum impact	Minimum impact
+ 100 basis points parallel move in all yield curves	(114)	(114)	(94)
As a percentage of shareholders' equity at 31 December 2017 (%)	(0.08)	(0.08)	(0.06)
– 100 basis points parallel move in all yield curves	274	274	52
As a percentage of shareholders' equity at 31 December 2017 (%)	0.18	0.18	0.03

Foreign exchange exposures

(audited)

The Group's foreign exchange exposures mainly comprise foreign exchange dealing by Global Markets and currency exposures originated by its banking business. The latter are transferred to Global Markets where they are centrally managed within foreign exchange position limits approved by the Group's Chief Risk Officer, noting the support of Risk Management Meeting ("RMM"). The net options position is calculated on the basis of delta-weighted positions of all foreign exchange options contracts.

The Group's structural foreign exchange exposure, monitored using sensitivity analysis, represents the Group's foreign currency investments in subsidiaries, branches and associates, and the fair value of the Group's long-term foreign currency equity investments. The Group's structural foreign exchange exposures are managed by the Group's ALCO with the primary objective of ensuring, where practical, that the Group's and the Bank's capital ratios are largely protected from the effect of changes in exchange rates.

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

At 31 December 2018, the US dollar, Chinese renminbi and New Zealand dollar were the currencies in which the Group had non-structural foreign currency positions that were not less than 10% of the total net position in all foreign currencies. The Group also had a Chinese renminbi structural foreign currency position, which was not less than 10% of the total net structural position in all foreign currencies.

For details of the Group's non-structural and structural foreign currency positions, please refer to the Banking Disclosure Statements that will be available in the "Regulatory Disclosure" section of the Bank's website.

Equities exposures (audited)

The Group's equities exposures in 2018 and 2017 are mainly long-term equity investments which are reported as "Financial investments" set out in note 29 to the financial statements. Equities held for trading purpose are included under "Trading assets" set out in note 25 to the financial statements. These are subject to trading limit and risk management control procedures and other market risk regime.

(d) Insurance risk

(audited)

Risk management objectives and policies for management of insurance risk

The majority of the risk in the insurance business derives from manufacturing activities and can be categorised as insurance risk and financial 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 the insurer.

Group's bancassurance model

We operate an integrated bancassurance model which provides insurance products principally for customers with whom we have a banking relationship. The insurance contracts we sell relate to the underlying needs of our banking customers, which we can identify from our point-of-sale contacts and customer knowledge. The majority of sales are of savings and investment products.

By focusing largely on personal and SME lines of business we are able to optimise volumes and diversify individual insurance risks.

We choose to manufacture these insurance products in a Group subsidiary based on an assessment of operational scale and risk appetite. Manufacturing insurance allows us to retain the risks and rewards associated with writing insurance contracts by keeping part of the underwriting profit and investment income within the Group. It also reduces distribution costs for our products by using our established branch network, and enables us to control the quality of the sale process and the products themselves to ensure our customers receive products which address their specific needs at the best value.

Where we do not have the risk appetite or operational scale to be an effective insurance manufacturer, we engage with a handful of leading external insurance companies in order to provide insurance products to our customers through our banking network and direct channels. These arrangements are generally structured with our exclusive strategic partners and earn the Group a combination of commissions, fees and a share of profits. We distribute insurance products in Hong Kong, China and Macau.

Insurance products are sold through all global businesses, but predominantly by RBWM and CMB through our branches and direct channels.

Governance

Insurance risks are managed to a defined risk appetite, which is aligned to the Group's risk appetite and enterprise risk management framework (including the three lines of defence model). The Insurance Risk Management Meeting oversees the control framework and is accountable to the Group Risk Management Meeting on risk matters relating to insurance business.

The monitoring of the risks within the insurance operations is carried out by the Insurance Risk teams. Specific risk functions, including wholesale market risk, operational risk, information security risk and financial crime compliance, support Insurance Risk teams in their respective areas of expertise.

Measurement

The risk profile of our insurance manufacturing businesses is measured using an economic capital ("EC") 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 1 in 200 chance of insolvency over a one year time horizon, given the risks that the businesses are exposed to. The methodology for the economic capital calculation is largely aligned to the pan-European Solvency II insurance capital regulations. The EC coverage ratio (economic net asset value divided by the economic capital requirement) is a key risk appetite measure. The business has a current appetite to remain above 135% with a tolerance of 110%. In addition to EC, the regulatory solvency ratio is also a metric used to manage risk appetite on an entity basis.

The following table shows the composition of assets and liabilities by contract type.

Balance sheet of insurance subsidiaries by type of contract

	Linked contracts ¹	Non-linked contracts ¹	Other assets and liabilities ²	Total
2018 Financial assets:				
 – financial assets designated and otherwise mandatorily measured at fair value 	186	12,652	_	12,838
- derivative financial instruments	-	219	_	219
– financial investments	-	92,044	7,467	99,511
– other financial assets	13	5,414	519	5,946
Total financial assets	199	110,329	7,986	118,514
Reinsurance assets	-	9,575	-	9,575
Present value of in-force long-term insurance contracts Other assets	_	6,202	15,910 1,471	15,910 7,673
			· · · · ·	
Total assets	199	126,106	25,367	151,672
Liabilities under investment contracts designated at fair value	132	316	-	448
Liabilities under insurance contracts	61	120,134	-	120,195
Deferred tax	-	6	2,727	2,733
Other liabilities		-	2,478	2,478
Total liabilities	193	120,456	5,205	125,854
Shareholders' equity		-	25,818	25,818
Total liabilities and shareholders' equity	193	120,456	31,023	151,672
2017 Financial assets:				
 – financial assets designated at fair value 	263	9,050	_	9,313
- derivative financial instruments	_	683	-	683
– financial investments	-	92,675	6,563	99,238
– other financial assets	9	5,478	520	6,007
Total financial assets	272	107,886	7,083	115,241
Reinsurance assets	-	8,342	-	8,342
Present value of in-force long-term insurance contracts	-	-	14,574	14,574
Other assets		5,687	1,315	7,002
Total assets	272	121,915	22,972	145,159
Liabilities under investment contracts designated at fair value	196	358	-	554
Liabilities under insurance contracts	81	115,464	-	115,545
Deferred tax	-	-	2,378	2,378
Other liabilities		1,811	1,706	3,517
Total liabilities	277	117,633	4,084	121,994
Shareholders' equity			23,165	23,165
Total liabilities and shareholders' equity	277	117,633	27,249	145,159

1 Comprises life insurance contracts and investment contracts

2 Comprises shareholder assets and liabilities

Stress and Scenario Testing

Stress testing forms a key part of the risk management framework for the Insurance business. We participate in local and group-wide regulatory stress tests.

These have highlighted that a key risk scenario for the Insurance business is a prolonged low interest rate environment. In order to mitigate the impact of this scenario, the insurance operations have a range of strategies that could be employed including the hedging of investment risk, a dynamic approach of re-pricing the products to reflect lower interest rates, diversification of product offerings with less sensitivity to interest rate levels, risk transfer to third parties, and yield enhancement investment strategies to optimise the expected returns against the cost of economic capital.

Key Risk Types

The key risks for the insurance operations are market risks (in particular interest rate and equity), credit risks and liquidity risks, followed by insurance underwriting risk and operational risks.

Market risk (insurance)

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

Our exposure varies depending on the type of contract issued. Our most significant life insurance products are insurance 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. Allowances are made against the cost of such guarantees, calculated by stochastic modelling.

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

Our insurance manufacturing subsidiary has market risk mandates which specify the investment instruments in which they are permitted to invest and the maximum quantum of market risk which they may retain. They manage market risk by using, amongst others, some or all of the techniques listed below, depending on the nature of the contracts written:

- for products with DPF, adjusting dividends to manage the liabilities to policyholders. The effect is that a significant portion of the market risk is borne by the policyholders;
- asset and liability matching where asset portfolios are structured to support projected liability cash flows. The Group manages its assets using an approach that considers asset quality, diversification, cash flow matching, liquidity, volatility and target investment return. It is not always possible to match asset and liability durations due to uncertainty over the receipt of all future premiums and the timing of claims; and also because the forecast payment dates of liabilities may exceed the duration of the longest dated investments available. We use models to assess the effect of a range of future scenarios on the values of financial assets and associated liabilities;
- using derivatives to protect against adverse market movements or better match liability cash flows;
- for new products with investment guarantees, considering the cost when determining the level of premiums or the price structure;
- periodically reviewing products identified as higher risk, which contain investment guarantees and embedded optionality features linked to savings and investment products for active management;
- designing new products to mitigate market risk, such as those with terminal bonus feature so as to spread out the volatility of return over a longer period of time;
- exiting, to the extent possible, investment portfolios whose risk is considered unacceptable; and
- repricing premiums charged to policyholders.

Market risk (insurance) continued

The following table illustrates the effects of selected interest rate, equity price and foreign exchange rate scenarios on our profit for the year and the total shareholders' equity of our insurance operation.

	20)18	2017		
	Impact on profit after tax for the year	Impact on shareholders' equity	Impact on profit after tax for the year	Impact on shareholders' equity	
+ 100 basis points shift in yield curves	(69)	(69)	(109)	(273)	
– 100 basis points shift in yield curves	4	4	(50)	136	
10 per cent increase in equity prices	306	306	290	399	
10 per cent decrease in equity prices	(252)	(252)	(263)	(371)	
10% increase in USD exchange rate compared to all currencies	120	120	176	176	
10% decrease in USD exchange rate compared to all currencies	(120)	(120)	(176)	(176)	

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 and nonsymmetrical, therefore the results disclosed should not be extrapolated to measure sensitivities to different levels of stress. 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 do not allow for adverse changes in policyholder behaviour that may arise in response to changes in market rates.

Credit risk (insurance)

Credit risk is the risk of financial loss if a customer or counterparty fails to meet their obligation under a contract. It arises in two main areas for our insurance manufacturers:

- risk associated with credit spread volatility and default by debt security counterparties after investing premiums to generate a return for policyholders and shareholders; and
- risk of default by reinsurance counterparties and non-reimbursement for claims made after ceding insurance risk.

The amounts outstanding at the balance sheet date in respect of these items are shown in the table of "Balance sheet of insurance subsidiaries by type of contract" under "Insurance risk" section.

Our insurance manufacturing subsidiary is responsible for the credit risk, quality and performance of their investment portfolios. Our assessment of the creditworthiness of issuers and counterparties is based primarily upon internationally recognised credit ratings and other publicly available information. Investment credit exposures are monitored against limits by our local insurance manufacturing subsidiary, and are aggregated and reported to Group Insurance Credit Risk and Group Credit Risk Functions. Stress testing is performed on the investment credit exposures using credit spread sensitivities and default probabilities is included in the stress and scenario testing as described above.

We use tools to manage and monitor credit risk. These include a credit report which contains a watch-list of investments with current credit concerns to identify investments which may be at risk of future impairment or where high concentrations to counterparties are present in the investment portfolio. The report is circulated quarterly to senior management in Group Insurance Credit Risk and the Chief Risk Officer of the insurance manufacturing subsidiary to identify investments which may be at risk of future impairment.

For debt securities and accreting loans measured at amortised cost and FVOCI, the Company has adopted the HKFRS 9 requirements on impairment from 1 January 2018. Impairment is calculated in three stages and financial assets are allocated into one of the three stages where the transfer mechanism depends on whether there is a significant increase in credit risk between its first recognition and the relevant reporting period. After the allocation, the measurement of ECL, which is the product of PD, LGD and EAD, will reflect the change in risk of default occurring over the remaining life of the instruments. Note 2(j) set out the details on related accounting policy.

Credit risk (insurance) continued

Credit risk on assets supporting unit-linked liabilities is predominantly borne by the policyholders; therefore our exposure is primarily related to liabilities under non-linked insurance and investment contracts and shareholders' funds.

The credit quality of the reinsurers' share of liabilities under insurance contracts is primarily assessed as "Strong" or "Good" (as defined on "Credit quality classification" under "Credit risk" section), with 100% of the exposure being neither past due nor impaired (2017: 100%).

Liquidity risk (insurance)

Liquidity risk is the risk that an insurance operation, though solvent, either does not have sufficient financial resources available to meet its obligations when they fall due, or can secure them only at excessive cost.

Risk is managed by cashflow matching and maintaining sufficient cash resources; investing in high-credit-quality investments with deep and liquid markets, monitoring investment concentrations and restricting them where appropriate and establishing committed contingency borrowing facilities.

Our insurance manufacturing subsidiary is required to complete quarterly liquidity risk reports for Group Insurance Risk function and an annual review of the liquidity risks to which they are exposed.

The following table shows the expected undiscounted cash flows for insurance contract liabilities at 31 December 2018. The liquidity risk exposure is wholly borne by the policyholder in the case of unit-linked business and is shared with the policyholder for DPF products.

		Expected cash flows (undiscounted)			
	Within 1 year	Over 1 year but within 5 years	Over 5 years but within 15 years	Over 15 years	Total
2018					
Non-linked insurance	14,625	47,534	73,485	93,516	229,160
Linked insurance	10	39	64	36	149
	14,635	47,573	73,549	93,552	229,309
2017					
Non-linked insurance	15,367	46,253	72,133	78,814	212,567
Linked insurance	14	51	86	56	207
	15,381	46,304	72,219	78,870	212,774

Expected maturity of insurance contract liabilities

The remaining contractual maturity of investment contract liabilities is included in the table on note 22 of the financial statements.

Insurance risk

Insurance risk is the loss through adverse experience, in either timing or amount, of insurance underwriting parameters (non-economic assumptions). These parameters include mortality, morbidity, longevity, lapses and unit costs. The principal risk we face is that, over time, the cost of the contract, including claims and benefits may exceed the total amount of premiums and investment income received. The table of "Balance sheet of insurance subsidiaries by type of contract" under "Insurance risk" section analyses our life insurance risk exposures by type of business.

The Group primarily manages its insurance risk through asset and liability management, product design, pricing and overall proposition management (e.g. lapses management by introducing surrender charges), underwriting policy, claims management process and reinsurance which cedes risks above our acceptable thresholds to an external reinsurer thereby limiting our exposure.

Present value of in-force long-term insurance business ("PVIF")

In calculating PVIF, expected cash flows are projected after adjusting for a variety of assumptions made by insurance operation to reflect local market conditions and management's judgement of future trends, and after applying risk margins to reflect any uncertainty in the underlying assumptions. Variations in actual experience and changes to assumptions can contribute to volatility in the results of the insurance business.

Actuarial Control Committee meets on a quarterly basis to review and approve assumptions proposed for use in the determination of the PVIF. All changes to non-economic assumptions, economic assumptions that are not observable and model methodology must be approved by the Actuarial Control Committee.

Economic assumptions are either set in a way that is consistent with observable market values or, in certain markets use is made of long-term economic assumptions. Setting such assumptions involves the projection of long-term interest rates and the time horizon over which observable market rates trend towards these long-term assumptions. The assumptions are informed by relevant historical data and by research and analysis performed by internal and external experts, including regulatory bodies. The valuation of PVIF will be sensitive to any changes in these long-term assumptions in the same way that it is sensitive to observed market movements, and the impact of such changes is included in the sensitivities presented below.

The Group sets the risk discount rate applied to the PVIF calculation by starting from a risk-free rate curve and adding explicit allowances for risks not reflected in the best estimate cash flow modelling. Where shareholders provide options and guarantees to policyholders the cost of these options and guarantees is an explicit reduction to PVIF.

The following table shows the impact on the PVIF at balance sheet date of reasonably possible changes in the main economic and business assumptions:

	2018	2017
+ 100 basis points shift in yield curves	(46)	(108)
– 100 basis points shift in yield curves	1,375	188

The impact on PVIF shown above, as well as the impact on profit after tax and net assets shown below, are illustrative only and employ simplified scenarios. It should be noted that the effects may not be linear and therefore the results cannot be extrapolated. The sensitivities reflect the established risk sharing mechanism with policyholders for participating products, but do not incorporate other actions that could be taken by management to mitigate effects nor do they take into account the consequential changes in policyholders' behaviour.

Non-economic assumptions

The sensitivity of profit for the year and total equity to reasonably possible changes in assumptions used in respect of insurance businesses is as follows:

	Impact on 2018 results		Impact on 2017 results	
	Profit for the year	Net assets	Profit for the year	Net assets
10 per cent increase in mortality and/or morbidity rates	(48)	(48)	(43)	(43)
10 per cent decrease in mortality and/or morbidity rates	46	46	39	39
10 per cent increase in lapse rates	(44)	(44)	(29)	(29)
10 per cent decrease in lapse rates	48	48	32	32
10 per cent increase in expense rates	(57)	(57)	(55)	(55)
10 per cent decrease in expense rates	57	57	53	53

Non-economic assumptions continued

Mortality and morbidity risk is typically associated with life insurance contracts. The effect on profit of an increase in mortality or morbidity depends on the type of business being written.

Sensitivity to lapse rates depends on the type of contracts being written. In general, for life insurance contracts a policy lapse has two offsetting effects on profits, which are the loss of future income on the lapsed policy and the existence of surrender charge recouped at policy lapse. The net impact depends on the relative size of these two effects which varies with the type of contracts.

Expense rates risk is the exposure to a change in the cost of administering insurance contracts. An increase in expense rates will have a negative effect on our profits.

Process used to determine assumptions for long-term insurance contracts

The process used to determine the assumptions is intended to result in stable and prudent estimates of future outcome. This is achieved by adopting relatively conservative assumptions which can withstand a reasonable range of fluctuation of actual experience. Annual review of the relevant experience is performed to assess the adequacy of margin between the assumptions adopted and the best estimate of future outcome. The assumptions that are considered include expenses and the probability of claims. Both risk discount rate and investment return assumptions are set on active basis with reference to market risk free yields.

For non-linked life business, the policy reserve is generally calculated on a modified net premium basis. The net premium is the level of premium payable over the premium payment period whose discounted value at the outset of the policy would be sufficient to exactly cover the discounted value of the original guaranteed benefits at maturity or at death if earlier. The net premium is then modified to allow for deferral of acquisition costs. The policy reserve is then calculated by subtracting the present value of future modified net premiums from the present value of the benefits guaranteed at maturity or death up to the balance sheet date, subject to a floor of the cash value. The modified net premium basis makes no allowance for voluntary discontinuance by policyholders as this would generally result in a reduced level of policy reserve.

For linked life business, the policy reserve is generally determined as the total account balance of all in-force policies with an additional provision for the unexpired insurance risk.

Assumptions

The principal assumptions underlying the calculation of the long-term insurance business provision are:

(i) Mortality

A base mortality table which is most appropriate for each type of contract is selected. An adjustment is included to reflect the Group's own experience with an annual investigation performed to ascertain the appropriateness of overall assumption.

(ii) Morbidity

The morbidity incidence rates, which mainly cover major illness and disability, are generally derived from the reinsurance costs which also form the pricing basis. A loading is generally added as a provision for adverse deviation. An annual investigation is performed to ascertain the appropriateness with the Group's insurance subsidiary's actual experience.

Assumptions continued (iii) Discount rates Rate of interest

	2018	2017
Policies denominated in HKD	1.8%, 2.22% and 2.65%	1.8%, 2.22% and 2.55%
Policies denominated in USD	3.4%, 3.45% and 3.5%	3.0% and 3.45%
Policies denominated in RMB	2.32%, 2.9%, 3.32% and 3.45% as varies by product	2.32%, 2.9%, 3.0%, 3.3% and 3.32% as varies by product

Under the modified net premium method, the long-term business provision is sensitive to the interest rate used when discounting.

Sensitivity to changes in variables

The Group's insurance company re-runs its valuation models on various bases. An analysis of sensitivity around various scenarios provides an insight to the key risks which the Group's insurance company is exposed to. The table presented below demonstrates the sensitivity of insured liability estimates to particular movements in assumptions used in the estimation process. Certain variables can be expected to impact on life insurance liabilities more than others, and consequently a greater degree of sensitivity to these variables may be expected.

Impact on reported profit to changes in key variable

	Change in variable	Change in liabilities	
	%	2018	2017
Base run		96,912	95,348
Discount rate	+1	(1,855)	(2,583)
Discount rate	-1	10,106	11,472
Mortality/Morbidity	+10	168	306
Mortality/Morbidity	-10	(138)	(260)

The analysis above has been prepared for a change in variable with all other assumptions remaining constant and ignores changes in values of the related assets.

For the sensitivity in discount rate, an absolute +/-1% of the discount rate is used. For the Mortality/Morbidity sensitivity, a relative +/-10% (i.e. multiply the assumption by 110% or 90%) is used.

(e) Operational risk

(audited)

Operational risk is the risk to achieving our strategy or objectives as a result of inadequate or failed internal processes, people and systems or from external events.

Responsibility for minimising operational risk lies with the staff of the Group. All staff are required to manage the operational risks of the business and operational activities for which they are responsible.

Operational risk management framework

The Group's Operational Risk Management Framework ("ORMF") is our overarching approach for managing operational risk, the purpose of which is to:

- Identify and manage our operational risks in an effective manner
- Remain within the operational risk appetite, which helps the organisation understand the level of risk it is willing to accept
- Drive forward-looking risk awareness and assist management focus during 2018

Business and functional managers throughout the organisation are responsible for maintaining an acceptable level of internal control commensurate with the scale and nature of operations, and for identifying and assessing risks, designing controls and monitoring the effectiveness of these controls. The ORMF helps managers to fulfil these responsibilities by defining a standard risk assessment methodology and providing a tool for the systematic reporting of operational loss data.

A centralised database is used to record the results of the operational risk management process. Operational risk and control self-assessments are input and maintained by business units. Business and functional management and business risk and control managers monitor the progress of documented action plans to address shortcomings. To ensure that operational risk losses are consistently reported and monitored at Group level, all Group companies are required to report individual losses when the net loss is expected to exceed USD10,000, and to aggregate all other operational risk losses under USD10,000. Losses are entered into the Group Operational Risk database and are reported to the Risk Management Meeting on a monthly basis.

Activities to strengthen our risk culture and better embed the use of the ORMF was further implemented in 2018. In particular, the use of the activity-based "three lines of defence" model, which sets out roles and responsibilities for managing operational risks on a daily basis.

Exposures

(unaudited)

The Group continues to strengthen those controls that manage our most material risks:

- Further embedding Global Standards to ensure that we know and protect our customers, ask the right questions and escalate concerns.
- Increased monitoring and enhanced detective controls to manage those fraud risks which arise from new technologies and new ways of banking.
- Strengthening security controls to prevent cyber-attacks.

The cyber threat remains a major concern in the financial industry and it continues to rapidly evolve. Their attacks are becoming increasingly well organised, planned and sophisticated. Cyber criminals seek financial gains through compromising bank and customer information and launch disruption to banking services. Unauthorised access to bank systems by hackers may result in financial and reputational losses, increased regulatory scrutiny which could adversely affect confidence of customers and investors in Hang Seng Bank.

(e) Operational risk continued

Exposures continued (unaudited)

We have established a governance forum to oversee cyber security to ensure cyber security risks are managed effectively, and to oversee issues and activities related to information security risks. We continue to strengthen and significantly invest in our ability to prevent, detect and respond to the ever-increasing and sophisticated threat of cyber attacks. Specifically, we continue to enhance our capabilities to protect against increasingly sophisticated malware, denial of service attacks and data leakage, as well as enhance security event detection and incident response processes. We participate in intelligence sharing with both law enforcement and industry schemes to help improve our understanding of, and ability to respond to, the evolving threats faced by us and our peers within our industry.

- Improve controls and security to protect customers when using digital channels.
- Enhancing controls associated with IT privileged access.

(f) Regulatory Compliance Risk

(unaudited)

Overview

The Regulatory Compliance ("RC") function provides independent, objective oversight and challenge and promotes a compliance oriented culture, supporting the business in delivering fair outcomes for customers, maintaining the integrity of financial markets and achieving the Group's strategic objectives.

Key risk management processes

We regularly review our policies and procedures. Global policies and procedures require the prompt identification and escalation of any actual or potential regulatory breach to RC. Reportable events are escalated to the RMM and the Risk Committee, as appropriate.

Conduct of business

In 2018, we continued to take steps to raise our standards relating to conduct, which included:

- delivering further mandatory conduct training to all employees in 2018;
- incorporating the assessment of expected values and behaviours as key determinants in recruitment, performance appraisal and remuneration processes;
- improving our market surveillance capability;
- enhancing the quality and depth of conduct management information and how it is used across the Group;
- implementing an assessment process to check the effectiveness of our conduct initiatives across the Group; and
- assessing conduct standards and practices within our key third party suppliers and distributors.

(g) Financial Crime Risk

(unaudited)

Overview

The Group continued its progress towards implementing an effective financial crime risk management capability across the Group. The Group completed the roll-out of major compliance systems and shifted our focus towards embedding a sustainable approach to financial crime risk management everywhere we operate. This was underpinned by the implementation of a target operating model for the Financial Crime Risk function and by the completion of a country-by-country assessment against our financial crime risk framework.

Key risk management processes

During 2018, the Group introduced a strengthened financial crime risk management governance framework, mandating Financial Crime Risk Management Committees with a standardised agenda at country, region and business line levels.

We strengthened our approach to affiliate risk management, implementing an effective Group-level process to assess and remediate affiliate risk, and established a strong investigations and analytical capability to enable us to proactively identify emergent risk issues.

(h) Reputational Risk

(unaudited)

Reputational risk is the failure to meet stakeholder expectations as a result of any event, behaviour, action or inaction, either by the Group itself, our employees or those with whom we are associated, that might cause stakeholders to form a negative view of the Group.

Reputational risk relates to perceptions, whether based on fact or otherwise. Stakeholders' expectations are constantly changing and thus reputational risk is dynamic and varies between geographies, groups and individuals. As the leading domestic bank, we show unwavering commitment to operating to the high standards we have set for ourselves in every jurisdiction. Any lapse in standards of integrity, compliance, customer service or operating efficiency represents a potential reputational risk.

A number of measures to enhance our anti-money laundering, sanctions and other regulatory compliance frameworks have been taken and/or are ongoing. These measures, which should also serve over time to enhance our reputational risk management, include the following:

- simplifying our business through the progressive implementation of our Group strategy, including the adoption
 of a global financial crime risk filter, which should help to standardise our approach to doing business in higher
 risk countries;
- an increase in reputational risk resources in each region in which we operate, and the introduction of a central case management and tracking process for reputational risk and client relationship matters;
- the creation of combined reputational risk and client selection committees within the business lines, with a clear process to escalate and address matters at the appropriate level;
- the continued roll-out of training and communication about the HSBC Values programme that defines the way
 everyone in the Group should act, and seeks to ensure that the Values are embedded into our operations; and
- the continuous development and implementation of Global Standards around financial crime compliance, which underpin our businesses. This includes ensuring globally consistent application of policies that govern AML and sanctions compliance provisions.

The Group has zero tolerance for knowingly engaging in any business, activity or association where foreseeable reputational damage has not been considered and mitigated. There must be no barriers to open discussion and escalation of issues that could affect the Group negatively. While there is a level of risk in every aspect of business activity, appropriate consideration of potential harm to the Group's good name must be a part of all business decisions. Detecting and preventing illicit actors' access to the global financial system calls for constant vigilance and we will continue to cooperate closely with all governments to achieve success. This is integral to the execution of our strategy, to our values and to preserving and enhancing our reputation.

Capital Management

(Figures expressed in millions of Hong Kong dollars unless otherwise indicated)

(audited)

The Group's objective for managing capital is to maintain a strong capital base to support the development of its business and to meet regulatory capital requirements at all times. The Group recognises the impact of different level of equity capital on shareholder returns and seeks to maintain a prudent balance between advantages and flexibility provided by a strong capital position and higher returns on equity through greater leverage.

An annual group capital plan is prepared and approved by the Board with the objectives of maintaining an optimal amount of capital and a suitable mix between different components of capital. The Group manages its own capital within the context of the approved annual capital plan, which determines level of risk-weighted asset ("RWA") growth as well as the optimal amount and components of capital required to support planned business growth. As part of the Group's capital management policy, subsidiary with capital generated in excess of planned requirement will return to the Bank, normally by way of dividends. The Group also raised subordinated debt in accordance with HSBC Group's guidelines regarding market and investor concentration, cost, market conditions, timing and maturity profile.

The Bank is primarily a provider of equity capital to its subsidiaries. These investments are substantially funded by the Bank's own capital and profit. The Bank seeks to maintain a prudent balance between the composition of its capital and that of its investment in subsidiaries.

The principal forms of capital are included in the following balances on the consolidated balance sheet: share capital, retained profits, other equity instruments and other reserves. Capital also includes impairment allowances and regulatory reserve for general banking risks as allowed under Banking (Capital) Rules.

Externally imposed capital requirements

(audited)

The HKMA supervises the Group on a consolidated and solo-consolidated basis and, as such, receives information on the capital adequacy of, and sets capital requirements for, the Group as a whole. Individual banking subsidiaries are directly regulated by their local banking supervisors, who set and monitor their capital adequacy requirements. Certain non-banking financial subsidiaries are also subject to the supervision and capital requirements of local regulatory authorities.

The Group uses the advanced internal ratings-based approach ("IRB") to calculate its credit risk for the majority of its non-securitisation exposures. For market risk, the Group uses an internal models approach to calculate its general market risk for the risk categories of interest rate and foreign exchange (including gold) exposures and the standardised (market risk) approach for calculating other market risk positions. For operational risk, the Group uses the standardised (operational risk) approach to calculate its operational risk.

During the year, the Group has complied with all of the externally imposed capital requirements by the HKMA.

Basel III

(unaudited)

The Basel III capital rules set out the minimum CET1 capital requirement of 4.5% and total capital requirement of 8%.

The Banking (Capital) (Amendment) Rules 2014 came into effect on 1 January 2015 to implement the Basel III capital buffer requirements in Hong Kong. The changes include the phasing-in from 2016 to 2019 of the Capital Conservation Buffer ("CCB") which is designed to ensure banks build up capital outside periods of stress of 2.5% of RWAs, the Countercyclical Capital Buffer ("CCyB") which is set on an individual country basis and is built up during periods of excess credit growth to protect against future losses, and the Higher Loss Absorbency ("HLA") requirements for Domestic Systemically Important Banks ("D-SIB"). The CCyB for Hong Kong is 1.25% RWAs from 1 January 2017, 1.875% from 1 January 2018 and 2.5% from 1 January 2019. The increase follows the Basel III phase-in arrangement for the CCyB. On 16 March 2015, the HKMA announced the designation of the Bank as a D-SIB and the HLA requirement to be 1.5% of RWAs which will be phased-in from 0.375% in 2016 to reach the full implementation in 2019. On 21 December 2018, the HKMA confirmed the designation of the Bank as a D-SIB as well as the HLA requirements.

Loss-Absorbing Capacity Requirements

(unaudited)

In November 2014, as part of the "too big to fail" agenda, the Financial Stability Board ("FSB") published proposals for Total Loss-absorbing Capacity ("TLAC") for Global Systemically Important Banks ("G-SIBs"). In November 2015, the FSB issued its final term sheet on TLAC which set the minimum TLAC requirement to be 16% of RWAs from 1 January 2019, rising to 18% from 1 January 2022. In addition, there must be sufficient TLAC to meet a leverage ratio requirement of 6% from 1 January 2019, rising to 6.75% by 1 January 2022.

In December 2018, the Financial Institutions (Resolution) (Loss-absorbing Capacity Requirements – Banking Sector) Rules ("LAC") in Hong Kong were passed into legislation, with transition periods provided for their implementation. As the Bank is a member of HSBC Group which was designated as a G-SIB by FSB, the LAC requirements are expected to be implemented in 2019 for the Group.

Leverage ratio

(unaudited)

The leverage ratio was introduced into the Basel III framework as a non-risk-based backstop limit, to supplement risk-based capital requirements. It aims to constrain the build-up of excess leverage in the banking sector, introducing additional safeguards against model risk and measurement errors. The ratio is a volume-based measure calculated as Basel III tier 1 capital divided by total on- and off-balance sheet exposures. Basel III provides for a transitional period for the introduction of this ratio, comprising a supervisory monitoring period that started in 2011 and a parallel run period from January 2013 and completed by 2017. The Banking (Capital) (Amendment) Rules 2017 came into effect on 1 January 2018. This includes the implementation of the leverage ratio framework in Hong Kong with the minimum leverage ratio requirement of 3%.

Capital base

(unaudited)

The following tables show the capital base, RWAs and capital ratios as contained in the "Capital Adequacy Ratio" return required to be submitted to the HKMA by the Bank on consolidated basis as specified by the HKMA under the requirements of section 3C(1) of the Banking (Capital) Rules. The basis is different from that for accounting purposes. Further information on the regulatory consolidation basis is set out in the Banking Disclosure Statement that is available in the Regulatory Disclosures section of our website www.hangseng.com.

The Bank and its subsidiaries maintain a regulatory reserve to satisfy the provisions of the Banking Ordinance and local regulatory requirements for prudential supervision purposes. At 31 December 2018, the effect of this requirement is to restrict the amount of reserves which can be distributed to shareholders by HK\$4,982 million (2017: HK\$6,018 million).

Capital base continued

(unaudited)

The following table sets out the composition of the Group's capital base under Basel III at 31 December 2018 and 31 December 2017. A more detailed breakdown of the capital position and a full reconciliation between the Group's accounting and regulatory balance sheets can be viewed in the Banking Disclosure Statement in the Regulatory Disclosures section of our website www.hangseng.com.

	2018	2017
Common Equity Tier 1 ("CET1") Capital		
Shareholders' equity	133,990	126,241
 Shareholders' equity per consolidated balance sheet 	162,082	152,030
 Additional Tier 1 ("AT1") perpetual capital instrument 	(6,981)	(6,981)
 Unconsolidated subsidiaries 	(21,111)	(18,808)
Non-controlling interests	_	-
 Non-controlling interests per consolidated balance sheet 	25	49
- Non-controlling interests in unconsolidated subsidiaries	(25)	(49)
Regulatory deductions to CET1 capital	(32,266)	(31,783)
 Cash flow hedging reserve 	4	41
- Changes in own credit risk on fair valued liabilities	(12)	(5)
 Property revaluation reserves¹ 	(26,543)	(24,842)
 Regulatory reserve 	(4,982)	(6,018)
- Intangible assets	(463)	(408)
 Defined benefit pension fund assets 	(11)	(45)
- Deferred tax assets net of deferred tax liabilities	(111)	(211)
- Valuation adjustments	(148)	(295)
Total CET1 Capital	101,724	94,458
AT1 Capital		
Total AT1 capital before and after regulatory deductions	6,981	6,981
- Perpetual capital instrument	6,981	6,981
Total AT1 Capital	6,981	6,981
	100 705	101 (00
Total Tier 1 ("T1") Capital	108,705	101,439
Tier 2 ("T2") Capital		
Total T2 capital before regulatory deductions	15,517	14,723
- Property revaluation reserves1	11,944	11,179
- Impairment allowances and regulatory reserve eligible for inclusion		
in T2 capital	3,573	3,544
Regulatory deductions to T2 capital	(915)	(915)
- Significant capital investments in unconsolidated financial sector entities	(915)	(915)
Total T2 Capital	14,602	13,808
Total Capital	123,307	115,247
	123,307	113,247

1 Includes the revaluation surplus on investment properties which is reported as part of retained profits and related adjustments made in accordance with the Banking (Capital) Rules issued by the HKMA.

Risk-weighted assets by risk type

(unaudited)

	2018	2017
Credit risk	541,542	512,720
Market risk	11,020	7,208
Operational risk	59,323	52,795
Total	611,885	572,723

Capital ratios (as a percentage of risk-weighted assets)

(unaudited)

The capital ratios on consolidated basis calculated in accordance with the Banking (Capital) Rules are as follows:

	2018	2017
CET1 capital ratio	16.6%	16.5%
T1 capital ratio	17.8%	17.7%
Total capital ratio	20.2%	20.1%

On a pro-forma basis that takes no account of, for example, any future profits or management action and any change in the current regulations or their application before full implementation, the Group's capital ratios at Basel III end point are the same as above as at 31 December 2018. Given the pro-forma Basel III end point basis position is a mechanical application of the current rules to the capital base as at 31 December 2018, it is not a projection.

In addition, the capital ratios of all tiers as of 31 December 2018 would be reduced by approximately 1.1 percentage point after the prospective fourth interim dividend payment for 2018. The following table shows the pro-forma basis position of the capital ratios after the prospective interim dividend.

	Pro-forma 2018	Pro-forma 2017
CET1 capital ratio	15.5%	15.5%
T1 capital ratio	16.6%	16.7%
Total capital ratio	19.0%	19.1%

Leverage ratio (unaudited)

	2018	2017
Leverage ratio	7.4%	7.3%
T1 capital	108,705	101,439
Exposure measure	1,477,001	1,388,288

Detailed breakdown of the Group's leverage exposure measure and a summary comparison table reconciling the assets of the Group's accounting balance sheet with the leverage exposure measure using the standard templates as specified by the HKMA can be viewed in the Banking Disclosure Statement in the Regulatory Disclosures section of our website www.hangseng.com.

Other financial information

Other financial information required under the Banking (Disclosure) Rules can be viewed in the Banking Disclosure Statement that is available in the Regulatory Disclosures section of our website www.hangseng.com.

Corporate Sustainability

As Hong Kong's leading domestic bank, we aim to set a high standard for responsible corporate practices and sustainability initiatives. In line with our 'speak up and speak out' culture, we encourage our stakeholders to share their aspirations, ideas and concerns. We are also using new technology to amplify our sustainability actions and build closer connections with and among young people as the voices of tomorrow.

We act with integrity and accountability in our interactions with stakeholders. Working with trusted local organisations, we support corporate sustainability programmes that promote social well-being, economic opportunity and positive life values.

In the past 10 years, we have invested HK\$277m in community development, including HK\$32m in 2018. Our non-financial contributions to the betterment of society include active involvement in a diverse range of volunteering initiatives and providing expertise and practical support to community-based programmes.

Our impact as a good corporate citizen has gained external recognition. Public polling by The University of Hong Kong has identified us as having the best corporate social responsibility reputation among Hong Kong financial institutions for 11 consecutive years. We are also a constituent member of several sustainability indexes, including the FTSE4Good Developed Index, the MSCI Pacific ex Japan SRI Index, the Hang Seng Corporate Sustainability Index Series and the Hong Kong Business Sustainability Index. Our Corporate Sustainability Report 2017 received a Bronze Award in the 2018 International ARC Awards.

Giving Young People the Tools to Succeed

Our emphasis on youth development programmes reflects our commitment to supporting the future development of Hong Kong. We help young people explore their talents, interests and ideas, and to develop the confidence, creativity and civic awareness that will encourage entrepreneurialism and promote social mobility.

Our educational, sporting and arts-based initiatives place equal importance on developing a positive spirit, a healthy body and an inquiring mind.

Broadening Horizons, Creating Opportunity

In a new initiative with St. James' Settlement, we are developing the Hang Seng – St. James' Settlement Youth Portal, 'I am...', an online platform and mobile app that will provide personalised career and academic advice for young people aged between 15 and 29. Combining interactive online mentorship, e-learning and AI information services with offline outreach and counselling support, the project will broaden young people's future horizons and help them make informed career decisions. Currently in the preparatory stage, the portal is expected to launch in September 2019.

We continued with our Hang Seng Character Master programme, launched with St. James' Settlement in 2017, that encourages primary school students to embrace 'Respect, Caring, Trustworthiness and Responsibility' as fundamental values for making good choices and guiding their interactions with others. Through role play, job-shadowing opportunities and teacher-parent sharing sessions, about 3,800 students and their family members have benefitted from the programme. A new learning dimension will be added in the second half of 2019 with the launch of a 'Character Building Resource' mobile app.





OUR VISION For A Sustainable Future

Through service excellence and actions that create value for stakeholders, we create positive change by promoting civic mindedness, improved economic and social well-being, and the need to address large-scale sustainability challenges. We focus particularly on young people, who will determine the future of our city. By encouraging tomorrow's leaders to explore their potential, think creatively and adopt an entrepreneurial mindset, we are preparing them to thrive in a rapidly changing world.



Strengthening Relationships through Greater Understanding

Now in its sixth year, the award-winning Hang Seng – HKFWS Youth Mediation Scheme has trained over 1,700 senior primary students from 100 schools as Peer Mediators to promote mediation as a positive way to resolve conflict, strengthen relationships and enhance communication. Organised by the Hong Kong Family Welfare Society and supported by Hang Seng, the Scheme has expanded over the years to include workshops, talks and storytelling sessions, reaching a total of over 45,000 students, teachers and parents.

In April 2018, 100 Peer Mediators took part in Hong Kong's first peer mediation competition for primary schools, giving participants the opportunity to demonstrate their skills in a public setting. Launched in the 2018/19 academic year, a new mediation mobile app is helping teachers and Mediation Ambassadors – which include Hang Seng volunteers and students training to be teachers at The Education University of Hong Kong – to communicate key mediation concepts via a fun and interactive digital platform.

Keeping Hong Kong on the Move

Over the past 27 years, our support for table tennis in Hong Kong has grown into a landmark sports development and community fitness initiative. Partnering with the Hong Kong Table Tennis Association, we have donated a total of over HK\$60m to nurture promising young table tennis talent and encourage people in our city to keep physically active.

Established in 2001 and counting many of Hong Kong's top players among its alumni, the Hang Seng Table Tennis Academy (HSTTA) identifies and trains future sporting stars. It also strengthens civic pride by reinforcing Hong Kong's reputation as a leading competitor in international table tennis and contributes to community building by bringing people from all walks of life together to participate in fun events. To date, nearly 370,000 people have taken part in over 6,900 HSTTA activities.

To further enhance Hong Kong as a centre for table tennis excellence, we sponsored two world-class events: the 2018 Hang Seng Junior & Cadet Open and the Seamaster 2018 ITTF World Tour – Hang Seng Hong Kong Open.

Community Building through Creativity

Since 2015, we have partnered with the Hong Kong Repertory Theatre to organise the Hang Seng Call for Young Talent in Theatre, a music and dramatic arts programme designed to help primary and secondary students build self-confidence, develop better communication skills and learn the value of good teamwork and creative expression. Including school outreach activities, over 25,000 people have participated in or engaged with the programme.

Culminating in four public performances of the musical 'Our Time, Our Hong Kong' in Hong Kong, the 2018 programme for the first time included young people from Hong Kong and Guangzhou among the cast of about 70 individuals and two performances in Guangzhou to promote cultural exchange between Hong Kong and the Greater Bay Area.

Under the Hang Seng – YMCA Balloon Twisting Programme for Special Educational Needs Students, local social enterprise YM Balloon runs small-group workshops that use balloon art activities to help special educational needs students enhance their coordination, concentration and communication skills. In the 2017/18 school year, with support from Hang Seng volunteers, over 200 students from 24 schools took part in balloon-twisting classes that helped build their self-esteem and sense of achievement. A study by The Hong Kong Polytechnic University found that programme participants recorded improvements in their executive functions and in their ability to use their non-dominant hand.

SPEAKING THE Same Language As Younger Generations

Effective engagement includes meeting people where they feel most comfortable.

We are engaging with today's technologically literate young people by using interactive, convenient and fun digital tools to share career planning and life skills information. This technology-based approach also allows us to reach a broader target audience in a fast and cost-effective way. the Hang Seng – St. James' Settlement Youth Portal – 'I am...' – is an online platform and mobile app, supplemented by offline outreach activities, that will help young people prepare for career and academic success. Using AI, data analytics and a variety of other digital tools, the portal will provide personalised advice for making informed decisions about future choices and career plans. We are currently gathering input from different groups of youths to ensure the portal is developed to meet their expectations and needs.

Due to launch in September 2019,

We have also introduced a first-of-itskind mobile app in Hong Kong under our Hang Seng – HKFWS Youth Mediation Scheme to expand the reach of our peer mediation programme and provide our Mediation Ambassadors with an interactive tool for sharing concepts of mediation with primary school students using digital technology.

CON Realistic 實際型 20% Artistic 藝術型 10% Enterprising 企業型







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GIVING BACK BY Leveraging our Strengths

Our commitment to serving with excellence and care as a bank is reflected in our activities as a good corporate citizen. Members of senior management lead by example in encouraging staff to contribute to civic well-being through volunteer service. In addition to participating in a wide range of Bank-organised volunteer programmes, staff are able to take two days of volunteer leave per year to support other community initiatives.

Leveraging our core strengths and staff expertise, we help people from various backgrounds make informed money management decisions through improved financial literacy. Our volunteers participate in the Financial Education programme organised by the Hong Kong Association of Banks and the Hong Kong Council of Social Service, which provides financial management advice to low-income individuals, and work with local charity Po Leung Kuk to teach young children basic money management concepts through role play, group games and group discussions. We also supported Junior Achievement China's 2018 China Youth Financial Literacy Education Programme.





AWARDS AND RECOGNITION

Constituent stock of FTSE4Good Developed Index (17th consecutive year) FTSE INDEX

Constituent stock of MSCI Pacific ex Japan SRI Index (4th consecutive year) MSCI

Constituent stock of Hang Seng Corporate Sustainability Index Series (9th consecutive year)

HANG SENG INDEXES

Constituent stock of Hong Kong Business Sustainability Index (4th consecutive year)

THE CHINESE UNIVERSITY OF HONG KONG BUSINESS SCHOOL

Caring Company (16th consecutive year) HONG KONG COUNCIL OF SOCIAL SERVICE

Best Corporate Social Responsibility Reputation among Local Banks and Financial Service Companies (11th consecutive year)

THE UNIVERSITY OF HONG KONG'S PUBLIC OPINION PROGRAMME

Junzi Corporation (8th consecutive year) THE HANG SENG UNIVERSITY OF HONG KONG



Our support for a variety of student ticket and subsidy schemes enabled more than 11,000 students and underprivileged children to attend Hong Kong Philharmonic Orchestra performances and Hong Kong Arts Festival events in 2018.

The Ming Pao Student Reporter Programme, an initiative we have supported for 20 years, promotes greater civic awareness while honing analytical, research and communication skills. Over 9,500 senior students have taken part in the Programme since its establishment, including 345 students from 125 schools in 2018.

Choosing the Right Path

We are working with The Society of Rehabilitation and Crime Prevention, Hong Kong to demonstrate that a challenging start in life need not be a barrier to building a better future. The Hang Seng Youth Career Planning Scheme offers at-risk and underprivileged youths and ex-young offenders the chance to explore future career possibilities through job-shadowing opportunities and exposure to the entrepreneurial experience. About 50 management-level staff from local SMEs served as advisors and mentors to 150 young people in 2018. Around 40 participants subsequently undertook entrepreneurship training to gain the knowledge and skills needed to develop business proposals. Scheme participants who have their proposals approved are eligible to receive start-up funds and professional business guidance.

Our long-term partnership with the Hong Kong Police Force through the biennial Hang Seng Bank – Help the Police Fight Youth Crime Competition reflects our efforts to reinforce a sense of civic responsibility among young people and encourage them to share anti-crime and community-building messages with their peers. The 2018 Competition attracted over 340,000 participants – a record high. The winning 'Key Opinion Leader' videos were broadcast on various social media platforms to further extend the Competition's reach.

We also continue to make it easier for gifted young people to further their academic journey. Since 1995, we have allocated more than HK\$65m to various scholarship schemes in Hong Kong and mainland China, benefitting over 2,400 students.

Empowering Our People to be Their Best

Our staff are the human face of our brand, the engine of our success and the primary bridge between our business and the local community. We hire and retain talented individuals by making Hang Seng a great place to work. We reward employees with competitive compensation and benefits packages, supportive working conditions and a good work-life balance. We also listen to and learn from our people, recognising them as individuals with a diverse set of strengths, needs and motivations.

Under our workplace enhancement programme, we are offering employees more choice as to where and how they work, as well as flexi-hours, based on their personal preferences and project needs. We have established a 'digital floor' at our head office, which uses a new workspace model to support a diverse range of working styles, encourage creativity and collaboration, and promote improved employee health and wellness. As part of our 'speak up and speak out' culture, we held a series of town hall-style meetings and exchange sessions at which employees could ask questions and share their opinions and ideas.

We also continue to organise leisure and recreational activities that encourage employees to keep physically active, pursue their hobbies and interests, and build closer connections with their colleagues, friends and family members. Highlights include a singing contest, a family fun day and our inaugural Bring Kids To Work day, through which parents were able to show their children what they do on a 'typical day at the office'. Over 43,000 people took part in our various classes and events in 2018.

In addition to our annual Hang Seng Cup competition that promotes a good team spirit and greater cross-department interaction through games of basketball, football, bowling, badminton, table tennis and golf, we held our first 'eSports Carnival', with colleagues competing in friendly rivalry in the digital arena. We also supported staff participation in external sporting competitions, including the city-wide Corporate Games, organised by the Leisure and Cultural Services Department, in which our Basketball team brought home the Overall Champion (Basketball Group A) title.



PROTECTING OUR PLANET BY IMPROVING LIVELIHOODS

Established in 2016, the Hang Seng Yunnan Low-Carbon Village is a major sustainability initiative that aims to achieve lasting positive change by tackling the issues that can put pressure on the environment and natural resources while improving livelihoods in rural areas.

Working with The Conservancy Association in a village near Yuxi, we helped install low-carbon facilities such as solar panels and energyefficient wood stoves to reduce the use of wood for fuel. We also provided seedlings and cultivation advice for higher value crop plants such as konjac and *Chonglou* with the aim of promoting small-scale entrepreneurialism. Bank volunteers visited the project to assess its on-the-ground impact. They also ran a workshop on basic financial literacy for village residents.







ENVIRONMENTAL PERFORMANCE

	2018	2017	2018 VS 2017 (% change)
Greenhouse gas emissions from energy use* (tonnes CO ₂ e)	20,851	22,476	-7.21
Electricity consumption (GWh)	32.33	34.44	-6.13
Water consumption** (000m³)	79.14	74.94	+5.60
IT/electrical waste recycled (tonnes)	17.61	20.73	-15.05

Data coverage: Hang Seng Bank's Hong Kong operations

Key: CO₂e: carbon dioxide equivalent GWh: gigawatt hours m³: cubic metres

* The greenhouse gas emissions generated from energy use was calculated based on the electricity and fuel consumed as well as their relevant gas emission conversion factors as provided by the electricity companies.

** Hang Seng 113 office building became fully operational in 2017. Freshwater is used for toilet flushing in this building as it is not covered by the Water Supplies Department's seawater supply system.

[#] From 1 Oct 2017 to 30 Sep 2018

^A From 1 Oct 2016 to 30 Sep 2017

An Active Member of the Community

Our internal culture is founded on 'doing the right thing', open communication and building stronger connections. We extend this culture of integrity, openness and relationship building to the local community by participating in projects that promote understanding, inclusivity, and social well-being and support.

We organised over 130 community-focused activities for Bank volunteers in 2018, focusing particularly on the social well-being of vulnerable and underprivileged groups, improved financial literacy and economic mobility, and environmental issues. Under the leadership of senior management, Bank departments engage in giving back as teams to build a collegial mindset and strengthen relationships with local stakeholders. Colleagues also enjoy two days of volunteer leave per year to support worthy causes.

We aim to maximise the positive impact of our financial donations by working with reputable charitable organisations that have deep knowledge of our community's most urgent needs and the network and infrastructure to ensure that funds are used efficiently and effectively. We have been a close partner of The Community Chest of Hong Kong since 1994, raising over HK\$78m – including a total of around HK\$25m for The Chest's annual Dress Casual Day Campaign.

Since 2001, our e-Donation channel has facilitated the giving of more than HK\$40m to charitable causes by our customers.

Caring More, Using Less

Our ongoing efforts to use fewer natural resources and do more to promote environmental responsibility reflect our understanding of the need to contribute to protecting the planet for present and future generations. We operate our business in an environmentally conscious manner and advocate for good environmental practices in our relationships with stakeholders.

As Hong Kong's first domestic bank to attain ISO 14001 certification for all its offices and branches, we strive to lead by example in supporting a transition to a lower-carbon economy. Our e-Statement, e-Advice and shareholder e-communication services collectively saved 85.5 million sheets of paper in 2018. Our actions to be a responsible consumer of energy earned us the 'Peak Demand Management Outstanding Award' under CLP's first Smart Energy Award programme. We also support environmental initiatives such as Friends of the Earth (HK)'s 'Power Smart' Energy Saving Contest, WWF (Hong Kong)'s Earth Hour, the Green Power Hike and the Environmental Bureau's Charter on External Lighting.

For over a decade, we have worked with The Conservancy Association on a major environmental initiative in rural communities in Yunnan Province. Building on our success with constructing biogas facilities, in 2016 we jointly launched a low-carbon village project near Yuxi. The project aims to materially improve the living standards of village residents while reducing the burden on the natural environment by providing low-carbon facilities such as solar panels and the means to cultivate higher value crop varieties. Hang Seng volunteers visited the project to carry out impact assessments and ran a workshop on financial literacy.

We also supported The Conservancy Association's Hang Seng – CA Eco-ranger orienteering event, which raises funds while promoting public awareness of environmental issues and the natural outdoor beauty that exists in Hong Kong.

We stopped serving shark's fin at Bank functions in 2003 and subsequently removed endangered reef fish species from our menus. We also provide a WWF (Hong Kong)-endorsed sustainable seafood menu at our banquet hall.

Corporate Governance Principles and Practices

Hang Seng Bank Limited (the "Bank") is committed to maintaining and upholding high standards of corporate governance with a view to safeguarding the interests of shareholders, customers, employees and other stakeholders. The Bank has followed the module on "Corporate Governance of Locally Incorporated Authorised Institutions" ("CG-1") under the Supervisory Policy Manual ("SPM") issued by the Hong Kong Monetary Authority ("HKMA"). The Bank has also fully complied with all the code provisions and most of the recommended best practices set out in the Corporate Governance Code contained in Appendix 14 of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited ("HKEx") (the "Listing Rules"). In 2018, HKEx announced changes to the Listing Rules which impose, among others, greater demand on the Board or the Nomination Committee when appointing Independent Non-executive Director ("INED") which took effect on 1 January 2019. The Bank has taken into account such new requirements when making necessary disclosure. Further, the Bank constantly reviews and enhances its corporate governance framework, by making reference to market trend as well as guidelines and requirements issued by regulatory authorities, to ensure that it is in line with international and local corporate governance best practices.

Board of Directors

The Board has collective responsibilities for promoting the long-term sustainability and success of the Bank by providing entrepreneurial leadership within a framework of prudent and effective controls. In doing so, the Board commits to high standards of integrity and ethics.

According to the Board's terms of reference, specific matters reserved for the Board's consideration and decision include:

- strategic plan and objectives
- annual operating plan and performance targets
- annual and interim financial reporting
- capital plans and management
- risk appetite statement and profile update
- appointment and oversight of senior management, and succession plans for senior management
- internal control and risk management governance structure

- effective audit functions
- corporate culture, values and standards
- policies, practices and disclosure on corporate governance and remuneration
- significant policies and plans and subsequent changes
- acquisitions, disposals and purchases above predetermined thresholds
- whistleblowing policy and mechanism

Chairman and Chief Executive

The roles of the Chairman and Chief Executive of the Bank are complementary, but importantly, they are distinct and separate with a clear and well established division of responsibilities. Details of their respective roles are set out in the Board's terms of reference.

The Chairman of the Board, who is an INED, is responsible for the leadership and effective running of the Board and for ensuring that decisions of the Board are taken on a sound and well-informed basis and in the best interest of the Bank. In addition, as the Chairman of the Board, he is also responsible for ensuring that all Directors are properly briefed on all issues currently on hand and receive adequate, accurate and reliable information in a timely manner. The Chairman possesses the requisite experience, competencies and personal qualities to fulfill these responsibilities.

The Chief Executive, who is an Executive Director ("ED"), is responsible for implementing the strategy and policy as established by the Board. The Chief Executive is also responsible for the management and day-to-day running of the Bank's business and operations, as well as leading and chairing the Executive Committee.

Board Composition

As at the date of this Annual Report, the Board comprises 13 Directors, of whom two are EDs and 11 are Non-executive Directors ("NEDs"). Among the 11 NEDs, six are INEDs. There is a strong independent element on the Board, to ensure the independence and objectivity of the Board's decision-making process as well as the thoroughness and impartiality of the Board's oversight of the Management.

The Board possesses, both as individual Directors and collectively, appropriate experience, competencies and personal qualities, including professionalism and integrity, to discharge its responsibilities adequately and effectively. In addition, the Board collectively has adequate knowledge and expertise relevant to each of the material business activities that the Bank pursues and the associated risks in order to ensure effective governance and oversight.

Members of the Board, who come from a variety of different backgrounds, have a diverse range of business, banking and professional expertise. Biographical details of the Directors, together with information relating to the relationship among them, are set out in the section "Biographical Details of Directors and Senior Management" in this Annual Report.

The Bank remains committed to meritocracy in the Boardroom, which requires a diverse and inclusive culture where Directors believe that their views are heard, their concerns are attended to and they serve in an environment where bias, discrimination and harassment on any matter are not tolerated. The Board has adopted a Board Diversity Policy which has been made available on the Bank's website (www.hangseng.com) for better transparency and governance. Board appointments are based on merit and candidates are considered against objective criteria, having due regard for the benefits of diversity on the Board including, but not limited to, gender, age, cultural and educational background, ethnicity, professional experience, skills, knowledge and length of service. The Board considers that its diversity, including gender diversity, is a vital asset to the business.



An analysis of the Board's current composition is set out in the following chart:

The Bank has maintained on its website (www.hangseng.com) and on the website of HKEx (www.hkexnews.hk) an updated list of its Directors identifying their roles and functions and whether they are INEDs. INEDs are also identified as such in all corporate communications that disclose the names of the Bank's Directors.

Further, the Bank has received from each of the INEDs an annual confirmation of his/her independence. The independence of the INEDs has been assessed in accordance with the guidelines set out in Rule 3.13 of the Listing Rules and the SPM CG-1 issued by HKMA. Following such assessment, the Board has affirmed that all the INEDs continue to be independent.

Board Process

Board meetings are held about six times a year and no less than once every quarter. Additional Board meetings, or meetings of a Board committee established by the Board to consider specific matters, can be convened, when necessary.

Schedule for the regular Board meetings in each year, together with the standing agenda for such meetings, are made available to all Directors before the end of the preceding year. In addition, notice of meetings will be given to all Directors at least 14 days before each regular meeting.

Other than regular meetings, the Chairman also meets with NEDs (including INEDs) without the presence of EDs, to facilitate an open and frank discussion among the NEDs on issues relating to the Bank.

The Board also meets with the representatives of HKMA to maintain a regular dialogue with the regulator where HKMA shares with the Board HKMA's overall supervisory assessment of the Bank and their key supervisory focuses on the banking industry in general.

Meeting agenda for regular meetings are set after consultation with the Chairman and the Chief Executive. All Directors are given an opportunity to include matters in the agenda.

Directors make their best efforts to contribute to the formulation of strategy, policies and decision-making by attending the Board meetings in person or via telephone or video-conferencing facilities. When INED is unable to attend the meeting via any means, INED will be asked to provide written views on items to be discussed ahead of the meeting.

Minutes of Board meetings with details of the matters discussed by the Board and decisions made, including any concerns or views of the Directors, are kept by the Company Secretary and are open for inspection by Directors.

In addition to the regular financial and business performance reports submitted to the Board at its regular meetings, the Board also receives financial and business updates with information on the Bank's latest financial performance and material variance from the Bank's annual operating plan during those months where no Board meetings are held. Directors can therefore have a balanced and comprehensive assessment of the Bank's performance, business operations, financial position and prospects throughout the year.

The Board reviews and evaluates its work process and effectiveness annually, with a view to identifying areas for improvement and further enhancement. The Board also regularly reviews the time commitment required from NEDs.

All Directors have access to the EDs as and when they consider necessary. They also have access to the Company Secretary who is responsible for ensuring that Board procedures, and related rules and regulations, are followed.

Under the Articles of Association of the Bank, a Director shall not vote or be counted in the quorum in respect of any contract, arrangement, transaction or other proposal in which he/she or his/her associate(s), is/are materially interested.

The Board has adopted a Policy on Conflicts of Interest. The Policy identifies the relationships, services, activities or transactions in respect of which conflicts of interest may arise and sets out measures for prevention or management of such conflicts. The Policy also contains an objective compliance process for implementing the Policy, which includes notification by a Director of conflicts or potential conflicts, and a review/approval process. In addition, the Policy also sets out provisions of the Board's approach to dealing with any non-compliance with the Policy.
The Board has been applying technology designed specifically around the Board to help the Directors manage their time more efficiently, while staying connected to the Board and other Directors in order to discharge their responsibilities effectively and securely.

During 2018, the Board held six meetings (including two offsite meetings in Shanghai) and the important matters discussed at Board meetings included:

Strategic Planning

- annual review of strategic plan (2018 2020) with quarterly updates
- the Bank's strategy on the Mainland
- impact of the Sino/US trade conflicts on the Bank

Governance and Risk Management

- global risk appetite framework addendum and risk appetite statement for 2018 with mid year review and quarterly profile update
- enterprise risk management framework and risk governance structure for 2018
- scope and approach on compliance with Basel Committee on Banking Supervision 239 Programme, including the adoption of risk data aggregation and risk reporting framework
- effectiveness of environmental, social and governance risk management and internal control systems
- quarterly reviews of large credit exposures and risk concentrations
- significant policies and plans including, but not limited to, Recovery Plan, Contingency Funding Plan, Liquidity Management Policy, Connected Lending Policy, Capital Management Policy, Large Credit Exposure Policy and Conflicts of Interest Policy
- annual review of credit approval authority limits
- board effectiveness evaluation for 2017
- review of Corporate Governance Strategy
- review of the effectiveness of the Board and Board Committees
- review of the structure, size and composition of the Board and the Non-executive Board Committees
- "Ways of Working" Governance meeting effectiveness
- new and revised SPMs issued by HKMA from time to time

Financial and Business Performance, and Capital Planning

- financial statements for the year ended 31 December 2017
- interim financial statements for the six months ended
 30 June 2018
- declaration of the fourth interim dividend for year 2017 and first three interim dividends for year 2018
- annual operating plan and capital plan for year 2018
- reports on financial and business performance
- internal capital adequacy assessment process
- individual liquidity adequacy assessment process
- results of HKMA supervisor-driven stress test for 2017 and Prudential Regulation Authority stress test scenarios for 2018
- enterprise-wide stress testing scenario setting and annual review of the stress testing approach
- update on resolution planning priorities

Culture, Human Resources and Remuneration

- adoption of Culture Statement
- annual review of the implementation of corporate values and business principles
- annual review of the remuneration policy and remuneration system
- annual review of alignment of risk and remuneration
- annual review of the remuneration of EDs, Senior Management and Key Personnel
- appointments to the Bank's Audit and Risk Committees
- appointments of Senior Management or executives
- appointment of "managers" under the Banking Ordinance
- resignation/retirement of INEDs
- pay review for 2018 and variable pay for 2017
- review of fees payable to Directors and Board Committee Chairmen/Members of the Bank and its subsidiaries
- succession planning for the Board and senior management
- performance management relating to Senior Management
- re-election of Directors
- terms of appointment of NEDs
- review of independence of INEDs
- workplace transformation programme

Appointment and Re-election of Directors

The Bank uses a formal, considered and transparent procedure for the appointment of new Directors. Before a prospective Director's name is formally proposed, opinions of the existing Directors (including the INEDs) will be solicited. The proposed appointment will first be reviewed by the Nomination Committee, taking into account the balance of skills, knowledge and experience on the Board. Upon recommendation of the Nomination Committee, the proposed appointment will then be reviewed and, if thought fit, approved by the Board after due deliberation.

Pursuant to Group policy, the Bank will conduct enhanced vetting for non-employee NEDs before his/her appointment and thereafter once every three years, as one of the measures to verify the continual fitness and propriety of the NEDs.

In accordance with the requirement under the Banking Ordinance, approval from HKMA will be obtained for appointment of new Directors.

The Bank issues appointment letters to each of the NEDs, setting out the terms and conditions of their appointment, including the time commitment expected of them. Additional time commitment is necessary if the NEDs also serve on committee(s) of the Board.

All new Directors are subject to election by shareholders at the next Annual General Meeting ("AGM") after their appointments have become effective. Further, the Bank's Articles of Association provide that all Directors shall be subject to retirement by rotation at least once every three years. Retiring Directors are eligible for re-election at AGMs of the Bank.

According to the policy on the term of appointment of NEDs, term of appointment of each NED is three years except that where a NED has served on the Board for more than nine years, then his/her term of appointment is one year. In renewing the term of appointment of each NED, the Board reviews whether such NED remains qualified for his/her position.

Responsibilities of Directors

Directors have full and timely access to all relevant information about the Bank so that they can discharge their duties and responsibilities as Directors. In particular, through regular Board meetings and receipt of regular financial and business updates, all Directors are kept abreast of the conduct, business activities and development, as well as regulatory updates applicable to the Bank.

There are established procedures for Directors to seek independent professional advice on matters relating to the Bank where appropriate. All costs associated with obtaining such advice will be borne by the Bank. In addition, each Director has separate and independent access to the Bank's Management.

The Bank has adopted a Code for Securities Transactions by Directors on terms no less exacting than the required standards set out in the Model Code for Securities Transactions by Directors of Listed Issuers (set out in Appendix 10 to the Listing Rules) with periodic review. Specific enquiries have been made with all Directors who have confirmed that they have complied with the Bank's Code for Securities Transactions by Directors by Directors throughout the year 2018.

Directors' interests in securities of the Bank and HSBC Group as at 31 December 2018 have been disclosed in the Report of the Directors set out in this Annual Report.

Appropriate Directors' liability insurance cover has also been arranged to indemnify the Directors against liabilities arising out of the discharge of their duties and responsibilities as the Bank's Directors. The coverage and the sum insured under the policy are reviewed annually. Further, the Bank's Articles of Association provide that Directors are entitled to be indemnified out of the Bank's assets against claims from third parties in respect of certain liabilities.

Induction and Training for Directors

Induction programmes on the following key areas will be arranged for newly appointed Directors so that they can discharge their responsibilities to the Bank properly and effectively:

- directors' duties and responsibilities
- governance structure and practices
- business operations and financial position
- risk management and internal control
- control and support functions

Further, all Directors are provided with briefings and trainings on an on-going basis as necessary to ensure that they have a proper understanding of the Bank's operations and business, and are fully aware of their responsibilities under the applicable laws, rules and regulations. Such briefings and trainings are provided at the Bank's expense. The Bank maintains proper records of the briefings and trainings provided to and received by its Directors.

In addition, all Directors are provided with a "Memorandum of Directors", which sets out the scope and nature of Directors' duties and liabilities, particulars of Group policies and local regulatory and statutory requirements of which the Directors must be aware. Such memorandum is updated from time to time so as to reflect the latest internal policies/guidelines, regulatory/statutory requirements, and best practices.

During the year, Directors received briefings and trainings on the following topics:

- HKMA Programme 2018 INED Conference
- 3rd Wave of Disruption
- The Basel Committee on Banking Supervision (BCBS) 239: Effective Risk Data Aggregation and Reporting
- Operational Risk Management Framework
- ICAC Business Ethics for Listed Companies
- Cyber Risk Update
- Loan Market and Green Finance: What Directors Need to Know

- Regulator's Dialogue with Directors: Banking Regulation - What's next?
- RegTech: Harnessing Behavioural Science and AI Technology for Risk Management and Performance Optimisation
- HSBC Global Mandatory Training: Embedding Good Conduct, Bribery & Corruption, Anti-money Laundering, Sanctions, Data Privacy and Cyber Security

To summarise, Directors received briefings and trainings on the following key areas to update and develop their skills and knowledge during the year:

	Training areas			
Directors	Governance matters	Regulatory matters	Business/Management	Risk and Control
INEDs				
Dr Raymond K F Ch'ien	\checkmark	\checkmark	\checkmark	\checkmark
Dr John C C Chan	\checkmark	\checkmark	\checkmark	\checkmark
Ms L Y Chiang	\checkmark	\checkmark	\checkmark	\checkmark
Ms Irene Y L Lee	\checkmark	\checkmark	\checkmark	\checkmark
Dr Eric K C Li	\checkmark	\checkmark	\checkmark	\checkmark
Mr Michael W K Wu	\checkmark		\checkmark	\checkmark
NEDs				
Mr Nixon L S Chan	\checkmark	\checkmark	\checkmark	\checkmark
Ms Sarah C Legg	\checkmark	\checkmark	\checkmark	\checkmark
Dr Vincent H S Lo	\checkmark	\checkmark	\checkmark	\checkmark
Mr Kenneth S Y Ng	\checkmark	\checkmark	\checkmark	\checkmark
Mr Peter T S Wong	\checkmark		\checkmark	\checkmark
EDs				
Ms Louisa Cheang	\checkmark	\checkmark	\checkmark	\checkmark
Ms Margaret W H Kwan	\checkmark	\checkmark	\checkmark	\checkmark

Delegation by the Board

Board Committees

The Board has set up five Committees, namely, Executive Committee, Audit Committee, Risk Committee, Remuneration Committee and Nomination Committee, to assist it in carrying out its responsibilities.

The current composition of the Board Committees is as follows:



* INEDs

NEDs

Note 1 Mr Gilbert M L Lee was appointed as Executive Committee member with effect from 14 February 2018.

Note 2 Mr Ryan Y S Song was appointed as Executive Committee member with effect from 7 June 2018.

Note 3 Ms Daphne W K Wat was appointed as Executive Committee member with effect from 1 June 2018.

Note 4 Ms L Y Chiang was appointed as Audit Committee member with effect from 25 July 2018.

Note 5 Mr Kenneth S Y Ng was appointed as Risk Committee member with effect from 21 January 2019.

Note 6 Mr Michael W K Wu was appointed as Risk Committee member, and ceased to be Audit Committee member, both with effect from 25 July 2018.

Each of these Committees has specific written terms of reference, which set out in detail their respective authorities and responsibilities. Each Committee reviews its terms of reference and effectiveness annually. The terms of reference of all the Non-executive Board Committees have been made available on the Bank's website (www.hangseng.com). All Committees, except the Executive Committee and Nomination Committee, comprise solely of INEDs. Majority of the Nomination Committee members are INEDs while the Executive Committee comprises the Bank's EDs and senior executives.

All Committees adopt the same governance processes as the Board as far as possible and report back to the Board on their decisions and recommendations on a regular basis.

Executive Committee

The Executive Committee meets approximately ten times a year and operates as a general management committee under the direct authority of the Board. It exercises the powers, authorities and discretions as delegated by the Board in so far as they concern the management and day-to-day running of the Bank in accordance with its terms of reference and such other policies and directives as the Board may determine from time to time. The Executive Committee also sub-delegates credit, investment and capital expenditure authorities to its members and senior executives.

To further enhance the Bank's risk management framework and in line with best practices, the Bank has set up a Risk Management Meeting, a risk meeting of the Executive Committee, to provide recommendations and advice to the Bank's Chief Risk Officer on enterprise-wide management of all risks, policies and guidelines for the management of risk within the HASE Group. Risk Management Meetings are held not less than ten times each year. Minutes of Risk Management Meetings are provided to the Executive Committee and the Risk Committee for review and oversight purpose.

Audit Committee

The Audit Committee meets at least four times a year with the Bank's executives including the Chief Executive, Chief Financial Officer, Chief Risk Officer, Head of Audit, and representatives from the Bank's external auditor. The Committee reviews, among other things, the Bank's financial reporting, the nature and scope of audit reviews, and the effectiveness of the systems of internal control and compliance relating to financial reporting. The Audit Committee is also responsible for making recommendations to the Board on the appointment, re-appointment, removal and remuneration of the Bank's external auditor. In addition, the Audit Committee has established a "Policy for the Reporting of Improprieties" to provide a secured and confidential channel through which all staff members may report incidents of improprieties on a strictly confidential basis so that the same can be timely and thoroughly investigated and appropriate actions can be taken promptly.

The Audit Committee reports to the Board following each Audit Committee meeting, drawing the Board's attention to significant issues or matters of which the Board should be aware, identifying any matters in respect of which it considers that action or improvement is needed, and making relevant recommendations.

During the year, the Audit Committee held five meetings and the major work performed by the Committee was as follows:

- reviewed the financial statements for the year ended 31 December 2017 and the related documents, and internal control recommendations and audit issues noted by the Bank's external auditor
- reviewed the interim financial statements for the six months ended 30 June 2018 and the related documents, and the issues noted by the Bank's external auditor
- reviewed and approved the quarterly banking disclosure statements for reporting periods ended 31 December 2017, 31 March 2018, 30 June 2018 and 30 September 2018
- reviewed the annual operating plan and capital plan for year 2018
- reviewed the balance sheet management position
- reviewed the revised accounting standards and prospective changes to accounting standards, in particular, the update on IFRS9 implementation and the impact on the Bank's financial reporting
- reviewed the significant policies and plans including, but not limited to, the Bank's Recovery Plan
- reviewed the internal audit reports and discussed the same with the Management and Head of Audit

- reviewed and adopted the revised Internal Audit Charter and Audit Instruction Manual
- reviewed the update on internal audit plan for 2018 and approved the internal audit plan for 2019
- reviewed the update on Sarbanes-Oxley Act (SOX) implementation and internal control system assessment as at 31 December 2017 and 30 June 2018
- reviewed the adequacies of resources, qualifications and experience of staff of the Accounting and Financial Reporting function and Internal Audit function, and their training programmes and budgets
- reviewed the re-appointment, remuneration and engagement letter of the Bank's external auditor, its independence and objectivity, and the effectiveness of the audit process
- reviewed the incidents reported under the Policy for the Reporting of Improprieties during the year
- reviewed the Audit Committee's independence and effectiveness in discharging its role and responsibilities, and its terms of reference
- endorsed the appointment of an audit committee member of the Bank, and audit committee chairman of the Bank's insurance subsidiary

The Audit Committee also meets annually with the representatives of the Bank's Head of Audit and external auditor without the presence of the Management in accordance with its terms of reference.

Risk Committee

The Risk Committee meets at least four times a year with the Bank's executives including the Chief Executive, Chief Financial Officer, Chief Risk Officer, Head of Audit, Head of Regulatory Compliance, Head of Financial Crime Compliance, and representatives from the Bank's external auditor. The Committee is responsible for, among other things, the Bank's high level risk related matters, risk appetite and tolerance, risks associated with proposed strategic acquisitions or disposals, risk management reports from the Management, effectiveness of the enterprise risk management framework and systems of internal control and compliance (other than that regarding financial reporting), and appointment and removal of the Chief Risk Officer.

Pursuant to HKMA's Circular on "Bank Culture Reform", the Board has also delegated to the Risk Committee to encompass culture-related responsibilities. Such responsibilities include actions to approve, review and assess, at least annually, the adequacy of any relevant statement which sets out the Bank's culture and behavioural standards.

The Risk Committee reports to the Board following each Risk Committee meeting, drawing the Board's attention to significant issues or matters of which the Board should be aware, identifying any matters in respect of which it considers that action or improvement is needed, and making relevant recommendations.

During the year, the Risk Committee held five meetings and the major work performed by the Committee was as follows:

- reviewed the update on implementation of HKMA's guidance on bank culture reform, and the progress update on the Bank's culture action plan, and endorsed the adoption of the Culture Statement
- reviewed the routine risk reports submitted by the Management including, but not limited to, enterprise risk management framework, risk governance structure, internal control system assessment, global risk appetite framework addendum and risk appetite statement with mid year review and profile update, risk maps, top and emerging risks, annual plan and progress update relating to financial crime compliance, regulatory compliance and internal control, and summary of HKMA's regulatory on-site examinations
- reviewed the enterprise wide risk assessment report, internal capital adequacy assessment process, and endorsed the individual liquidity adequacy assessment process, credit approval authority limits, risk data aggregation and risk reporting frameworks and other significant policies and plans including, but not limited to, the Bank's Recovery Plan, Contingency Funding Plan, Liquidity Management Policy, Connected Lending Policy, Capital Management Policy and Large Credit Exposure Policy
- reviewed the report on the alignment of risk and remuneration, and outcome of incentivising compliance for the pay review of performance year 2017

- reviewed the internal control recommendations and audit issues noted by the Bank's external auditor in the annual audit
- reviewed the Internal Audit Plan for 2019 and resourcing requirements, the revised Internal Audit Charter, the Audit Instruction Manual, and internal audit reports and key themes insofar as the same give rise to any risk-related issues
- reviewed the adequacies of resources, qualifications and experience of staff of the Risk and Compliance function, and their training programmes and budgets
- reviewed the incidents reported under the Policy for the Reporting of Improprieties during the year
- reviewed the update of cyber security risk and the revised accounting standards and prospective changes to accounting standards, in particular, the update on IFRS9 implementation, and the impact on the Bank insofar as the same give rise to any risk-related issues
- reviewed HKMA supervisor-driven stress test for 2017, and endorsed the scenarios setting and approach of the Bank's stress testing
- reviewed the Risk Committee's independence and effectiveness in discharging its role and responsibilities, and its terms of reference
- endorsed the appointment of a risk committee member of the Bank, and risk committee member of the Bank's insurance subsidiary

The Risk Committee also meets annually with the Bank's Chief Risk Officer and Head of Audit separately without the presence of the Management in accordance with its terms of reference.

Remuneration Committee

The Remuneration Committee normally meets twice a year with the Bank's Head of Human Resources. The Committee considers and provides advice to the Board on the remuneration policy and structure in order to attract, motivate and retain quality personnel. Pursuant to delegation by the Board, the Committee also determines and proposes for the Board's approval the remuneration policy, and the specific remuneration packages of all EDs, senior management and key personnel. In addition, it reviews at least annually and independently of the Management, the adequacy and effectiveness of the Bank's remuneration policy and its implementation, to ensure that the Bank's remuneration policy is consistent with relevant regulatory requirements and promotes effective risk management.

In determining the bank-wide remuneration policy, the Remuneration Committee will take into account the Bank's business objective, people strategy, short-term and long-term performance, business and economic conditions, market practices, conduct, compliance and risk control, in order to ensure that the remuneration aligns with business and individual performance, promotes effective risk management, facilitates retention of quality personnel and is competitive in the market. The Committee may invite any Director, executive, consultant or other relevant party to provide advice in this respect, if necessary. In 2018, the Committee has requested to seek advice from an external consultant relating to the independent review of the Bank's remuneration policy and its implementation for year 2018.

The Remuneration Committee reports to the Board following each Committee meeting, drawing the Board's attention to significant issues or matters of which the Board should be aware, identifying any matters in respect of which it considers that action or improvement is needed, and making relevant recommendations.

During the year, the Remuneration Committee held three meetings and the major work performed by the Committee was as follows:

- endorsed the fees payable to the Bank's Chairman, and the Directors and Board Committee chairmen/ members of the Bank and its subsidiaries
- endorsed the remuneration packages of Directors, senior management and key personnel of the Bank
- reviewed the new approach of pay review process for performance year 2017
- endorsed the proposed variable pay for 2017 and pay review proposal for 2018
- reviewed the report on the alignment of risk and remuneration, and outcome of incentivising compliance for the pay review of performance year 2017
- reviewed the revised remuneration policy and the list of the Bank's material risk takers to further strengthen the governance in response to tightened regulatory requirements
- approved the appointment of independent reviewer for the Bank's remuneration policy and its implementation
- reviewed the outcome of the independent review by an external reviewer of the Bank's remuneration policy and remuneration system, and the adequacy and effectiveness of its implementation
- reviewed the Remuneration Committee's effectiveness in discharging its role and responsibilities, and its terms of reference

Nomination Committee

The Nomination Committee meets at least twice a year. It leads the process for Board appointments and identifies and nominates candidates for appointment to the Board, for the Board's approval. The Committee also considers, among other things, the structure, size and composition of the Board and Non-executive Board Committees, independence of INEDs, re-election of Directors, term of appointment of NEDs, time commitment required from NEDs, appointment to Board Committees, and approves the appointment to the position of "manager" as defined under the Banking Ordinance.

The Nomination Committee reports to the Board following each Committee meeting, drawing the Board's attention to significant issues or matters of which the Board should be aware, identifying any matters in respect of which it considers that action or improvement is needed, and making relevant recommendations.

During the year, the Nomination Committee held three meetings and the major work performed by the Committee was as follows:

- endorsed the appointment of Audit and Risk Committee members, an Executive Committee member and the Head of Audit
- approved the appointment of "managers" under the Banking Ordinance
- reviewed the structure, size and composition of the Board and Non-executive Board Committees
- reviewed the succession planning for the Board and senior management
- reviewed the independence of INEDs

- reviewed the time commitment required from NEDs
- endorsed the renewal of terms of appointment of NEDs
- endorsed the re-election of Directors
- approved the revised appointment letter for NEDs
- reviewed the Nomination Committee's effectiveness in discharging its role and responsibilities, and its terms of reference

Attendance Records

The attendance records of Board and Board Committee meetings held in 2018 are as follows:

	Meetings held in 2018						
	AGM	Board	Executive Committee	Audit Committee	Risk Committee	Remuneration Committee	Nomination Committee
Number of Meetings	1	6	10	5	5	3	3
Directors							
Dr Raymond K F Ch'ien* (Chairman)	1/1	6/6	-	-	-	3/3	3/3
Ms Louisa Cheang (Vice-Chairman and Chief Executive)	1/1	6/6	10/10	_	-	-	3/3
Dr John C C Chan*	1/1	6/6	-	-	-	3/3	3/3
Mr Nixon L S Chan#	1/1	6/6	-	-	-	-	-
Dr Henry K S Cheng* Note 7	0/1	0/2	-	-	-	-	-
Ms L Y Chiang*	1/1	5/6	-	1/1	-	2/3	-
Dr Fred Zuliu Hu* Note 8	-	2/2	-	-	2/2	-	-
Ms Margaret W H Kwan	1/1	6/6	9/10	-	-	-	-
Ms Irene Y L Lee*	1/1	6/6	-	5/5	5/5	-	-
Ms Sarah C Legg [#]	1/1	6/6	-	-	-	-	-
Dr Eric K C Li*	1/1	6/6	-	5/5	5/5	-	-
Dr Vincent H S Lo [#]	1/1	5/6	-	-	-	-	-
Mr Kenneth S Y Ng [#]	0/1	6/6	-	-	-	-	-
Mr Richard Y S Tang* Note 9	1/1	2/2	-	2/2	-	-	-
Mr Peter T S Wong [#]	1/1	4/6	-	-	-	-	3/3
Mr Michael W K Wu*	0/1	5/6		4/4	1/1	-	2/3
Senior Management							
Mrs Eunice Chan	-	-	8/10	-	-	-	-
Ms Ivy S P Chan	-	-	9/10	-	-	-	-
Mr Walter S W Cheung	-	-	8/10	-	-	-	-
Ms Liz T L Chow	-	-	9/10	-	-	-	-
Mr Donald Y S Lam	-	-	10/10	-	-	-	-
Mr Gilbert M L Lee	-	-	7/8	-	-	-	-
Mr Gordon W C Lam Note 10	-	-	4/5	-	-	-	-
Mr S K Lee	-	-	9/10	-	-	-	-
Mr Andrew W L Leung	-	-	10/10	-	-	-	-
Mr Godwin C C Li	-	-	10/10	-	_	-	-
Mr Ryan Y S Song	-	-	5/5	-	-	-	-
Mr Thomas C M Tsui Note 11	-	-	2/3	-	-	-	-
Ms Elaine Y N Wang	-	-	9/10	-	-	-	-
Ms Daphne W K Wat	-	-	4/5	-	-	-	-
Ms Katie K C Yip	-	-	9/10	-	-	-	-
Average Attendance Rate	80%	89%	89%	100%	100%	89%	93%

* INEDs

NEDs

Note 7 Dr Henry K S Cheng retired as an INED with effect from the conclusion of the AGM held on 10 May 2018.

Note 8 Dr Fred Zuliu Hu resigned as an INED and ceased to be Risk Committee member with effect from 9 May 2018.

Note 9 Mr Richard Y S Tang retired as an INED and ceased to be Audit Committee member with effect from the conclusion of the AGM held on 10 May 2018.

Note 10 Mr Gordon W C Lam ceased to be Executive Committee member with effect from 7 June 2018.

Note 11 Mr Thomas C M Tsui resigned as Head of Global Banking and ceased to be Executive Committee member with effect from 24 March 2018.

Remuneration of Directors, Senior Management and Key Personnel

The Bank's policy on remuneration is to maintain fair and competitive packages based on business needs and industry practice.

Remuneration of Directors

The level of fees paid to NEDs is determined by reference to factors including Directors' responsibilities and commitment, and fees paid by comparable institutions.

As regards EDs, the following factors are considered when determining their remuneration packages:

- business objectives
- general business and economic conditions
- changes in appropriate markets such as supply/demand fluctuations and changes in competitive conditions
- individual contributions to results as confirmed in the performance appraisal process
- retention consideration and individual potential

No individual Director will be involved in decisions relating to his/her own remuneration.

The current scale of Director's fees, and fees for chairmen and members of the Non-executive Board Committees, namely, Audit Committee, Risk Committee, Remuneration Committee and Nomination Committee, are set out below:

	(HK\$)		(HK\$)
Board of Directors Note 12		Remuneration Committee/Nomination Co	ommittee
Chairman	650,000	Chairman	90,000
Non-executive Directors	500,000	Members	60,000
Audit Committee/Risk Committee			
Chairman	290,000		
Members	180,000		

Note 12 In line with the remuneration policy of HSBC Group, no Director's fee is payable to those Directors who are full time employees of the Bank and its subsidiaries.

Information relating to the remuneration of Directors on a named basis for the year ended 31 December 2018 is set out in Note 15 to the Bank's 2018 Financial Statements.

Remuneration of Senior Management and Key Personnel

According to HKMA's SPM CG-5 "Guideline on a Sound Remuneration System", authorised institutions are required to make disclosures in relation to their remuneration systems as appropriate. The Bank has fully complied with HKMA's disclosure requirements set out in Part 3 of the said Guideline.

There are 17 employees being classified as Senior Management ^{Note 13} and four employees identified as Key Personnel^{Note 14} during the year. The aggregate amount of remuneration ^{Note 15} of the Senior Management and Key Personnel during the year, split into fixed and variable remuneration, is set out below:

	2018 Note 16 (21 employee		2017 Note 16 (20 employee	s)
Amount (HK\$ '000)	Non-deferred	Deferred	Non-deferred	Deferred
Fixed remuneration				
Cash	58,080	-	68,947	-
Shares	-	-	-	-
Variable remuneration				
Cash	21,496	10,447	16,905	7,422
Shares	10,342	13,884	7,973	9,993

Note 13 Senior Management refers to those executives who are (a) EDs of the Bank; (b) Alternate Chief Executives of the Bank; (c) Members of the Executive Committee of the Bank; and (d) Head(s) of the Bank's principal subsidiary/subsidiaries with offshore operations and with total assets representing more than 5% of the Bank's total assets.

Note 14 Key Personnel refers to employees classified as "Identified Staff and Material Risk Takers" under the UK Prudential Regulation Authority Remuneration Code.

Note 15 Remuneration refers to all remuneration payable to employees during the year with reference to their tenure as Senior Management and Key Personnel. The forms of variable remuneration and the proportion deferred are based on the seniority, role and responsibilities of employees and their level of total variable compensation. As the total number of Senior Management and Key Personnel involved is relatively small, to avoid individual figures being deduced from the disclosure, aggregate figures are disclosed in this section.

Note 16 No deferred variable remuneration had been reduced through performance adjustments in 2018 and 2017. No Senior Management or Key Personnel has been awarded or paid guaranteed bonus and new sign-on during the years of 2018 and 2017. No Senior Management or Key Personnel has been awarded or paid for the termination of services in 2018. In 2017, a total payment of HK\$11,433,000 (Highest payment: HK\$8,368,000) in respect of the termination of services had been paid to two Senior Management, who were Directors, of the Bank.

The aggregate amount of deferred variable remuneration, split into (a) vested and paid during the year and (b) outstanding and unvested at the end of the year, is set out below:

	20:	2018		17
Amount (HK\$ '000)	Awarded for Performance Year 2018	Awarded for Prior Performance Years	Awarded for Performance Year 2017	Awarded for Prior Performance Years
Vested and paid out during the year ^{Note 18}				
Cash	-	9,148	-	7,577
Shares	-	25,173	-	24,465
Outstanding and unvested at the end of the year Notes 17 & 19				
Cash	10,447	17,452	7,422	18,409
Shares Note 20	13,884	37,929	9,993	52,648

Note 17 Outstanding, unvested, deferred remuneration is exposed to ex post explicit adjustments via malus.

Note 18 Paid and vested variable pay made to Material Risk Takers is subject to clawback.

Note 19 There is no reduction of deferred remuneration and retained remuneration exposed due to ex post explicit adjustments during 2018 and 2017 via the application of malus and/or clawback.

Note 20 Outstanding, unvested, deferred shares are exposed to ex post implicit adjustments. The total amount of amendments due to ex post implicit adjustments were -HK\$5,986,000 and +HK\$7,704,000 for 2018 and 2017 respectively. The total value of these shares was calculated based on the closing market share price of HSBC Holding plc (London) as at 31 December of the respective financial years. HSBC's share price was 15.6% lower as at 31 December 2018 when compared to that of 31 December 2017.

Other relevant remuneration disclosures are set out in Notes 14, 15 and 50(b) to the Bank's 2018 Financial Statements.

Accountability and Audit

Financial Reporting

The Board aims at making a balanced, clear and comprehensive assessment of the Bank's performance, position and prospects. An annual operating plan is reviewed and approved by the Board on an annual basis. Reports on financial results, business performance and variances against the approved annual operating plan are made available to the Board for review and monitoring on a monthly basis.

Strategic planning cycles are generally from three to five years. The Bank's strategic plan for 2018 – 2020 was approved by the Board in November 2017. Progress of the implementation of the key initiatives in the strategic plan is reported to and reviewed by the Board and Executive Committee on a quarterly basis.

The annual and interim results of the Bank are announced in a timely manner within three months and two months respectively after the end of the relevant year or period.

The Directors acknowledge their responsibilities for preparing the accounts of the Bank. As at 31 December 2018, the Directors were not aware of any material uncertainties relating to events or conditions which may cast significant doubt upon the Bank's ability to continue as a going concern. Accordingly, the Bank's Directors have prepared the financial statements of the Bank on a going-concern basis.

The responsibilities of the external auditor with respect to financial reporting are set out in the "Independent Auditor's Report" attached to the Bank's 2018 Financial Statements.

Internal Controls

System and Procedures

The Board is responsible for internal control of the Bank and its subsidiaries and for reviewing its effectiveness.

The Bank's internal control system comprises a well-established organisational structure and comprehensive policies and standards. Areas of responsibilities for each business and functional unit are clearly defined to ensure effective checks and balances.

Procedures have been designed for safeguarding assets against unauthorised use or disposition; for maintaining proper accounting records; and for ensuring the reliability of financial information used within the business or for publication. The procedures provide reasonable but not absolute assurance against material errors, losses or fraud. Procedures have also been designed to ensure compliance with applicable laws, rules and regulations.

Systems and procedures are in place in the Bank to identify, control and report on the major types of risks the Bank encounters. Business and functional units are responsible for the assessment of individual types of risk arising under their areas of responsibilities, the management of the risks in accordance with risk management procedures and the reporting on risk management. The Bank maintains an effective risk management framework through the setting up of specialised management committees for the oversight and monitoring of major risk areas and the establishment of risk management departments under the relevant control functions of the Bank. Relevant risk management reports are submitted to Asset and Liability Management Committee, Risk Management Meeting, Executive Committee and Risk Committee, and ultimately to the Board for oversight and monitoring of the respective types of risk. The Bank's risk management policies and major control limits are approved by the Board or its delegated committees, and are monitored and reviewed regularly according to established policies and procedures.

More detailed discussion on the policies and procedures for management of each of the major types of risk the Bank encounters is set out in the sections "Risk Management" and "Capital Management" of the "Management Discussion and Analysis" in this Annual Report.

Annual Assessment

A review of the effectiveness of the Bank's internal control system covering all material controls, including financial, operational, compliance, and risk management controls, is conducted annually. The review at the end of 2018 was conducted with reference to the COSO (The Committee of Sponsoring Organisations of the Treadway Commission) internal control framework, which assesses the Bank's internal control system against the five elements of control environment, risk assessment, control activities, information and communication, and monitoring. The review results have been reported to the Audit Committee, Risk Committee and the Board. The Board is satisfied that such system is effective and adequate. In addition, the Bank, through the Audit Committee, has also reviewed the adequacy of resources, qualifications and experience of staff of the Accounting and Financial Reporting functions, and their training programmes and budget.

Framework for Disclosure of Inside Information

The Bank has put in place a robust framework for the disclosure of inside information in compliance with the Securities and Futures Ordinance. The framework sets out the procedures and internal controls for the handling and dissemination of inside information in a timely manner so as to allow all the stakeholders to apprehend the latest position of the Bank and its subsidiaries. The framework and its effectiveness are subject to review on a regular basis according to established procedures.

Internal Audit

The primary role of the Internal Audit function is to help the Board and the Management to protect the assets, reputation and sustainability of the Bank. The Internal Audit function provides independent and objective assurance as to whether the design and operational effectiveness of the Bank's framework of risk management, control and governance processes, as designed and represented by the Management, is adequate.

The Bank has adopted a risk management and internal control structure, referred to as the "Three Lines of Defence", to ensure it achieves its commercial aims while meeting regulatory and legal requirements, and its responsibilities to shareholders, customers and staff. The Internal Audit function's role as the third line of defence is independent of the first and second lines of defence. The Bank's Head of Audit reports to the Chairman and the Audit Committee.

An Internal Audit Charter is reviewed and approved by the Audit Committee periodically which has detailed the purpose, authority, independence and objectivity, accountabilities and scope of work, and standards of audit practices to govern the work of the Internal Audit function. Further, the Internal Audit function also maintains a quality assurance and improvement programme that covers all aspects of internal audit activity, including conformance with The Institute of Internal Auditors' (IIA) Standards, applicable regulatory guidance and internal audit policies and procedures.

Results of audit work together with an assessment of the overall risk management and control framework are reported to the Audit Committee and the Risk Committee as appropriate. The Internal Audit function also reviews the Management's action plans in relation to audit findings and verifies the adequacy and effectiveness of the mitigating controls before formally closing the issue.

External Auditor

PricewaterhouseCoopers is the Bank's external auditor. The Audit Committee is responsible for making recommendations to the Board on the appointment, re-appointment, removal and remuneration of the external auditor. The external auditor's independence and objectivity, and the effectiveness of the audit process are also reviewed and monitored by the Audit Committee on a regular basis.

During 2018, fees paid to the Bank's external auditor for audit services amounted to HK\$22.4 million, compared with HK\$20.6 million in 2017. For non-audit services, the fees paid to the Bank's external auditor amounted to HK\$8.5 million, compared with HK\$8.9 million in 2017. In 2018, the non-audit service assignments covered by these fees included the following:

Nature of service	Fees paid (HK\$ million)
Other assurance services	7.3
Tax services	1.2
	8.5

Audit Committee

The Audit Committee assists the Board in meeting its responsibilities for ensuring effective systems of internal control and compliance relating to financial reporting, and in meeting its financial reporting obligations.

Risk Committee

The Risk Committee assists the Board in meeting its responsibilities for ensuring effective systems of risk management, internal control and compliance (other than that relating to financial reporting), in meeting its risk governance obligations. The Risk Committee also advises and assists the Board's review of the effectiveness of culture enhancement initiatives.

Communication with Shareholders

Effective Communication

The Bank attaches great importance to communication with shareholders. To this end, a number of means are used to promote greater understanding and dialogue with the investment community. The Bank holds group meetings with analysts in connection with the Bank's annual and interim results. The results announcements are also broadcast live via webcast. Apart from the above, designated senior executives maintain regular dialogue with institutional investors and analysts to keep them abreast of the Bank's development, subject to compliance with the applicable laws and regulations. Including the two results announcements, around a hundred meetings with analysts and fund managers were held in 2018. In addition, the Bank's Vice-Chairman and Chief Executive, and Chief Financial Officer also made presentations and held group meetings with investors at investor forums.

Further, the Bank's website (www.hangseng.com) offers timely access to the Bank's financial information, announcements, circulars to shareholders and information on the Bank's corporate governance structure and practices. For efficient communication with shareholders and in the interest of environmental preservation, shareholders are encouraged to browse the Bank's corporate communications on the Bank's website, in the place of receiving printed copies of the same.

The AGM provides a useful forum for shareholders to exchange views with the Board. The Bank's Chairman, EDs, Chairmen of the Board Committees and NEDs are available at the AGM to answer questions from shareholders about the business and performance of the Bank. In addition, the Bank's external auditor is also invited to attend the AGM to answer questions about the conduct of the audit, and the preparation and contents of the auditor's report. Separate resolutions are proposed at general meetings for each substantial issue, including the re-election and election (as the case may be) of individual Directors. An explanation of the detailed procedures of conducting a poll will be provided to shareholders at the AGM, to ensure that shareholders are familiar with such procedures.

The Bank's last AGM was held on Thursday, 10 May 2018 at Hang Seng Bank Headquarters, 83 Des Voeux Road Central, Hong Kong. All the resolutions proposed at that meeting were approved by the shareholders by poll voting. Details of the poll results are available under the section "Investor Relations" of the Bank's website (www.hangseng.com).

The next AGM will be held on Thursday, 9 May 2019, the notice of which will be sent to shareholders at least 20 clear business days before the said meeting. Shareholders may refer to the section "Corporate Information and Calendar" in this Annual Report for information on other important dates for shareholders in year 2019.

Calling an Extraordinary General Meeting

Shareholder(s) holding not less than five percent of the total voting rights of all the members having a right to vote may request to call an Extraordinary General Meeting of the Bank.

The requisition (a) must state the general nature of the business to be dealt with at the meeting, (b) must be signed by the requisitionist(s), and (c) may either be deposited at the Bank's registered office at 83 Des Voeux Road Central, Hong Kong in hard copy form or sent by email to egmrequisition@hangseng.com. If the resolution is to be proposed as a special resolution, the requisition should include the text of the resolution and specify the intention to propose the resolution as a special resolution. The requisition may consist of several documents in like form, each signed by one or more requisitionist(s).

The requisition must also state (a) the name(s) of the requisitionist(s), (b) the contact details of the requisitionist(s), and (c) the number of ordinary shares of the Bank held by the requisitionist(s).

The Directors must proceed to convene an Extraordinary General Meeting within 21 days from the date of receipt of the requisition. Such meeting should be held on a date not more than 28 days after the date on which the notice convening the meeting is given.

If the Directors fail to convene the Extraordinary General Meeting as aforesaid, the requisitionist(s), or any of them representing more than one-half of the total voting rights of all of them, may themselves convene the meeting. Any meeting so convened shall not be held after the expiration of three months from the date of the deposit of the requisition.

A meeting so convened by the requisitionist(s) shall be convened in the same manner, as nearly as possible, as that in which meetings are to be convened by the Directors.

Any reasonable expenses incurred by the requisitionist(s) by reason of the failure of the Directors to convene a meeting shall be reimbursed to the requisitionist(s) by the Bank.

Putting Forward Proposals at General Meetings

Shareholders representing at least 2.5 percent of the total voting rights of all the members having a right to vote, or, at least 50 shareholders who have a relevant right to vote, may:

- put forward proposal at general meeting
- circulate to other shareholders written statement with respect to matter to be dealt with or other business to be dealt with at general meeting

For further details on shareholder qualifications, and the procedures and timeline, in connection with the above, shareholders are kindly requested to refer to Sections 580 and 615 of the Companies Ordinance (Cap 622, Laws of Hong Kong).

Further, a shareholder may propose a person other than a retiring Director of the Bank for election as a Director of the Bank at a general meeting. For such purpose, the shareholder must send to the Bank's registered address (for the attention of the Bank's Company Secretary) a written notice which identifies the candidate and includes a notice in writing by that candidate of his/her willingness to be so elected. Such notice must be sent within the seven-day period commencing on the day after the despatch of the notice of the meeting, or such other period as may be determined by the Directors from time to time, and ending no later than seven days prior to the date appointed for such meeting. Procedures for shareholders to propose candidates for election as Director of the Bank are also available on the website of the Bank (www.hangseng.com).

Putting Enquiries to the Board

Shareholders may send their enquiries requiring the Board's attention to the Bank's Company Secretary at the Bank's registered address. Questions about the procedures for convening or putting forward proposals at an AGM or Extraordinary General Meeting may also be put to the Company Secretary by the same means.

Shareholders Communication Policy

The Bank has established a Shareholders Communication Policy to set out the Bank's processes to provide shareholders and the investment community with ready, equal and timely information on the Bank for them to make informed assessments of the Bank's strategy, operations and financial performance, and to engage actively with the Bank. The said policy is available on the Bank's website (www.hangseng.com).

Material Related Party Transactions

Material Related Party Transactions and Contracts of Significance

The Bank's material related party transactions are set out in Note 50 to the 2018 Financial Statements. These transactions include those that the Bank has entered into with its immediate holding company and its subsidiaries as well as its fellow subsidiary companies in the ordinary course of its interbank activities, including the acceptance and placement of interbank deposits, corresponding banking transactions, off-balance sheet transactions, and the provision of other banking and financial services.

The Bank uses the information technology services of, and shares an automated teller machine network with, The Hongkong and Shanghai Banking Corporation Limited, its immediate holding company. The Bank also shares information technology and certain processing services with fellow subsidiaries. In 2018, the Bank's share of the costs included HK\$594 million for system development, HK\$516 million for data processing, and HK\$298 million for administrative services.

The Bank maintains a staff retirement benefit scheme for which a fellow subsidiary company acts as trustee and the Bank's immediate holding company act as administrator. As part of its ordinary course of business with other financial institutions, the Bank also distributes retail investment funds for a fellow subsidiary with a fee income of HK\$75 million and markets Mandatory Provident Fund for its immediate holding company and a fellow subsidiary during the year 2018 with a fee income of HK\$111 million.

These transactions were entered into by the Bank in the ordinary and usual course of business on normal commercial terms, and in relation to those which constituted connected transactions under the Listing Rules, they also complied with applicable requirements under the Listing Rules. The Bank regards its usage of the information technology services of The Hongkong and Shanghai Banking Corporation Limited (amount of information technology services cost incurred for 2018: HK\$295 million) as contracts of significance for 2018.

Continuing Connected Transactions

(a) On 21 June 2016, Hang Seng Insurance Company Limited ("HSIC"), a wholly-owned subsidiary of the Bank, entered into the following agreements:

(i) A management services agreement ("Management Services Agreement") with HSBC Life (International) Limited ("INHK") for a term of three years, pursuant to which INHK, directly or through one or more of its affiliates, provides certain management services to HSIC.

INHK charged HSIC for the provision of the services on a fully absorbed cost basis plus a mark-up of 10% for actuarial and risk analytics services and a mark-up of 6% for all other services. These charges were determined following negotiation on an arm's length basis and in accordance with the policy of the HSBC Group, which took into account the transfer pricing guidelines of the Organisation for Economic Co-operation and Development.

(ii) An investment management agreement ("Investment Management Agreement") with HSBC Global Asset Management (Hong Kong) Limited ("AMHK") for a term of three years, pursuant to which AMHK acts as investment manager in respect of certain of HSIC's assets held from time to time. AMHK has delegated to HSBC Alternative Investments Limited ("HAIL") the management of part of such assets by way of a bespoke portfolio.

HSIC paid to AMHK, on a quarterly basis, a fee of between 0.05% and 0.35% per annum of the mean value of the assets under management. HSIC also paid to HAIL a fee of not more than 0.5% per annum of the aggregate value of assets under management in a bespoke portfolio together with a performance fee of 10% per annum in respect of the amount by which the return of such portfolio exceeded a benchmark return of 8% per annum. The above fees were determined on an arm's length basis. Subject to the caps under the Investment Management Agreement not being exceeded, HSIC and AMHK may subsequently agree to vary the above fees.

(iii) A private equity investment management agreement ("PE Investment Management Agreement") with HAIL for a term of 11 years, pursuant to which HAIL acts as investment manager in respect of certain private equity fund investments made by HAIL on behalf of HSIC.

HSIC paid HAIL a fee of between 0.1% and 0.75% per annum of the aggregate value of assets under management as an annual retainer fee and an annual management fee on an aggregate basis. On top of the aforesaid, a performance fee of 15% carried interest will be paid if certain hurdle rates of return are achieved for HSIC in respect of the investments made in each year of the investment period under the PE Investment Management Agreement. The above fees have been determined on an arm's length basis.

Pursuant to the Listing Rules, the term of an agreement for a continuing connected transaction of a listed company must not exceed three years except in special circumstances. As the term of the PE Investment Management Agreement is 11 years, the Bank, in compliance with the Listing Rules requirement, appointed an independent financial adviser to explain why the PE Investment Management Agreement requires a term that is longer than three years and to confirm that it is normal business practice for investment management agreements relating to private equity investments to be of such duration. The explanation and confirmation by the independent financial adviser were set out in the Bank's announcement of 21 June 2016.

The Bank considered that due to the similarity of the services provided under the Investment Management Agreement, the PE Investment Management Agreement, and the fund monitoring agreement entered into between HSIC and HAIL on 12 December 2013 ("Previous Fund Monitoring Agreement"), the fees payable by HSIC under these three agreements should be aggregated for the purpose of the Listing Rules. The Previous Fund Monitoring Agreement, on a standalone basis, was a "de minimis" continuing connected transaction which was fully exempt from any reporting, announcement, shareholders' approval and annual review requirements under the Listing Rules.

Details of the terms of the Management Services Agreement, the Investment Management Agreement, the PE Investment Management Agreement and the Previous Fund Monitoring Agreement, and the relevant annual caps and fee caps were announced by the Bank on 21 June 2016.

(b) Upon expiry of the Previous Fund Monitoring Agreement, a new fund monitoring agreement ("Current Fund Monitoring Agreement") was entered into between HSIC and HAIL on 12 December 2016 for a term of three years, pursuant to which HAIL provides fund monitoring and reporting services for certain private equity investments made by HSIC. HSIC has agreed to pay HAIL a fee of 0.04% per annum on the aggregate USD commitments in such investments, which is the same as the Previous Fund Monitoring Agreement, subject to an annual cap of US\$75,000 (approximately HK\$585,000). The above fee was determined on an arm's length basis.

The Current Fund Monitoring Agreement, on a standalone basis, is a "de minimis" continuing connected transaction which is fully exempt from any reporting, announcement, shareholders' approval and annual review requirements under the Listing Rules. However, the Bank considers that the fee payable by HSIC under the Current Fund Monitoring Agreement should be aggregated with the Investment Management Agreement and the PE Investment Management Agreement for the purpose of the Listing Rules, and it is therefore subject to the annual review requirements under the Listing Rules together with those agreements.

INHK, AMHK and HAIL are all indirect wholly-owned subsidiaries of HSBC Group, the ultimate controlling shareholder of the Bank, and therefore are connected persons of the Bank. Accordingly, all the aforesaid agreements constituted continuing connected transactions of the Bank. The Bank has complied with the disclosure requirements in accordance with Chapter 14A of the Listing Rules.

For the year ended 31 December 2018, the aggregate amount paid under the Management Services Agreement was HK\$75 million, whereas the aggregate amount paid under the Investment Management Agreement was HK\$31 million, both of which were within the annual caps for the year ended 31 December 2018 of HK\$247 million and HK\$110 million, respectively. The management fee of approximately US\$1,950,000 (equivalent to HK\$15,275,423) was payable under the PE Investment Management Agreement for the year ended 31 December 2018, which was within the annual cap on management fee of US\$2,000,000 (approximately HK\$15,500,000). No retainer fee nor performance fee was payable under the PE Investment Management Agreement Agreement for 2018. Further, for the year ended 31 December 2018, the aggregate amount paid under the Current Fund Monitoring Agreement was approximately US\$50,000 (equivalent to HK\$391,678), which was within the annual cap of US\$75,000 (equivalent to HK\$585,000).

In respect of all the aforesaid agreements which constituted the Bank's continuing connected transactions, all the INEDs of the Bank have reviewed the said transactions and confirmed that the said transactions have been entered into:

- (a) in the ordinary and usual course of business of the Bank and its subsidiaries;
- (b) on normal commercial terms or better; and
- (c) in accordance with the relevant agreements governing the same on terms that are fair and reasonable and in the interests of the shareholders of the Bank as a whole.

Further, the Bank engaged its external auditor to report on the continuing connected transactions of the Bank and its subsidiaries in accordance with Hong Kong Standard on Assurance Engagements 3000 (Revised) "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" and with reference to Practice Note 740 "Auditor's Letter on Continuing Connected Transactions under the Hong Kong Listing Rules" issued by the Hong Kong Institute of Certified Public Accountants. The Directors confirmed that the external auditor had issued an unqualified letter containing their findings and conclusions in respect of the continuing connected transactions set out in the preceding paragraphs in accordance with Rule 14A.56 of the Listing Rules. A copy of the auditor's letter has been provided by the Bank to The Stock Exchange of Hong Kong Limited.

Culture

Business Principles and Values

The Bank has a set of clear business principles and corporate values guiding staff to keep the highest standards of integrity as well as to comply with the spirit and letter of all laws and regulations when conducting business. "Courageous Integrity" is the guiding principle for staff to speak up and to do the right thing with no compromises to the ethical standards and integrity, and behave in a "Dependable, Open and Connected" way in everyday work. The Bank promotes staff awareness of and commitment to the corporate values, and empowers leaders and managers to drive values-aligned behaviour in the workplace.

Three values-aligned behaviours (Accountability, Good Judgment and Speaking Up) are identified to support effective financial crime risk management culture and good conduct outcomes. Ongoing management effort is made to embed the corporate values and good conduct through (a) tone from the top; (b) strengthening people management capability to build desired culture; and (c) incentivising and showcasing desired behaviours.

Staff Code of Conduct

To ensure the Bank operates according to the highest standards of ethical conduct and professional competence, all staff are required to strictly follow the Staff Code of Conduct. With reference to applicable regulatory guidelines and other industry best practices, the Code sets out ethical standards and values to which all the Bank's staff are required to adhere and covers various legal, regulatory and ethical issues. Topics including, but not limited to, the prevention of bribery, use of information, insider dealing and personal dealings, personal benefits, outside directorships/employment, and equal opportunities policy, are covered in the Code.

The Bank uses various communication channels to periodically remind staff of the requirement to adhere to the rules and ethical standards set out in the Staff Code of Conduct.

Avoidance of Conflicts of Interest

The Bank has set standards and established policies and procedures to manage actual or potential conflicts of interest of its staff. Robust organisational structure has been designed to ensure adequate segregation of duties and avoid conflicts of interest. Staff working in sensitive or high-risk areas are required to adhere to job-specific as well as staff dealing rules and undergo training on the avoidance of conflicts of interest in carrying out their duties.

Human Resources

The human resources policies of the Bank are designed to attract people of the highest calibre and to motivate them to excel in their careers, as well as uphold the Bank's brand equity, corporate values and culture of service excellence.

Employee Statistics

As at 31 December 2018, the Bank's total headcount was 10,298 representing an increase of 369, or +3.7%, compared with a year earlier. The total headcount comprised 2,903 executives, 4,699 officers and 2,696 clerical and non-clerical staff.

Employee Remuneration

The quality and engagement of employees are fundamental to the Bank's success and the Bank aims to attract, motivate and retain the best people. The Bank's reward strategy supports this objective through rewarding those who are committed to maintaining a long-term career with the Bank with good sustainable performance.

The Remuneration Committee oversees the Bank's overall remuneration strategy and ensures all the reward policies are carefully considered in the context of business objective, people strategy, commercial competitiveness, alignment of risk and reward and regulatory guidance. The fundamental principles, philosophies and processes are documented in the Bank's remuneration policy.

The Bank adopts a Total Compensation Approach. In determining the total remuneration for employees, fixed and discretionary variable pay are considered together and differentiated by performance and adherence to corporate values. The Bank will make reference to individual's responsibility, capability and risk profile of the job to ensure appropriate balance between the fixed pay and variable pay.

Fixed pay is determined by taking into account relevant level and composition of pay in the markets in which the Bank operates. Salaries are reviewed in the context of business performance, individual potential and performance, market practice, internal relativities and regulatory requirements.

Bank-wide variable pay budgets are determined in consideration of the Bank's business performance, people strategy, risk appetite statement and risk metrics including conduct risks. This helps to ensure that the variable pay pool is shaped by risk considerations and the Bank's performance is sustainable in the long-term. The exante risk adjustment of remuneration within the Bank is achieved in the way that the Risk Committee of the Bank will advise the Board and/or the Remuneration Committee, as appropriate, on the alignment of risk appetite with performance objectives set in the context of variable incentive and on whether any adjustments for risk need to be applied when considering performance objectives and actual performance. In addition, the overall variable pay funding proposal is refined with reference to the advice of Chief Financial Officer and Chief Risk Officer in respect of the Bank's financial position and performance against its risk appetite profile.

Variable pay plans takes into account a combination of corporate and/or business results as well as the individual's performance. They reward financial quantitative measures and non-financial qualitative measures including adherence to corporate values, management of risks, service standards, ethical behaviour and responsible selling. To embed a values-led, high performance culture, the variable pay plans are designed to recognise and reward positive behaviours while discourage negative behaviours that put the Bank under unnecessary financial, regulatory or reputational risk via the application of consequence management, malus and clawback policies.

Variable pay consists of deferred and non-deferred components in the forms of cash and share award. The Bank adopts a progressive deferral mechanism with higher deferral rates and different forms of deferral by reference to (a) the employee's seniority, role, responsibilities and the potential risks that their activities may create for the Bank; and (b) the total amount of variable remuneration exceeding the prescribed thresholds. The deferred award has a vesting period of three to seven years and is subject to malus and clawback.

The principles of the remuneration policy are applicable to the Bank and its subsidiaries, subject to the local legislative requirements and market practices, and are proportionate to the scope and complexity of the local business.

Employee Engagement

The Bank aims to create a work environment that promotes employee engagement, champions diversity and inclusive culture, and empowers our employees to perform at their best by providing training, performance coaching and career development opportunities.

To foster an open and dynamic culture, employees are encouraged to engage in two-way communications with senior management and colleagues at all levels.

Information on the Bank's direction and strategies, policy updates and employment matters is conveyed to employees through business briefings, town hall meetings, intranet, morning broadcasts, circulars and e-mails. The Bank encourages employees to provide suggestions, comments and feedback through employee surveys, exchange sessions, thematic focus groups and other channels. The Bank also gauges the sentiments and behaviours of its staff to inform training, communication and staff engagement plans with the aim of facilitating staff embracing into the corporate culture.

An annual Bank-wide employee survey was conducted in Q2 2018. The results indicate that over 80% of employees are confident about the Bank's future. The level of trust between employees and senior leadership remains high. Employees are positive about the Bank's "speak-up" culture and close to 80% of employees say that they are proud to work at Hang Seng. Starting in 2019, Bank-wide employee surveys will be conducted on a bi-annual basis. Pulse surveys will be rolled out between these surveys to study issues of key strategic importance to the business.

Growth and Development

The Bank is committed to ensuring the competence and ethical behaviour of staff members with due regard to the principles set out in HKMA's SPM CG-6 on "Competence and Ethical Behaviour". The Bank has established policies and procedures for monitoring, developing and maintaining the competence level and ethical behaviour of staff members. These include clear guidance as set out in various policy manuals, robust performance management system, training and development solutions provided on a regular and need basis.

In order to fully develop staff competence and potential and to help them quickly integrate into the Bank, new joiners are provided with a comprehensive induction programme that enhances their understanding of the Bank's history, vision, culture, values, risk management and corporate governance. To equip staff members with necessary skills and knowledge to meet future challenges and professional requirements, especially those who are involved in regulated businesses and activities, the Bank offers a wide range of training and development programmes in the areas of sales and relationship management, products, operations, compliance, credit and risk. Apart from these programmes to strengthen the financial crime risk management culture. The Bank also offers Professional Study and Qualifications Programme to support staff members to pursue professional or academic qualifications. On average, the Bank's staff members received five days of training in 2018.

The Bank focuses on the development of leadership pipeline and supports the personal growth of staff by providing a broad range of leadership and management development solutions. To ensure sustainability, the Bank has strategies, measures and analytics to plan and manage succession to key roles, and to prepare high-potential talents for their succession to key roles. Businesses/functions supported by the Human Resources take actions to accelerate the development of successors and high potential talents through feedback and coaching, planned job moves for development including cross fertilisation between businesses/functions, and implementing individual development plans.

Recruitment and Retention

Robust recruitment activities continued throughout 2018 to support the Bank's execution of the business strategy and to replace out-going staff, including front line sales, experienced professionals and specialists.

Young talents are developed through well-structured onboarding and development programmes. Trainee programmes in selected business areas are in place to develop professional competence and to build future talents for key roles. Staff engagement and retention focus on people managers' roles in everyday performance and development conversations with their staff, offer of career advancement opportunities and market competitive remuneration.

In addition, the Bank also participated in the first FinTech Internship programme co-launched by HKMA and the Applied Science and Technology Research Institute. The Bank sponsored 32 interns for six to twelve-month placements to support talent pipeline building for FinTech development in Hong Kong.

Other Information

Organisational Structure

Under the Bank's current organisational structure, the Bank's businesses and functions are set out as follows:

Businesses	Functions	
Retail Banking and Wealth	Audit	Human Resources
Management	Communications	Legal
Commercial Banking	Company Secretarial Services	Marketing
Global Banking	Corporate Sustainability	Risk and Compliance
Global Markets	Financial Control	HASE Operations, Services and Technology
	Financial Crime Compliance	Strategic Planning and Corporate Development

Health and Safety

The Bank has a demonstrated commitment to occupational health and safety ("OH&S") in the workplace with employee engagement through committees, forums and working groups in the development of an OH&S Policy and Management System. By successfully implementing the certified BS OHSAS 18001:2007-compliant Safety Management System ("OHSMS"), the Bank marks its achievement to be the first bank world-wide to conform to this internationally acclaimed best practice aiming at reducing the exposure of the Bank's staff, contractors and customers to OH&S risks associated with its business activities at premises over which it has control. With the on-going implementation of OHSMS, the Bank not only demonstrates its commitment, but also proves that its OHSMS remains healthy and effective. As such, it allows the Bank to readily identify, monitor and control potential OH&S risks within the Bank premises and in turn to provide for a safer workplace environment for the Bank's staff and customers.

The Bank provides a range of training and activities to enhance the knowledge of its staff in OH&S, fire safety, manual operation, and office safety. A number of staff have acquired Qualified First Aider status so as to offer prompt assistance to their colleagues and customers in the event of a medical emergency or accident whilst awaiting the arrival of the ambulance. Some Qualified First Aiders have also been trained to operate the Automated External Defibrillators installed in the Bank premises.

The Bank implements a Contingency Plan for Communicable Disease, which sets out the key issues to be addressed and the actions to be taken by various units in response to the occurrence of a serious communicable disease, and the keeping of adequate stock of face masks to cater for the needs of its staff in response to an outbreak of influenza pandemic. Staff have been made aware through the Bank-wide intranet of the importance of personal hygiene and health, and the contingency measures to be adopted, to enable the Bank to continue with its services to the community during an outbreak of a serious communicable disease.

The Bank places strong importance on all aspects of health and safety and in maintaining workplace safety and comfort for its staff and customers. In year 2018, the Bank implemented the "Time to Appreciate Your Body" campaign that consisted of a series of activities, such as health and wellness related seminars, workshops and massage therapy sessions, all of which were aimed to acting as a wakeup call and to motivating staff to appreciate life and begin making the right changes in their lifestyle for the betterment of their physical and mental wellbeing. Towards the end of the year, the Bank also arranged a "Health and Safety Week" with various activities, such as health safety and fire safety seminars, fire safety exchange sessions, information booths promoting health safety and fire safety awareness to promote the theme "Be Healthy Be Safe" with an aim to potentially minimising work-related illnesses and injuries. The above programs and activities were well received by the Bank's staff.

Biographical Details of Directors and Senior Management Board of Directors

JOINED THE BOARD SINCE AUGUST 2007	
Other positions held within Hang Seng Group	Hong Kong Mercantile Exchange Limited
 [^] Hang Seng Bank Limited – Chairman of Nomination Committee: 	 – Independent Non-executive Director (2009-2013) [^] China.com Inc – Chairman (1999-2013)
Member of Remuneration Committee	Ascendas China Commercial Fund Management Limited
Other major appointments	- Chairman (2011-2012)
Justice of the Peace	 ^ CDC Software Corporation – Director (2009-2012) The Hong Kong/European Union Business Cooperation
 [^] China Resources Power Holdings Company Limited – Independent Non-executive Director 	Committee – Chairman (2005-2012)
Federation of Hong Kong Industries – Honorary President	^ CDC Corporation – Chairman (1999-2011)
Hong Kong CPPCC (Provincial) Members Association Limited	HSBC Private Equity (Asia) Limited – Chairman (1997-2010)
 Deputy Director of One Belt One Road and Guangdong- Hong Kong-Macau Greater Bay Area Construction Advisory Committee 	The APEC Business Advisory Council – Hong Kong Member (2004-2009)
Swiss Re Asia Pte. Ltd. – Independent Non-executive Director	 Inchcape plc Independent Non-executive Director (1997-2009)
* Swiss Re Limited – Independent Non-executive Director	 [^] HSBC Holdings plc Independent Non-executive Director (1998-2007)
The Hongkong and Shanghai Banking Corporation Limited – Independent Non-executive Director	Independent Non-executive Director (1998-2007) Independent Commission Against Corruption — Chairman of Advisory Committee on Corruption (1998-2006)
Past major appointments	 Executive Council of HKSAR Government – Member (1997-2002)
Economic Development Commission of HKSAR Government – Non-official Member (2013-2018)	Executive Council of Hong Kong, then under British Administration
The Tianjin Municipal Committee of the Chinese People's	– Member (1992-1997)
Political Consultative Conference – Member of Standing Committee (2008-2018)	Qualification
University of Pennsylvania, USA – Trustee (2006-2016)	Doctoral Degree in Economics – University of Pennsylvania, USA
^ MTR Corporation Limited	Major awards
– Non-executive Chairman (2003-2015)	Chevalier de l'Ordre du Merite Agricole of France (2008)
 [^] The Wharf (Holdings) Limited – Independent Non-executive Director (2002-2015) 	Gold Bauhinia Star (1999)
 Mdependent Non-executive Director (2002-2013) VGL Limited – Non-executive Director (2012-2014) 	Commander in the Most Excellent Order of the British
 Convenience Retail Asia Limited Independent Non-executive Director (2001-2014) 	Empire (1994)

Ms Louisa CHEANG Wai Wan VICE-CHAIRMAN AND CHIEF EXECUTIVE AGED 55

JOINED THE BOARD SINCE JULY 2017		
Other positions held within Hang Seng Group	The Twelfth Jiangsu Provincial Committee of the Chinese	
 ^A Hang Seng Bank Limited Chairman of Executive Committee; Member of Nomination Committee Hang Seng Bank (China) Limited Chairman; Chairman of Nomination Committee 	 People's Political Consultative Conference Member The University of Hong Kong – Member of the Court (Note 1) Treasury Wine Estates Limited Independent Non-executive Director (Note 1) 	
Hang Seng Indexes Company Limited – Chairman of Hang Seng Index Advisory Committee	Past major appointments	
Chairman of other subsidiaries in Hang Seng Group	HSBC Amanah Malaysia Berhad – Non-Independent Executive Director (2017-2018)	
Other major appointments	HSBC – Group Head of Retail Banking (2014-2017)	
China Union Pay – International Advisor Hang Seng School of Commerce – Chairman of the Board of Directors Ho Leung Ho Lee Foundation – Member of Board of Trustees ^ HSBC Holdings plc – Group General Manager Jiangsu Service Association for Hong Kong Enterprise Investment – Honorary President (<i>Note 1</i>) Qianhai & Shekou Area of Shenzhen, China (Guangdong) Pilot Free Trade Zone, and Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone of Shenzhen – Member of the Consulting Committee	 The Hongkong and Shanghai Banking Corporation Limited Alternate Chief Executive (2009-2014) Regional Head of Retail Banking and Wealth Management, Asia Pacific (2010-2014) Regional Director of Personal Financial Services, Asia Pacific (2009-2010) Head of Personal Financial Services, Hong Kong (2007-2009) Head of Marketing, Asia Pacific (2004-2007) Head of Marketing, Hong Kong (2002-2003) Senior Manager Product and Marketing (2000-2001) Senior Manager Credit Card Product Development (1999-2000) Qualifications 	
The Community Chest of Hong Kong – Board Member The Hang Seng University of Hong Kong	Bachelor of Social Sciences – The University of Hong Kong	
 Chairman of the Board of Governors 	Honorary Certified Financial Management Planner	
The Hongkong and Shanghai Banking Corporation Limited – Director	– The Hong Kong Institute of Bankers Major award	
The Hong Kong Institute of Bankers – Vice President	Chapter Honoree of Beta Gamma Sigma	

Chapter Honoree of Beta Gamma Sigma – The University of Hong Kong Chapter (2018)

Dr John CHAN Cho Chak GBS, JP INDEPENDENT NON-EXECUTIVE DIRECTOR AGED 75

JOINED THE BOARD SINCE AUGUST 1995 Other positions held within Hang Seng Group

^A Hang Seng Bank Limited – Chairman of Remuneration Committee;

Member of Nomination Committee

Other major appointments

- Justice of the Peace
- ^A Guangdong Investment Limited

 Independent Non-executive Director
 Long Win Bus Company Limited Non-executive Director
- The Community Chest of Hong Kong – Board Member; Member of Executive Committee
- The Hong Kong University of Science and Technology – Chairman of the Court
- The Kowloon Motor Bus Company (1933) Limited – Non-executive Director
- Transport International Holdings Limited
 Deputy Chairman and Independent Non-executive Director

Past major appointments

- ^ RoadShow Holdings Limited
- Chairman and Non-executive Director (2001-2017) Swire Properties Limited
- Independent Non-executive Director (2010-2017)
 The Community Chest of Hong Kong
 - Third Vice President;
 - Chairman of Public Relations Committee (2014-2015)
- Hong Kong Monetary Authority – Member of The Exchange Fund Advisory Committee (2008-2014)

Sir Edward Youde Memorial Fund – Chairman of the Council (2007-2013) The Hong Kong Jockey Club – Chairman (2006-2010) HKSAR Commission on Strategic Development – Non-Official Member (2005-2009) ^A Hong Kong Exchanges and Clearing Limited – Independent Non-executive Director (2000-2003)

- Hong Kong Civil Service
 - Private Secretary to the Governor;
 Deputy Secretary (General Duties);
 Director of Information Services;
 Deputy Chief Secretary;
 - Secretary for Trade and Industry; Secretary for Education and Manpower (1964-1978; 1980-1993)

Qualifications

- Degree of Doctor of Social Sciences (honoris causa) – Lingnan University; The University of Hong Kong; The Hong Kong University of Science and Technology
- Degree of Doctor of Business Administration (honoris causa) – International Management Centres
- Diploma in Management Studies The University of Hong Kong Honours Degree in English Literature – The University of Hong Kong
- Major award
- Gold Bauhinia Star (1999)

Mr Nixon CHAN Lik Sang NON-EXECUTIVE DIRECTOR AGED 66

JOINED THE BOARD SINCE JANUARY 2014

Past major appointments

- Anti-Money Laundering and Counter-Terrorist Financing (Financial Institutions) Review Tribunal – Member (2012-2018)
- Employers' Federation of Hong Kong – Chairman of Banking and Financial Services Group (2013-2016)
- EPS Company (Hong Kong) Limited Director (2011-2016) ^ Hang Seng Bank Limited
- Executive Director (2014-2016)
 Head of Retail Banking and Wealth Management (2011-2016)
 - Member of Executive Committee (2009-2016)
- Head of Corporate and Commercial Banking (2009-2011) Hang Seng School of Commerce – Director (2009-2016)

- The Hang Seng University of Hong Kong – Governor (2010-2016)
- TransUnion Limited Director (2011-2016)
- MasterCard Asia/Pacific Advisory Board Director (2012-2015) Small and Medium Enterprises Committee – Member (2009-2014)
- The Hongkong and Shanghai Banking Corporation Limited - Senior Executive, Commercial Banking (2005-2009) Held various senior positions in commercial banking and personal financial services (1993-2005)

Qualification

Bachelor's Degree in Business Administration – The University of Hawaii, USA





[^] The securities of these companies are listed on a securities market in Hong Kong or overseas.

Board of Directors



JOINED THE BOARD SINCE SEPTEMBER 2010		
Other positions held within Hang Seng Group	Past major appointments	
 Hang Seng Bank Limited Member of Audit Committee; Member of Remuneration Committee 	The Hong Kong University of Science and Technology – Member of the Court (2012-2018) (<i>Note 1</i>) Member of the Council (2006-2012)	
Other major appointments	Hospital Authority – Board Member (2011-2017)	
Justice of the Peace Aviation Development and Three-runway System Advisory	 Directorate Salaries and Conditions of Service of HKSA Government Member of Standing Committee (2008-2014) 	
Committee – Member ^ Chen Hsong Holdings Limited - Chairman; Executive Director; Chief Executive Officer Chen Hsong Investments Limited – Director China Shenzhen Machinery Association – Vice-President	The Open University of Hong Kong – Member of the Council (2006-2012)	
	Disciplined Services Salaries and Conditions of Service HKSAR Government – Member of Standing Committee (2005-2010)	
Federation of Shenzhen Industries – Vice-Chairman	Qualification	
The Shenzhen Committee of the Chinese People's Political Consultative Conference	Bachelor Degree of Arts – Wellesley College, USA	
 Member of Standing Committee 	Major award	
The Toys Manufacturers' Association of Hong Kong – Vice-President	"Young Industrialist Awards of Hong Kong" by the Fede Hong Kong Industries (2004)	
The Twelfth Guangdong Provincial Committee of the Chinese People's Political Consultative Conference		

Ms CHIANG Lai Yuen JP INDEPENDENT NON-EXECUTIVE DIRECTOR AGED 53

ople's Political Consultative Conference

– Member

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leration of

Ms Margaret KWAN Wing Han EXECUTIVE DIRECTOR AND HEAD OF RETAIL BANKING AND WEALTH MANAGEMENT AGED 59



JOINED THE BOARD SINCE MAY 2017

Other positions held within Hang Seng Group

¹ Hang Seng Bank Limited – Member of Executive Committee Hang Seng Bank (Trustee) Limited – Director Hang Seng Credit Limited – Director

Hang Seng Finance Limited – Director

Hang Seng Futures Limited (in Members' Voluntary Winding Up) Director

Hang Seng Indexes Company Limited - Member of Hang Seng Index Advisory Committee

Hang Seng Insurance Company Limited – Director Hang Seng Investment Management Limited - Director

Hang Seng Securities Limited – Chairman

Hang Seng Security Management Limited - Director

Haseba Investment Company Limited - Director

Other major appointments

Employers' Federation of Hong Kong - Elected Member of General Committee Securities and Futures Commission

- Member of Process Review Panel (Note 1)

Past major appointments

[^] Hang Seng Bank Limited Head of Consumer Assets (2013-2016) Head of Unsecured Loans (2005-2013) Senior Marketing and Business Development Manager, Unsecured Lending (2002-2005) Senior Marketing Communications Manager (2001-2002) Manager, Marketing Communications (1995-2001)

[^] Standard Chartered Bank - Advertising Manager (1990-1994)

Qualification

Bachelor of Social Sciences in Business Studies

- The University of Hong Kong

JOINED THE BOARD SINCE MAY 2014	
Other positions held within Hang Seng Group	 Noble Group Limited Independent Non-executive Director;
^A Hang Seng Bank Limited – Chairman of Risk Committee; Member of Audit Committee	Member of Audit Committee; Member of Investment and Capital Markets Committee
Other major appointments	(2012-2017)
 ^A Cathay Pacific Airways Limited Independent Non-executive Director; Chairman of Audit Committee; 	Member of Nominating Committee (2013-2017) Member of Risk Committee (2014-2017) JP Morgan Australia – Member of Advisory Council (2005-2013)
Chairman of Remuneration Committee Hong Kong Monetary Authority – Member of The Exchange Fund Advisory Committee	 A QBE Insurance Group Limited Non-executive Director (2002-2013) Keybridge Capital Limited
 Hendel of the Exchange Fund Advisory Committee Hysan Development Company Limited Executive Chairman; Chairman of Nomination Committee 	– Non-executive Chairman (2009-2012) Executive Chairman (2006-2009)
 A HSBC Holdings plc Independent Non-executive Director; Member of Chairman's Committee; Member of Group Remuneration Committee; Member of Nomination & Corporate Governance Committee The Hongkong and Shanghai Banking Corporation Limited Independent Non-executive Director; Chairman of Remuneration Committee; Member of Audit Committee; Member of Audit Committee; 	The Myer Family Company Pty Limited – Non-executive Director (2009-2011)
	ING Bank (Australia) Limited – Non-executive Director (2005-2011)
	Australian Government Takeovers Panel – Member (2001-2010)
	Sealcorp Holdings Limited – Chief Executive Officer (1998-1999)
	 Commonwealth Bank of Australia Head of Corporate Finance (1993-1998)
Past major appointments	Citicorp Investment Bank Limited in New York, London and Sydney
 CLP Holdings Limited – Independent Non-executive Director; 	– Executive Director (1977-1987) Oualifications
Member of Audit Committee; Member of Finance and	Bachelor of Arts Degree – Smith College, USA
General Committee (2012-2018) Member of Sustainability Committee (2014-2018)	Bachelor of Arts Degree – Smith College, USA Barrister-at-Law in England and Wales
· · · · · · · · · · · · · · · · · · ·	Member – The Honourable Society of Gray's Inn, UK



Other major appointments

- A HSBC Holdings plc
- Group General Manager; Group Financial Controller The Hong Kong Society for Rehabilitation – Honorary Vice-President

- Past major appointments
- The Hong Kong Association of Banks
 - Acting Chairman (2015) Chairman of the Basel Implementation Committee (2012 and 2015)
- The Hong Kong Society for Rehabilitation Honorary Treasurer (2006-2015)
- The Hongkong and Shanghai Banking Corporation Limited
- Alternate Chief Executive: Chief Financial Officer (2010-2015) Chief Accounting Officer (2006-2010)
- HSBC Bank (Taiwan) Limited Director (2011-2015) HSBC Securities Investments (Asia) Limited - Director (2006-2015) HSBC Bank Bahamas Limited – President (2010-2014)
- HSBC Markets (Bahamas) Limited President (2010-2014) HSBC Asia Holdings BV – Director (2011-2013)
- ^{*} HSBC Holdings plc

 Senior Manager, Finance Transformation (2003-2006)
- HSBC Bank plc Head of Product Control, Global Banking and Markets (1999-2003)

Qualifications

Master of Arts – King's College, Cambridge University, UK Fellow - Chartered Institute of Management Accountants Fellow – Association of Corporate Treasurers



Board of Directors



	Other positions held within Hang Seng Group	Past major appointments
٨	Hang Seng Bank Limited	RoadShow Holdings Limited
	– Chairman of Audit Committee; Member of Risk Committee	 Roadshow Holdings Limited Independent Non-executive Director (2004-2017) Chairman of Audit Committee (2005-2017)
	Other major appointments	The Education University of Hong Kong
٨	Justice of the Peace China Resources Beer (Holdings) Company Limited	 Chairman of Finance Committee; Treasurer of the Council (2009-2015)
	 Independent Non-executive Director; Chairman of Audit Committee 	The Presidium of the Election of Deputies of the Hong Kong Special Administrative Region to the Twelfth National
	Hang Seng School of Commerce – Director (Note 1)	People's Congress
	Home Affairs Bureau - Member of the Board of Trustees of the Sir Edward Youde Memorial Fund	 Member (2013) ^A Bank of Communications Co., Ltd. Independent Non-executive Director;
	Hong Kong Children Foundation Limited – Honorary Chairman	Chairman of Audit Committee (2007-2013)
	Independent Commission on Remuneration for the Members of the District Councils of HKSAR Government – Chairman	The Financial Reporting Council – Convenor and Member of Financial Reporting Review Committee (2007 2012)
	Legal Aid Services Council – Chairman	Committee (2007-2013) HKSAR Commission on Strategic Development
	Li, Tang, Chen & Co, Certified Public Accountants – Senior Partner	– Member (2007-2013)
	Long Win Bus Company Limited – Director	Hong Kong Monetary Authority – Chairman of Process Review Committee (2004-2010)
	SmarTone Telecommunications Holdings Limited – Independent Non-executive Director; Chairman of Audit Committee	Meadville Holdings Limited – Independent Non-executive Director; Chairman of Remuneration Committee (2007-2010)
۸	Sun Hung Kai Properties Limited - Independent Non-executive Director; Chairman of Audit Committee	The International Federation of Accountants – Board Member (2004-2006)
	The Education University of Hong Kong Foundation – Member of the Board of Stewards	The Legislative Council of Hong Kong – Member (1991-2004) Chairman of Public Accounts Committee (1995-2004)
	The Financial Reporting Council – Member of Honorary Advisory Panel	Qualifications
	The Hang Seng University of Hong Kong – Governor (Note 1)	BA (Economics) Honours Degree – University of Manchester, UK
	The Hong Kong Jockey Club – Steward; Chairman of Audit Committee	Fellow – Hong Kong Institute of Certified Public Accountants
	The Kowloon Motor Bus Company (1933) Limited – Director	(Practising)
	The Thirteenth National Committee of the Chinese People's Political Consultative Conference – Member	Hon Doctor of Laws – University of Manchester, UK Hon Doctor of Social Sciences – Hong Kong Baptist University
۸	Transport International Holdings Limited – Independent Non-executive Director; Chairman of Audit Committee	Hon Doctor of Social Sciences - The Education University of Hong Kong
٨	Wong's International Holdings Limited	Hon Fellow – The Chinese University of Hong Kong
	 Independent Non-executive Director; 	Hon Fellow – The Hong Kong Polytechnic University
	Chairman of Audit Committee	Major awards
		Gold Bauhinia Star (2003) Officer of the Most Excellent Order of the British Empire (1996)

Dr Eric LI Ka Cheung GBS, OBE, JP INDEPENDENT NON-EXECUTIVE DIRECTOR AGED 65 JOINED THE BOARD SINCE FEBRUARY 2000

Dr Vincent LO Hong Sui GBM, JP NON-EXECUTIVE DIRECTOR AGED 70

JOINED THE BOARD SINCE FEBRUARY 1999 Other major appointments

Justice of the Peace

Business and Professionals Federation of Hong Kong - Honorary Life President

- Chongqing Municipal Government Economic Adviser Council for the Promotion and Development of Yangtze President
- A Great Eagle Holdings Limited Non-executive Director Hong Kong Trade Development Council - Chairman Shanghai Tongji University; Shanghai University Advisory Professorship
- Shui On Group Chairman
- A Shui On Land Limited Chairman
- SOCAM Development Limited Chairman The Hong Kong University of Science and Technology Honorary Court Chairman

Past major appointments

- The Twelfth National Committee of the Chinese People's Political Consultative Conference
- Member (2013-2018) Airport Authority Hong Kong
- Chairman (2014-2015) Board Member (2013-2015)
- Lantau Development Advisory Committee of HKSAR Government
- Non-official Member (2014-2015)
- APEC Business Advisory Council
- Hong Kong's Representative (2010-2014)
- A Shui On Land Limited Chief Executive Officer (2004-2011)

- A China Telecom Corporation Limited Independent Non-executive Director (2002-2008)
- New World China Land Limited Independent Non-executive Director (1999-2004)
- The Hong Kong University of Science and Technology - Chairman of the Council (1999-2002)
- Hong Kong General Chamber of Commerce Chairman (1991-1992)
- Basic Law Consultative Committee - Executive Committee Member (1985-1990)

Qualifications

Doctorate in Business Administration (honoris causa) The Hong Kong University of Science and Technology

Doctor of Business (honoris causa) – The University of New South Wales, Australia

Major awards

Grand Bauhinia Medal (2017)

- Lifetime Achievement Award for Leadership in Property Sector by the 4th World Chinese Economic Forum (2012)
- "Ernst & Young Entrepreneur Of The Year 2009" in the China Real Estate Sector (2009)
- Ernst & Young China Entrepreneur Of The Year 2009 (2009) Chevalier des Arts et des Lettres by the French
- Government (2005)
- Director of the Year in the category of Listed Company Executive Directors by The Hong Kong Institute of Directors in 2002 (2002)
- Businessman of the Year award in the Hong Kong Business Awards 2001 (2001)
- Gold Bauhinia Star (1998)

	Mr Kenneth NG Sing Yip	NON-EXECUTIVE DIRECTOR	AGED 68		
	JOINED THE BOARD SINCE MARCH 2014				
	Other position held within Hang Seng Group				
٨	Hang Seng Bank Limited – Membe	– Merr The Law :			
	Other major appointments	S			
	Hong Kong General Chamber of Co	The Hong – Gene			

- Vice Chairman of Legal Committee
- HSBC Bank Australia Limited
- Non-executive Director; Member of Audit Committee (Note 1) HSBC Bank (Vietnam) Ltd. - Chairman of Board of Supervision
- The University of Hong Kong
- Member of Asian Institute of International Financial Law Advisory Board of the Faculty of Law

Past major appointments

- HSBC Bank (China) Company Limited Non-executive Director (2011-2018) (Note 1)
- Competition Tribunal Users' Committee of HKSAR Government Member (2014-2017)

- ding Committee on Company Law Reform Member (2011-2017)
- Law Society of Hong Kong Council Member (2002-2016) Hongkong and Shanghai Banking Corporation Limited
- General Counsel, Asia Pacific (1998-2016) Deputy Head of Legal and Compliance Department (1993-1998) Assistant Group Legal Adviser (1987-1993)
- Board of Review of Inland Revenue Ordinance of HKSAR Government – Member (2008-2014)
- [^] Ping An Insurance (Group) Company of China, Ltd.
- Non-executive Director (2006-2013)

Qualifications

- Bachelor's Degree and Master's Degree in Laws (L.L.B. and L.L.M.)
- University of London, UK
- Bachelor's Degree in Laws (L.L.B.) Beijing University, PRC





Board of Directors



JOINED THE BOARD SINCE MAY 2005					
Other position held within Hang Seng Group	Past major appointments				
 [^] Hang Seng Bank Limited – Member of Nomination Committee 	 Cathay Pacific Airways Limited Independent Non-executive Director (2009-2018) (Note 1) 				
Other major appointments	Hong Kong General Chamber of Commerce – Vice Chairman (2016-2018)				
Justice of the Peace [^] Bank of Communications Co., Ltd. – Vice Chairman and Non-executive Director	Economic Development Commission of HKSAR Government – Non-official Member (2013-2018)				
Chongqing Mayor's International Economic Advisory Council – Member	HSBC Bank Malaysia Berhad – Non-Independent Executive Director (2017-2018)				
Hong Kong General Chamber of Commerce – Deputy Chairman; Chairman of Membership Committee; Member of General Committee	The Eleventh Hubei Provincial Committee of the Chinese People's Political Consultative Conference – Member (2012-2018) Member of Standing Committee (2013-2018) International Advisor to the Mayor of Tianjin (2010-2013)				
Hong Kong Monetary Authority – Member of The Exchange Fund Advisory Committee	Greater Pearl River Delta Business Council – Member (2006-2013)				
Hong Kong Trade Development Council – Council Member; Member of Belt and Road Committee	HSBC Bank (Vietnam) Ltd - Vice-Chairman and Non-executive Director (2010-2012)				
HSBC Bank (China) Company Limited - Chairman and Non-executive Director; Chairman of Nomination Committee:	 [^] Ping An Insurance (Group) Company of China, Ltd. – Non-executive Director (2006-2012) 				
Member of Remuneration Committee A HSBC Holdings plc	Hong Kong Institute for Monetary Research – Member of the Board of Directors (2010-2011)				
Group Managing Director; Member of Group Management Board	HSBC Bank Australia Limited – Non-executive Director (2010-2011)				
International Consultative Conference on the Future Economic Development of Guangdong Province	 ^A Hong Kong Exchanges and Clearing Limited – Member of Risk Management Committee (2010) 				
 Economic Advisor to the Governor of Guangdong Province of the People's Republic of China 	 Chairman of Financial Services Advisory Committee 				
Our Hong Kong Foundation Limited – Special Counsellor	(2006-2010)				
Qianhai & Shekou Area of Shenzhen, China (Guangdong) Pilot Free Trade Zone, and Qianhai Shenzhen-Hong Kong Modern					
Service Industry Cooperation Zone of Shenzhen – Member of the Consulting Committee	The Hong Kong Association of Banks – Chairman (2001, 2004, 2006 and 2009)				
The Community Chest of Hong Kong – Board Member: First Vice President:	Qualifications				
Chairman of Executive Committee	Bachelor's Degree in Computer Science; MBA in Marketing a Finance; MSc in Computer Science				
The Hongkong and Shanghai Banking Corporation Limited – Deputy Chairman and Chief Executive; Executive Director	– Indiana University, USA Fellow – The Hong Kong Management Association				
The Hong Kong Institute of Bankers – President					
The Thirteenth National Committee of the Chinese People's Political Consultative Conference – Member: Vice Chairman of Committee for Agricultural an	Honorary Fellow – The Hong Kong Institute of Bankers d				

Mr Peter WONG Tung Shun JP NON-EXECUTIVE DIRECTOR AGED 67

Rural Affairs

Mr Michael WU Wei Kuo INDEPENDENT NON-EXECUTIVE DIRECTOR AGED 48

JOINED THE BOARD SINCE SEPTEMBER 2010 Other positions held within Hang Seng Group

^A Hang Seng Bank Limited Member of Nomination Committee; Member of Risk Committee

Other major appointments

- Hongkong Caterers Limited
- Executive Director and Company Secretary
- [^] Hongkong Land Holdings Limited Non-executive Director
- ^A Jardine Matheson Holdings Limited Non-executive Director Maxim's Caterers Limited
 – Chairman and Managing Director
- The Community Chest of Hong Kong Board Member

Past major appointments

- ^A Hang Seng Bank Limited

 Member of Audit Committee (2014-2018)

 The Community Chest of Hong Kong
- Member of Executive Committee (2017-2018)
 The Hong Kong University of Science and Technology
- Member of the Council (2011-2017) Qualification
- Bachelor of Science in Applied Mathematics and Economics – Brown University, USA

Major awards

- "Ernst & Young Entrepreneur of The Year 2012 China" - Category Winner (Services) and Country Winner (Hong Kong/Macau Regions) (2012)
- Executive Award of the DHL/SCMP Hong Kong Business Awards (2008)



Notes:

- 1 New appointments or cessation of appointments since the date of the Bank's 2018 Interim Report.
- 2 The interests of Directors in shares of the Bank, if any, within the meaning of Part XV of the Securities and Futures Ordinance ("SFO") as at 31 December 2018 are disclosed in the section "Directors' and Alternate Chief Executives' Interests" of the Report of the Directors attached to the Bank's 2018 Annual Report.
- 3 Some Directors (as disclosed in the section "Biographical Details of Directors and Senior Management Board of Directors" of the Bank's 2018 Annual Report) are also Directors of HSBC Holdings plc ("HSBC") and/or its subsidiaries. HSBC, through its wholly owned subsidiaries, has an interest in the shares of the Bank under the provisions of Divisions 2 and 3 of Part XV of the SFO, the details of which are disclosed in the section "Substantial Interests in Share Capital" of the Report of the Directors attached to the Bank's 2018 Annual Report.
- 4 Save as disclosed in the section "Biographical Details of Directors and Senior Management Board of Directors" of the Bank's 2018 Annual Report, the Directors (a) have not held any directorships in other publicly listed companies, whether in Hong Kong or overseas, during the last 3 years; (b) do not hold any other positions in the Bank and its subsidiaries; and (c) do not have any other relationships with any Directors, senior management or substantial or controlling shareholders of the Bank, except that Mr Michael W K Wu's spouse is the niece of Dr Vincent H S Lo, a Non-executive Director of the Bank.
- 5 All Directors (except those Directors who are full time employees of the Bank or its subsidiaries) will receive Directors' fees in the amounts approved from time to time by shareholders at the Annual General Meetings of the Bank. The current amounts of Directors' fees have been determined with reference to market rates, directors' workload and required commitment. A Director will also receive a fee for duties assigned to and services provided by him/her as Chairman or member of various Committees of the Bank. Such fees have been determined with reference to the remuneration policy of the Bank.
- 6 No Directors' fees are payable to those Directors who are full time employees of the Bank or its subsidiaries. The salary packages of such Directors have been determined with reference to the remuneration policy of the Bank. Such Directors are also entitled to discretionary bonus.
- 7 The details of the emoluments of the Directors on a named basis are disclosed in Note 15 of the Bank's Financial Statements as contained in the Bank's 2018 Annual Report.
- 8 None of the Directors, except Ms Margaret W H Kwan, has signed service contract with the Bank. The term of appointment of Non-executive Directors (including Independent Non-executive Directors) is three years except that where a Non-executive Director (or an Independent Non-executive Director) has served on the Board for more than nine years, then his/her term of appointment is one year.
- 9 Biographical details of Directors of the Bank are also available on the website of the Bank at www.hangseng.com.

[^] The securities of these companies are listed on a securities market in Hong Kong or overseas.



Ms Daphne W K Wat Head of Global Banking Mr Donald Y S Lam Head of Commercial Banking Ms Margaret W H Kwan Executive Director and Head of Retail Banking and Wealth Management



Ms Louisa W W Cheang Vice-Chairman and Chief Executive Mr Andrew W L Leung Chief Financial Officer Ms Liz T L Chow Head of Global Markets

Ms Louisa CHEANG Wai Wan VICE-CHAIRMAN AND CHIEF EXECUTIVE (Biographical details are set out on page 128)

Ms Margaret KWAN Wing Han EXECUTIVE DIRECTOR AND HEAD OF RETAIL BANKING AND WEALTH MANAGEMENT (Biographical details are set out on page 130)

Mrs Eunice CHAN CHIEF OPERATING OFFICER AGED 56

JOINED THE BANK SINCE MARCH 2016 Major positions held within Hang Seng Group	Past major positions		
Hang Seng Bank Limited – Chief Operating Officer; Member of Executive Committee Hang Seng Investment Management Limited – Director Hang Seng Investment Services Limited – Director Hang Seng Real Estate Management Limited – Director Hang Seng Securities Limited – Director Hang Seng Security Management Limited – Director	The Hongkong and Shanghai Banking Corporation Limited – Head of Operations Asia Pacific (2015-2016) Regional Head of Service Delivery Asia Pacific (2012-2015) Head of Service Delivery Hong Kong (2011-2012) Head of Securities Operations Centre (2007-2011) Senior Manager, Network Services Centre Operations (2004-2007) Manager, Implementation (Payment and Cash Management (2001-2004)		
	Qualification		
	Bachelor of Arts (Major in Economics)		

Ms Ivy CHAN Shuk Pui CHIEF RISK OFFICER AGED 53

JOINED THE BANK SINCE JULY 2014 Senior Manager of Credit Risk Management Department (2005-2010) Senior Relationship Manager of Credit Risk Management Major positions held within Hang Seng Group Hang Seng Bank Limited Chief Risk Officer; Member of Executive Committee Department (2002-2005) Hang Seng Investment Management Limited - Director Treasury Credit Risk Manager (1997-2001) Various positions in HSBC in the areas of Trade Services, Hang Seng Investment Services Limited - Director Retail Banking, Corporate Banking Relationship Manager, Hang Seng Securities Limited – Director Credit Operations (1988-1997) Hang Seng Security Management Limited – Director Qualification Past major positions Professional Diploma in Company Secretaryship and The Hongkong and Shanghai Banking Corporation Limited Administration

Chief Risk Officer, HSBC Bank (Taiwan) Limited (2010-2014)

- The Hong Kong Polytechnic University

- University of Brandon, Canada

Mr Walter CHEUNG Shu Wai HEAD OF COMMUNICATIONS AND CORPORATE SUSTAINABILITY AGED 61

JOINED THE BANK SINCE SEPTEMBER 1994

Major positions held within Hang Seng Group

Hang Seng Bank Limited Head of Communications and Corporate Sustainability; Member of Executive Committee

Past major positions

Hong Kong Baptist University School of Communication

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Advisory Committee
– Chairman (2000-2006)
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TVBI Company Limited – Senior Marketing Manager (1993-1994)

Digital Equipment Corporation – Regional Marketing Communications Manager (1989-1993)

City University of Hong Kong (formerly known as "City Polytechnic of Hong Kong") Senior Information Officer (1987-1989)

South China Morning Post - Reporter; Deputy News Editor (1979-1987)

Qualifications

Bachelor of Social Science - The Chinese University of Hong Kong

Diploma in Marketing and International Business The Chinese University of Hong Kong

Diploma in Finance – The Chinese University of Hong Kong

Ms Liz CHOW Tan Ling	HEAD OF GLOBAL MARKETS	AGED 45

JOINED THE BANK SINCE OCTOBER 2006	
Major positions held within Hang Seng Group	

Hang Seng Bank Limited Head of Global Markets; Member of Executive Committee Past major positions

- Hang Seng Bank Limited Head of Global Markets Corporate Treasury and Business Management (2011-2015)
 - Head of Corporate Treasury Services Greater China (2011) Various positions in the area of corporate treasury in Treasury Division (2006-2011)

_	DBS Bank Limited, Hong Kong – VP Treasury & Markets (2002-2006)
	Commonwealth Bank of Australia, Hong Kong – Executive Capital Markets (2000-2002)

Qualifications

Bachelor of Business Administration The Chinese University of Hong Kong Bachelor of Laws - University of London, UK

Mr Donald LAM Yin Shing HEAD OF COMMERCIAL BANKING AGED 55

JOINED THE BANK SINCE MARCH 2003

Major positions held within Hang Seng Group Hang Seng Bank Limited

Head of Commercial Banking;

Member of Executive Committee

Hang Seng Insurance Company Limited - Director Past major positions

Hang Seng Bank Limited Head of Commercial Banking Relationship Management (2005-2006) Deputy Head of Commercial Banking Relationship

Management (2004-2005) Department Head, Commercial Banking Relationship Management Department A (2003-2004)

Playmates Holdings Limited

- Executive Director and Chief Financial Officer (2001-2003) The Hongkong and Shanghai Banking Corporation Limited Senior Marketing and Planning Manager (1999-2001)
- Held various senior positions in Corporate and Commercial Banking (1987-1999)

Qualifications

Certified Banker - The Hong Kong Institute of Bankers Chartered Banker - Chartered Banker Institute, UK Bachelor of Social Science (1st Class Honor) The University of Hong Kong

- Master of Business Administration - The Chinese University of Hong Kong
- Master of Science in e-Commerce The Chinese University of Hong Kong

Mr Gilbert LEE Man Lung HEAD OF STRATEGY & PLANNING AND CHIEF OF STAFF TO CE AGED 41

JOINED THE BANK SINCE AUGUST 2014

Major positions held within Hang Seng Group

Hang Seng Bank Limited Head of Strategy and Planning and Chief of Staff to CE; Member of Executive Committee

Past major positions

- Hang Seng Bank Limited Head of Strategy and Planning (2014-2018)
- Wells Fargo Bank, N.A.
- Senior Vice President, Cross-Border Governance & Strategic Initiatives Leader - Asia (2013-2014)

Booz & Company

Senior Associate, Co-Lead of Financial Services Practice, Greater China (2007-2013)

Bank of America, N.A.

- Assistant Vice President, Special Assets Group, Asia (2006) Citibank, N.A.
 - Various positions in the areas of Corporate Banking and Risk Management (2000-2005)

Qualifications

- Chartered Financial Analyst
- Master of Business Administration INSEAD, France
- Master of Science in Business Economics
- The Chinese University of Hong Kong
- Bachelor of Finance The University of Hong Kong
- Fellow of Asia Pacific Leadership Programme - East-West Centre, The University of Hawaii, USA

JOINED THE BANK SINCE OCTOBER 2014					
Major positions held within Hang Seng Group	Qualifications				
Hang Seng Bank Limited – Head of Financial Crime Compliance;	Associate Anti-Money Laundering Professional – Hong Kong Institute of Bankers				
Member of Executive Committee Hang Seng Investment Management Limited – Director	Bachelor of Arts (Hons) in Public and Social Administration – City University of Hong Kong				
Hang Seng Investment Services Limited – Director	Bachelor of Laws – Manchester Metropolitan University, UK				
Hang Seng Securities Limited – Director	Certified Anti-Money Laundering Specialist – Association of Certified Anti-Money Laundering – Specialists				
Past major positions					
Standard Chartered Bank (Hong Kong) Limited	Master of Arts – The University of Hong Kong				
 Head of Compliance, Retail Clients (2011-2014) Various positions in Legal & Compliance (2006-2011) 	Master of Science in Banking – City University of Hong Kong				
Hong Kong Monetary Authority – Banking Supervision Manager (2002-2006) Banking Policy/Banking Supervision Assistant Manager (1996-2002)	Member – Hong Kong Securities and Investment Institute				

Mr Andrew LEUNG Wing Lok	CHIEF FINANCIAL OFFICER	AGED 56
JOINED THE BANK IN JULY 1997 (LE	FT IN 2006) AND REJOINE	D IN JULY 2009

Major positions held within Hang Seng Group	Qualifications
Hang Seng Bank Limited - Chief Financial Officer; Member of Executive Committee Hang Seng Bank (China) Limited - Director; Chairman of Risk Committee; Member of Audit Committee; Member of Remuneration Committee Hang Seng Insurance Company Limited – Director Hang Seng Investment Management Limited – Chairman Hang Seng Investment Services Limited – Director Hang Seng Investment Services Limited – Director Hang Seng Securities Limited – Director Past major positions Bank of China (Hong Kong) Limited - Deputy General Manager, Financial Management (2007-2009) Hang Lung Properties Limited - Senior Manager, Corporate Finance (2006-2007) Hang Seng Bank Limited - Senior Manager and Deputy Head of China Business (2005-2006) Senior Manager of Corporate Banking (2001-2003) Senior Manager and Deputy Head of Financial Control (1997-2001)	Associate – The Hong Kong Institute of Chartered Secretaries Associate – The Institute of Chartered Secretaries and Administrators, UK Bachelor of PRC Law – Peking University, PRC Bachelor of Social Sciences (Major in Management) – The University of Hong Kong Chartered Professional Accountant, Canada (CPA (Canada), CMA) Fellow – The Association of Chartered Certified Accountants, UK Fellow – The Hong Kong Institute of Certified Public Accountants Master of Science, Data processing – University of Ulster, UK Master of Science in Electronic Commerce and Internet Computing – The University of Hong Kong

Mr Godwin LI Chi Chung COMPANY SECRETARY AND GENERAL COUNSEL AGED 54

JOINED THE BANK SINCE MAY 1995

Major positions held within Hang Seng Group	Past major positions Hang Seng Bank Limited – Assistant Company Secretary, Senior Manager and Legal Advisor (1995-2005)		
Hang Seng Bank Limited – Company Secretary and General Counsel; Member of Executive Committee			
Hang Seng Bank (Trustee) Limited – Director	Guoco Group Limited – Assistant Legal Counsel (1993-1995)		
Hang Seng (Nominee) Limited – Director	Qualification		
	Bachelor of Laws – The University of Hong Kong		

Mr Ryan SONG Yue Sheng VICE-CHAIRMAN AND CHIEF EXECUTIVE OF HANG SENG BANK (CHINA) LIMITED AGED 45 JOINED THE BANK SINCE MAY 2018

Major positions held within Hang Seng Group	Past major positions		
Hang Seng Bank Limited – Member of Executive Committee Hang Seng Bank (China) Limited – Vice-Chairman and Chief Executive; Chairman of Executive Committee; Member of Connected Transactions Control Committee; Member of Nomination Committee	HSBC Bank (China) Company Limited – Executive Vice President (2016-2018) Head of Global Markets; Member of Executive Committee (2013-2018) Head of Trading; Deputy Head of Global Markets (2005-2013) Head of Sales, Global Markets (2000-2005)		
	Qualification		
	Master of Business Administration – China Europe International Business School		

Ms Elaine WANG Yee Ning HEAD OF HUMAN RESOURCES AGED 57

JOINED THE BANK SINCE JUNE 2016

- Major positions held within Hang Seng Group Hang Seng Bank Limited
- Head of Human Resources;
 Member of Executive Committee

Past major positions

- The Hongkong and Shanghai Banking Corporation Limited – Regional Head of Development and Regional Head of Talent (2014-2016) Regional Head of Human Resources, Retail Banking and
 - Wealth Management, Asia Pacific (2011-2014) Head of Human Resources, HSBC China (2009-2011)

BP Asia Limited - Vice President, Human Resources China & Gas Asia Pacific Business Unit (2005-2008) Regional Human Resources Manager (2002-2004) Head of Human Resources, BP Amoco Chemicals Asia Pacific (1992-2001)

Qualifications

- Master of Health Services Management – The University of New South Wales, Australia
- Bachelor of Applied Science
- The University of Sydney, Australia

Ms	Daphne	WAT	Wing I	Kam	HEAD OF	GLOBAL	BANKING	AGED 52
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JOINED THE BANK SINCE JUNE 1997

Major positions held within Hang Seng Group Hang Seng Bank Limited

Head of Global Banking;

Member of Executive Committee

Past major positions

- Hang Seng Bank Limited
 - Deputy Head of Corporate Banking, Commercial Banking Division (2016-2018; 2011-2013)
 Head of Large Corporate, Commercial Banking Division
 - (2014-2016) Head of Credit Control Department, Risk Management
 - (2009-2011)

Senior Relationship Manager, Global Banking (2000-2009) Relationship Manager, Global Banking (1997-2000) Bank of Tokyo-Mitsubishi (HK) Limited – Relationship Manager (1988-1997)

Qualifications

- quamoutono
- Chartered Financial Analyst
- Bachelor of Social Science in Economics – The University of Hong Kong
- Master of Business Administration
- The Hong Kong University of Science and Technology

Ms Katie YIP Kay Chun HEAD OF REGULATORY COMPLIANCE AGED 57

	Past major positions
Hang Seng Bank Limited – Head of Regulatory Compliance; Member of Executive Committee Hang Seng Investment Management Limited – Director Hang Seng Investment Services Limited – Director Hang Seng Securities Limited – Director	Standard Chartered Bank – Regional Head of Legal & Compliance, North East Asia (2004) Various positions in the area of Legal & Compliance (1992-2004) Johnson Stokes & Master – Assistant Solicitor (1990-1992) Baker & McKenzie – Associate (1987-1990)
	Qualifications
	Practising Solicitor in Hong Kong
	Master of Arts in Jurisprudence – Wadham College Oxford University, UK

Report of the Directors

The Directors have pleasure in presenting their report together with the audited financial statements for the year ended 31 December 2018.

Principal Place of Business

The Bank is incorporated and domiciled in Hong Kong and has its registered office and principal place of business at 83 Des Voeux Road Central, Hong Kong.

Principal Activities and Business Review

The Bank and its subsidiaries (the "Group") are engaged in the provision of banking and related financial services. Further discussion and analysis of these activities as required by Schedule 5 to the Hong Kong Companies Ordinance, including a fair review of the business and a discussion of the principal risks and uncertainties facing the Group, particulars of important events affecting the Group that have occurred since the end of the financial year 2018, an indication of likely future development in the Group's business, a discussion of the Group's environmental policies and performance, and its compliance with the relevant laws and regulations that have a significant impact on the Group and an account of the Group's key relationships with its employees, customers and suppliers that have a significant impact on the Group can be found in the sections "Five-Year Financial Summary", "Chairman's Statement", "Chief Executive's Report", "Management Discussion and Analysis", "Corporate Sustainability" and "Corporate Governance Report" of this Annual Report. The aforesaid form part of this report.

Profits and Dividends

The consolidated profit of the Bank and its subsidiaries and associates for the year is set out under the consolidated income statement of this Annual Report.

The Directors declared and paid the first to third interim dividends of HK\$3.90 (2017: HK\$3.60) per share totalling HK\$7,455m (2017: HK\$6,882m) during the year. The Directors also declared the fourth interim dividend of HK\$3.60 per share totalling HK\$6,883m (2017: HK\$3.10 per share totalling HK\$5,927m), which will be paid on 22 March 2019.

Major Customers

The Directors believe that the five largest customers of the Bank accounted for less than 30% of the total interest income and other operating income of the Bank for the year.

Subsidiaries

Particulars of the Bank's principal subsidiaries as at 31 December 2018 are set out in note 31 to the financial statements for the year ended 31 December 2018.

Share Capital

Details of share capital of the Bank during the year are set out in note 43 to the financial statements for the year ended 31 December 2018.
Equity-linked Agreements

For the year ended 31 December 2018, the Bank has not entered into any equity-linked agreement.

Purchase, Sale or Redemption of the Bank's Listed Securities

There was no purchase, sale or redemption by the Bank, or any of its subsidiaries, of the Bank's listed securities during the year.

Reserves

Profit attributable to shareholders, before dividends, of HK\$24,211m (2017: 20,018m) has been transferred to reserves. Distributable reserve of the Bank as at 31 December 2018 amounted to HK\$86,400m (2017: HK\$78,463m). Other movements in reserves are set out in the consolidated statement of changes in equity of this Annual Report.

Donations

Charitable donations made by the Bank and its subsidiaries during the year amounted to HK\$31m. For further details of the Bank's corporate social responsibility activities and expenditures, please refer to the section "Corporate Sustainability" of this Annual Report.

Directors

The Directors of the Bank, who were in office on the date of this report, were Dr Raymond K F Ch'ien, Ms Louisa Cheang, Dr John C C Chan, Mr Nixon L S Chan, Ms L Y Chiang, Ms Margaret W H Kwan, Ms Irene Y L Lee, Ms Sarah C Legg, Dr Eric K C Li, Dr Vincent H S Lo, Mr Kenneth S Y Ng, Mr Peter T S Wong and Mr Michael W K Wu. They had served on the Board of the Bank throughout the year.

Dr Henry K S Cheng and Mr Richard Y S Tang retired from the Board with effect from the conclusion of the Bank's 2018 Annual General Meeting ("AGM") held on 10 May 2018. Further, Dr Fred Zuliu Hu resigned from the Board with effect from 9 May 2018.

The Directors retiring by rotation in accordance with the Bank's Articles of Association at the Bank's 2019 AGM to be held on 9 May 2019 are Dr John C C Chan, Dr Eric K C Li and Dr Vincent H S Lo.

No Director proposed for re-election at the 2019 AGM has a service contract with the Bank which is not determinable by the Bank within one year without payment of compensation (other than statutory compensation).

The biographical details of the Directors of the Bank are set out in the section "Biographical Details of Directors and Senior Management" of this Annual Report.

Directors of Subsidiaries

The names of all Directors who have served on the boards of the Bank's subsidiaries during the period from 1 January 2018 to the date of this report (unless otherwise stated) are provided in the section "Directors of Subsidiaries" of this Annual Report.

Status of Independent Non-executive Directors

The Bank has received from each Independent Non-executive Director an annual confirmation of his/her independence pursuant to Rule 3.13 of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Listing Rules" and the "Stock Exchange" respectively). The Bank still considers all the Independent Non-executive Directors to be independent.

Directors' and Alternate Chief Executives' Interests

As at 31 December 2018, the interests of the Directors and Alternate Chief Executives in the shares, underlying shares of equity derivatives and debentures of the Bank and its associated corporations (all within the meaning of Part XV of the Securities and Futures Ordinance ("SFO")) disclosed in accordance with the Listing Rules were detailed below.

Interests in shares

	Personal Interests (held as beneficial owner)	Family Interests (interests of spouse or child under 18)	Corporate Interests (interests of controlled corporation)	Other Interests	Total Interests	Total Interests as % of the relevant shares in issue/issued share capital
Number of ordinary shares in the Bank						
Directors:						
Dr John C C Chan	1,000(1)	-	-	-	1,000	0.00
Ms Margaret W H Kwan	65	-	-	-	65	0.00
Number of ordinary shares of US\$0.50 each in HSBC Holdings plc						
Directors:						
Dr Raymond K F Ch'ien	59,799	-	-	-	59,799	0.00
Ms Louisa Cheang	369,493	-	-	199,074(2)	568,567	0.00
Dr John C C Chan	24,605(1)	-	-	-	24,605	0.00
Mr Nixon L S Chan	140,852	-	-	11,773(2)	152,625	0.00
Ms Margaret W H Kwan	37,513	10,041	-	14,224(2)	61,778	0.00
Ms Irene Y L Lee	11,172	-	-	-	11,172	0.00
Ms Sarah C Legg	163,888	2,695	-	123,713(2)	290,296	0.00
Dr Eric K C Li	-	60,812	-	-	60,812	0.00
Mr Kenneth S Y Ng	433,947	-	-	7,474 ⁽²⁾	441,421	0.00
Mr Peter T S Wong	1,829,242	25,749	-	1,264,573(2)	3,119,564	0.02
Alternate Chief Executives:						
Mrs Eunice L C Y Chan	9,441	-	-	11,883(2)	21,324	0.00
Mr Donald Y S Lam	123,024	-	-	19,824(2)	142,848	0.00
Mr Andrew W L Leung	12,737	-	-	17,448(2)	30,185	0.00

Notes:

(1) 1,000 shares in the Bank and 4,371 shares in HSBC Holdings plc were jointly held by Dr John C C Chan and his wife.

(2) These included interests in conditional awards of ordinary shares of US\$0.50 each in HSBC Holdings plc under the HSBC Share Plans made in favour of Directors and Alternate Chief Executives.

Conditional Awards of Shares

During the year, the Directors and Alternate Chief Executives as set out below were eligible to be granted conditional awards over ordinary shares of US\$0.50 each in HSBC Holdings plc by that company (being the ultimate holding company of the Bank) under various HSBC Share Plans. The details of the interests of the Directors and Alternate Chief Executives in the conditional awards of ordinary shares in HSBC Holdings plc under the HSBC Share Plans, as at 31 December 2018, were as follows:

	Awards held as at 1 January 2018	Awards made during the Director's/ Alternate Chief Executive's term of office in 2018	Awards released during the Director's/ Alternate Chief Executive's term of office in 2018	Awards held as at 31 December 2018
Directors:				
Ms Louisa Cheang	246,178	79,656	136,777	199,074 ⁽¹⁾
Mr Nixon L S Chan	24,800	-	14,128	11,773 ⁽¹⁾
Ms Margaret W H Kwan	9,411	19,762	15,338	14,224 ⁽¹⁾
Ms Sarah C Legg	115,650	47,042	44,477	123,713 ⁽¹⁾
Mr Kenneth S Y Ng	19,582	-	12,762	7,474 ⁽¹⁾
Mr Peter T S Wong	1,063,868	179,627	567,514	718,038(1)
Alternate Chief Executives:				
Mrs Eunice L C Y Chan	13,356	4,779	6,921	11,883 ⁽¹⁾
Mr Donald Y S Lam	19,263	19,452	19,667	19,824 ⁽¹⁾
Mr Andrew W L Leung	21,198	6,230	10,994	17,448(1)

Note:

(1) These included additional shares arising from scrip dividends.

During the year, Ms Sarah C Legg, Mrs Eunice L C Y Chan and Mr Donald Y S Lam also acquired and were awarded ordinary shares of HSBC Holdings plc under the HSBC International Employee Share Purchase Plan. Their interests in ordinary shares of HSBC Holdings plc under this plan have been included in their "Personal Interests" disclosed in the table under "Interests in shares".

All the interests stated above represented long positions. As at 31 December 2018, no short positions were recorded in the Register of Directors' and Alternate Chief Executives' Interests and Short Positions required to be kept under section 352 of the SFO.

Save as disclosed in the preceding paragraphs, neither the Bank nor any of its holding companies or its subsidiaries or fellow subsidiaries was a party to any arrangement to enable the Directors of the Bank to acquire benefits by means of the acquisition of shares in or debentures of the Bank or any other body corporate as at the end of the year or at any time during the year.

No right to subscribe for equity or debt securities of the Bank has been granted by the Bank to, nor have any such rights been exercised by, any person during the year ended 31 December 2018.

Directors' Interests in Transactions, Arrangements or Contracts

No transaction, arrangement or contract (that is significant in relation to the Bank's business), to which the Bank or any of its holding companies or any of its subsidiaries or fellow subsidiaries was a party and in which a Director of the Bank or an entity connected with a Director had, directly or indirectly, a material interest, subsisted as at the end of the year or at any time during the year.

Management Contracts

Save for service contracts, no other contracts, relating to the management and/or administration of the whole or any substantial part of the business of the Bank were entered into or subsisting during the year.

Directors' Interests in Competing Businesses

Pursuant to Rule 8.10 of the Listing Rules, as at the date of this report, the following Directors had declared interests in the following entities which compete or are likely to compete, either directly or indirectly, with the businesses of the Bank:

Ms Louisa Cheang is a Group General Manager of HSBC Holdings plc and a Director of The Hongkong and Shanghai Banking Corporation Limited ("HBAP").

Ms Sarah C Legg is a Group General Manager and Group Financial Controller of HSBC Holdings plc.

Mr Kenneth S Y Ng is a Director of HSBC Bank Australia Limited, and the Chairman of the Board of Supervision of HSBC Bank (Vietnam) Ltd. Both companies are wholly-owned subsidiaries, directly or indirectly, of HBAP.

Mr Peter T S Wong is a Group Managing Director and a member of Group Management Board of HSBC Holdings plc. He is also the Deputy Chairman, Chief Executive and Executive Director of HBAP; and Chairman and Non-executive Director of HSBC Bank (China) Company Limited, which is a wholly-owned subsidiary of HBAP. Further, he is the Vice-Chairman and Non-executive Director of Bank of Communications Co., Ltd., which conducts general banking business.

HSBC Holdings plc, through its subsidiaries and associated undertakings, including HBAP, the immediate holding company of the Bank, is engaged in providing a comprehensive range of banking, insurance and related financial services.

The entities in which the Directors have declared interests are managed by separate boards of directors and management, which are accountable to their respective shareholders.

The Board of the Bank includes six Independent Non-executive Directors whose views carry significant weight in the Board's decisions. The Audit Committee and Risk Committee of the Bank, each of which consists of not less than three Independent Non-executive Directors, meet regularly to assist the Board of Directors in reviewing the financial performance, internal control and risk management systems of the Bank and its subsidiaries. The Bank is, therefore, capable of carrying on its businesses in the best interests of all shareholders as a whole and has put in place adequate mechanisms to ensure that the Directors discharge their duties vis-a-vis all shareholders, including in respect of the Bank's dealings with the businesses in which Directors have declared interests.

Directors' Emoluments

The emoluments of the Directors of the Bank on a named basis are set out in note 15 to the financial statements for the year ended 31 December 2018.

Indemnity Provision

Details of the Bank's permitted indemnity provision are set out in the section "Corporate Governance Report" of this Annual Report.

Substantial Interests in Share Capital

The register maintained by the Bank pursuant to the SFO recorded that, as at 31 December 2018, the following corporations had interests or short positions in the shares or underlying shares (as defined in the SFO) in the Bank set opposite their respective names:

Name of Corporation	Number of Ordinary Shares in the Bank (Percentage of total)
The Hongkong and Shanghai Banking Corporation Limited ("HBAP")	1,188,057,371 (62.14%)
HSBC Asia Holdings Limited	1,188,057,371 (62.14%)
HSBC Holdings plc	1,188,057,371 (62.14%)

Due to an internal legal entity restructuring of the HSBC Group, HSBC Asia Holdings BV, HSBC Asia Holdings (UK) Limited, HSBC Holdings BV and HSBC Finance (Netherlands) have ceased as controlling shareholders of the Bank, and HSBC Asia Holdings Limited, being a wholly-owned subsidiary of HSBC Holdings plc, has become an intermediate holding company of the Bank as a result of it holding 100% of the ordinary shares of HBAP, with effect from 20 November 2018.

The Directors regard HSBC Holdings plc to be the beneficial owner of 1,188,057,371 ordinary shares in the Bank (62.14%).

All the interests stated above represented long positions. As at 31 December 2018, no short positions were recorded in the Register of Interests in Shares and Short Positions required to be kept under section 336 of the SFO.

Public Float

As at the date of this report, the Bank has maintained the prescribed public float under the Listing Rules, based on the information that is publicly available to the Bank and within the knowledge of the Directors of the Bank.

Corporate Governance Principles and Practices

Details of the Bank's corporate governance practices are set out in the section "Corporate Governance Report" in this Annual Report.

Auditor

The financial statements for the year ended 31 December 2018 have been audited by PricewaterhouseCoopers who will retire and, being eligible, offer themselves for re-appointment. A resolution for the re-appointment of PricewaterhouseCoopers as auditor of the Bank will be proposed at the 2019 AGM.

On behalf of the Board

Raymond Ch'ien Chairman Hong Kong, 19 February 2019

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Consolidated Income Statement

for the year ended 31 December 2018 (Expressed in millions of Hong Kong dollars)

		2018	2017
	note		
Interest income	4	37,633	29,221
Interest expense	4	(7,586)	(4,644)
Net interest income		30,047	24,577
Fee income		9,669	9,209
Fee expense		(2,602)	(2,454)
Net fee income	5	7,067	6,755
Net income from financial instruments measured at fair value	6	1,705	4,157
Gains less losses from financial investments	7	57	48
Dividend income	8	146	188
Net insurance premium income	9	14,530	12,817
Other operating income	10	1,880	1,534
Total operating income		55,432	50,076
Net insurance claims and benefits paid and movement in liabilities to policyholders	11	(14,217)	(14,719)
Net operating income before change in expected credit losses and other credit impairment charges		41,215	35,357
Change in expected credit losses and other credit impairment charges	12	(996)	N/A
Loan impairment charges and other credit risk provisions	12	N/A	(1,042)
Net operating income		40,219	34,315
Employee compensation and benefits		(5,656)	(5,122)
General and administrative expenses		(5,025)	(4,310)
Depreciation of premises, plant and equipment		(1,363)	(1,229)
Amortisation of intangible assets		(124)	(107)
Operating expenses	13	(12,168)	(10,768)
Impairment loss on intangible assets		(104)	-
Operating profit		27,947	23,547
Net surplus on property revaluation	17	278	141
Share of profits/(losses) of associates		207	(14)
Profit before tax		28,432	23,674
Tax expense	18	(4,244)	(3,671)
Profit for the year		24,188	20,003
Attributable to:			
Shareholders of the company		24,211	20,018
Non-controlling interests		(23)	(15)
(Figures in HK\$)			
Earnings per share – basic and diluted	19	12.48	10.30

The notes on pages 157 to 237 form part of these financial statements.

Consolidated Statement of Comprehensive Income for the year ended 31 December 2018 (Expressed in millions of Hong Kong dollars)

	2018	2017
Profit for the year	24,188	20,003
Other comprehensive income		
Items that will be reclassified subsequently to income statement when specific conditions are met:		
Available-for-sale investment reserve:		
 fair value changes taken to equity: 		
 on debt securities 	N/A	
– on equity shares	N/A	396
 fair value changes transferred to income statement: 		
- on hedged items	N/A	
 on disposal deferred taxes 	N/A N/A	
 exchange difference and others 	N/A	
		тэо
Debt instruments at fair value through other comprehensive income reserve:	210	N1/A
 fair value changes taken to equity fair value changes transferred to income statement: 	319	N/A
 - on hedged items 	36	N/A
- on disposal	(24	,
- deferred taxes	(21)	
 exchange difference 	13	
Cash flow hedging reserve:		, , , , , , , , , , , , , , , , , , ,
 fair value changes taken to equity 	489	(1,914)
 fair value changes transferred to income statement 	(384	
- deferred taxes	(17	
Exchange differences on translation of:		
 financial statements of overseas branches, subsidiaries and associates 	(664) 868
Items that will not be reclassified subsequently to the income statement:		^
Change in fair value of financial liabilities designated at		
fair value arising from changes in own credit risk	(4) (4)
Equity instrument:		
 fair value changes taken to equity 	(562) N/A
 exchange difference 	(163) N/A
Premises:		
 unrealised surplus on revaluation of premises 	2,458	2,285
- deferred taxes	(410) (381)
 exchange difference 	(13) 16
- other	-	- 3
Defined benefit plans:		
 actuarial gains/(losses) on defined benefit plans 	(703) 564
 deferred taxes 	116	(93)
Other comprehensive income for the year, net of tax	400	3,969
Total comprehensive income for the year	24,588	23,972
Total comprehensive income for the year attributable to:		
- shareholders of the company	24,611	23,987
- non-controlling interests	(23) (15)
	24,588	23,972

Consolidated Balance Sheet

at 31 December 2018 (Expressed in millions of Hong Kong dollars)

		2018	2017
	note		
ASSETS			
Cash and sight balances at central banks	23	16,421	21,718
Placings with and advances to banks	24	79,400	103,113
Trading assets	25	47,164	53,704
Financial assets designated and otherwise mandatorily measured at fair value	26	13,070	N/A
Financial assets designated at fair value	26	N/A	9,313
Derivative financial instruments	27	8,141	10,836
Loans and advances to customers	28	874,456	806,573
Financial investments	29	428,532	385,261
Interest in associates	32	2,444	2,170
Investment properties	33	10,108	10,166
Premises, plant and equipment	33	30,510	28,499
Intangible assets	34	16,751	15,354
Other assets	35	44,300	31,711
Total assets		1,571,297	1,478,418
LIABILITIES AND EQUITY			
Liabilities			
Current, savings and other deposit accounts	36	1,154,415	1,074,837
Repurchase agreements – non-trading		410	2,389
Deposits from banks		2,712	3,676
Trading liabilities	37	33,649	88,270
Financial liabilities designated at fair value	38	33,454	1,047
Derivative financial instruments	27	8,270	11,169
Certificates of deposit and other debt securities in issue	39	3,748	600
Other liabilities	40	45,247	22,222
Liabilities under insurance contracts	41	120,195	115,545
Current tax liabilities	42	696	568
Deferred tax liabilities	42	6,394	6,016
Total liabilities		1,409,190	1,326,339
Equity			
Share capital	43	9,658	9,658
Retained profits		123,350	113,646
Other equity instruments	44	6,981	6,981
Other reserves		22,093	21,745
Total shareholders' equity		162,082	152,030
Non-controlling interests		25	49
Total equity		162,107	152,079
Total equity and liabilities		1,571,297	

Louisa Cheang Vice-Chairman and Chief Executive John C C Chan Director Eric K C Li Director

Andrew W L Leung Chief Financial Officer

The notes on pages 157 to 237 form part of these financial statements.

Consolidated Statement of Changes in Equity

for the year ended 31 December 2018 (Expressed in millions of Hong Kong dollars)

		Other reserves									
	Share capital	Other equity instruments	Retained profits ²	Premises revaluation reserve	Financial assets at FVOCI ¹ reserve	Cash flow hedge reserve	Foreign exchange reserve	Others ³	Total shareholders' equity	Non- controlling interests	Total equity
At 31 December 2017	9,658	6,981	113,646	18,379	2,116	(99)	706	643	152,030	49	152,079
Impact on transition to HKFRS 9 (note 3(a))	_	_	(776)	_	(78)	_	_	_	(854)	_	(854)
At 1 January 2018	9,658	6,981	112,870	18,379	2,038	(99)	706	643	151,176	49	151,225
Profit for the year	-	-	24,211	-	-	-	-	-	24,211	(23)	24,188
Other comprehensive income (net of tax)	_	_	(587)	2,035	(468)	88	(664)	(4)	400	-	400
Debt instruments at fair value through other comprehensive income	_	_	_	_	257	_	_	_	257	_	257
Equity instruments at fair value through other comprehensive income	_	_	_	_	(725)	_	_	_	(725)	_	(725)
Cash flow hedges	_	_	-	_	-	88	-	_	88	-	88
Change in fair value of financial liabilities designated at fair value arising from changes in own credit risk	_	_	_	_	_	_	_	(4)	(4)	_	(4)
Property revaluation	_	_	_	2,035	_	_	_	('')	2,035	_	2,035
Actuarial losses on defined benefit plans	_	_	(587)	_	_	_	_	_	(587)	_	(587)
Exchange differences and others	_	_	-	-	-	_	(664)	_	(664)	-	(664)
Total comprehensive income for the year	-	_	23,624	2,035	(468)	88	(664)	(4)	24,611	(23)	24,588
Dividends paid	-	-	(13,382)	-	-	-	-	-	(13,382)	-	(13,382)
Coupon paid to holder of AT1 capital instrument	_	-	(418)	_	_	_	_	_	(418)	_	(418)
Movement in respect of share-based payment arrangements	_	_	(5)	_	_	_	_	31	26	_	26
Others	-	-	69	-	-	-	-	-	69	(1)	68
Transfers	_		592	(592)				_	-	-	-
At 31 December 2018	9,658	6,981	123,350	19,822	1,570	(11)	42	670	162,082	25	162,107

1 FVOCI stands for fair value through other comprehensive income and the balance at 31 December 2017 represents the available-for-sale investment reserve under HKAS 39 basis.

2 Retained profits are the cumulative net earnings of the Group that have not been paid out as dividends, but retained to be reinvested in the business. To satisfy the provisions of the Hong Kong Banking Ordinance and local regulatory requirements for prudential supervision purposes, the Group has earmarked a "Regulatory reserve" from retained profits. Movements in the reserve are made directly through retained earnings. As at 31 December 2018, the effect of this requirement is to restrict the amount of reserves which can be distributed by the Group to shareholders by HK\$4,982m (2017: HK\$6,018m).

3 Other reserves comprise share-based payment reserve and own credit risk reserve. The share-based payment reserve is used to record the corresponding amount of share options granted by the ultimate holding company to the Group's employees and other cost of share-based payment arrangement. The own credit risk reserve is for the change in fair value of financial liabilities designated at fair value upon initial recognition arising from changes in own credit risk.

Consolidated Statement of Changes in Equity continued

for the year ended 31 December 2018 (Expressed in millions of Hong Kong dollars)

					Othe	r reserves	_				
	Share capital	Other equity instruments	Retained profits ²	Premises revaluation reserve	Available- for-sale investment reserve ¹	Cash flow hedge reserve	Foreign exchange reserve	Others ³	Total shareholders' equity	Non- controlling interests	Total equity
At 1 January 2017	9,658	6,981	105,204	16,982	1,434	(128)	(162)	657	140,626	60	140,686
Profit for the year	-	-	20,018	-	-	-	-	-	20,018	(15)	20,003
Other comprehensive income (net of tax)	-	-	471	1,923	682	29	868	(4)	3,969	-	3,969
Available-for-sale investments	_	-	_	-	682	_	-	_	682	-	682
Cash flow hedges	-	-	-	-	-	29	-	-	29	-	29
Change in fair value of financial liabilities designated at fair value arising from changes in own credit risk	_	_	_	_	_	_	_	(4)	(4)	_	(4)
Property revaluation	_	_	_	1,923	_	_	_	_	1,923	_	1,923
Actuarial gains on defined benefit plans	_	_	471	_	_	_	_	_	471	_	471
Exchange differences and others	_	_	_	-	_	_	868	_	868	-	868
Total comprehensive income for the year	-	-	20,489	1,923	682	29	868	(4)	23,987	(15)	23,972
Dividends paid	-	-	(12,235)	-	-	-	-	-	(12,235)	-	(12,235)
Coupon paid to holder of AT1 capital instrument	_	-	(389)	_	-	_	_	_	(389)	_	(389)
Movement in respect of share-based payment arrangements	_	-	(4)	_	-	_	_	(19)	(23)	_	(23)
Others	_	-	64	-	-	-	-	-	64	4	68
Transfers	_	-	517	(526)	-	-	-	9	-	-	_
At 31 December 2017	9,658	6,981	113,646	18,379	2,116	(99)	706	643	152,030	49	152,079

1 FVOCI stands for fair value through other comprehensive income and the balance at 31 December 2017 represents the available-for-sale investment reserve under HKAS 39 basis.

2 Retained profits are the cumulative net earnings of the Group that have not been paid out as dividends, but retained to be reinvested in the business. To satisfy the provisions of the Hong Kong Banking Ordinance and local regulatory requirements for prudential supervision purposes, the Group has earmarked a "Regulatory reserve" from retained profits. Movements in the reserve are made directly through retained earnings. As at 31 December 2018, the effect of this requirement is to restrict the amount of reserves which can be distributed by the Group to shareholders by HK\$4,982m (2017: HK\$6,018m).

3 Other reserves comprise share-based payment reserve and own credit risk reserve. The share-based payment reserve is used to record the corresponding amount of share options granted by the ultimate holding company to the Group's employees and other cost of share-based payment arrangement. The own credit risk reserve is for the change in fair value of financial liabilities designated at fair value upon initial recognition arising from changes in own credit risk.

Consolidated Statement of Cash Flows

for the year ended 31 December 2018 (Expressed in millions of Hong Kong dollars)

	2018	2017
Profit before tax	28,432	23,674
Adjustments for non-cash items:		
Depreciation	1,363	1,229
Amortisation of intangible assets	124	107
Net interest income	(30,047)	(24,577)
Dividend income	(146)	(188)
Gains less losses from financial investments	(57)	(48)
Share of profits/losses in associates	(207)	14
Net surplus on property revaluation	(278)	(141)
Change in expected credit losses and other credit impairment charges	996	N/A
Impairment loss on intangible assets	104	-
Loan impairment charges and other credit risk provisions	N/A	1,042
Loans and advances written off net of recoveries	(862)	(1,306)
Movement in present value of in-force long-term insurance business ("PVIF")	(1,324)	(910)
Interest received	31,562	23,816
Interest paid	(6,964)	(4,370)
Elimination of exchange differences and other non-cash items	418	(12,003)
Changes in operating assets and liabilities		
Change in financial assets designated at fair value	(3,150)	(390)
Change in trading assets	(3,486)	(11,322)
Change in derivative financial instruments	(204)	3,725
Change in placings with and advances to banks maturing after one month	15,522	18,469
Change in loans and advances to customers	(70,759)	(108,509)
Change in other assets	(11,496)	(1,149)
Change in current, savings and other deposit accounts	79,578	85,298
Change in deposits from banks	(964)	(10,399)
Change in repurchase agreements – non-trading	(1,979)	584
Change in certificates of deposit and other debt securities in issue	3,148	(4,516)
Change in financial liabilities designated at fair value	32,407	(2,944)
Change in trading liabilities	(54,621)	20,146
Change in liabilities under insurance contracts	4,650	7,219
Change in other liabilities	21,337	(422)
Interest received from financial investments	5,613	5,009
Dividends received from financial investments	145	187
Tax paid	(3,840)	(2,522)
Net cash from operating activities	35,015	4,803

Consolidated Statement of Cash Flows continued

for the year ended 31 December 2018 (Expressed in millions of Hong Kong dollars)

	2018	2017
Purchase of financial investments	(570,567)	(496,129)
Proceeds from sale or redemption of financial investments	547,327	524,264
Repayment of shareholders' loan from an associated company	74	_
Proceeds from sale of fixed assets and assets held for sale	-	12
Purchase of property, plant and equipment and intangible assets (excluding PVIF)	(892)	(721)
Net cash inflow from the sales of loan portfolio	2,505	1,141
Net cash from investing activities	(21,553)	28,567
Interest paid for subordinated liabilities	-	(118)
Dividends paid	(13,382)	(12,235)
Coupon paid to holder of AT1 capital instrument	(418)	(389)
Redemption of subordinated liabilities	-	(2,327)
Net cash from financing activities	(13,800)	(15,069)
Net (decrease)/increase in cash and cash equivalents	(338)	18,301
Cash and cash equivalents at 1 January	110,673	88,592
Exchange differences in respect of cash and cash equivalents	(1,491)	3,780
Cash and cash equivalents at 31 December	108,844	110,673
Cash and cash equivalents comprise ¹ :		
 cash and sight balances at central banks 	16,421	21,718
- balances with banks	7,765	5,182
 items in the course of collection from other banks 	7,236	6,464
 placings with and advances to banks maturing within one month 	46,021	56,795
– treasury bills	41,454	29,501
– less: items in the course of transmission to other banks	(10,053)	(8,987)
	108,844	110,673

1 The balances of cash and cash equivalents included cash and sight balances at central banks, balances with banks and placings with and advances to banks maturing within one month that are subject to exchange control and regulatory restrictions, amounting to HK\$14,821m at 31 December 2018 (31 December 2017: HK\$17,462m).

Notes to the Financial Statements

For the year ended 31 December 2018 (Figures expressed in millions of Hong Kong dollars unless otherwise indicated)

1. Basis of preparation

(a) Compliance with Hong Kong Financial Reporting Standards

The consolidated financial statements comprise the financial statements of Hang Seng Bank Limited ("the Bank") and its subsidiaries ("the Group") made up to 31 December 2018. These financial statements have been prepared in accordance with all applicable Hong Kong Financial Reporting Standards ("HKFRS"), the provisions of the Hong Kong Companies Ordinance and accounting principles generally accepted in Hong Kong. HKFRS comprises Hong Kong Financial Reporting Standards, Hong Kong Accounting Standards ("HKAS"), and interpretations issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA"). In addition, these financial statements comply with the applicable disclosure provisions of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited. A summary of the significant accounting policies adopted by the Group is set out in note 2.

Standards adopted during the year ended 31 December 2018

The Group has adopted the requirements of HKFRS 9 *"Financial Instruments"* from 1 January 2018, with the exception of the provisions relating to the presentation of gains and losses on financial liabilities designated at fair value, which were adopted from 1 January 2017. This includes the adoption of *"Prepayment Features with Negative Compensation (Amendments to HKFRS 9)"* which is effective for annual periods beginning on or after 1 January 2019 with early adoption permitted. The effect of its adoption is not considered to be significant. HKFRS 9 includes an accounting policy choice to remain with HKAS 39 hedge accounting, which the Group has exercised. The classification and measurement and impairment requirements are applied retrospectively by adjusting the opening balance sheet at the date of initial application. As permitted by HKFRS 9, the Group has not restated comparatives. Adoption reduced net assets at 1 January 2018 by HK\$854m as set out in note 3.

In addition, the Group has adopted the requirements of HKFRS 15 "*Revenue from contracts with customers*" and a number of interpretations and amendments to standards which have an insignificant effect on the consolidated financial statements of the Group.

HKFRS 9 transitional requirements

The transition requirements of HKFRS 9 have necessitated a review of the designation of financial instruments at fair value. HKFRS 9 requires that the designation is revoked where there is no longer an accounting mismatch at 1 January 2018 and permits designations to be revoked or additional designations created at 1 January 2018 if there are accounting mismatches at that date. As a result, fair value designations for financial liabilities have been revoked where the accounting mismatch no longer exists, as required by HKFRS 9.

The results of these changes are included in the reconciliation set out in note 3.

Changes in accounting policy

While not necessarily required by the adoption of HKFRS 9, the following voluntary changes in accounting policy and presentation have been made as a result of reviews carried out in conjunction with its adoption. The effect of presentational changes at 1 January 2018 is included in the reconciliation set out in note 3 and comparatives have not been restated.

- The Group has considered market practices for the presentation of certain financial liabilities which contain both deposit and derivative components. It was concluded that a change in accounting policy and presentation with respect to "Trading liabilities structured deposits and structured debt securities in issue" would be appropriate, since it would better align with the presentation of similar financial instruments by peers and therefore provide more relevant information about the effect of these financial liabilities on the financial position and performance. As a result, rather than being classified as held for trading, the Group will designate these financial liabilities as at fair value through profit or loss since they are managed and their performance evaluated on a fair value basis. A further consequence of this change in presentation is that the effect of changes in the liabilities' credit risk will be presented in other comprehensive income with the remaining effect presented in profit or loss in accordance with accounting policy adopted in 2017 (following the adoption of the requirements in HKFRS 9 relating to the presentation of gains and losses on financial liabilities designated at fair value).
- Cash collateral, margin and settlement accounts have been reclassified from "Trading assets", "Placings with and advances to banks" and "Loans and advances to customers" to "Other assets" and from "Trading liabilities" and "Deposits from banks" and "Current, savings and other deposit accounts" to "Other liabilities". Settlement accounts in relation to trading activities have been reclassified from "Trading assets" to "Other assets" in accordance with HKFRS 9. Cash collateral, margin and settlement accounts previously presented as "Placings with and advances to banks" and "Loans and advances to customers" have been represented in "Other assets" to ensure consistent presentation of such balances. The change in presentation for financial liabilities is considered to provide more relevant information, given the change in presentation for the financial assets. The change in presentation for financial liabilities has had no effect on measurement of these items and therefore on retained earnings or profit for any period.

1. Basis of preparation continued

(b) Presentation of information

The following have been included in the audited sections of the "Management Discussion and Analysis" ("MD&A"):

- Disclosures under HKFRS 4 "Insurance Contracts" and HKFRS 7 "Financial Instruments: Disclosures" concerning the nature and extent of
 risks relating to insurance contracts and financial instruments under Insurance Risk and Credit Risk respectively in Risk Management
 section.
- Capital disclosures under HKAS 1 "Presentation of Financial Statements" under Capital Management.

In accordance with the Group's policy to provide disclosures that help stakeholders to understand the Group's performance, financial position and changes thereto, the information provided in the Notes to the Financial Statements and the Risk disclosures in the MD&A goes beyond the minimum levels required by accounting standards, statutory and regulatory requirements.

(c) Consolidation

The Group controls and consequently consolidates an entity when it is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Control is initially assessed based on consideration of all facts and circumstances, and is subsequently reassessed when there are significant changes to the initial setup.

Where an entity is governed by voting rights, the Group would consolidate when it holds, directly or indirectly, the necessary voting rights to pass resolutions by the governing body. In all other cases, the assessment of control is more complex and requires judgement of other factors, including having exposure to variability of returns, power over relevant activities or holding the power as agent or principal.

All intra-group transactions are eliminated on consolidation.

The consolidated financial statements also include the attributable share of the results and reserves of associates based on the financial statements prepared at dates not earlier than three months prior to 31 December 2018.

(d) Future Accounting Developments

The HKICPA has issued a number of new standards which are not yet effective for the year ended 31 December 2018 and which have not been adopted in the financial statements. Key changes of new standards are summarised as follows:

HKFRS 16 "Leases"

In May 2016, the HKICPA issued HKFRS 16 "Leases" with an effective date for annual periods beginning on or after 1 January 2019.

HKFRS 16 results in lessees accounting for most leases within the scope of the standard in a manner similar to the way in which finance leases are currently accounted for under HKAS 17 "*Leases*". Lessees will recognise a right of use ("ROU") asset and a corresponding financial liability on the balance sheet. The asset will be amortised over the length of the lease, and the financial liability measured at amortised cost. Lessor accounting remains substantially the same as under HKAS 17. At 1 January 2019, the Group expects to adopt the standard using a modified retrospective approach where the cumulative effect of initially applying the standard is recognised an adjustment to the opening balance of retained earnings and comparatives are not restated. The implementation is expected to increase assets (ROU assets) and financial liabilities by HK\$1.4bn, with no effect on net assets or retained earnings. As a consequence, RWAs will increase since ROU assets are risk weighted at 100%.

HKFRS 17 "Insurance Contracts"

In January 2018, HKICPA issued HKFRS 17 "*Insurance contracts*" 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 effective from 1 January 2021 and the Group is in the process of considering its impact.

Amendment to HKAS 12 "Income Taxes"

An amendment to HKAS 12 was issued in February 2018 as part of the Annual Improvement Cycle. The amendment clarifies that an entity should recognise the tax consequences of dividends where the transactions or events that generated the distributable profits are recognised. This amendment will be effective for annual periods beginning on or after 1 January 2019 and is applied to the income tax consequences of distributions recognised on or after the beginning of the earliest comparative period. As a consequence, income tax related to distributions on perpetual subordinated loans will be presented in profit or loss rather than equity.

1. Basis of preparation continued

(e) Critical accounting estimates and judgements

The preparation of financial information requires the use of estimates and judgements about future conditions. In view of the inherent uncertainties and the high level of subjectivity involved in the recognition or measurement of items highlighted as the critical accounting estimates and judgements in note 2 below, it is possible that the outcomes in the next financial year could differ from those on which management's estimates are based. This could result in materially different estimates and judgments from those reached by management for the purpose of 2018 Financial Statements. Management's selection of the Group's accounting policies which contain critical estimates and judgements reflects the materiality of the items to which the policies are applied and the high degree of judgement and estimation uncertainty involved.

2. Significant accounting policies

(a) Interest income and expense

Interest income and expense for all financial instruments are recognised in "Interest income" and "Interest expense" respectively in the income statement. Effective interest method is used for those financial instruments that are not at fair value through profit or loss.

The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument or, where appropriate, a shorter period, to the net carrying amount of the financial asset or financial liability. When calculating the effective interest rate, the Group estimates cash flows considering all contractual terms of the financial instrument but excluding future credit losses. The calculation includes all amounts paid or received by the Group that are an integral part of the effective interest rate of a financial instrument, including transaction costs and all other premiums or discounts.

(b) Non-interest income

(i) Fee income

Fee income is earned from a diverse range of services provided by the Group to its customers and is accounted for as follows:

- income earned on the execution of a significant act is recognised as revenue when the act is completed (for example, fees arising from negotiating, or participating in the negotiation of, a transaction for a third party); and
- income earned from the provision of services is recognised as revenue when the services are provided (for example, asset management services).

(ii) Net income from financial instruments measured at fair value

(a) Net trading income

Net trading income comprises all gains and losses from changes in the fair value of financial assets and financial liabilities held for trading, together with the related dividend. Gains or losses arising from changes in fair value of derivatives are recognised in Net trading income to the extent as described in the accounting policy set out in note 2(i). Gains and losses on foreign exchange trading and other transactions are also reported as Net trading income except for those gains and losses on translation of foreign currencies recognised in other comprehensive income and accumulated separately in equity in the foreign exchange reserve in accordance with the accounting policy set out in note 2(v).

(b) Net income from financial instruments designated at fair value

Net income/(expense) from financial instruments designated at fair value comprises all gains and losses from changes in the fair value of financial assets and financial liabilities designated at fair value, including derivatives managed in conjunction with the financial assets and liabilities designated at fair value. Dividends arising on those financial instruments are also included.

(c) Net income from assets and liabilities of insurance businesses measured at fair value

Net income from assets and liabilities of insurance businesses measured at fair value comprises of income in respect of financial assets and liabilities measured at fair value and derivatives managed in conjunction with the above which can be separately identifiable from other trading derivatives.

(iii) Dividend income

Dividend income is recognised when the right to receive payment is established. This is the ex-dividend date for listed equity securities, and usually the date when shareholders have approved the dividend for unlisted equity securities.

(iv) Rental income from operating lease

Rental income, net of incentives, under an operating lease is recognised in "Other operating income" in equal instalments over the reporting periods covered by the lease term.

(c) Cash and cash equivalents

For the purpose of the cash flow statement, cash and cash equivalents include highly liquid investments that are readily convertible into known amounts of cash and which are subject to an insignificant risk of change in value. Such investments comprise cash and sight balances at central banks maturing within one month, treasury bills and certificates of deposit with less than three months' maturity from the date of acquisition and items in the course of collection from or in transmission to other banks.

(d) Valuation of financial instruments

All financial instruments are recognised initially at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value of a financial instrument on initial recognition is generally its transaction price (that is the fair value of the consideration given or received). However, the fair value will be based on other observable current market transactions in the same instrument, without modification or repackaging, or on a valuation technique whose variables include only data from observable markets, such as interest rate yield curves, option volatilities and currency rates. When such evidence exists, the Group recognises a trading gain or loss on day 1, being the difference between the transaction price and the fair value. When significant unobservable parameters are used, the entire day 1 gain or loss is deferred and is recognised in the income statement over the life of the transaction until the transaction matures, is closed out, the valuation inputs become observable, or when the Group enters into an offsetting transaction.

The fair value of financial instruments is generally measured on an individual basis. However, in cases where the Group manages a group of financial assets and liabilities according to its net market or credit risk exposure, the Group measures the fair value of the group of financial instruments on a net basis but presents the underlying financial assets and liabilities separately in the financial statements, unless they satisfy the HKFRS offsetting criteria.

Critical accounting estimates and judgements

The best evidence of fair value is a quoted price in an actively traded principal market. In the event that the market for a financial instrument is not active, and the valuation technique uses only observable market data, the reliability of the fair value measurement is high. However, when valuation techniques include one or more significant unobservable inputs, they rely to a greater extent on management judgement and the fair value derived becomes less reliable. In absence of observable valuation inputs, due to lack of or a reduced volume of similar transactions, management judgement is required to assess the price at which an arm's length transaction would occur under normal business conditions, in which case management may rely on historical prices for that particular financial instrument or on recent prices for similar instruments.

The main assumptions and estimates which management consider when applying a model with valuation techniques are:

- the likelihood and expected timing of future cash flows on the instrument. Judgement may be required to assess the counterparty's ability to service the instrument in accordance with its contractual terms. Future cash flows may be sensitive to changes in market rates;
- selecting appropriate discount rate for the instrument. Judgement is required to assess what a market participant would regard as the appropriate spread of the rate for an instrument over the appropriate risk-free rate; and
- judgement to determine what model to use to calculate fair value in areas where the choice of valuation model is particularly subjective, for example, when valuing complex derivatives.

When applying a model with observable inputs, estimates are made to reflect uncertainties in fair values resulting from a lack of market data inputs, for example, as a result of illiquidity in the market. For these instruments, the fair value measurement is less reliable. Inputs into valuations based on observable data are inherently uncertain because there is little or no current market data available from which to determine the level at which an arm's length transaction would occur under normal business conditions. However, in most cases there is some market data available on which to base a determination of fair value, for example historical data, and the fair values of most financial instruments are based on some market observable inputs even when observable inputs are significant.

The Group's details of valuation of financial instruments is depicted in note 51 "Fair value of financial instruments".

(e) Financial instruments measured at amortised cost

Financial assets that are held to collect the contractual cash flows and that contain contractual terms that give rise on specified dates to cash flows that are solely payments of principal and interest, such as most loans and advances to banks and customers and some debt securities, are measured at amortised cost. In addition, most financial liabilities are measured at amortised cost. The carrying value of these financial assets at initial recognition includes the directly attributed transactions costs. If the initial fair value is lower than the cash amount advanced, such as in the case of some leveraged finance and syndicated lending activities, the difference is deferred and recognised over the life of the loan through the recognition of interest income, unless the loan becomes impaired.

The Group may commit to underwrite loans on fixed contractual terms for specified periods of time. When the loan arising from the lending commitment is expected to be held for trading, the commitment to lend is recorded as a derivative. When the Group intends to hold the loan, the loan commitment is included in the impairment calculations set out below.

(f) Financial assets measured at fair value through other comprehensive income ("FVOCI")

Financial assets held for a business model that is achieved by both selling and collecting contractual cash flows and that contain contractual terms that give rise on specified dates to cash flows that are solely payments of principal and interest are measured at FVOCI. These comprise primarily debt securities. They are recognised on the trade date when the Group enters into contractual arrangements to purchase and are normally derecognised when they are either sold or redeemed. They are subsequently remeasured at fair value and changes therein (except for those relating to impairment, interest income and foreign currency exchange gains and losses) are recognised in other comprehensive income until the assets are sold. Upon disposal, the cumulative gains or losses in other comprehensive income are recognised in the income statement as "Gains less losses from financial investments". Financial assets measured at FVOCI are included in the impairment calculations set out below and impairment is recognised in profit or loss.

(g) Equity securities measured at fair value with fair value movement presented in OCI

The equity securities for which fair value movements are shown in OCI are for business facilitation and other similar investments where the Group holds the investments other than to generate a capital return. Gains or losses on derecognition of these equity securities are not transferred to profit or loss. Otherwise equity securities are measured at fair value through profit or loss (except for dividend income which is recognised in profit or loss).

(h) Financial instruments designated at fair value

Financial instruments, other than those held for trading, are classified in this category if they meet one or more of the criteria set out below and are so designated irrevocably at inception:

- the use of the designation removes or significantly reduces an accounting mismatch;
- when a group of financial assets and liabilities or a group of financial liabilities is managed and its performance is evaluated on a fair value basis, in accordance with a documented risk management or investment strategy; and
- where the financial liability contains one or more non-closely related embedded derivatives.

Designated financial assets are recognised when the Group enters into contracts with counterparties, which is generally on trade date, and are normally derecognised when the rights to the cash flows expire or are transferred. Designated financial liabilities are recognised when the Group enters into contracts with counterparties, which is generally on settlement date, and are normally derecognised when extinguished. Subsequent changes in fair value are recognised in the income statement in "Net income from financial instruments measured at fair value".

Under the above criterion, the main classes of financial instruments designated at fair value by the Group are:

- Long-term debt issues

The interest and/or foreign exchange exposure on certain fixed rate debt securities issued has been matched with the interest and/or foreign exchange exposure on certain swaps as part of a documented risk management strategy.

- Financial assets and financial liabilities under unit-linked and non-linked investment contracts

A contract under which the Group does not accept significant insurance risk from another party is not classified as an insurance contract, other than investment contracts with discretionary participation features ("DPF"), but is accounted for as a financial liability. Customer liabilities under linked and certain non-linked investment contracts issued by insurance subsidiaries are determined based on the fair value of the assets held in the linked funds. If no fair value designation was made for the related assets, at least some of the assets would otherwise be measured at either fair value through other comprehensive income or amortised cost. The related financial assets and liabilities are managed and reported to management on a fair value basis. Designation of the financial assets and related liabilities at fair value allows changes in fair values to be recorded in the income statement and presented in the same line.

(i) Derivatives

Derivatives are financial instruments that derive their value from the price of underlying item such as equities, interest rates or other indices. Derivatives are recognised initially and are subsequently measured at fair value. Derivatives are classified as assets when their fair value is positive or as liabilities when their fair value is negative. This includes embedded derivatives in financial liabilities which are bifurcated from the host contract when they meet the definition of a derivative on a stand-alone basis.

Where the derivatives are managed with debt securities issued by the Group that are designated at fair value, the contractual interest is shown in "Interest expense" together with the interest payable on the issued debt.

Hedge accounting

The Group designates certain derivatives as either (i) hedges of the change in fair value of recognised assets or liabilities or firm commitments ("fair value hedge"); or (ii) hedges of highly probable future cash flows attributable to a recognised asset or liability, or a forecast transaction ("cash flow hedge").

At the inception of a hedging relationship, the Group documents the relationship between the hedging instruments and the hedged items, its risk management objective and its strategy for undertaking the hedge. The Group requires a documented assessment, both at hedge inception and on an ongoing basis, of whether or not the hedging instruments, are highly effective in offsetting the changes attributable to the hedged risks in the fair values or cash flows of the hedged items.

(i) Fair value hedge

Changes in the fair value of derivatives that are designated and qualified as fair value hedging instruments are recorded in the income statement within "Net income from financial instruments measured at fair value", along with changes in the fair value of the hedged assets or liabilities attributable to the hedged risk.

If the hedging relationship no longer meets the criteria for hedge accounting, the hedge accounting is discontinued. The cumulative adjustment to the carrying amount of a hedged item is amortised to the income statement based on a recalculated effective interest rate over the residual period to maturity, unless the hedged item has been derecognised.

(ii) Cash flow hedge

The effective portion of changes in the fair value of derivatives that are designated and qualified as cash flow hedges is recognised in other comprehensive income and accumulated separately in equity. Any gain or loss in fair value relating to an ineffective portion is recognised immediately in the income statement within "Net income from financial instruments measured at fair value".

The accumulated gains and losses recognised in other comprehensive income are recycled to the income statement in the periods in which the hedged item will affect profit or loss.

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss at that time remains in equity until the forecast transaction is ultimately recognised in the income statement. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was recognised in other comprehensive income is immediately reclassified to the income statement.

(iii) Hedge effectiveness testing

To qualify for hedge accounting, the Group requires that at the inception of the hedge and throughout its life, each hedge must be expected to be highly effective (prospective effectiveness), and demonstrate actual effectiveness (retrospective effectiveness) on an ongoing basis.

The documentation of each hedging relationship sets out how the effectiveness of the hedge is assessed and the method adopted by the Group to assess hedge effectiveness depends on its risk management strategy.

For fair value hedge relationships, the Group utilises the cumulative dollar offset method or regression as effectiveness testing methodology. For cash flow hedge relationships, the Group utilises the change in variable cash flow method, capacity test or the cumulative dollar offset method using the hypothetical derivative approach.

For prospective effectiveness, the hedging instrument is expected to be highly effective in achieving offsetting changes in fair value or cash flows attributable to the hedged risk during the period for which the hedge is designated. For retrospective effectiveness, the change in fair value or cash flows must offset each other in the range of 80% to 125%. Hedge ineffectiveness is recognised in the income statement in "Net income from financial instruments measured at fair value".

(iv) Derivatives that do not qualify for hedge accounting

Non-qualifying hedges are economic hedges entered into as part of documented interest rate management strategies for which hedge accounting is not applied. Changes in fair value of non-qualifying hedges do not alter the cash flows expected as part of the documented management strategies for both the non-qualifying hedge instruments and the related assets and liabilities. All gains and losses from changes in the fair values of derivatives that do not qualify for hedge accounting are recognised immediately in the income statement.

(j) Impairment of amortised cost and FVOCI financial assets

Expected credit losses are recognised for loans and advances to banks and customers, non-trading reverse repurchase agreements, other financial assets held at amortised cost, debt instruments measured at fair value through other comprehensive income, and certain loan commitments and financial guarantee contracts. At initial recognition, allowance (or provision in the case of some loan commitments and financial guarantees) is required for ECL resulting from default events that are possible within the next 12 months (or less, where the remaining life is less than 12 months) ("12-month ECL"). In the event of a significant increase in credit risk, allowance (or provision) is required for ECL resulting from all possible default events over the expected life of the financial instrument ("lifetime ECL"). Financial assets where 12-month ECL is recognised are considered to be "Stage 1"; financial assets which are considered to have experienced a significant increase in credit risk are in "Stage 2"; and financial assets for which there is objective evidence of impairment are considered to be in default or otherwise credit-impaired are in "Stage 3". Purchased or originated credit-impaired financial assets ("POCI") are treated differently as set out below.

Credit-impaired (stage 3)

The Group determines that a financial instrument is credit-impaired and in stage 3 by considering relevant objective evidence, primarily whether:

- contractual payments of either principal or interest are 90 days past due or above;
- there are other indications that the borrower is unlikely to pay such as that a concession has been granted to the borrower for economic or legal reasons relating to the borrower's financial condition; or
- the loan is otherwise considered to be in default.

If such unlikeliness to pay is not identified at an earlier stage, it is deemed to occur when an exposure is 90 days past due.

Interest income is recognised by applying the effective interest rate to the amortised cost amount, i.e. gross carrying amount less ECL allowance.

Write-off

Financial assets (and the related impairment allowances) are normally written off, either partially or in full, when there is no realistic prospect of recovery. Where loans are secured, this is generally after receipt of any proceeds from the realisation of collateral. In circumstances where the net realisable value of any collateral has been determined and there is no reasonable expectation of further recovery, write-off may be earlier.

Renegotiation

Loans are identified as renegotiated and classified as credit-impaired when the contractual payment terms are modified due to significant credit distress of the borrower. Renegotiated loans remain classified as credit-impaired until there is sufficient evidence to demonstrate a significant reduction in the risk of non-payment of future cash flows and retain the designation of renegotiated until maturity or derecognition.

A loan that is renegotiated is derecognised if the existing agreement is cancelled and a new agreement is made on substantially different terms or if the terms of an existing agreement are modified such that the renegotiated loan is a substantially different financial instrument. Any new loans that arise following derecognition events in these circumstances are considered to be POCI and will continue to be disclosed as renegotiated loans.

Other than originated credit-impaired loans, all other modified loans could be transferred out of stage 3 if they no longer exhibit any evidence of being credit-impaired. In the case of renegotiated loans under wholesale portfolios, there should be sufficient evidence to demonstrate a significant reduction in the risk of non-payment of future cash flows, over the minimum observation period, and there are no other indicators of impairment. These loans could be transferred to stage 1 or 2 based on the mechanism as described below by comparing the risk of default occurring at the reporting date (based on the modified contractual terms) and the risk of a default occurring at initial recognition (based on the original, unmodified contractual terms). Any amount written off as a result of the modification of contractual terms would not be reversed. While for retail portfolios, renegotiated loans remain in stage 3 for their renegotiated lifetime.

Loan modifications that are not credit-impaired

Loan modifications that are not identified as renegotiated are considered to be commercial restructuring. Where a commercial restructuring results in a modification (whether legalised through an amendment to the existing terms or the issuance of a new loan contract) such that the Group's rights to the cash flows under the original contract have expired, the old loan is derecognised and the new loan is recognised at fair value. The rights to cash flows are generally considered to have expired if the commercial restructuring is re-negotiated at market rates and no payment-related concession has been provided.

(j) Impairment of amortised cost and FVOCI financial assets continued

Significant increase in credit risk (stage 2)

An assessment of whether credit risk has increased significantly is performed at each reporting period by considering the change in the risk of default occurring over the remaining life of the financial instrument. The assessment explicitly or implicitly considers if the financial instrument has experienced a significant increase in credit risk, taking into account reasonable and supportable information, including information about past events, current conditions and future economic conditions. The assessment is unbiased, probability-weighted, and to the extent relevant, uses forward-looking information consistent with that used in the measurement of ECL. The analysis of credit risk is multifactor. The determination of whether a specific factor is relevant and its weight compared with other factors depends on the type of product, the characteristics of the financial instrument, the borrower and the geographical region. Therefore, it is not possible to provide a single set of criteria that will determine what is considered to be a significant increase in credit risk and these criteria will differ for different types of lending, particularly between retail and wholesale. However, unless identified at an earlier stage, all financial assets are deemed to have suffered a significant increase in credit risk when 30 days past due. In addition, wholesale loans that are individually assessed, typically corporate and commercial customers, and included on a watch or worry list are included in stage 2.

For wholesale portfolios, the quantitative comparison assesses default risk using a lifetime probability of default which encompasses a wide range of information including the obligor's customer risk rating, macroeconomic condition forecasts and credit transition probabilities. Significant increase in credit risk is measured by comparing the average probability of default ("PD") for the remaining term estimated at origination with the equivalent estimation at reporting date (or that the origination PD has doubled in the case of origination CRR greater than 3.3). The significance of changes in PD was informed by expert credit risk judgment, referenced to historical credit migrations and to relative changes in external market rates. The quantitative measure of significance varies depending on the credit quality at origination as follows:

Origination CRR	Significance trigger – PD to increase by
0.1–1.2	15bps
2.1–3.3	30bps
Greater than 3.3 and not impaired	2x

For loans originated prior to the implementation of HKFRS 9, the origination PD does not include adjustments to reflect expectations of future macroeconomic conditions since these are not available without the use of hindsight. In the absence of this data, origination PD must be approximated assuming through-the-cycle ("TTC") PDs and TTC migration probabilities, consistent with the instrument's underlying modelling approach and the CRR at origination. For these loans, the quantitative comparison is supplemented with additional CRR deterioration based thresholds as set out in the table below:

Origination CRRAdditional significance criteria – Number of CRR grade notches deterioration
required to identify as significant credit deterioration (stage 2) (> or equal to)0.15 notches1.1-4.24 notches4.3-5.13 notches5.2-7.12 notches7.2-8.21 notches8.30 notches

For certain portfolios of debt securities where external market ratings are available and credit ratings are not used in credit risk management, the debt securities will be in stage 2 if their credit risk increases to the extent they are no longer considered investment grade. Investment grade is where the financial instrument has a low risk of incurring losses, the structure has a strong capacity to meet its contractual cash flow obligations in the near term and adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfil their contractual cash flow obligations.

For retail portfolios, default risk is assessed using a reporting date PD derived from credit history which incorporate all available information about the customer. This PD is adjusted for the effect of macroeconomic forecasts and is considered to be a reasonable approximation of a lifetime PD measure. Retail exposures are divided into account level and homogeneous segment level measurement. Within each portfolio, the stage 2 accounts are defined as accounts with 12-month PD greater than the average 12-month PD of loans in that portfolio 12 months before they become 30 days past due.

(j) Impairment of amortised cost and FVOCI financial assets continued

Unimpaired and without significant increase in credit risk (stage 1)

ECL resulting from default events that are possible within the next 12 months ("12-month ECL") are recognised for financial instruments that remain in stage 1.

Purchased or originated credit-impaired ("POCI")

Financial assets that are purchased or originated at a deep discount that reflects the incurred credit losses are considered to be POCI. This population includes the recognition of a new financial instrument following a renegotiation where concessions have been granted for economic or contractual reasons relating to the borrower's financial difficulty that otherwise would not have been considered. The amount of change-in-lifetime ECL is recognised in profit or loss until the POCI is derecognised, even if the lifetime ECL are less than the amount of ECL included in the estimated cash flows on initial recognition.

Movement between stages

Financial assets can be transferred between the different stages (other than POCI) depending on their relative increase in credit risk since initial recognition. Financial instruments are transferred out of stage 2 if their credit risk is no longer considered to be significantly increased since initial recognition based on the assessments described above. Except for renegotiated loans, financial instruments are transferred out of stage 3 when they no longer exhibit any evidence of credit impairment as described above. For wholesale portfolios, renegotiated loans that are not POCI will continue to be in stage 3 until there is sufficient evidence to demonstrate a significant reduction in the risk of non-payment of future cash flows, observed over a minimum one-year period and there are no other indicators of impairment. While for retail portfolios, renegotiated loans remain in stage 3 for their renegotiated lifetime. For loans that are assessed for impairment on a portfolio basis, the evidence typically comprises a history of payment performance against the original or revised terms, as appropriate to the circumstances. For loans that are assessed for impairment on an individual basis, all available evidence is assessed on a case-by-case basis.

Measurement of ECL

The assessment of credit risk, and the estimation of ECL, are unbiased and probability-weighted, and incorporate all available information which is relevant to the assessment including information about past events, current conditions and reasonable and supportable forecasts of future events and economic conditions at the reporting date. In addition, the estimation of ECL should take into account the time value of money.

In general, the Group calculates ECL using three main components, PD, a loss given default ("LGD") and the exposure at default ("EAD").

The 12-month ECL is calculated by multiplying the 12-month PD, LGD and EAD. Lifetime ECL is calculated using the lifetime PD instead. The 12-month and lifetime PDs represent the probability of default occurring over the next 12 months and the remaining maturity of the instrument respectively.

The EAD represents the expected balance at default, taking into account the repayment of principal and interest from the balance sheet date to the default event together with any expected drawdowns of committed facilities. The LGD represents expected losses on the EAD given the event of default, taking into account, among other attributes, the mitigating effect of collateral value at the time it is expected to be realised and the time value of money.

The Group leverages the Basel framework where possible, with recalibration to meet the differing HKFRS 9 requirements as follows:

Model	Regulatory capital	HKFRS 9
PD	 Through the cycle (represents long-run average PD throughout a full economic cycle) 	 Point in time (based on current conditions, adjusted to take into account estimates of future conditions that will impact PD)
	 The definition of default includes a backstop of 90+ days past due 	 An obligor/an account being 90 days past due or above is considered as defaulted.
	 Regulatory floors may apply according to regulatory requirements 	is considered as defaulted – No floors is required under HKFRS 9
EAD	 Cannot be lower than current balance 	 Amortisation captured for term products
LGD	 Downturn LGD (consistent losses expected to be suffered during a severe but plausible economic downturn) 	 Expected LGD (based on estimate of loss given default including the expected impact of future economic
	 Regulatory floors may apply according to regulatory 	conditions such as changes in value of collateral)
	requirements	 No floors is required under HKFRS 9
	 Discounted using cost of capital 	 Discounted using the effective interest rate of the loan
	 All collection costs included 	 Only costs associated with obtaining/selling collateral included
Other		 Discounted back from point of default to balance sheet date

(j) Impairment of amortised cost and FVOCI financial assets continued

Measurement of ECL continued

While 12-month PDs are recalibrated from Basel models where possible, the lifetime PDs are determined by projecting the 12-month PD using a term structure. For the wholesale methodology, the lifetime PD also takes into account credit migration, i.e. a customer migrating through the CRR bands over its life.

The ECL for wholesale stage 3 is determined on an individual basis using a discounted cash flow ("DCF") methodology. The expected future cash flows are based on the credit risk officer's estimates as at the reporting date, reflecting reasonable and supportable assumptions and projections of future recoveries and expected future receipts of interest. Collateral is taken into account if it is likely that the recovery of the outstanding amount will include realisation of collateral based on its estimated fair value of collateral at the time of expected realisation, less costs for obtaining and selling the collateral. The cash flows are discounted at a reasonable approximation of the original effective interest rate. For significant cases, cash flows under four different scenarios are probability-weighted by reference to the three economic scenarios applied more generally by the Group and the judgement of the credit risk officer in relation to the likelihood of the workout strategy succeeding or receivership being required. For less significant cases, the effect of different economic scenarios and work-out strategies is approximated and applied as an adjustment to the most likely outcome.

Period over which ECL is measured

Expected credit loss is measured from the initial recognition of the financial asset. The maximum period considered when measuring ECL (be it 12-month or lifetime ECL) is the maximum contractual period over which the Group is exposed to credit risk. For wholesale overdrafts, credit risk management actions are taken no less frequently than on an annual basis and therefore this period is to the expected date of the next substantive credit review. The date of the substantive credit review also represents the initial recognition of the new facility. However, where the financial instrument includes both a drawn and undrawn commitment and the contractual ability to demand repayment and cancel the undrawn commitment does not serve to limit the Group's exposure to credit risk to the contractual notice period, the contractual period does not determine the maximum period considered. Instead, ECL is measured over the period the Group remains exposed to credit risk that is not mitigated by credit risk management actions. This applies to retail revolving loan, overdrafts and credit cards, where the period is the average time taken for stage 2 exposures to default or close as performing accounts, determined on a portfolio basis and ranging from between two and six years. In addition, for these facilities it is not possible to identify the ECL on the loan commitment component separately from the financial asset component. As a result, the total ECL is recognised in the loss allowance for the financial asset unless the total ECL exceeds the gross carrying amount of the financial asset, in which case the ECL in excess of the carrying amount of the financial asset is recognised as a provision.

Forward-looking economic inputs

The Group will in general apply three forward-looking global economic scenarios determined with reference to external forecast distributions, the Consensus Economic Scenario approach. This approach is considered sufficient to calculate unbiased expected loss in most economic environments. They represent a "Most likely outcome" (the Central scenario) and two, less likely, "Outer" scenarios on either side of the Central, referred to as an Upside and a Downside scenario respectively. The Central scenario is used by the annual operating planning process and, with regulatory modifications, will also be used in enterprise-wide stress tests. The Upside and Downside are constructed following a standard process supported by a scenario narrative reflecting the Group's current top and emerging risks. The relationship between the Outer scenarios and Central scenario will generally be fixed with the Central and Outer scenarios in terms of economic severity being informed by the spread of external forecast distributions among professional industry forecasts. The Outer scenarios are economically plausible, internally consistent states of the world and will not necessarily be as severe as scenarios used in stress testing. The period of forecast is five years, after which the forecasts will revert to a view based on average past experience. The central forecast and spread between the Central and Outer scenarios is grounded on the expected gross domestic product of the major regions, Hong Kong and mainland China. The economic factors include, but are not limited to, gross domestic product, unemployment, interest rates, inflation and commercial property prices across all the countries in which the Group operates.

In general, the consequences of the assessment of credit risk and the resulting ECL outputs will be probability-weighted using the standard probability weights. This probability weighting may be applied directly or the effect of the probability weighting determined on a periodic basis, at least annually, and then applied as an adjustment to the outcomes resulting from the central economic forecast. The central economic forecast is updated quarterly.

The Group recognises that the Consensus Economic Scenario approach using three scenarios will be insufficient in certain economic environments. Additional analysis may be requested at management's discretion, including the production of extra scenarios. If conditions warrant, this could result in a management overlay for economic uncertainty which is included in the ECL estimates.

(j) Impairment of amortised cost and FVOCI financial assets continued

Differences between HKAS 39 and HKFRS 9

Classification and measurement

Key similarities and differences between HKAS 39 and HKFRS 9 for the classification and measurement of financial assets are set out below. There are no differences for financial liabilities, except for the presentation of gains and losses on financial liabilities designated at fair value and the requirements to reconsider fair value designation on transition to HKFRS 9.

HKAS 39	HKFRS 9
Financial assets are measured at amortised cost (loans & receivables and held to maturity), available- for-sale (AFS), or fair value through profit or loss (derivatives and trading) based on the nature of the instrument and the purpose for which it is held. Embedded derivatives are separated from their host contract unless the contract as a whole is measured at fair value through profit or loss. The fair value option applies where there are non-closely related embedded derivatives that are not bifurcated, financial instruments are managed on a fair value basis or where measuring at fair value through profit or loss would reduce or eliminate an accounting mismatch. AFS is the default category.	Debt instruments are measured at amortised cost or FVOCI based on their contractual terms and the business model in which they are held as set out in the accounting policies above. The concept of embedded derivatives does not apply to financial assets. Therefore, the fair value option only applies where it would reduce or eliminate an accounting mismatch. Fair value through profit or loss is the default category. Equity securities are measured at fair value through profit or loss unless the option has been exercised to measure at FVOCI.
Upon disposal of AFS securities (debt instruments and equity securities) the cumulative gains or losses in other comprehensive income are recognised in profit or loss.	Upon disposal of debt instruments measured at FVOCI the cumulative gains or losses in other comprehensive income are recognised in profit or loss. Cumulative gains or losses in other comprehensive income are not recognised in profit or loss on the disposal of equity securities measured at FVOCI.
	Financial assets are measured at amortised cost (loans & receivables and held to maturity), available- for-sale (AFS), or fair value through profit or loss (derivatives and trading) based on the nature of the instrument and the purpose for which it is held. Embedded derivatives are separated from their host contract unless the contract as a whole is measured at fair value through profit or loss. The fair value option applies where there are non-closely related embedded derivatives that are not bifurcated, financial instruments are managed on a fair value basis or where measuring at fair value through profit or loss would reduce or eliminate an accounting mismatch. AFS is the default category. Upon disposal of AFS securities (debt instruments and equity securities) the cumulative gains or losses in other comprehensive income are recognised in

A reconciliation of presentational and measurement differences resulting from the adoption of HKFRS 9 at 1 January 2018 is set out in note 3. In general:

- loans and advances to banks and to customers and non-trading reverse repurchase agreements that are classified as loans and receivables under HKAS 39 are measured at amortised cost under HKFRS 9;
- financial assets designated at Fair Value through Profit and Loss ("FVPL") remain at FVPL, because it is required under HKFRS 9 or the designation will continue;
- debt securities classified as available-for-sale are measured at amortised cost or FVOCI, with a small minority at FVPL either because of their contractual cash flow characteristics or the business model within which they are held;
- debt securities classified as held to maturity are measured at amortised cost;
- treasury and other eligible bills classified as available-for-sale are measured at amortised cost or FVOCI depending upon the business model in which they are held; and
- all equity securities remain measured at fair value. The equity securities for which fair value movements are shown in other comprehensive
 income are for business facilitation and other similar investments where the Group holds the investments other than to generate a capital
 return.

(j) Impairment of amortised cost and FVOCI financial assets continued Impairment

Under HKFRS 9, the scope of impairment also covers amortised cost assets, debt instruments measured at FVOCI, as well as loan commitments and financial guarantees. The recognition and measurement of impairment is intended to be more forward-looking than under HKAS 39 and the resulting impairment charge may be more volatile. The adoption has resulted in an increase in the total level of impairment allowances as set out in Credit Risk in Risk Management section under MD&A, since all financial instruments are assessed for at least 12-month ECL and the population of financial assets to which lifetime ECL applies is larger than the population for which there is objective evidence of impairment in accordance with HKAS 39.

Key similarities and differences between HKAS 39 and HKFRS 9

ScopeFor amortised cost assets, impairment is recognised when there is objective evidence of impairment. Losses arise from future events are not recognised.Under HKFRS 9, the scope of impairment covers amortised cost assets, debt instruments and financial quarantees. The same recognised cost and FVQCI financial assets. Impairment is recognised when there is objective evidence of a shortfall in the recovery of future cash flows. Inpairment is recognised when there is objective evidence of a shortfall in the recovery of future cash flows. Inpairment is recognised for all financial assets in scope at either to cost at initial recognition.ApplicationAccounting policies generally make a distinction between individually significant toans and homogeneous groups of loans which are assessed collectively.Under HKFRS 9, the scope of impairment is recognised for all financial assets in scope at either to assets, debt assets in scope at either to distingtional assets in scope at either to distingtional assets in scope at either to asset debt assets and homogeneous groups of loans which are assessed collectively.Impaired/ Stage 3The oriteria used to determine whether there is objective evidence of impairment are the same for individually significant loans assessement is performed at is not adjusted for expected future changes in market prices.The stage 3 population is very similar to impaired loans that are not considered individually significant using either roll rate methodologies, impairment allowances are recognised at a portfolio presentation purposes when they are more than 90 dys past due or have been renegatiated for credit risk reasons.Stage 3 is determined by the specific LCD methodologies on historical loas to determine the LCL rather than using the best estimated to		HKAS 39	HKFRS 9			
between individually significant loans and homogeneous groups of loans which are assessed collectively. Impaired/ Stage 3 The oriteria used to determine whether there is objective evidence of impairment are the same for individually significant loans assessed under HKAS 39 and for HKFRS 9. The determination of the realisable value of collateral is based on the most recently updated market value at the time the impairment assessment is performed and is not adjusted for expected future changes in market prices. Statistical methods are used to determine impairment losses on a collective basis for homogeneous groups of loans that are not considered individually significant using either roll rate methodologies, impairment allowances are recognised at a portfolio level. However, loans are classified as impaired for presentation purposes when they are more than 90 days past due or have been renegotiated for credit risk reasons.	Scope	 when there is objective evidence of impairment. Losses are measured by comparing the carrying amount with the discounted future cash flows. Losses which may arise from future events are not recognised. For available-for-sale financial assets, impairment is recognised when there is objective evidence of a shortfall in the recovery of future cash flows. Impairment is measured as the decrease in fair value below the original 	amortised cost assets, debt instruments measured at FVOCI, as well as loan commitments and financial guarantees. The same recognition and measurement requirements apply to both amortised cost and FVOCI financial assets. Impairment is not recognised on equity securities which are measured at FVOCI. Impairment is recognised for all financial assets in scope at either 12-month ECL or lifetime ECL. All reasonable and supportable information, including information about past events, current conditions and reasonable and supportable forecasts of economic conditions at the			
 Stage 3 evidence of impairment are the same for individually significant loans assessed under HKAS 39 and for HKFRS 9. The determination of the realisable value of collateral is based on the most recently updated market value at the time the impairment assessment is performed and is not adjusted for expected future changes in market prices. Statistical methods are used to determine impairment losses on a collective basis for homogeneous groups of loans that are not considered individually significant using either roll rate methodologies or historical loss rate experience for loans. Under these methodologies, impairment allowances are recognised at a portfolio level. However, loans are classified as impaired for presentation purposes when they are more than 90 days past due or have been renegotiated for credit risk reasons. For the retail go the borrower's financial condition, or the loan is otherwise considered to be in default. The impairment allowance is determined by the specific LGD model for mortgage while the same calculation used for stage 2 for remaining portfolios, with the probability of default set to 1. The result may, therefore, not be the same as that determined by the HKAS 39 statistical methods and the population disclosed as stage 3 will not necessarily correspond with that disclosed as impaired in accordance with HKAS 39. 	Application	between individually significant loans and homogeneous	assessment is less relevant. In general, whether loans are managed through wholesale credit risk systems or retail credit risk systems is relevant because of differences in the types of information available and the			
 For wholesale loans, individual discounted cash flow calculations continue to be performed. However, the net realisable value of collateral is adjusted for expected future changes in market and the losses reflecting cash flows under different scenarios are probability weighted to determine the ECL rather than using the best estimate of cash flows. For the retail population, stage 3 is determined by considering the relevant objective evidence, primarily whether contractual payments of either principal or interest are 90 days past due or have been renegotiated for credit risk reasons. For the retail population, stage 3 is determined by considering the relevant objective evidence, primarily whether contractual payments of either principal or interest are 90 days past due or have been renegotiated for credit risk reasons. For the retail population, stage 3 is determined by the specific LGD model for mortgage while the same calculation used for stage 2 for remaining portfolios, with the probability of default set to 1. The result may, therefore, not be the same as that determined by the HKAS 39 statistical methods and the population disclosed as impaired in accordance with HKAS 39. The accounting policies setting out the criteria for loans to be transferred to stage 3 and for POCI financial assets 		evidence of impairment are the same for individually significant loans assessed under HKAS 39 and for	under HKAS 39 which are considered individually			
For the retail population, stage 3 is determined by considering the relevant objective evidence, primarily whether contractual payments of either principal or interest are 90 days past due or above, or a concession has been granted to the borrower for economic or legal reasons relating to the borrower's financial condition, or the loan is otherwise considered to be in default. The impairment allowance is determined by the specific LGD model for mortgage while the same calculation used for stage 2 for remaining portfolios, with the probability of default set to 1. The result may, therefore, not be the same as that determined by the HKAS 39 statistical methods and the population disclosed as stage 3 will not necessarily correspond with that disclosed as impaired in accordance with HKAS 39.		The determination of the realisable value of collateral is based on the most recently updated market value at the time the impairment assessment is performed and is not adjusted for expected future changes in market prices.	calculations continue to be performed. However, the net realisable value of collateral is adjusted for expected future changes in market and the losses reflecting cash flows under different scenarios are probability weighted to determine the ECL rather than using the best estimate			
to be transferred to stage 3 and for POCI financial assets		losses on a collective basis for homogeneous groups of loans that are not considered individually significant using either roll rate methodologies or historical loss rate experience for loans. Under these methodologies, impairment allowances are recognised at a portfolio level. However, loans are classified as impaired for presentation purposes when they are more than 90 days past due or have been renegotiated for credit risk	considering the relevant objective evidence, primarily whether contractual payments of either principal or interest are 90 days past due or above, or a concession has been granted to the borrower for economic or legal reasons relating to the borrower's financial condition, or the loan is otherwise considered to be in default. The impairment allowance is determined by the specific LGD model for mortgage while the same calculation used for stage 2 for remaining portfolios, with the probability of default set to 1. The result may, therefore, not be the same as that determined by the HKAS 39 statistical methods and the population disclosed as stage 3 will not necessarily correspond with that disclosed as impaired			
			to be transferred to stage 3 and for POCI financial assets			

(j) Impairment of amortised cost and FVOCI financial assets continued

Impairment continued

Key similarities and differences between HKAS 39 and HKFRS 9 continued

	HKAS 39	HKFRS 9
Stage 2	This is not an HKAS 39 concept.	The accounting policies setting out the criteria for loans to be transferred to stage 2 and the measurement of lifetime ECL are set out in policy (j).
Stage 1	This is not an HKAS 39 concept. However, incurred but not yet identified impairment is assessed for loans which have no evidence of impairment but have been specifically identified by estimating a collective allowance determined after taking into account factors including the estimated period between impairment occurring and the loss being identified. This is assessed empirically on a periodic basis and may vary over time. Similarly, for homogeneous groups of loans and advances which are assessed under HKAS 39 on a collective basis, the inherent loss is determined using risk factors including the period of time between loss identification and write-off which is regularly benchmarked against actual outcomes.	Financial instruments which are not considered to have significantly increased in credit risk have loss allowances measured at an amount equal to 12-month ECL. This 12-month time horizon is likely to be equal to or longer than the period estimated under HKAS 39 (typically between 6 and 12 months). The measurement of 12-month ECL is set out in policy (j).

Critical accounting estimates and judgements

Management believes that the Group's critical accounting estimates and judgements are those which relate to impairment of financial instruments, the valuation of financial instruments, deferred tax assets, provisions for liabilities and interests in associates. The implementation of HKFRS 9 resulted in a change to the assessment of the critical accounting estimates and judgements related to impairment of financial instruments.

In determining ECL, management is required to exercise judgement in defining what is considered to be a significant increase in credit risk and in making assumptions and estimates to incorporate relevant information about past events, current conditions and forecasts of economic conditions. Judgement has been applied in determining the lifetime and point of initial recognition of revolving facilities.

The PD, LGD and EAD models which support these determinations are reviewed regularly in light of differences between loss estimates and actual loss experience, but given that HKFRS 9 requirements have only just been applied, there has been little time available to make these comparisons. Therefore, the underlying models and their calibration, including how they react to forward-looking economic conditions, remain subject to review and refinement. This is particularly relevant for lifetime PDs, which have not been previously used in regulatory modelling and for the incorporation of "Upside scenarios" which have not been subject to experience gained through stress testing.

The exercise of judgement in making estimations requires the use of assumptions which are highly subjective and very sensitive to the risk factors, in particular to changes in economic and credit conditions across a large number of geographical areas. Many of the factors have a high degree of interdependency and there is no single factor to which loan impairment allowances as a whole are sensitive. Therefore, sensitivities are considered in relation to key portfolios which are particularly sensitive to a few factors and the results should be further extrapolated. Risk Management section (a) "Credit Risk" under MD&A sets out the assumptions underlying the Central scenario and information about how scenarios are developed in relation to the Group's top and emerging risks and its judgements, informed by consensus forecasts of professional industry forecasters. The adjustment from the ECL determined by using the Central scenario alone, which is used to calculate an unbiased expected loss, provides an indication of the overall sensitivity of ECL to different economic assumptions.

(k) Sale and repurchase agreements

Where securities are sold subject to commitment to repurchase them at a pre-determined price ("repos"), they remain on the balance sheet and a liability is recorded in respect of the consideration received in "Repurchase agreements-non-trading". Conversely, securities purchased under analogous commitments to resell ("reverse repos") are not recognised on the balance sheet and the consideration paid is recorded in "Reverse repurchase agreements-non-trading". The difference between the sale and repurchase price is treated as interest income and recognised over the life of the agreement.

Securities lending and borrowing transactions are generally secured, with collateral taking the form of securities or cash advanced or received. The transfer of securities to counterparties under these agreements is not normally reflected on the balance sheet. Cash collateral advanced or received is recorded as an asset or a liability respectively.

(l) Subsidiaries and associates

The Group classifies investments in entities which it controls as subsidiaries. The Group classifies investments in entities over which it has significant influence, and that are neither subsidiaries nor joint arrangement, as associates.

The Group's investments in subsidiaries and associates are stated at cost less any impairment losses. Investment in associates is recognised using the equity method. Under this method, such investments are initially stated at cost, including attributable goodwill, and are adjusted thereafter for the post-acquisition change in the Group's share of net assets less any impairment losses. An impairment loss recognised in prior periods shall be reversed through the income statement if, and only if, there has been a change in the estimates used to determine the recoverable amount of the investment since the last impairment loss was recognised.

(m) Investment properties

Investment properties are land and/or buildings which are owned or held under a leasehold interest to earn rental income and/or for capital appreciation. Investment properties are stated at fair value with changes in fair value being recognised in the income statement. Fair values are determined by independent professional valuers, primarily on the basis of capitalisation of net incomes with due allowance for outgoings and reversionary income potential. Property interests which are held under operating leases to earn rentals, or for capital appreciation, or both, are classified and accounted for as investment property on a property-by-property basis.

(n) Premises, plant and equipment

(i) Land and buildings

The following land and buildings held for own use are stated in the balance sheet at their revalued amount, being their fair value at the date of the revaluation less any subsequent accumulated depreciation and impairment losses:

- leasehold land and buildings where the fair value of the land cannot be reliably separated from the value of the building at inception of the lease and the premises are not clearly held under an operating lease; and
- leasehold land and buildings where the value of the land can be reliably separated from the value of the building at inception of the lease and the term of the lease is not less than 50 years.

Revaluations are performed by professionally qualified valuers, on a market basis, with sufficient regularity to ensure that the net carrying amount does not differ materially from the fair value at the reporting date. Surpluses arising on revaluation are credited firstly to the income statement to the extent of any deficits arising on revaluation previously charged to the income statement in respect of the same land and buildings, and are thereafter taken to other comprehensive income and are accumulated separately in the "Premises revaluation reserve". Deficits arising on revaluation, are firstly set off against any previous revaluation surpluses included in the "Premises revaluation reserve" in respect of the same land and buildings, and are thereafter recognised in the income statement.

Depreciation is calculated to write off the valuation of the land and buildings over their estimated useful lives as follows:

- freehold land is not depreciated;
- leasehold land is depreciated over the unexpired terms of the leases; and
- buildings and improvements thereto are depreciated at the greater of 2% per annum on the straight-line basis or over the unexpired terms
 of the leases or over the remaining estimated useful lives of the buildings.

On revaluation of the land and buildings, depreciation accumulated during the year will be eliminated. Depreciation charged on revaluation surplus of the land and buildings is transferred from "Premises revaluation reserve" to "Retained profits".

On disposal of the land and buildings, the profit and loss is calculated as the difference between the net sales proceeds and the net carrying amount and recognised in the income statement. Surpluses relating to the land and buildings disposed of included in the "Premises revaluation reserve" are transferred as movements in reserves to "Retained profits".

(ii) Other plant and equipment

Furniture, plant and equipment, are stated at cost less depreciation calculated on the straight-line basis to write off the assets over their estimated useful lives, which are generally between 3 and 20 years. On disposal, the profit and loss is calculated as the difference between the net sales proceeds and the net carrying amount.

Plant and equipment are subject to review for impairment if there are events or changes in circumstances that indicate that the carrying amount may not be recoverable.

(n) Premises, plant and equipment continued

(iii) Interest in leasehold land held for own use under operating lease

The Government of Hong Kong owns all the land in Hong Kong and permits its use under leasehold arrangements. Similar arrangements exist in mainland China. At inception of the lease,

- where the cost of land is known or can be reliably determined and the term of the lease is less than 50 years, the Group records its interest in leasehold land and land use rights separately as operating leases;
- where the cost of land is known or can be reliably determined and the term of the lease is not less than 50 years, the Group records its interest in leasehold land and land use rights as land and buildings held for own use; or
- where the cost of the land is unknown or cannot be reliably determined, and the leasehold land and land use rights are not clearly held under an operating lease, they are accounted for as land and buildings held for own use.

(o) Goodwill and intangible assets

(i) Goodwill

Goodwill arises on business combinations, including the acquisition of subsidiaries or associates when the cost of acquisition exceeds the fair value of the Group's share of the identifiable assets, liabilities and contingent liabilities acquired and is reported in the consolidated balance sheet. If the Group's interest in the fair value of the identifiable assets, liabilities and contingent liabilities of an acquired business is greater than the cost of acquisition, the excess is recognised immediately in the income statement. Goodwill on acquisitions of associates is included in "Interest in associates" and is not tested separately for impairment.

Goodwill is allocated to cash-generating units ("CGUs") for the purpose of impairment testing, which is undertaken at the lowest level at which goodwill is monitored for internal management purposes. Impairment testing is performed at least annually, and whenever there is an indication that the CGU may be impaired, by comparing the recoverable amount of a CGU with the carrying value of its net assets, including attributable goodwill. The recoverable amount of an asset is the higher of, its fair value less cost to sell, and its value in use. Value in use is the present value of the expected future cash flows from a CGU. If the recoverable amount of the CGU is less than the carrying value, an impairment loss is charged to the income statement. Any write-off in excess of the carrying value of goodwill is limited to the fair value of the individual assets and liabilities of the CGU. Goodwill is stated at cost less any accumulated impairment losses, if any.

At the date of disposal of a business, attributable goodwill is included in the Group's share of net assets in the calculation of the gain or loss on disposal.

(ii) Intangible assets

Intangible assets include PVIF, acquired software licences and capitalised development costs of computer software programmes.

- The PVIF is stated at a valuation determined at the reporting date by using the methodology as described in note 2(t).
- Computer software acquired is stated at cost less amortisation and impairment allowances. Amortisation of computer software is charged to the income statement over its estimated useful life. Costs incurred in the development phase of a project to produce application software for internal use are capitalised and amortised over the software's estimated useful life, usually five years.

Intangible assets that have an indefinite estimated useful life or are not yet ready for use are tested for impairment annually. Intangible assets that have a finite estimated useful life, except for the PVIF, are stated at cost less amortisation and accumulated impairment losses and are amortised over their estimated useful lives. Estimated useful life is the lower of legal duration and expected economic life. Intangible assets are subject to impairment review if there are events or changes in circumstances that indicate that the carrying amount may not be recoverable.

(p) Income tax

Income tax for the year comprises current tax and movements in deferred tax assets and liabilities. Income tax is recognised in the income statement except to the extent that it relates to items recognised in other comprehensive income or directly in equity, in which case it is recognised in other comprehensive income or directly in equity, respectively.

Current tax is the expected tax payable on the taxable profits for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years. Current tax assets and liabilities are settled on an individual taxable entity basis.

Deferred tax assets and liabilities arise from deductible and taxable temporary differences respectively, being the differences between the carrying amounts of assets and liabilities for financial reporting purpose and their tax bases. Deferred tax assets also arise from unused tax losses and unused tax credits. Deferred tax assets are recognised to the extent that it is probable that taxable profits will be available, against which deductible temporary differences can be utilised at each reporting date.

(p) Income tax continued

Deferred tax is calculated using the tax rates that are expected to apply in the periods in which the assets will be realised or the liabilities settled. Deferred tax assets and liabilities are not discounted. Deferred tax assets and liabilities are offset when they arise in the same tax reporting group and relate to income taxes levied by the same taxation authority, and when a legal right to offset exists in the entity.

(q) Employee benefits

- (i) Salaries, annual bonuses, paid annual leave, leave passage and the cost to the Group of non-monetary benefits are accrued in the year in which the associated services are rendered by the employees. Provision is made in respect of paid leave entitlement accumulated during the year, which can be carried forward into future periods for compensated absence or payment in lieu if the employee leaves employment.
- (ii) The Group provides retirement benefits for staff members and operates defined benefit and defined contribution schemes and participates in mandatory provident fund schemes in accordance with the relevant laws and regulations.

Payments to defined contribution plans and state-managed retirement benefit plans, where the Group's obligations under the plans are equivalent to a defined contribution plan, are charged as an expense as they incur.

The costs recognised for funding defined benefit plans are determined using the projected unit credit method, with annual actuarial valuations performed on each plan. The net charge to the income statement mainly comprises the service cost and the net interest on the net defined benefit liability and is presented in operating expenses. Service cost comprises current service cost, past service cost, and gain or loss on settlement.

The net defined benefit asset or liability recognised in the balance sheet represents the difference between the fair value of plan assets and the present value of the defined benefit obligations adjusted for unrecognised past service costs. In the case of a defined benefit asset, it is limited to unrecognised past service costs plus the present value of available refunds and reductions in future contributions to the plan.

(r) Provisions

Provisions are recognised when it is probable that an outflow of economic benefits will be required to settle a present legal or constructive obligation arising from past events and a reliable estimate can be made as to the amount of the obligation. Contingent liabilities, which include certain guarantees and letters of credit pledged as collateral security, are possible obligations that arise from past events whose existence will be confirmed only by the occurrence, or non-occurrence, of one or more uncertain future events not wholly within the control of the Group; or are present obligations that have arisen from past events but are not recognised because it is not probable that settlement will require the outflow of economic benefits, or because the amount of the obligations cannot be reliably measured. Contingent liabilities are not recognised in the financial statements but are disclosed unless the probability of settlement is remote.

(s) Financial guarantees

Financial guarantees are contracts that require the Group to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the terms of the loans or debt instruments.

Financial guarantee liabilities are initially recognised at their fair value, and subsequently carried at the higher of:

- the amount determined in accordance with the expected credit loss model under HKFRS 9 "Financial Instruments" and
- the amount initially recognised less, where appropriate, the cumulative amount of income recognised in accordance with the principles of HKFRS 15 "Revenue from Contracts with Customers".

Financial guarantees are included within "Other Liabilities".

(t) Insurance contracts

Through its insurance subsidiaries, the Group issues contracts to customers that contain insurance risk, financial risk or a combination thereof. A contract under which the Group accepts significant insurance risk from another party, by agreeing to compensate that party on the occurrence of a specified uncertain future event, is classified as an insurance contract. An insurance contract may also transfer financial risk, but is accounted for as an insurance contract if the insurance risk is significant.

A contract issued by the Group that transfers financial risk, without significant insurance risk, is classified as an investment contract, and is accounted for as a financial instrument. The financial assets held by the Group for the purpose of meeting liabilities under insurance and investment contracts are classified and accounted for based on their classifications as set out in notes 2(e) to 2(i).

(t) Insurance contracts continued

Insurance contracts are accounted for as follows:

Net earned insurance premiums

Premiums for life insurance contracts are accounted for when receivable, except in unit-linked insurance contracts where premiums are accounted for when liabilities are recognised.

Reinsurance premiums, netted by the reinsurers' share of provision for unearned premiums, are accounted for in the same reporting period as the premiums for the direct insurance contracts to which they relate.

Claims and reinsurance recoveries

Gross insurance claims for life insurance contracts reflect the total cost of all claims arising during the reporting period, including policyholder cash dividend payment upon policy anniversary and payments of maturities, surrenders and death claims. Reinsurance recoveries are accounted for in the same period as the related claims.

Present value of in-force long-term insurance business ("PVIF")

A value is placed on insurance contracts that are classified as long-term insurance business or long-term investment contracts with discretionary participating features ("DPF") and in force at the reporting date. This asset represents the present value of the shareholders' interest in the profits expected to emerge from those insurance contracts written at the reporting date.

The PVIF is determined by discounting future earnings expected to emerge from business currently in force, using appropriate assumptions in assessing factors such as future mortality and morbidity, lapse rates, levels of expenses and a risk discount rate that reflects the risk premium attributable to the respective long-term insurance business. The valuation has also included explicit risk margins for non-economic risks in the projection assumptions, and explicit allowances for financial options and guarantees using stochastic methods. Risk discount rates are set on an active basis with reference to market risk free yields and incorporate the explicit margins and allowances for certain risks and uncertainties in place of implicit adjustments. Movements in the PVIF are included in other operating income on a pre-tax basis. The PVIF is reported under "Intangible assets" in the balance sheet.

Liabilities under insurance contracts

Liabilities under non-linked life insurance contracts are calculated by each life insurance operation based on local actuarial principles. Some insurance contracts may contain discretionary participation features whereby the policyholder is entitled to additional payments whose amount and/or timing is at the discretion of the issuer. The discretionary element of these contracts is included in "Liabilities under insurance contracts".

Liabilities under unit-linked life insurance contracts are at least equivalent to the surrender or transfer value which is calculated by reference to the value of the relevant underlying funds or indices.

A liability adequacy test is carried out on insurance liabilities to ensure that the carrying amount of the liabilities is sufficient in the light of current estimates of future cash flows. When performing the liability adequacy test, all expected cash flows are discounted and compared with the carrying value of the liability. When a shortfall is identified it is charged immediately to the income statement.

Critical accounting estimates and judgements *Classification*

HKFRS 4 requires the Group to determine whether an contract that transfers both insurance risk and financial risk is classified as an insurance contract, or as a financial instrument under HKAS 39, or whether the insurance and non-insurance elements of the contract should be accounted for separately. This process involves judgement and estimation of the amounts of different types of risks that are transferred or assumed under a contract. The estimation of such risks often involves the use of assumptions about future events and is thus subject to a degree of uncertainty.

Present value of in-force long-term insurance business ("PVIF")

The value of PVIF, which is recorded as an intangible asset, depends upon assumptions regarding future events. These are described in more detail in note 34(a). The assumptions are reassessed at each reporting date and changes in the estimates which affect the value of PVIF are reflected in the income statement.

Insurance liabilities

The estimation of insurance liabilities involves selecting statistical models and making assumptions about future events which need to be frequently calibrated against experience and forecasts. The sensitivity of insurance liabilities to potential changes in key assumptions is set out in the MD&A.

(u) Investment contracts

Customer liabilities under linked investment contracts are measured at fair value and reported under "Financial liabilities designated at fair value". The linked financial assets are measured at fair value and the movements in fair value are recognised in the income statement in "Net income from financial instruments designated at fair value". Deposits receivable and amounts withdrawn are accounted for as increases or decreases in the liability recorded in respect of investment contracts.

Investment management fee receivables are recognised in the income statement over the period of the provision of the investment management services, in "Net fee income".

(v) Translation of foreign currencies

Foreign currency transactions during the year are translated at the foreign exchange rates ruling at the transaction dates. Monetary assets and liabilities denominated in foreign currencies are translated at the foreign exchange rates ruling at each reporting date. Any resulting exchange differences are recognised in the income statement. Non-monetary assets and liabilities that are measured in terms of historical cost in a foreign currency are translated using the foreign exchange rates ruling at the transaction dates. Non-monetary assets and liabilities denominated in foreign currency are translated using the foreign exchange rates ruling at the transaction dates. Non-monetary assets and liabilities denominated in foreign currencies that are stated at fair value are translated using the foreign exchange rates ruling at the dates the fair value was determined.

The results of branches, subsidiaries and associates not reporting in Hong Kong dollars are translated into Hong Kong dollars at the average rates of exchange for the reporting period. Exchange differences arising from the re-translation of opening foreign currency net investments and the related cost of hedging, if any, and exchange differences arising from re-translation of the result for the reporting period from the average rate to the exchange rate ruling at the period-end, are recognised in other comprehensive income and accumulated separately in equity in the foreign exchange reserve.

Exchange differences on a monetary item that is part of a net investment in a foreign operation are recognised in the income statement of separate subsidiary's financial statements. In the consolidated financial statements, these exchange differences are recognised in other comprehensive income and accumulated separately in equity in the foreign exchange reserve. On disposal of a foreign operation, exchange differences relating thereto previously recognised in reserves are recognised in the income statement.

(w) Operating segments

The Group's operating segments are determined to be customer group segment because the chief operating decision maker uses customer group information in order to make decisions about allocating resources and assessing performance.

HKFRS 8 "*Operating Segments*" requires segmental disclosure to be based on the way that the Group's chief operating decision maker regards and manages the Group, with the amounts reported for each reportable segment being the measures reported to the Group's chief operating decision maker for the purpose of assessing segmental performance and making decision about operating matters.

(x) Related parties

For the purposes of these financial statements, parties are considered to be related to the Group if the Group has the ability, directly or indirectly, to control the party or exercise significant influence over the party in making financial and operating decisions, or vice versa, or where the Group and the party are members of the same group. Related parties may be individuals (being members of key management personnel, significant shareholders and/or their close family members) or other entities which are under the significant influence of related parties of the Group or post employment benefit scheme. Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Group and its holding companies, directly or indirectly, including any directors (whether executive or otherwise) and Executive Committee members of the Group and its holding companies.

(y) Accounting policies applicable prior to 1 January 2018

Loans and advances to customers and placings with and advances to banks

"Loans and advances to customers" and "Placings with and advances to banks" include loans and advances originated or acquired by the Group, which are not classified as either held for trading or designated at fair value. Loans and advances are recognised when cash is advanced to borrowers and are derecognised when either the borrowers repay their obligations or the loans are sold or written off, or substantially all the risks and rewards of ownership transferred. They are initially recorded at fair value plus any directly attributable transaction costs and are subsequently measured at amortised cost using the effective interest rate method, less impairment allowances.

Financial Investments

Financial instruments intended to be held on a continuing basis, other than those designated at fair value, are classified as available-for-sale or held-to-maturity.

(y) Accounting policies applicable prior to 1 January 2018 continued

Available-for-sale financial assets

Available-for-sale financial assets are initially measured at fair value. They are subsequently remeasured at fair value, and changes therein are recognised in other comprehensive income and accumulated separately in equity in the "Available-for-sale investment reserve". When available-for-sale financial assets are sold, cumulative gains or losses which are previously recognised in other comprehensive income shall be reclassified from equity to the income statement as "Gains less losses from financial investments and fixed assets".

Held-to-maturity investment

Held-to-maturity investments are non-derivative financial assets with fixed or determinable payments and fixed maturities that the Group has the positive intention and ability to hold till maturity. Held-to-maturity investments are initially recorded at fair value plus any directly attributable transaction costs, and are subsequently measured at amortised cost using the effective interest rate method, less any impairment allowances.

Impairment of loans and advances

Losses for impaired loans and advances are recognised when there is objective evidence that impairment of a loan or portfolio of loans has occurred.

Individually assessed loans and advances

For all loans that are considered individually significant, the Group assesses on a case-by-case basis at each reporting date whether there is any objective evidence that a loan is impaired. The criteria used by the Group to determine that there is such objective evidence include:

- known cash flow difficulties experienced by the borrower;
- contractual payments of either principal or interest being past due for more than 90 days;
- the probability that the borrower will enter bankruptcy or other financial realisation;
- a concession granted to the borrower for economic or legal reasons relating to the borrower's financial difficulty that results in the forgiveness or postponement of principal, interest or fees, where the concession is not insignificant; and
- a significant downgrading in credit rating by an external rating agency.

For those loans where objective evidence of impairment exists, impairment losses are determined by considering the following factors:

- the Group's aggregate exposure to the borrower;
- the viability of the borrower's business model and its capacity to trade successfully out of financial difficulties and generate sufficient cash flow to service debt obligations;
- the amount and timing of expected receipts and recoveries;
- the likely dividend available on liquidation or bankruptcy;
- the extent of other creditors' commitments ranking ahead of, or pari passu with, the Group and the likelihood of other creditors continuing to support the borrower;
- the complexity of determining the aggregate amount and ranking of all creditor claims and the extent to which legal and insurance uncertainties are evident;
- the realisable value of collateral (or other credit mitigants) and likelihood of successful repossession;
- the likely deduction of any costs involved in recovery of amounts outstanding;
- the ability of the borrower to obtain, and make payments in, the currency of the loan if not denominated in local currency; and
- where available, the secondary market price for the debt.

The realisable value of collateral is based on the most recently updated market value at the time the impairment assessment is performed. The value is not adjusted for expected future changes in market prices, though adjustments are made to reflect local conditions such as forced sale discounts.

Impairment losses are calculated by discounting the expected future cash flows of a loan, which includes expected future receipts of contractual interest, at its original effective interest rate and comparing the resultant present value with the loan's current carrying amount.

(y) Accounting policies applicable prior to 1 January 2018 continued

Collectively assessed loans and advances

Impairment allowances are calculated on a collective basis to cover losses which have been incurred but have not yet been identified:

- on loans subject to individual assessment; or
- for homogeneous groups of loans that are not considered individually significant.

Incurred but not yet identified impairment

Individually assessed loans for which no evidence of impairment has been specifically identified on an individual basis are grouped together according to their credit risk characteristics for a collective impairment assessment. This reflects impairment losses that the Group has incurred as a result of events occurring before the reporting date, which the Group is not able to identify on an individual loan basis, and that can be reliably estimated. These losses will only be individually identified in the future. As soon as information becomes available which identifies losses on individual loans within a group, those loans are removed from the group and assessed on an individual basis for impairment. The collective impairment allowance is determined after taking into account:

- historical loss experience in portfolios of similar credit risk characteristics (for example, by industry sector, loan grade or product);
- the estimated period between a loss occurring and the loss being identified and evidenced by the establishment of an appropriate allowance against the individual loan; and
- management's judgement as to whether the current economic and credit conditions are such that the actual level of inherent losses at the reporting date is likely to be greater or less than that suggested by historical experience.

Homogeneous groups of loans and advances

Portfolios of homogeneous groups of loans are collectively assessed using roll rate or historical loss rate methodologies.

Write-off of loans and advances

Loans (and the related impairment allowance accounts) are normally written off, either partially or in full, when there is no realistic prospect of recovery. Where loans are secured, this is generally after receipt of any proceeds from the realisation of collateral. In circumstances where the net realisable value of any collateral has been determined and there is no reasonable expectation of further recovery, write-off may be earlier.

Reversals of impairment

If, in a subsequent period, the amount of an impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised, the excess is written back by reducing the loan impairment allowance account accordingly. The write-back is recognised in the income statement.

Repossessed assets

Non-financial assets acquired in exchange for loans in order to achieve an orderly realisation are reported under "Assets held for sale" if the carrying amounts of the assets are recovered principally through sale, the assets are available for sale in their present condition and the sale is highly probable. The asset acquired is recorded at the lower of its fair value less costs to sell and the carrying amount of the loan, net of impairment allowance amounts, at the date of exchange. No depreciation is provided in respect of assets held for sale. Any subsequent write-down of the acquired asset to fair value less costs to sell is recorded as an impairment loss and included in the income statement. Any subsequent increase in the fair value less costs to sell, to the extent this does not exceed the cumulative impairment loss, is recognised in the income statement.

Financial assets acquired in exchange for loans are classified and reported in accordance with the relevant accounting policies.

Renegotiated loans

Loans subject to collective impairment assessment whose terms have been renegotiated are no longer considered past due, but are treated as new loans for measurement purposes once the minimum number of payments required under the new arrangements has been received. A loan that is renegotiated is derecognised if the existing agreement is cancelled and a new agreement made on substantially different terms, or if the terms of an existing agreement are modified, such that the renegotiated loan is substantially a different financial instrument. These renegotiated loans are segregated from other parts of the loan portfolio for the purposes of collective impairment assessment, to reflect their risk profile. Loans subject to individual impairment assessment, whose terms have been renegotiated, are subject to ongoing review to determine whether they remain impaired. The carrying amounts that have been classified as renegotiated loans retain this classification until maturity or derecognition.

3. Effects of reclassification upon adoption of HKFRS 9(a) Reconciliation of consolidated balance sheet at 31 December 2017 and 1 January 2018

Burden							н	KFRS 9 reclassifi	cation to	_		
Back control location Amoretised on Amoretised Amoretised Amoretised Amoretised on Amoretised on Amoretised on		Footnotes	measurement	measurement	carrying amount at 31 December	changes in	through profit and	through other comprehensive	Amortised cost	amount post	remeasurement including expected	carrying amount at 1 January
control linksParlage with advances basiksParlage with advances 	Assets											
tubies12Amortised cost103,13(1,31)(1,31)(1,31)(1,32)100,090(0)10,030Financial assets designed and observation frie rulps-FVPLFVPLFVPL9,313(2,109)51,599-51,599Derivative financial instruments-FVPL10,0380.033-10,03310,023Derivative financial instrumentsFVPLFVPL10,03800.0330.03320,225Costorers12,3Amortised costAmortised cost806,573(2,138)00.04,0350.04,0350.02,2250.04,330.02,2350.02,2350.04,330.02,2250.04,330.02,2350.02,2350.02,2350.02,2350.02,2350.02,2350.02,2350.02,2350.02,2350.02,2350.02,2350.02,2350.02,2350.02,2350.02,2350.02,235<			Amortised cost	Amortised cost	21,718	-	_	-	-	21,718	-	21,718
Providel assets designated and objected in the interval methanical instruments 24.5.8 FVPL FVPL 0.313 - 2.547 - (767) 11.073 2.9 11.023 Derivative financial instruments FVPL FVPL 0.818 - 2.547 - (767) 11.073 2.9 11.033 2.9 12.3		1,2	Amortised cost	Amortised cost	103,113	(1,381)	(1,123)	_	_	100,609	(6)	100,603
measured finance measured finance troop profit or loss5.45.8FVPIFVPI6.9.133.7.22.5.471.10.73Loars and advances to customes1.3Ameritsed costAmeritsed costAmeritsed cost	Trading assets	1	FVPL	FVPL	53,704	-	-	-	(2,105)	51,599	-	51,599
Derivative francial instruments FVPL FVPL FVPL 10,838	otherwise mandatorily measured at fair value											
Loss and advances to outsitivers 1.2.3 Amortised cost FVOCI (Available for sale - Security instruments) 606,573 (2,318) (50) - <t< td=""><td></td><td>2,4,5,8</td><td></td><td></td><td></td><td>-</td><td>2,547</td><td>-</td><td></td><td></td><td></td><td></td></t<>		2,4,5,8				-	2,547	-				
nustomers 12.3 Amortised cos Provised			FVPL	FVPL	10,836	-	-	-	-	10,836	-	10,836
Financial investmentsFUOC (Available for sale- 4 delet instruments)FUOC (Available for sale- 5 equity instruments)FUOC 283,993 $281,933$ -1 -1 $(2,880)$ $281,113$ 28		1.2.3	Amortised cost	Amortised cost	806.573	(2.318)	(50)	_	_	804.205	(943)	803.262
$ \begin{array}{ c c c c c c } \hline \begin matrix \begin m$		_,_,-			,	(_,)	()			,	()	,
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			(Available for sale –									
(Available for series (Availab		4		FVOCI	283,993	-	-	-	(2,880)	281,113	-	281,113
S equity instruments FVOCI 6,211 - (1,374) - - 4,837 - 4,837 Interests in associates 4 Amorised cos Amorised cos 20,107 - - - 3,667 9,874 (2,07) 9,87,04 Interests in associates NA NA 10,166 - - - - 2,170 0.10,166 - 2,101 Interests in associates NA NA 10,166 - - - - 2,849 0.10,166 - 2,849 0.10,166 - 2,849 0.10,166 - 2,849 0.10,166 - 2,849 0.10,166 - 2,849 0.10,166 - 2,849 0.10,166 - 2,849 0.10,166 - 2,849 0.10,166 - 2,849 0.10,166 - 2,849 0.10,166 - 2,849 0.10,166 0.10,166 0.10,166 0.10,166 0.10,166 0.10,166 0.10,166 0.10,166 0.10,166 0.10,166 0.10,166 0.10,166 0.10,176 0.10,166 0.10,166 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>												
Interests in associates NA NA NA 2.170 2.170 2.170 Investment properties NA NA NA NA 28.499 2.170 2.170 Premises, plant and equipment NA NA NA 28.499 2.100 28.499 28.491 Intragible assets 16 NA NA Sissi 2.105 3.535 12 15.354 </td <td></td> <td>5</td> <td></td> <td>FVOCI</td> <td>6,211</td> <td>-</td> <td>(1,374)</td> <td>-</td> <td>-</td> <td>4,837</td> <td>-</td> <td>4,837</td>		5		FVOCI	6,211	-	(1,374)	-	-	4,837	-	4,837
Investment propertiesN/AN/AN/A10.16610.16610.166Premises plant and equipmentN/AN/A28.49928.49928.499Intangible assets6N/AN/A15.55415.3541215.364Other assets1N/AN/A31.713.69921.0537.515(H2)37.515Total assets1N/AN/A1.17.8418		4	Amortised cost	Amortised cost	95,057	-	-	-	3,667	98,724	(20)	98,704
Premises, plant and equipment N/A N/A N/A N/A 28,499 28,499 28,499 Intragible assets 6 N/A N/A 15,354 15,354 12 15,356 Other assets 1 N/A N/A N/A 13,711 3,699 1,75,41 12 15,354 12 15,354 Other assets 1 N/A N/A N/A 1,77,848	Interests in associates		N/A	N/A	2,170	-	-	-	-	2,170	-	2,170
Intangible assets6N/AN/A15,35415,3541215,364Other assets1N/A3,1713,6992,00537,515(4)37,515Total assets11/478,4181,478,418(932)1.477,483Chained assets1	Investment properties		N/A	N/A	10,166	-	-	-	-	10,166	-	10,166
Other assets1N/AN/A31,7113,8992,10537,515(4)37,515Total assets1,478,4182,10537,515(4)37,515Liabilities11,478,4181,478,418(932)1,477,486Current, savings and other deposit accounts1Amortised costAmortised cost11,074,837(2,296)1,072,541-1,072,541-1,072,541-1,072,541-1,072,541-1,072,541-1,072,541-1,072,541-1,072,541-1,072,541-1,072,541-1,072,541-1,072,541-1,072,541-1,072,541-1,072,541-1,072,541-1,072,541-2,3892,3892,389-1,3892,389-1,3892,389-1,389	Premises, plant and equipment		N/A	N/A	28,499	-	-	-	-	28,499	-	28,499
Total assets Infer	Intangible assets	6	N/A	N/A	15,354	-	-	-	-	15,354	12	15,366
LiabilitiesLiabilitiesCurrent, savings and other deposit accountsCurrent, savings and other deposit accounts1Amortised costAmortised cost1,074,837 $(2,296)$ 2,389-2,389Repurchase agreements - non-tradingAmortised costAmortised cost2,3892,389-2,389Deposits from banks1Amortised costAmortised cost2,3892,389-2,389Deposits from banks1Amortised costAmortised cost $3,676$ (796) 2,389-2,389Deposits from banks1Amortised costAmortised cost $3,676$ (796) $2,880$ -2,389Trading liabilities1,7FVPLFVPL88,270 $(39,574)$ $40,484$ - $40,484$ Derivative financial liabilities designated at fair value7FVPLFVPL1,047 $39,437$ $40,484$ - $40,484$ - $40,484$ - $40,484$ - $40,484$ - $40,484$ - $40,484$ - $40,484$ - $40,484$ - $40,484$ - $40,484$ - $40,484$ - $40,484$ -	Other assets	1	N/A	N/A	31,711	3,699	-	-	2,105	37,515	(4)	37,511
Current, savings and other deposit accounts1Amortised costAmortised cost1,074,837(2,296)1,072,5411,072,541Repurchase agreements - non-tradingAmortised costAmortised cost2,3892,389-2,389Deposits from banks1Amortised costAmortised cost3,676(796)2,880-2,880Trading liabilities1,7FVPLFVPL88,270(39,574)40,484-40,484Financial liabilities designated at far value7FVPLFVPL1,04739,43740,484-40,484Derivative financial instrumentsFVPLFVPL1,16940,484-40,484Certificates of deposit and other debt securities in issueAmortised costRometise cost600600-600Other liabilities under insurance contracts13N/AN/A115,545600-568-568Current tax liabilitiesN/AN/AN/A5686,016(177)5,339DefinitionN/AN/AN/A6,0166,016-5,638Certification for the initial initiation for t	Total assets				1,478,418	-	-	-	-	1,478,418	(932)	1,477,486
deposit accounts1Amortised costAmortised costI,074,837(2,296) $ 1,072,541$ $ 2,389$ $ 2,389$ $ 2,389$ $ 2,389$ $ 2,389$ $ 2,389$ $ 2,389$ $ 2,389$ $ 2,389$ $ 2,389$ $ 2,389$ $ 2,389$ $ 2,389$ $ 2,389$ $ 2,389$ $ 2,389$ $ 2,389$ $ 2,389$ $ -$ <t< td=""><td>Liabilities</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Liabilities											
Repurchase agreements- non-tradingAmortised costAmortised cost2,3892,389-2,389Deposits from banks1Amortised costAmortised cost3,676(796)2,880-2,880Trading liabilities1,7FVPLFVPL88,270(39,574)48,696-48,696Financial liabilities designated at fair value7FVPLFVPL1,04739,43740,484-40,484Derivative financial instrumentsFVPLFVPL11,16940,484-40,484Certificates of deposit and other debt securities in issue1,3N/AN/A22,2223,229600600Other liabilities1,3N/AN/A215,255600<	Current, savings and other											
non-tradingAmortised costAmortised cost $2,389$ $ 2,389$ $ 2,389$ Deposits from banks1Amortised cost $3,676$ (796) $ 2,880$ $ 2,880$ Trading liabilities $1,7$ FVPLFVPL $88,270$ $(39,574)$ $ 48,696$ $ 48,696$ Financial liabilities designated at fair value7FVPLFVPL $1,047$ $39,437$ $ 40,484$ $ 40,484$ Derivative financial instrumentsFVPLFVPL $1,169$ $ 40,484$ $ 40,484$ Derivative financial instrumentsFVPLFVPL $1,169$ $ -$ <	deposit accounts	1	Amortised cost	Amortised cost	1,074,837	(2,296)	-	-	-	1,072,541	-	1,072,541
Trading liabilities1,7FVPLFVPL88,270 $(39,574)$ 48,696-48,696Financial liabilities designated at fair value7FVPLFVPL1,04739,43740,484-40,484Derivative financial instrumentsFVPLFVPL11,16940,084-40,484Derivative financial instrumentsFVPLFVPL11,16940,084-40,084Certificates of deposit and other debt securities in issueAmortised costAmortised cost600600-600Other liabilities1,3N/AN/A22,2223,229600-600Other liabilities under insurance contracts6N/AN/A215,2523,229115,54515115,560Liabilities under insurance contracts6N/AN/A115,545568-5683Querent tax liabilitiesN/AN/AN/A5686,016(177)5,839Derived tax liabilitiesN/AN/AN/A6,016(177)5,839			Amortised cost	Amortised cost	2,389	-	-	-	-	2,389	-	2,389
Financial liabilities designated at fair value 7 FVPL FVPL 1,047 39,437 - - - 40,484 - 40,484 Derivative financial instruments FVPL FVPL 11,169 - - - - 11,169 - 10 11,169 - - - 40,484 40,484 40,484 40,484 40,484 40,484 40,484 40,484 40,484 40,484<	Deposits from banks	1	Amortised cost	Amortised cost	3,676	(796)	-	-	-	2,880	-	2,880
fair value7FVPLFVPL1,04739,437 $ -$ 40,484 $-$ 40,484Derivative financial instrumentsFVPLFVPL11,169 $ 11,169$ $ 11,169$ $ -$	Trading liabilities	1,7	FVPL	FVPL	88,270	(39,574)	-	-	-	48,696	-	48,696
Certificates of deposit and other debt securities in issueAmortised costAmortised cost600600-600Other liabilities1,3N/AN/A22,2223,22925,4518425,535Liabilities under insurance contracts6N/AN/A115,545115,54515115,660Current tax liabilitiesN/AN/A568568-568Deferred tax liabilitiesN/AN/A6,0166,016(177)5,839	0	7	FVPL	FVPL	1,047	39,437	_	-	-	40,484	-	40,484
debt securities in issueAmortised costAmortised cost 600 $ 600$ $ 600$ Other liabilities1,3N/AN/A $22,222$ $3,229$ $ 25,451$ 84 $25,555$ Liabilities under insurance contracts6N/AN/A $115,545$ $ 115,545$ $115,565$ Current tax liabilitiesN/AN/A 568 $ 568$ $ 568$ Defended tax liabilitiesN/AN/A $6,016$ $ 6,016$ (177) $5,839$	Derivative financial instruments		FVPL	FVPL	11,169	-	-	-	-	11,169	-	11,169
Liabilities under insurance contracts 6 N/A N/A 115,545 - - - - - 115,545 15 115,560 Current tax liabilities N/A N/A N/A 568 - - - - 568 - 568 - 568 - 568 - 568 - 568 - 568 <td></td> <td></td> <td>Amortised cost</td> <td>Amortised cost</td> <td>600</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>600</td> <td>_</td> <td>600</td>			Amortised cost	Amortised cost	600	_	_	_	_	600	_	600
contracts 6 N/A N/A 115,545 - - - - 115,545 115,560 Current tax liabilities N/A N/A 568 - - - - 568 - 568 Deferred tax liabilities N/A N/A 6,016 - - - - 6,016 (177) 5,839	Other liabilities	1,3	N/A	N/A	22,222	3,229	-	-	-	25,451	84	25,535
Deferred tax liabilities N/A N/A 6,016 - - - - 6,016 (177) 5,839		6	N/A	N/A	115,545	_	_	-	-	115,545	15	115,560
Deferred tax liabilities N/A N/A 6,016 6,016 (177) 5,839	Current tax liabilities		N/A	N/A	568	-	_	-	-	568	-	568
Total liabilities 1,326,339 1,326,339 (78) 1,326,261	Deferred tax liabilities		N/A		6,016	-	_	-	-	6,016	(177)	5,839
	Total liabilities				1,326,339	-	-	-	-	1,326,339	(78)	1,326,261

3. Effects of reclassification upon adoption of HKFRS 9 continued

(a) Reconciliation of consolidated balance sheet at 31 December 2017 and 1 January 2018 continued

	Footnotes	HKAS 39 carrying amount at 31 December 2017	HKFRS 9 reclassification	Carrying amount post reclassification	HKFRS 9 remeasurement including expected credit losses ³	Carrying amount at 1 January 2018
Equity						
Share capital		9,658	-	9,658	-	9,658
Other equity instruments		6,981	-	6,981	-	6,981
Other reserves	9	21,745	(83)	21,662	5	21,667
Retained profits		113,646	83	113,729	(859)	112,870
Total Shareholders' Equity		152,030	_	152,030	(854)	151,176
Non-controlling interests		49	-	49	-	49
Total equity		152,079	-	152,079	(854)	151,225

(b) Reconciliation of impairment allowance under HKAS 39 and provision under HKAS 37 to expected credit losses under HKFRS 9

			Reclassification to			Remeasurement		
	HKAS 39 measurement category	Fair value through profit and loss	Fair value through other comprehensive income	Amortised cost	Stage 3	Stage 1 & Stage 2	Total	
Financial assets at amortised cost								
HKAS 39 impairment allowance at 31 December 2017		-	_	_	_	_	(1,597)	
Cash and sight balances at central banks	Amortised cost (Loans and receivables)	_	_	_	-	_	-	
Placings with and advances to banks	Amortised cost (Loans and receivables)	_	_	_	-	(6)	(6)	
Loans and advances to customers	Amortised cost (Loans and receivables)	_	_	_	(91)	(852)	(943)	
Financial investments	Amortised cost (Held to maturity)	_	_	(3)	-	(37)	(40)	
Other assets	Amortised cost (Loans and receivables)	-	-	_	-	(4)	(4)	
Expected credit loss allowance at 1 January 2018		-	_	(3)	(91)	(899)	(2,590)	
Loan commitments and financial guarantee contracts								
HKAS 37 provisions at 31 December 2017		-	_	_	_	_	-	
Provisions (loan commitments and financial guarantees)	N/A	N/A	N/A	N/A	_	(84)	(84)	
Expected credit loss provision at 1 January 2018		N/A	N/A	N/A	-	(84)	(84)	

The pre-tax net asset impact of additional impairment allowances on adoption of HKFRS 9 is HK\$1,077m; HK\$993m in respect of financial assets at amortised cost and HK\$84m related to loan commitments and financial guarantee contracts. Total expected credit loss allowance at 1 January 2018 is HK\$2,590m in respect of financial assets at amortised cost and HK\$84m related to loan commitments and financial guarantee contracts.
3. Effects of reclassification upon adoption of HKFRS 9 continued

(c) Effects of reclassification upon adoption of HKFRS 9

			Assuming no r	eclassification		
	Carrying amount at 31 December 2018	Fair value at 31 December 2018	Gains/(losses) recognised in profit or loss	Gains/(losses) recognised in other comprehensive income	Effective interest rate determined on the date of initial application	Interest income/ expense
Reclassified from available-for-sale to amortised cost						
Assets						
Placings with and advances to banks	-	-	_	-	N/A	N/A
Loans and advances to customers	-	-	_	-	N/A	N/A
Reverse repurchase agreements-non- trading	_	-	_	_	N/A	N/A
Other financial assets held at amortised cost	2,877	2,750	-	(130)	N/A	N/A

Footnotes to Effects of reclassification upon adoption of HKFRS 9

1 Settlement accounts of HK\$2,105m have been reclassified from "Trading assets" to "Other assets" as a result of the assessment of business model in accordance with HKFRS 9.

Cash collateral and settlement accounts previously presented as "Placings with and advances to banks" of HK\$1,381m and "Loans and advances to customers" of HK\$2,318m have been represented in "Other assets" to ensure consistent presentation of all such balances. Settlement accounts previously presented as "Trading liabilities" of HK\$137m, "Deposits from banks" of HK\$796m and "Current, savings and other deposit accounts" of HK\$2,296m have been represented in "Other liabilities". This change in presentation for financial liabilities is considered to provide more relevant information, given the change in presentation for the financial assets.

- 2 "Loans and advances to customers" of HK\$50m representing default fund contributions and "Placings with and advances to banks" of HK\$1,123m did not meet the "Solely payments of principal and interest" ("SPPI") requirement for amortised cost classification under HKFRS 9. As a result, these financial assets were reclassified to "Financial assets designated and otherwise mandatorily measured at fair value through profit or loss". This resulted in a HK\$29m upward remeasurement of the aforesaid financial assets.
- 3 HKFRS 9 expected credit losses have decreased net assets by HK\$1,077m (refer to note 3(b)) principally comprising of HK\$943m reduction in the carrying value of assets classified as "Loans and advances to customers" and HK\$84m increase in "Provisions" under "Other liabilities" relating to expected credit losses on loan commitments and financial guarantee contracts.
- 4 Debt instruments of HK\$2,880m previously classified as available-for-sale under HKAS 39 have been reclassified to amortised cost as a result of "Hold to collect" business model classification under HKFRS 9. This resulted in a HK\$6m upward remeasurement of the financial assets now measured at amortised cost as a result of "Hold to collect" business. Debt instruments of HK\$787m previously designated at fair value under HKAS 39 have been reclassified to amortised cost as a result of "Hold to collect" business model classification under HKFRS 9. This resulted in a HK\$14m upward remeasurement of the financial assets now measured at amortised cost as a result of "Hold to collect" business model classification under HKFRS 9. This resulted in a HK\$14m upward remeasurement of the financial assets now measured at amortised cost excluding expected credit losses.
- 5 HK\$1,374m of available-for-sale non-traded equity instruments have been reclassified as "Financial assets designated and otherwise mandatorily measured at fair value through profit or loss" in accordance with HKFRS 9. The Group has elected to apply the FVOCI option under HKFRS 9 for the remaining HK\$4,837m.
- 6 Changes in the classification and measurement of financial assets held in our insurance business and the recognition of ECL under HKFRS 9 has resulted in secondary impacts on the present value of in-force long-term insurance business ("PVIF") and liabilities to holders of insurance and investment contracts. The gross carrying value of PVIF reported in "Intangible assets" and liabilities reported in "Liabilities under insurance contracts" has increased by HK\$12m and HK\$15m respectively.
- 7 We have considered market practices for the presentation of HK\$39,437m of financial liabilities which contain both deposit and derivative components. We have concluded that a change in accounting policy and presentation in respect of "Trading liabilities structured deposits and structured debt securities in issue" would be appropriate, since it would better align with the presentation of similar financial instruments by peers and therefore provide more relevant information about the effect of these financial liabilities on our financial position and performance. As a result, rather than being classified as held for trading, we will designate these financial liabilities as at fair value through profit or loss since they are managed and their performance evaluated on a fair value basis.
- 8 The financial assets designated at fair value are mandatorily measured at fair value due to the adoption of HKFRS 9 in 2018.
- 9 While HKFRS 9 ECL has no effect on the carrying value of FVOCI financial assets, which remain measured at fair value, the adoption of HKFRS 9 results in a transfer from the FVOCI reserve (formerly AFS reserve) to retained earnings to reflect the cumulative impairment recognised in profit or loss in accordance with HKFRS 9. The amount transferred from "Other reserves" to "Retained earnings" was HK\$6m (net of tax HK\$5m). In addition, the cumulative AFS reserve relating to financial investments reclassified to "Financial assets designated and otherwise mandatorily measured at fair value through profit or loss" in accordance with HKFRS 9 has been transferred to retained earnings was HK\$83m.

Notes to the Financial Statements

4. Interest income/interest expense (a) Interest income

	2018	2017
Interest income arising from:		
 financial assets that are not at fair value through profit and loss 	36,711	28,745
– trading assets	874	465
- financial assets designated and otherwise mandatorily measured at fair value	48	11
	37,633	29,221
of which:		
 interest income from impaired financial assets 	41	49
(b) Interest expense	2018	2017
Interest expense arising from:		
 financial liabilities that are not at fair value through profit and loss 	5,126	2,821
- trading liabilities	682	1,779
 financial liabilities designated at fair value 	1,778	44
	7,586	4,644
of which:		
 interest expense from subordinated liabilities 	-	118

5. Net fee income

	Retail Banking and Wealth Management	Commercial Banking	Global Banking and Markets	Other	Total
2018					
 securities broking and related services 	1,514	166	24	_	1,704
 retail investment funds 	1,662	20	-	-	1,682
- insurance	511	86	64	-	661
- account services	330	191	6	-	527
- remittances	89	492	38	-	619
- cards	1,383	1,602	29	-	3,014
- credit facilities	25	438	137	-	600
– trade services	-	419	27	-	446
- other	75	79	34	228	416
Fee income	5,589	3,493	359	228	9,669
Fee expense	(1,081)	(1,453)	(59)	(9)	(2,602)
	4,508	2,040	300	219	7,067
2017 (restated)					
 securities broking and related services 	1,467	187	19	-	1,673
– retail investment funds	1,873	21	-	-	1,894
- insurance	410	102	74	-	586
- account services	307	176	6	-	489
- remittances	103	424	35	-	562
- cards	1,300	1,403	39	-	2,742
- credit facilities	15	330	118	-	463
– trade services	-	394	27	-	421
- other	76	70	30	203	379
Fee income	5,551	3,107	348	203	9,209
	(1 107)	(1 007)	(50)	(2)	$(2 \langle E \rangle)$
Fee expense	(1,107)	(1,287)	(58)	(2)	(2,454)

Fee income is recognised as services are provided to our customers. It is commonly from services provided at a fixed price over time, such as account services and cards fees, or at the point in time the Group executes a specific transaction, as is the case for broking income and imports/exports. With the exception of certain fund management and performance fees which can be variable depending on the size of the customer portfolio and on how the Group performs, all other fees are generated at a fixed price. Variable fees are recognised when all uncertainties are resolved. Fee revenue is generally earned from short term contracts with payment terms that do not include significant financing arrangements.

The Group is principal in the majority of those contracts with customers, with the exception of broking income fees. For most brokerage trades, the Group acts as agent in the transaction and recognises broking income, net of fees payable, to other parties in the arrangement. Fees earned on transaction based arrangements, including broking income, are satisfied at the time of the transaction and revenue is recognised at a point in time when we fully provide our service to the customer. Where the performance obligation associated with the contract will be satisfied as an obligation to provide services over time, which is the case of account services fees, income is recognised on a systematic basis over the life of the agreement.

5. Net fee income continued

	2018	2017
of which:		
Net fee income, other than amounts included in determining the effective interest rate, arising from financial assets or financial liabilities that are not held for trading or designated at fair value	2,247	2,046
- fee income	4,608	4,155
- fee expense	(2,361)	(2,109)
Net fee income on trust and other fiduciary activities where the Group holds or invests assets on behalf of its customers	870	968
- fee income	943	1,154
- fee expense	(73)	(186)

6. Net income from financial instruments measured at fair value

	2018	2017
Net trading income	1,936	2,384
- trading income	1,928	2,384
 other trading income – hedging ineffectiveness 		
 on cash flow hedges 	-	1
– on fair value hedges	8	(1)
Net income from financial instruments designated at fair value	207	5
Net income/(expense) from assets and liabilities of insurance businesses measured at fair value	(437)	1,768
- financial assets held to meet liabilities under insurance and investment contracts	(440)	1,824
 liabilities to customers under investment contracts 	3	(56)
Changes in fair value of other financial instruments measured at fair value	(1)	_
Net income from financial instruments measured at fair value	1,705	4,157

7. Gains less losses from financial investments

	2018	2017
Net gains from disposal of debt securities measured at amortised cost	33	N/A
Net gains from disposal of debt securities measured at fair value through other comprehensive income	24	N/A
Net gains from disposal of available-for-sale debt securities	N/A	48
	57	48

There were no gains or losses on disposal of held-to-maturity investments for 2017.

8. Dividend income

	2018	2017
Dividend income:		
- listed investments	124	120
- unlisted investments	22	68
	146	188

9. Net insurance premium income

	Non-linked	Unit-linked	Total
2018			
Gross insurance premium income	16,548	3	16,551
Reinsurers' share of gross insurance premium income	(2,021)	-	(2,021)
Net insurance premium income	14,527	3	14,530
2017			
Gross insurance premium income	13,946	4	13,950
Reinsurers' share of gross insurance premium income	(1,133)	-	(1,133)
Net insurance premium income	12,813	4	12,817

10. Other operating income

	2018	2017
Rental income from investment properties	341	363
Movement in present value of in-force long-term insurance business (note 34(a))	1,324	910
Net losses from disposal of fixed assets	(5)	(10)
Gains/(losses) from the derecognition of loans and advances to customers measured at amortised cost	(4)	3
Others	224	268
	1,880	1,534

11. Net insurance claims and benefits paid and movement in liabilities to policyholders

	Non-linked	Unit-linked	Total
2018			
Claims, benefits and surrenders paid	13,999	14	14,013
Movement in provisions	2,266	(20)	2,246
Gross claims and benefits paid and movement in liabilities to policyholders	16,265	(6)	16,259
Reinsurers' share of claims, benefits and surrenders paid	(1,404)	_	(1,404)
Reinsurers' share of movement in provisions	(638)	_	(638)
Reinsurers' share of claims and benefits paid and movement in liabilities to policyholders	(2,042)	_	(2,042)
Net insurance claims and benefits paid and movement in liabilities to policyholders	14,223	(6)	14,217
2017			
Claims, benefits and surrenders paid	9,298	11	9,309
Movement in provisions	6,476	11	6,487
Gross claims and benefits paid and movement in liabilities to policyholders	15,774	22	15,796
Reinsurers' share of claims, benefits and surrenders paid	(572)	_	(572)
Reinsurers' share of movement in provisions	(505)	-	(505)
Reinsurers' share of claims and benefits paid and movement in liabilities to policyholders	(1,077)	-	(1,077)
Net insurance claims and benefits paid and movement in liabilities to policyholders	14,697	22	14,719
Net insurance claims and benefits paid and movement in liabilities to policyholders	14,697	22	14,719

12. Change in expected credit losses and other credit impairment charges/Loan impairment charges and other credit risk provisions

	2018	2017
Change in expected credit losses/Loan impairment charges	996	1,042
New allowances net of allowance releases	1,139	1,141
Recoveries of amounts previously written off	(143)	(99)
Impairment allowances/(releases) of available-for-sale debt securities	N/A	-
Change in expected credit losses and other credit impairment charges/ Loan impairment charges and other credit risk provisions	996	1,042
Attributable to:		
– loans and advances to banks and customers	1,023	1,042
- other financial assets	(2)	-
 loan and other credit related commitments and guarantees 	(25)	_
Change in expected credit losses and other credit impairment charges/ Loan impairment charges and other credit risk provisions	996	1,042

13. Operating expenses

	2018	2017
Employee compensation and benefits:		
 salaries and other costs* 	5,225	4,720
- retirement benefit costs		
 defined benefit scheme (note 48(a)) 	172	194
 defined contribution scheme (note 48(b)) 	259	208
	5,656	5,122
General and administrative expenses:		
- rental expenses	611	614
 other premises and equipment 	1,498	1,345
 marketing and advertising expenses 	526	426
- other operating expenses	2,390	1,925
	5,025	4,310
Depreciation of premises, plant and equipment (note 33(a))	1,363	1,229
Amortisation of intangible assets (note 34(c))	124	107
	12,168	10,768
* of which:		
share-based payments (note 49(d))	45	33
Share-based payments (Hote 43(U))	45	
Cost efficiency ratio	29.5%	30.5%

Included in operating expenses are minimum lease payments under operating lease of HK\$619m (2017: HK\$629m).

14. The emoluments of the five highest paid individuals

(a) The aggregate emoluments

	2018	2017
Salaries, allowances and benefits in kind	25	22
Payments in respect of termination of services/other payments	-	11
Retirement scheme contributions	2	1
Variable bonuses		
- Cash bonus	15	9
 Share-based payment 	17	9
	59	52

(b) The numbers of the five highest paid individuals whose emoluments fell within the following bands were:

	2018 Number of Individuals	2017 Number of Individuals
HK\$		
6,000,001–6,500,000	1	-
6,500,001–7,000,000	-	2
7,000,001–7,500,000	2	-
11,000,001–11,500,000	-	1
12,000,001-12,500,000	1	1
14,500,001–15,000,000	-	1
25,500,001–26,000,000	1	
	5	5

The emoluments of the five highest paid individuals set out above include the emoluments of two (2017: three) Executive Directors which are included in note 15. There is no Non-executive Director included in the table above (2017: Nil).

15. Directors' remunerations

The emoluments of the Directors of the Bank disclosed pursuant to section 383 of the Hong Kong Companies Ordinance (Cap.622) and the Companies (Disclosure of Information about Benefits of Directors) Regulation were set out below:

				Emoluments ⁽¹¹⁾				Payments in respect of termination of services/ other		
			-		Variable			payments ⁽⁸⁾		
	Fees	Salaries, allowances and benefits in kind ⁽⁶⁾	Contribution to retirement benefit schemes ⁽⁴⁾	Cas Deferred	Non- deferred	Shar Deferred	Non- deferred		Total 2018	Total 2017
	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000
Executive Directors										
Ms Louisa Cheang, Chief Executive ⁽¹⁾	_	11,336	682	4,008	2,612	4,542	2,612	_	25,792	12,252
Ms Margaret W H Kwan ⁽¹⁾	-	3,474	456	699	1,033	760	1,033	-	7,455	5,387
Ms Rose Lee, Chief Executive ⁽¹⁾ (Resigned on 1 July 2017)	_	_	_	_	_	_	_	_	_	14,894(9)
Mr Andrew H C Fung ⁽¹⁾ (Resigned on 4 July 2017)	-	_	_	_	-	_	_	_	_	4,516
Mr Patrick Chan ⁽¹⁾ (Resigned on 1 May 2017)	-	-	-	-	-	-	-	-	_	11,458(10)
Non-Executive Directors										
Dr Raymond K F Ch'ien ⁽³⁾	800	-	-	-	-	-	_	-	800	800
Dr John C C Chan ⁽³⁾	650	-	-	-	-	-	-	_	650	650
Mr Nixon Chan	500	-	-	-	-	-	-	-	500	500
Ms L Y Chiang ⁽³⁾	640	-	-	-	-	-	-	-	640	560
Mr Kenneth S Y Ng	500	-	-	-	-	-	-	-	500	500
Dr Fred Zuliu Hu ⁽³⁾ (Resigned on 8 May 2018)	275	-	_	_	_	_	_	-	275	660
Dr Henry K S Cheng ⁽³⁾ (Resigned on 10 May 2018)	208	-	_	_	-	_	_	-	208	500
Ms Irene Y L Lee ⁽³⁾	920	-	-	-	-	-	-	-	920	920
Ms Sarah C Legg ⁽²⁾	500	-	-	-	-	-	-	-	500	500
Dr Eric K C Li ⁽³⁾	920	-	-	-	-	-	-	-	920	920
Dr Vincent H S Lo	500	-	-	-	-	-	-	-	500	500
Mr Richard Y S Tang ⁽³⁾ (Resigned on 10 May 2018)	512	-	-	_	-	-	-	-	512	868
Mr Peter T S Wong ⁽²⁾	560	-	-	-	-	-	-	-	560	560
Mr Michael W K Wu ⁽³⁾	733	-	-	-	-	-	-	-	733	720
Past Directors	-	_	2,041	-	-	_	-	-	2,041	2,214
	8,218	14,810	3,179	4,707	3,645	5,302	3,645	-	43,506	59,879
2017	9,158	18,866	3,257	4,508	3,810	5,037	3,810	11,433		

Notes:

(1) In line with the HSBC Group's remuneration policy, no Director's fees were paid to those Directors who were full time employees of the Bank or its subsidiaries.

(2) Fees receivable as a Director of Hang Seng Bank Limited were surrendered to The Hongkong and Shanghai Banking Corporation Limited in accordance with the HSBC Group's internal policy.

(3) Independent Non-Executive Director.

(4) The Bank made contributions during 2018 into the retirement benefit schemes of which the Bank's Directors are among their members. The aggregate amount of pensions received by the past Directors of the Bank under the relevant pension schemes amounted to HK\$2.041m in 2018.

(5) The amount of variable bonus (deferred and non-deferred) comprises the cash and the estimated purchase cost of the award of HSBC Holdings plc Restricted Share.
(6) Benefits in kind mainly include estimated money value of other non-cash benefits: accommodation, car, insurance premium.

(7) Remunerations/emoluments for Executive Directors are for services in connection with management of the affairs of the Hang Seng Bank and its subsidiary undertakings.

(8) Settled by cash.

(9) Included contractual payments of HK\$3.065m representing payment in lieu of notice.

(10) Included contractual payments of HK\$4.168m (including HK\$3.875m representing payment in lieu of notice) and other non-contractual payments of HK\$4.2m.

16. Auditors' remuneration

	2018	2017
Statutory audit services	22	21
Non-statutory audit services and others	9	9
	31	30

17. Net surplus on property revaluation

	2018	2017
Surplus of revaluation on investment properties	278	141

18. Tax expense

(a) Taxation in the consolidated income statement represents:

	2018	2017
Current tax – provision for Hong Kong profits tax		
Tax for the year	3,888	3,208
Adjustment in respect of prior years	19	70
	3,907	3,278
Current tax – taxation outside Hong Kong		
Tax for the year	55	49
Adjustment in respect of prior years	-	(3)
	55	46
Deferred tax (note 42(b))		
Origination and reversal of temporary differences	282	347
Total tax expense	4,244	3,671

The current tax provision is based on the estimated assessable profit for 2018, and is determined for the Bank and its subsidiaries operating in the Hong Kong SAR by using the Hong Kong profits tax rate of 16.5 per cent (2017: 16.5 per cent). For subsidiaries and branches operating in other jurisdictions, the appropriate tax rates prevailing in the relevant countries are used. Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised.

(b) Reconciliation between taxation charge and accounting profit at applicable tax rates:

	2018	2017
Profit before tax	28,432	23,674
Notional tax on profit before tax, calculated at Hong Kong tax rate of 16.5% (2017: 16.5%)	4,691	3,906
Tax effect of:		
 different tax rates in other countries/areas 	32	12
 non-taxable income and non-deductible expenses 	(579)	(423)
 share of results of associates 	(34)	2
- others	134	174
Actual charge for taxation	4,244	3,671

19. Earnings per share – basic and diluted

The calculation of basic and diluted earnings per share is based on earnings of HK\$23,863m in 2018 (2017: HK\$19,693m) which is after the deduction of the coupon paid on AT1 capital instrument and on the weighted average number of ordinary shares in issue of 1,911,842,736 shares (unchanged from 2017).

20. Dividends per share

(a) Dividends attributable to the year:

	2018		2017	
	per share HK\$	HK\$m	per share HK\$	HK\$m
First interim	1.30	2,485	1.20	2,294
Second interim	1.30	2,485	1.20	2,294
Third interim	1.30	2,485	1.20	2,294
Fourth interim	3.60	6,883	3.10	5,927
	7.50	14,338	6.70	12,809

The fourth interim dividend are proposed after the balance sheet date, and have not been recognised as a liability at the balance sheet date.

(b) Dividends attributable to the previous year, approved and paid during the year:

	2018	2017
Fourth interim dividend in respect of the previous year, approved and paid during the year, of HK\$3.10 per share (2017: HK\$2.80 per share)	5,927	5,353
(c) Distribution to holder of AT1 capital instrument classified as equity		
	2018	2017
Coupon paid on AT1 capital instrument	418	389

21. Segmental analysis

Hong Kong Financial Reporting Standard 8 ("HKFRS 8") requires segmental disclosure to be based on the way that the Group's chief operating decision maker regards and manages the Group, with the amounts reported for each reportable segment being the measures reported to the Group's chief operating decision maker for the purpose of assessing segmental performance and making decisions about operating matters. To align with the internal reporting information, the Group has presented the following four reportable segments.

- Retail Banking and Wealth Management offers a broad range of products and services to meet the personal banking, consumer lending
 and wealth management needs of individual customers. Personal banking products typically include current and savings accounts,
 mortgages and personal loans, credit cards, insurance and wealth management;
- Commercial Banking offers a comprehensive suite of products and services to corporate, commercial and small and medium-sized enterprises ("SME") customers – including corporate lending, trade and receivable finance, payments and cash management, treasury and foreign exchange, general insurance, key-person insurance, investment services and corporate wealth management;
- Global Banking and Markets provides tailored financial solutions to major corporate and institutional clients. Undertaking a long-term
 relationships management approach, its services include general banking, corporate lending, interest rates, foreign exchange, money
 markets, structured products and derivatives, etc. Global Banking and Markets also manages the funding and liquidity positions of the
 Bank and other market risk positions arising from banking activities;
- Other mainly represents the Bank's holdings of premises, investment properties, equity shares and subordinated debt funding as well as central support and functional costs with associated recoveries.

21. Segmental analysis continued

(a) Segmental result

For the purpose of segmental analysis, the allocation of revenue reflects the benefits of capital and other funding resources allocated to the business segments by way of internal capital allocation and fund transfer-pricing mechanisms. Cost allocation is based on the direct costs incurred by the respective business segments and apportionment of management overheads. Bank-owned premises are reported under the "Other" segment. When these premises are utilised by business segments, notional rent will be charged to the relevant business segments with reference to market rates.

	Retail Banking and Wealth Management	Commercial Banking	Global Banking and Markets	Other	Total
2018					
Net interest income/(expense)	16,515	9,331	4,566	(365)	30,047
Net fee income	4,508	2,040	300	219	7,067
Net income/(loss) from financial instruments measured at fair value	(398)	543	1,518	42	1,705
Gains less losses from financial investments	31	3	23	-	57
Dividend income	-	-	-	146	146
Net insurance premium income	13,513	1,017	-	-	14,530
Other operating income	1,347	264	7	262	1,880
Total operating income	35,516	13,198	6,414	304	55,432
Net insurance claims and benefits paid and movement in liabilities to policyholders	(13,401)	(816)	-	-	(14,217)
Net operating income before change in expected credit losses and other credit impairment charges	22,115	12,382	6,414	304	41,215
Change in expected credit losses and other credit impairment charges	(371)	(602)	(23)	_	(996)
Net operating income	21,744	11,780	6,391	304	40,219
Operating expenses*	(7,391)	(3,205)	(1,071)	(501)	(12,168)
Impairment loss on intangible assets		-	-	(104)	(104)
Operating profit/(loss)	14,353	8,575	5,320	(301)	27,947
Net surplus on property revaluation	-	-	-	278	278
Share of profits from associates	204	_	_	3	207
Profit/(Loss) before tax	14,557	8,575	5,320	(20)	28,432
Share of profit/(loss) before tax	51.2%	30.2%	18.7%	(0.1)%	100.0%
Operating profit/(loss) excluding change in expected credit losses and other credit impairment charges	14,724	9,177	5,343	(301)	28,943
* Depreciation/amortisation included in operating expenses	(25)	(3)	(2)	(1,457)	(1,487)
At 31 December 2018					
Total assets	475,964	382,359	661,736	51,238	1,571,297
Total liabilities	931,201	307,798	163,123	7,068	1,409,190
Interest in associates	2,415	_	_	29	2,444
Non-current assets acquired during the year	328	20	2	542	892

21. Segmental analysis continued

(a) Segmental result continued

	Retail Banking and Wealth Management	Commercial Banking	Global Banking and Markets	Other	Total
2017 (restated) ¹					
Net interest income/(expenses)	13,667	7,030	3,953	(73)	24,577
Net fee income	4,444	1,820	290	201	6,755
Net income from financial instruments measured at fair value	2,175	512	1,462	8	4,157
Gains less losses from financial investments	30	-	18	-	48
Dividend income	24	-	-	164	188
Net insurance premium income	12,172	645	-	-	12,817
Other operating income	1,044	210	7	273	1,534
Total operating income	33,556	10,217	5,730	573	50,076
Net insurance claims and benefits paid and movement in liabilities to policyholders	(14,211)	(508)	_	-	(14,719)
Net operating income before loan impairment charges and other credit risk provisions	19,345	9,709	5,730	573	35,357
Loan impairment charges and other credit risk provisions	(490)	(544)	(8)	_	(1,042)
Net operating income	18,855	9,165	5,722	573	34,315
Operating expenses*	(6,490)	(2,823)	(967)	(488)	(10,768)
Operating profit	12,365	6,342	4,755	85	23,547
Net surplus on property revaluation	-	-	-	141	141
Share of losses from associates	(12)	_		(2)	(14)
Profit before tax	12,353	6,342	4,755	224	23,674
Share of profit before tax	52.2%	26.8%	20.1%	0.9%	100.0%
Operating profit excluding loan impairment charges and other credit risk provisions	12,855	6,886	4,763	85	24,589
* Depreciation/amortisation included in operating expenses	(25)	(4)	(2)	(1,305)	(1,336)
At 31 December 2017					
Total assets	445,489	350,693	611,717	70,519	1,478,418
Total liabilities	860,396	288,476	156,806	20,661	1,326,339
Interest in associates	2,170	-	-	-	2,170
Non-current assets acquired during the year	148	11	1	561	721

1 To better reflect the costs incurred to support business segments, certain overheads (mainly information technology related costs) have been reallocated to respective business segments to conform with current year's presentation.

21. Segmental analysis continued

(b) Geographic Information

The geographical regions in this analysis are classified by the location of the principal operations of the subsidiary companies or, in the case of the Bank itself, by the location of the branches responsible for reporting the results or advancing the funds. Consolidation adjustments made in preparing the Group's financial statements upon consolidation are included in the "Inter-region elimination".

Year ended 31 December 2018Total operating income53,0042,2002	269 (41 108 –) 55,432
Total operating income 53,004 2,200) 55,432
	108 –	
Profit before tax 27,887 437 27,887		28,432
At 31 December 2018		
Total assets 1,482,980 106,124 22,1	103 (39,910) 1,571,297
Total liabilities 1,324,871 93,611 21,0	093 (30,385) 1,409,190
Equity 158,109 12,513 1,	010 (9,525) 162,107
Share capital 9,658 9,857	- (9,857) 9,658
Interest in associates 2,442 2		2,444
Non-current assets* 56,235 1,125	9 –	57,369
Contingent liabilities and commitments 428,206 50,274 5,	593 –	484,073
Year ended 31 December 2017		
Total operating income 47,940 1,917	286 (67) 50,076
Profit before tax 23,242 241	191 –	23,674
At 31 December 2017		
Total assets 1,385,176 121,941 20,9	944 (49,643) 1,478,418
Total liabilities 1,236,896 109,542 20,	019 (40,118) 1,326,339
Equity 148,280 12,399	925 (9,525) 152,079
Share capital 9,658 10,396	- (10,396) 9,658
Interest in associates 2,170 –		2,170
Non-current assets* 52,832 1,173	14 –	54,019
Contingent liabilities and commitments 388,347 59,573 5,	549 –	453,469

* Non-current assets consist of investment properties, premises, plant and equipment and intangible assets.

22. Analysis of assets and liabilities by remaining maturity

The following table provides an analysis of consolidated total assets, liabilities and off-balance sheet commitments by residual contractual maturity at the balance sheet date. These balances are included in the maturity analysis as follows:

- Trading assets and liabilities (including trading derivatives but excluding reverse repos, repos and debt securities in issue) are included in the "Not more than 1 month" time bucket, because trading balances are typically held for short periods of time.
- Financial assets and liabilities with no contractual maturity (such as equity securities) are included in the "Over 5 years" time bucket.
 Undated or perpetual instruments are classified based on the contractual notice period which the counterparty of the instrument is entitled to give. Where there is no contractual notice period, undated or perpetual contracts are included in the "Over 5 years" time bucket.
- Non-financial assets and liabilities with no contractual maturity are included in the "Over 5 years" time bucket.
- Liabilities under insurance contracts are included as "Non-financial liabilities" in the "Over 5 years" time bucket. Liabilities under investment contracts are classified in accordance with their contractual maturity. Undated investment contracts are included in the "Over 5 years" time bucket, however, such contracts are subject to surrender and transfer options by the policyholders.

Loan and other credit-related commitments are classified on the basis of the earliest date they can be drawn down.

Maturity analysis of assets and liabilities

	Not more than 1 month	Over 1 month but not more than 3 months	Over 3 months but not more than 6 months	Over 6 months but not more than 9 months	Over 9 months but not more than 1 year	Over 1 year but not more than 2 years	Over 2 years but not more than 5 years	Over 5 years	Total
2018									
Assets									
Cash and sight balances at central banks	16,421	-	-	-	-	-	-	-	16,421
Placings with and advances to banks	53,785	21,187	3,114	-	-	-	1,100	214	79,400
Trading assets	47,164	-	-	-	-	-	-	-	47,164
Financial assets designated and otherwise mandatorily measured at fair value	163	1	_	_	_	_	293	12,613	13,070
Derivative financial instruments	7,319	55	118	30	25	219	375	-	8,141
Loans and advances to customers	92,608	43,195	67,363	52,720	35,289	101,256	241,008	241,017	874,456
Financial investments	88,094	92,691	62,893	12,443	12,578	39,272	51,580	68,981	428,532
Accrued income and other financial assets	21,426	4,708	2,115	261	181	638		642	29,971
Financial assets	326,980	161,837	135,603	65,454	48,073	141,385	294,356	323,467	1,497,155
Non-financial assets	-	-	-	-	-	-	-	74,142	74,142
Total assets	326,980	161,837	135,603	65,454	48,073	141,385	294,356	397,609	1,571,297
Off-balance sheet commitments received									
Loans and other credit-related commitments	2,961	-	-	-	-	-	-	-	2,961
Liabilities									
Current, savings and other deposit accounts	957,598	110,254	46,208	25,450	13,848	821	236	_	1,154,415
Repurchase agreements – non-trading	410	-	-	-	-	_	_	_	410
Deposits from banks	2,712	_	_	_	_	_	_	_	2,712
Trading liabilities	33,649	_	-	-	-	-	_	-	33,649
Financial liabilities designated at fair value	9,101	11,598	6,053	2,019	1,697	1,031	1,510	445	33,454
Derivative financial instruments	7,547	284	65	63	80	84	147	-	8,270
Certificates of deposit and other debt securities in issue	355	3,393	_	_	_	_	_	_	3,748
Accruals and other financial liabilities	34,354	6,508	2,110	337	118	445	5	-	43,877
Financial liabilities	1,045,726	132,037	54,436	27,869	15,743	2,381	1,898	445	1,280,535
Non-financial liabilities	-	-	-	-	-	-	-	128,655	128,655
Total liabilities	1,045,726	132,037	54,436	27,869	15,743	2,381	1,898	129,100	1,409,190
Off-balance sheet commitments given									
Loans and other credit-related commitments	463,177	4,508	-	-	-	-	-	-	467,685

22. Analysis of assets and liabilities by remaining maturity continued

	Not more than 1 month	Over 1 month but not more than 3 months	Over 3 months but not more than 6 months	Over 6 months but not more than 9 months	Over 9 months but not more than 1 year	Over 1 year but not more than 2 years	Over 2 years but not more than 5 years	Over 5 years	Total
2017 (re-presented) ¹									
Assets									
Cash and sight balances at central banks	21,718	-	-	-	-	-	-	-	21,718
Placings with and advances to banks	61,977	37,346	1,404	-	-	-	1,331	1,055	103,113
Trading assets	53,704	-	-	-	-	-	-	-	53,704
Financial assets designated at fair value	400	-	-	4	-	1	7	8,901	9,313
Derivative financial instruments	10,033	173	52	100	29	113	335	1	10,836
Loans and advances to customers	93,111	50,647	55,948	46,153	35,814	89,516	215,771	219,613	806,573
Financial investments	68,248	81,072	40,239	13,118	10,004	37,309	69,095	66,176	385,261
Accrued income and other financial assets	12,913	3,227	1,604	276	212	-	-	701	18,933
Financial assets	322,104	172,465	99,247	59,651	46,059	126,939	286,539	296,447	1,409,451
Non-financial assets	-	-	-	-	-	-	-	68,967	68,967
Total assets	322,104	172,465	99,247	59,651	46,059	126,939	286,539	365,414	1,478,418
Off-balance sheet commitments received									
Loans and other credit-related commitments	5,168	-	-	-	-	-	-	-	5,168
Liabilities									
Current, savings and other deposit accounts	969.741	64.244	26.916	6.001	6.508	488	939	_	1,074,837
Repurchase agreements – non-trading	2.389		20,010	- 0,001				_	2,389
Deposits from banks	3.676	_	_	_	_	_	_	_	3,676
Trading liabilities	88,270	_	_	_	_	_	_	_	88,270
Financial liabilities designated at fair value	3	_	_	_	_	_	493	551	1.047
Derivative financial instruments	10,015	35	256	15	91	540	212	5	11.169
Certificates of deposit and other debt securities in issue	600	_		_	_	_		_	600
Accruals and other financial liabilities	15,121	4,106	1,334	113	244	9	12	-	20,939
Financial liabilities	1,089,815	68,385	28,506	6,129	6,843	1,037	1,656	556	1,202,927
Non-financial liabilities			-	-		-		123,412	123,412
Total liabilities	1,089,815	68,385	28,506	6,129	6,843	1,037	1,656	123,968	1,326,339
Off-balance sheet commitments given									
Loans and other credit-related commitments	435,453	2,688	-	-	-	-	-	-	438,141

1 The comparative figures have been re-presented to conform with current year's presentation.

23. Cash and sight balances at central banks

	2018	2017
Cash in hand	7,816	7,409
Sight balances at central banks	8,605	14,309
	16,421	21,718

24. Placings with and advances to banks

	2018	2017
Balances with banks	7,765	5,182
Placings with and advances to banks maturing within one month	46,021	56,795
Placings with and advances to banks maturing after one month but less than one year	24,302	38,750
Placings with and advances to banks maturing after one year	1,314	2,386
Less: Expected credit losses	(2)	N/A
	79,400	103,113
of which:		
Placings with and advances to central banks	9,155	11,248

There were no overdue advances, impaired advances and rescheduled advances to banks at 31 December 2018 (2017: Nil).

25. Trading assets

	2018	2017
Treasury bills	26,700	33,066
Other debt securities	20,448	18,509
Debt securities	47,148	51,575
Investment funds	16	24
Total trading securities	47,164	51,599
Other*	-	2,105
Total trading assets	47,164	53,704

* This represents the amount receivable from counterparties on trading transactions not yet settled.

26. Financial assets designated and otherwise mandatorily measured at fair value/Financial assets designated at fair value

		2018		2017			
	Designed at fair value	Mandatorily measured at fair value	Total	Designed at fair value	Mandatorily measured at fair value	Total	
Treasury bills	-	_	_	400	N/A	400	
Other debt securities	-	6	6	392	N/A	392	
Debt securities	_	6	6	792	N/A	792	
Equity shares	_	5,472	5,472	5,486	N/A	5,486	
Investment funds	-	6,267	6,267	3,035	N/A	3,035	
Other	-	1,325	1,325	-	N/A	-	
	-	13,070	13,070	9,313	N/A	9,313	

27. Derivative financial instruments

Use of derivatives

The Group transacts derivatives for three primary purposes: to create risk management solutions for clients, to manage the portfolio risk arising from client business, and to manage and hedge the Group's own risks. Derivatives (except for derivatives which are designated as effective hedging instruments) are held for trading. Within the held for trading classification are two types of derivative instruments: those used in sales and trading activities, and those used for risk management purposes but which for various reasons do not meet the qualifying criteria for hedge accounting. The second category includes derivatives managed in conjunction with financial instruments designated at fair value. These activities are described more fully below.

The Group's derivative activities give rise to significant open positions in portfolios of derivatives. These positions are managed constantly to ensure that they remain within acceptable risk levels. When entering into derivative transactions, the Group employs the same credit risk management framework to assess and approve potential credit exposures that it uses for traditional lending.

The following table shows the notional contract amounts and fair value of assets and liabilities by each class of derivatives.

	Notional contract amount			Fair value – Assets			Fair value – Liabilities		
	Trading	Hedging	Total	Trading	Hedging	Total	Trading	Hedging	Total
Exchange rate	830,511	22,468	852,979	5,265	254	5,519	5,197	542	5,739
Interest rate	388,463	62,699	451,162	1,741	591	2,332	1,766	185	1,951
Equity and other	34,795	-	34,795	290	-	290	580	_	580
At 31 December 2018	1,253,769	85,167	1,338,936	7,296	845	8,141	7,543	727	8,270
	Notional contract amount		Fair value – Assets						
	Notiona	al contract am	iount	Fai	r value – Asset	ts	Fair	value – Liabilit	ies
-	Notiona	al contract am Hedging	ount Total	Fai Trading	r value – Asset Hedging	ts Total	Fair	value – Liabilit Hedging	ies Total
- Exchange rate									
- Exchange rate Interest rate	Trading	Hedging	Total	Trading	Hedging	Total	Trading	Hedging	Total
3	Trading 808,696	Hedging 22,531	Total 831,227	Trading 7,893	Hedging 375	Total 8,268	Trading 8,284	Hedging 926	Total 9,210
Interest rate	Trading 808,696 380,437	Hedging 22,531	Total 831,227 447,002	Trading 7,893 1,327	Hedging 375 452	Total 8,268 1,779	Trading 8,284 1,390	Hedging 926	Total 9,210 1,624

Trading derivatives

Most of the Group's trading derivative transactions relate to sales and trading activities. Sales activities include the structuring and marketing of derivative products to customers to enable them to take, transfer, modify or reduce current or expected risks. Trading activities in derivatives include market-making and risk management. Market-making entails quoting bid and offer prices to other market participants for the purpose of generating revenues based on spread and volume. Risk management activity is undertaken to manage the risk arising from client transactions, with the principal purpose of retaining client margin. Other derivatives classified as held for trading include non-qualifying hedging derivatives.

27. Derivative financial instruments continued

Hedge accounting derivatives

The Group applies hedge accounting to manage the following risks: interest rate, foreign exchange and net investment in foreign operations. The Group uses derivatives (principally interest rate and currency swaps) for hedging purposes in the management of its own asset and liability portfolios and structural positions. This enables the Group to optimise the overall costs to the Group of accessing debt capital markets, and to mitigate the market risk which would otherwise arise from structural imbalances in the maturity and other profiles of its assets and liabilities. The accounting treatment of hedging transactions varies according to the nature of the instrument hedged and the type of hedging transaction. Derivatives may qualify as hedges for accounting purposes if they are fair value hedges, cash flow hedges, or hedges of net investments in foreign operations.

(a) Fair value hedges

The Group enters into fixed-for-floating-interest-rate swaps to manage the exposure to changes in fair value due to movements in market interest rates on certain fixed rate financial instruments which are not measured at fair value through profit or loss, including debt securities held and issued.

Sources of hedge ineffectiveness may arise from basis risk including but not limited to the discount rates used for calculating the fair value of derivatives, hedges using instruments with a non-zero fair value and notional and timing differences between the hedged items and hedging instruments.

(b) Cash flow hedges

The Group's cash flow hedging instruments consist principally of interest rate swaps and cross-currency swaps that are used to manage the variability in future interest cash flows of non-trading financial assets and liabilities, arising due to changes in market interest rates and foreign-currency basis.

The Group applies macro cash flow hedging for interest-rate risk exposures on portfolios of replenishing current and forecasted issuances of non-trading assets and liabilities that bear interest at variable rates, including rolling such instruments. The amounts and timing of future cash flows, representing both principal and interest flows, are projected for each portfolio of financial assets and liabilities on the basis of their contractual terms and other relevant factors, including estimates of prepayments and defaults. The aggregate cash flows representing both principal balances and interest cash flows across all portfolios are used to determine the effectiveness and ineffectiveness. Macro cash flow hedges are considered to be dynamic hedges.

The Group also hedges the variability in future cash-flows on foreign-denominated financial assets and liabilities arising due to changes in foreign exchange market rates with cross-currency swaps; these are considered non-dynamic hedges.

28. Loans and advances to customers (a) Loans and advances to customers

	2018	2017
Gross loans and advances to customers	877,134	808,170
Less: Expected credit losses/loan impairment allowances	(2,678)	(1,597)
	874,456	806,573
	%	%
Expected credit losses/loan impairment allowances as a percentage of gross loans and advances to customers	0.31	0.20

Expected credit losses at 1 January 2018 to reflect the adoption of HKFRS 9 from that date was HK\$2,540m and the corresponding ratio of expected credit losses as a percentage of gross loans and advances to customers was 0.31%.

	2018	2017
Gross impaired loans and advances	2,160	1,970
	%	%
Gross impaired loans and advances as a percentage of gross loans and advances to customers	0.25	0.24

Gross impaired loans and advances at 1 January 2018 to reflect the adoption of HKFRS 9 from that date was HK\$2,174m and the corresponding ratio of gross impaired loans and advances as a percentage of gross loans and advances to customers was 0.27%.

28. Loans and advances to customers continued

(b) Reconciliation of gross exposure and allowances/provision for loans and advances to banks and customers including loan commitments and financial guarantees

		Non credit – impaired Credit – impaired To			Credit – impaired			Total		
	Sta	ge 1	Sta	ge 2	St	age 3	F	POCI1		
	Gross exposure	Allowance/ provision for ECL	Gross exposure	Allowance/ provision for ECL	Gross exposure	Allowance/ provision for ECL	Gross exposure	Allowance/ provision for ECL	Gross exposure	Allowance/ provision for ECL
At 1 January 2018	1,110,402	(692)	77,109	(1,175)	2,001	(745)	173	(18)	1,189,685	(2,630)
Transfers of financial instruments:										
 transfers from Stage 1 to Stage 2 	(31,781)	61	31,781	(61)	_	_	_	_	_	-
 transfers from Stage 2 to Stage 1 	44,845	(427)	(44,845)	427	_	_	-	_	_	-
 transfers to Stage 3 	(880)	2	(526)	7	1,406	(9)	-	-	-	-
- transfers from Stage 3	-	-	22	-	(22)	-	-	-	-	-
Net remeasurement of ECL arising from transfer of stage	_	286	_	(219)	_	(5)	_	_	_	62
Changes due to modifications not derecognised	_	_	_	_	_	_	_	_	_	_
Net new and further lending/(repayments)	93,785	(65)	(7,898)	206	(226)	109	(159)	10	85,502	260
Changes to risk parameters (model inputs)	-	54	_	(191)	_	(1,313)	_	2	_	(1,448)
Changes to model used for ECL calculation	-	_	-	_	-	_	_	_	-	_
Assets written off	-	-	-	-	(999)	999	(6)	6	(1,005)	1,005
Foreign exchange and others	(5,787)	4	(1,857)	6	(6)	5	(2)	_	(7,652)	15
At 31 December 2018	1,210,584	(777)	53,786	(1,000)	2,154	(959)	6	_	1,266,530	(2,736)
										Total
Change in ECL in income	statement (charge)/rele	ase for the	vear						(1,126)
Add: Recoveries				,						143
Add/(less): Others										(13)

Total ECL (charge)/release for the year

(996)

28. Loans and advances to customers continued

(b) Reconciliation of gross exposure and allowances/provision for loans and advances to banks and customers including loan commitments and financial guarantees continued

	At 31 Dece	mber 2018	For the year ended 31 December 2018
	Gross carrying/ nominal amount	Allowance for ECL	ECL (charge)/release
Placings with and advances to banks and loans and advances to customers, including loan commitments and financial guarantees	1,266,530	(2,736)	(996)
Other financial assets measured at amortised cost	142,834	(42)	2
Summary of financial instruments to which the impairment requirements in HKFRS 9 are applied/Summary consolidated income statement	1,409,364	(2,778)	(994)
Debt instruments measured at FVOCI ³	325,191	(2,173)	(001)
Performance and other guarantees	12,046	(2)	(2)
Total allowance for ECL/total income statement ECL charge for the year	1,746,601	(2,785)	(996)

1 Purchased or originated credit-impaired ("POCI") represented distressed restructuring.

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

3 For the purposes of this disclosure, gross carrying value is defined as the amortised cost of a financial asset, before adjusting for any loss allowance. As such, the gross carrying value of debt instruments at FVOCI as presented above will not reconcile to the Consolidated Balance Sheet as it excludes fair value gains and losses.

(c) Loan impairment allowances against loans and advances to customers

	Individually assessed	Collectively assessed	Total
2017			
At 1 January	923	936	1,859
Amounts written off	(790)	(646)	(1,436)
Recoveries of loans and advances written off in previous years	43	87	130
New impairment allowances charged to income statement (note 12)	542	686	1,228
Impairment allowances released to income statement (note 12)	(99)	(87)	(186)
Unwinding of discount of loan impairment allowances recognised as "interest income"	(45)	(4)	(49)
Exchange difference	28	23	51
At 31 December	602	995	1,597

28. Loans and advances to customers continued

(d) Net investments in finance leases

Loans and advances to customers include net investments in equipment leased to customers under finance leases and hire purchase contracts having the characteristics of finance leases. The contracts usually run for an initial period of 5 to 25 years, with an option for acquiring by the lessee the leased asset at nominal value at the end of the lease period. The total minimum lease payments receivable and their present value at the year-end are as follows:

	2018	2017
Finance leases	-	-
Hire purchase contracts	6,779	6,794
	6,779	6,794

	Present value of minimum lease payments receivable	Interest income relating to future periods	Total minimum lease payments receivable
2018			
Amounts receivable:			
- within one year	434	140	574
- after one year but within five years	1,302	488	1,790
- after five years	5,074	939	6,013
	6,810	1,567	8,377
Expected credit losses	(31)	_	
Net investments in finance leases and hire purchase contracts	6,779	_	
2017			
Amounts receivable:			
- within one year	304	130	434
- after one year but within five years	1,624	455	2,079
- after five years	4,866	896	5,762
	6,794	1,481	8,275
Loans impairment allowances			
Net investments in finance leases and hire purchase contracts	6,794	_	

29. Financial investments

	2018	2017
Financial investments measured at fair value through other comprehensive income:		
- treasury bills	217,636	N/A
- debt securities	107,400	N/A
- equity shares	4,144	N/A
	329,180	, N/A
Debt instruments measured at amortised cost:		,
- treasury bills	1,842	N/A
- debt securities	97,547	, N/A
Less: Expected credit losses	(37)	N/A
	99,352	N/A
	428,532	N/A
Available-for-sale at fair value:	120,002	,,,
- treasury bills	N/A	153,592
- debt securities	N/A	130,401
 equity shares and investment funds 	N/A	6,211
	N/A	290,204
Held-to-maturity at amortised cost:	17.0	230,204
	NI/A	700
- treasury bills	N/A	
- debt securities	N/A	94,357
	N/A	95,057
	428,532	385,261

Equity instruments measured at fair value through other comprehensive income

	Instruments held at year end		Instruments derecognised during the year		
	Fair value	Dividend recognised	Fair value on date of disposal	Cumulative gain/(loss) on disposal	Dividend recognised
Type of equity instruments					
- business facilitation	4,144	146	-	-	-
At 31 December 2018	4,144	146	_	-	-

There was no overdue debt securities at 31 December 2018 (2017: Nil). The Group did not hold any asset-backed securities, mortgage-backed securities and collateralised debt obligations.

There was no financial investments determined to be impaired at 31 December 2018 (2017: Nil).

30. Assets transferred, assets charged as security for liabilities, and collateral accepted as security for assets

(a) Financial assets pledged to secure liabilities

	2018	2017
Trading assets and financial investments	37,591	55,860
Amount of liabilities secured	39,603	57,129

The table above shows assets where a charge has been granted to secure liabilities on a legal and contractual basis.

These transactions are conducted under terms that are usual and customary to collateralised transactions including, where relevant, standard securities lending and repurchase agreements.

30. Assets transferred, assets charged as security for liabilities, and collateral accepted as security for assets continued

(b) Transferred financial assets not qualifying for full derecognition and their associated financial liabilities

	2018		2017	
	Carrying amount of transferred assets	Carrying amount of associated liabilities	Carrying amount of transferred assets	Carrying amount of associated liabilities
Repurchase agreement	452	410	2,619	2,389
Securities lending agreements	460	-	1,481	-
	912	410	4,100	2,389

The financial assets shown above include amounts transferred to third parties that do not qualify for derecognition are mainly debt securities held by counterparties as collateral under repurchase agreements. As the substance of these transactions is secured borrowings, the collateral assets continue to be recognised in full and the related liabilities, reflecting the Group's obligation to repurchase the transferred assets for a fixed price at a future date, are also recognised on the balance sheet. As a result of these transactions, the Group is unable to use, sell or pledge the transferred assets for the duration of the transactions. The Group remains exposed to interest rate risk, credit risk and market risk on these pledged instruments. The counterparty's recourse is not limited to the transferred assets.

(c) Collateral accepted as security for assets

There were no collateral permitted to sell or repledge in the absence of default, and no collateral actually sold or repledged in 2018 and 2017.

31. Subsidiaries

The following is a list of the principal subsidiaries at 31 December 2018:

Name of company	Place of incorporation	Principal activities	Issued equity capital	Percentage of shareholding
Hang Seng Bank (China) Limited	People's Republic of China	Banking	RMB8,317,500,000	100%
Hang Seng Finance Limited	Hong Kong SAR	Lending	HK\$1,000,000,000	100%
Hang Seng Credit Limited	Hong Kong SAR	Lending	HK\$200,000,000	100%
Hang Seng Bank (Trustee) Limited	Hong Kong SAR	Trustee service	HK\$3,000,000	100%
Hang Seng (Nominee) Limited	Hong Kong SAR	Nominee service	HK\$100,000	100%
Hang Seng Life Limited*	Hong Kong SAR	Retirement benefits and life assurance	HK\$970,000,000	100%
Hang Seng Insurance Company Limited	Hong Kong SAR	Retirement benefits and life assurance	HK\$6,426,184,570	100%
Hang Seng Investment Management Limited	Hong Kong SAR	Fund management	HK\$10,000,000	100%
Haseba Investment Company Limited	Hong Kong SAR	Investment holding	HK\$6,000	100%
Hang Seng Securities Limited	Hong Kong SAR	Stockbroking	HK\$26,000,000	100%
Yan Nin Development Company Limited	Hong Kong SAR	Investment holding	HK\$100,000	100%
Hang Seng Indexes Company Limited	Hong Kong SAR	Index compilation and licensing	HK\$10,000	100%
Hang Seng Real Estate Management Limited	Hong Kong SAR	Property management	HK\$10,000	100%
High Time Investments Limited	Hong Kong SAR	Investment holding	HK\$2,250,010,000	100%
Hang Seng Qianhai Fund Management Company Limited	People's Republic of China	Fund raising, fund sales and asset management	RMB200,000,000	70%

* Inactive

Notes to the Financial Statements

31. Subsidiaries continued

All the above companies are unlisted. All subsidiaries are held directly by the Bank except for Hang Seng Life Limited and Hang Seng Indexes Company Limited. The principal places of operation are the same as the places of incorporation.

Some principal subsidiaries are regulated banking and insurance entities and as such, are required to maintain certain minimum levels of capital and liquid assets to support their operations. The effect of these regulatory requirements is to limit the extent to which the subsidiaries may transfer funds to the Bank in the form of repayment of certain shareholder loans or cash dividends.

32. Interest in associates

				2018	2017
Share of net assets				2,444	2,170
The associates are:					
Name of company	Place of incorporation and operation	Principal activity	Group's interest in equity capital		d equity capital
Unlisted					
Barrowgate Limited	Hong Kong SAR	Property investment	24.64%	HK\$	10,000
GZHS Research Co., Ltd.	People's Republic of China	Conduct market/ securities analysis and publish research reports	33.00%	RMB	44,680,000

The interests in Barrowgate Limited and GZHS Research Co., Ltd. ("GZHS") are owned by the subsidiaries of the Bank.

The above two associates are accounted for using the equity method in the consolidated financial statements as at 31 December 2018 and 2017.

For the year ended 31 December 2018, the financial results of GZHS was included in the financial statements based on financial statements drawn up to 30 September 2018, but taking into account any changes in the subsequent period from 1 October 2018 to 31 December 2018 that would materially affect the results. The Group has taken advantage of the provision contained in HKAS 28 (2011) "*Investments in Associates and Joint Ventures*" whereby it is permitted to include the attributable share of associates' results based on accounts drawn up to a non-coterminous period end where the difference must be no greater than three months.

	Assets	Liabilities	Equity	Revenue	Expenses	Revenue Less Expenses
2018						
100 per cent	10,456	995	9,461	948	210	738
The Group's effective interest	2,691	247	2,444	262	55	207
2017						
100 per cent	10,154	1,348	8,806	198	252	(54)
The Group's effective interest	2,505	335	2,170	51	65	(14)

At 31 December 2018, the investment in associates were tested for impairment by estimating the recoverable amount of the investment based on "Value in use". No impairment loss was recognised since the recoverable amount exceeded the carrying amount (2017: Nil).

33. Property, plant and equipment (a) Movement of property, plant and equipment

	Premises	Investment properties	Plant and equipment	Total
2018				
Cost or valuation:				
At 1 January	27,157	10,166	5,241	42,564
Additions	60	278	261	599
Disposals	-	_	(107)	(107)
Elimination of accumulated depreciation on revalued premises	(936)	_	_	(936)
Surplus on revaluation:				
 credited to premises revaluation reserve 	2,458	_	_	2,458
 credited to income statement 	-	321	_	321
Transfer	657	(657)	_	-
Exchange adjustments and other	(52)	_	(27)	(79)
At 31 December	29,344	10,108	5,368	44,820
A service debag de sus sistisme				
Accumulated depreciation:		_	(3,899)	(3,899)
At 1 January Exchange adjustments	_	_	(3,699)	(3,899)
Charge for the year (note 13)	(026)	_		
	(936)	_	(427) 102	(1,363) 102
Disposals Elimination of accumulated depreciation on revalued premises	936	_	102	936
At 31 December			(4,202)	(4,202)
At 51 December			(4,202)	(4,202)
Net book value at 31 December	29,344	10,108	1,166	40,618
Representing:				
- measure at cost	-	_	1,166	1,166
- measure at valuation	29,344	10,108	_	39,452
	29,344	10,108	1,166	40,618
0017				
2017				
Cost or valuation:		0.000	(00 ((0.000
At 1 January	25,409	9,960	4,934	40,303
Additions	244	-	375	619
Disposals	-	-	(104)	(104)
Elimination of accumulated depreciation on revalued premises	(837)	-	-	(837)
Surplus on revaluation:	2.005			0.005
 credited to premises revaluation reserve 	2,285	-	_	2,285
 credited to income statement 	=	206	-	206 92
Exchange adjustments and other At 31 December	<u>56</u>	10,166	<u> </u>	42,564
AL 51 DECEMBER	27,107	10,100	5,241	42,304
Accumulated depreciation:				
At 1 January	-	-	(3,571)	(3,571)
Exchange adjustments	-	-	(30)	(30)
Charge for the year (note 13)	(837)	-	(392)	(1,229)
Disposals	-	-	94	94
Elimination of accumulated depreciation on revalued premises	837	-	-	837
At 31 December			(3,899)	(3,899)
Net book value at 31 December	27,157	10,166	1,342	38,665
		,200		,000
Representing:				
- measure at cost	-	-	1,342	1,342
 measure at valuation 	27,157	10,166	-	37,323
	27,157	10,166	1,342	38,665

33. Property, plant and equipment continued

(b) Terms of lease

	Premises		Investment	properties
	2018	2017	2018	2017
Leaseholds				
Held in Hong Kong:				
 long leases (over 50 years unexpired) 	2,911	2,514	1,583	1,840
 medium leases (10 to 50 years unexpired) 	25,482	23,648	8,525	8,326
Held outside Hong Kong:				
 long leases (over 50 years unexpired) 	-	-	-	-
 medium leases (10 to 50 years unexpired) 	951	995	-	_
	29,344	27,157	10,108	10,166

(c) The carrying amount of all premises which have been stated in the balance sheet would have been as follows had they been stated at cost less accumulated depreciation:

	2018	2017
Cost less accumulated depreciation at 31 December	6,938	6,481

(d) The Group leases out investment properties under operating leases. The leases typically run for an initial period of 2 to 3 years, and may contain an option to renew the lease after that date at which time all terms are renegotiated. None of the leases includes contingent rentals.

	2018	2017
Direct operating expenses arising from investment properties	37	35
Direct operating expenses arising from investment properties that generated rental income	34	31

The Group's total future minimum lease payments receivable under non-cancellable operating leases are as follows:

	2018	2017
Less than one year	295	256
Over one year but within five years	168	132
Over five years	-	_
	463	388

(e) Fair value measurement of properties

The Group's premises and investment properties were revalued by Cushman & Wakefield Limited, an independent professional valuer, at 30 November 2018, and were updated for any material changes in the valuation as at 31 December 2018. The valuations were carried out by qualified persons who are members of the Hong Kong Institute of Surveyors. The basis of valuations of premises and investment properties were market value which is consistent with the definition of fair value under HKFRS 13 *"Fair Value Measurement"* and take into account the highest and best use of the property from the perspective of market participants.

(i) Fair value hierarchy

The level into which a fair value measurement is classified for properties is determined with reference to the observability and significance of the inputs used in the valuation technique as follows:

- Level 1: Fair value measured using unadjusted quoted prices in active markets for identical assets or liabilities at the measurement date.
- Level 2: Fair value measured using observable inputs and not using significant unobservable inputs. Unobservable inputs are inputs for which market data are not available.
- Level 3: Fair value measured using significant unobservable inputs.

33. Property, plant and equipment continued

(e) Fair value measurement of properties continued

(i) Fair value hierarchy continued

The resultant values of both investment properties and properties held for own use for the Group were Level 3 in the fair value hierarchy as defined in HKFRS 13 "*Fair value measurement*". During the year ended 31 December 2018, there were no transfers into or out of Level 3. (2017: Nil)

The fair value of investment properties is determined using Investment Approach on the basis of capitalisation of net incomes with due allowance for outgoings and reversionary income potential.

The fair values of the majorities of properties owned and occupied by the Group in Hong Kong and the PRC are determined using Direct Comparison Approach assuming sale with immediate vacant possession and by making reference to comparable sales evidence.

For properties with development potentials, their values are on redevelopment basis and reported upon the assessment on the basis that each of these properties will be developed to its full potential and completed to a good standard. The fair values are determined using Direct Comparison Approach by making reference to comparable sales transactions as available in the relevant market and have also taken into account the development costs that will be expended to complete the development.

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

Reconciliation of the movement between opening and closing balances of Level 3 properties measured at fair value using a valuation technique with significant unobservable inputs is under note 33(a). The following table details the gains or losses recognised in profit or loss in relation to the Level 3 premises and investment properties:

	Premises	Investment properties
2018		
Unrealised gains or losses recognised in profit or loss relating to those assets held at the end of the reporting period		
 other operating income 	-	43
 net surplus on property revaluation 	-	278
 depreciation of premises, plant and equipment 	(936)	-
2017		

Unrealised gains or losses recognised in profit or loss relating to those assets held at the end of the reporting period

 other operating income 	-	65
 net surplus on property revaluation 	-	141
 depreciation of premises, plant and equipment 	(837)	_

(ii) Information about significant unobservable inputs in Level 3 valuations

	Valuation technique(s)	Unobservable input(s)	Range	
			2018	2017
Investment properties	Investment approach	Market yields (reversionary yield)	2.4% to 4.95%	2.5% to 5.0%
		Market rental	HK\$16.7 to HK\$804 per square foot	HK\$16.1 to HK\$799 per square foot
Premises	Direct comparison approach	Premium (discount) on characteristic of the properties	-20% to 20%	-20% to 20%

The fair value measurement for investment properties is positively correlated to the market rental but inversely correlated to the market yields. The valuations for premises held for own use take into account the characteristic of the properties which included the location, size, shape, view, floor level, year of completion and other factors collectively. Higher premium for properties with better characteristic will result in a higher fair value measurement.

Notes to the Financial Statements

34. Intangible assets

	2018	2017
Present value of in-force long-term insurance business	15,910	14,574
Internally developed software	434	375
Acquired software	78	76
Goodwill	329	329
	16,751	15,354

(a) Movement of present value of in-force long-term insurance business ("PVIF")

	2018	2017
At 31 December	14,574	13,664
Impact on transition to HKFRS 9	12	N/A
At 1 January	14,586	13,664
Addition from current year new business (note 10)	2,642	2,192
Movement from in-force business (note 10)	(1,318)	(1,282)
 Expected return 	(1,164)	(743)
 Experience variances 	(152)	102
 Changes in operating assumptions 	(871)	(39)
- Investment return variances	1,263	(378)
 Changes in investment assumptions 	(394)	(224)
– Other adjustments	-	-
Exchange differences and other		
At 31 December	15,910	14,574
The key assumptions used in the computation of "PVIF" are as follows:		
	2018	2017
Risk discount rate	5.2%	5.4%
Expenses inflation	3.0%	3.0%
Average lapse rate:		
– 1st year	2.4%	3.0%
- 2nd year onwards	3.8%	5.1%

The sensitivity of PVIF valuation to changes in individual assumptions at the balance sheet dates is shown in the Management Discussion and Analysis.

(b) Goodwill

	2018	2017
At 1 January and at 31 December	329	329

Goodwill arising from acquisition of the remaining 50 per cent of Hang Seng Life Limited from HSBC Insurance (Asia-Pacific) Holdings Limited amounted to HK\$329m is allocated to cash-generating units of Life Insurance – Hang Seng Insurance Company Limited ("HSIC") for the purpose of impairment testing.

During 2018, there was no impairment of goodwill (2017: Nil). Impairment testing in respect of goodwill is performed annually by comparing the recoverable amount of cash generating unit based on appraisal value with the carrying amount of its net assets, including attributable goodwill.

34. Intangible assets continued

(b) Goodwill continued

The appraisal value comprises HSIC's net assets (other than value of business acquired and goodwill), the PVIF and the expected value of future business as at 31 December 2018. The PVIF is determined by discounting future earnings expected from the current business, taking into account factors such as future mortality, lapse rates, levels of expenses and risk discount rate. The above details are shown in note 34(a) and the Management Discussion and Analysis.

(c) Movement of internally developed application software and acquired software

	2018	2017
Cost:		
At 1 January	1,600	1,489
Additions	293	102
Amounts written off	(129)	(4)
Exchange and others	(10)	13
At 31 December	1,754	1,600
Accumulated amortisation:		
At 1 January	(1,149)	(1,039)
Charge for the year (note 13)	(124)	(107)
Impairment	(104)	-
Amounts written off	129	4
Exchange and others	6	(7)
At 31 December	(1,242)	(1,149)
Net book value at 31 December	512	451

35. Other assets

	2018	2017
Items in the course of collection from other banks	7,236	6,464
Bullion	5,257	4,127
Prepayments and accrued income	4,276	3,773
Acceptances and endorsements	6,868	5,108
Less: Expected credit losses	(5)	N/A
Reinsurers' share of liabilities under insurance contracts (note 41)	8,788	8,232
Settlement accounts ^{1,2}	4,796	N/A
Cash collateral ²	1,838	N/A
Other accounts	5,246	4,007
	44,300	31,711

1 Settlement accounts was reclassified from "Trading assets" to "Other assets" on 1 January 2018 and comparative figure was not restated. This reclassification was in accordance with HKFRS 9.

2 Settlement accounts and cash collateral were reclassified from "Loans and advances to customers" and "Placings with and advances to Banks" to "Other assets" on 1 January 2018. This reclassification is to better reflect the nature of these balances and ensure consistency of presentation. Comparative figure was not restated as the reclassification is not significant in the context of other changes to the balance sheet resulting from the adoption of HKFRS 9.

Other accounts included "Assets held for sale" of HK\$18m (2017: HK\$42m). It also included "Retirement benefit assets" of HK\$13m (2017: HK\$53m).

There was no accumulated loss recognised directly in equity relating to assets held for sale for 2018 and 2017. There was no significant impaired, overdue or rescheduled other assets at the year-end of 2018 and 2017.

Notes to the Financial Statements

36. Current, savings and other deposit accounts

	2018	2017
Current, savings and other deposit accounts:		
- as stated in consolidated balance sheet	1,154,415	1,074,837
 structured deposits reported as trading liabilities (note 37) 	N/A	36,507
 structured deposits reported as financial liabilities designated at fair value (note 38) 	28,594	N/A
	1,183,009	1,111,344
By type:		
 demand and current accounts 	106,096	117,525
- savings accounts	707,158	757,828
- time and other deposits	369,755	235,991
	1,183,009	1,111,344

37. Trading liabilities

	2018	2017
Other structured debt securities in issue (note 39)	N/A	2,929
Structured deposits (note 36)	N/A	36,507
Short positions in securities and others	33,649	48,834
	33,649	88,270

38. Financial liabilities designated at fair value

	2018	2017
Certificates of deposit in issue (note 39)	2,008	493
Structured deposits (note 36)	28,594	N/A
Other structured debt securities in issue (note 39)	2,404	N/A
Liabilities to customers under investment contracts	448	554
	33,454	1,047

At 31 December 2018, the accumulated gain in fair value attributable to changes in credit risk for certificates of deposit in issue was HK\$1m (2017: HK\$5m).

39. Certificates of deposit and other debt securities in issue

	2018	2017
Certificates of deposit and other debt securities in issue:		
– as stated in consolidated balance sheet	3,748	600
 certificates of deposit in issue designated at fair value (note 38) 	2,008	493
 other structured debt securities in issue reported as financial liabilities designated at fair value (note 38) 	2,404	N/A
 other structured debt securities in issue reported as trading liabilities (note 37) 	N/A	2,929
	8,160	4,022
By type:		
 certificates of deposit in issue 	5,756	1,093
 other debt securities in issue 	2,404	2,929
	8,160	4,022

40. Other liabilities

	2018	2017
Items in the course of transmission to other banks	10,053	8,987
Accruals	4,190	3,511
Acceptances and endorsements	6,868	5,108
Retirement benefit liabilities (note 48(a))	834	89
Settlement accounts ¹	17,213	N/A
Cash collateral ¹	995	N/A
Other	5,094	4,527
	45,247	22,222

1 Settlement accounts and cash collateral were reclassified from "Trading liabilities", "Deposits from banks" and "Current, savings and other deposit accounts" to "Other liabilities" on 1 January 2018. This reclassification is to better reflect the nature of these balances and ensure consistency of presentation. Comparative figure was not restated as the reclassification is not significant in the context of other changes to the balance sheet resulting from the adoption of HKFRS 9.

41. Liabilities under insurance contracts

2018Non-linkedAt1 January1115,464(6,232)107,232Clains and benefits paid(13,099)114,04(12,595)Increase in liabilities to policyholders2,4046222,486At 31 December20,134(6,789)111,466Out-Linked120,134(6,789)111,466At January81-81Claims and benefits paid(14)-(14)Decrease in liabilities to policyholders(6)-(6)Foreign exchange and other movementsAt 1 January81-61-Claims and benefits paid-61-61Decrease in liabilities to policyholders61-61Toral programmentsAt 1 January108,256(7,395)100,861Claims and benefits paid(9,298)572(8,789)Increase in liabilities to policyholders723(332)400Claims and benefits paid(11)-100,861Claims and benefits paid(12)100,861101,873Claims and benefits paid(13)-703400At 1 January70-7070Claims and benefits paid(11)-(11)101Increase in liabilities to policyholders22402402Claims and benefits paid(11)-101101Increase in liabilities to policyholders22- <td< th=""><th></th><th>Gross</th><th>Reinsurers' share¹</th><th>Net</th></td<>		Gross	Reinsurers' share ¹	Net
At 1 January115,464(8,232)107,232Claims and benefits paid(13,999)1,404(12,595)Increase in liabilities to policyholders16,265(2,042)14,223Foreign exchange and other movements2,404822,486At 31 December120,134(8,788)111,346Unit-linked81-81Claims and benefits paid(14)-(14)Decrease in liabilities to policyholders(6)-61Foreign exchange and other movementsAt 31 December6161120,195(8,788)111,407111,407111,4072017108,256(7,395)100,611100,511Claims and benefits paid(9,289)572(8,726)Increase in liabilities to policyholders(15,774)(1,077)14,697Foreign exchange and other movements15,774(1,077)14,697At 31 December115,464(8,232)107,232Unit-linked115,464(8,232)107,232Noreign exchange and other movements73332400At 31 December115,464(8,232)107,232Unit-linked(11)-(11)Increase in liabilities to policyholders22-22Foreign exchange and other movements23400115,464(8,232)Intrease in liabilities to policyholders22-222Foreign exchange and other movements23 </th <th>2018</th> <th></th> <th></th> <th></th>	2018			
Claims and benefits paid (13,999) 1,404 (12,595) Increase in liabilities to policyholders 16,265 (2,042) 14,223 Foreign exchange and other movements 2,404 82 2,486 At 31 December 120,134 (8,789) 111,346 Unit-linked 81 - 81 At 1 January 81 - (14) Decrease in liabilities to policyholders (6) - (6) Foreign exchange and other movements - - - At 1 January (6) - (6) - Storeign exchange and other movements - - - - At 31 December - 61 - 61 - 2017 Non-linked - <	Non-linked			
Increase in liabilities to policyholders16,265(2,042)14,223Foreign exchange and other movements2,404822,486At 31 December120,134(8,789)111,346Unit-linkedAt 1 January81-81Claims and benefits paid(14)-(14)Decrease in liabilities to policyholders(6)-(6)Foreign exchange and other movementsAt 31 December61-61-2017108,256(7,395)100,811Claims and benefits paid(9,298)572(8,726)Increase in liabilities to policyholders(9,298)572(8,726)Increase in liabilities to policyholders15,774(1,077)14,697Foreign exchange and other movements732(332)400At 31 December115,644(6,232)107,232Unit-linked115,774(1,077)14,697Foreign exchange and other movements732(332)400At 31 December115,644(6,232)107,232Unit-linkedAt 1 January70-70Claims and benefits paid(11)-(11)Increase in liabilities to policyholders22-22Foreign exchange and other movementsAt 1 January70-7020Claims and benefits paid(11)-(11)Increase in liabilities to policyh	At 1 January	115,464	(8,232)	107,232
Foreign exchange and other movements 2,404 82 2,486 At 31 December 120,134 (8,788) 111,346 Unit-linked 81 - 81 At 1 January 81 - 81 Claims and benefits paid (14) - (14) Decrease in liabilities to policyholders (6) - (6) Foreign exchange and other movements - - - At 31 December 61 - 61 120,195 (8,789) 111,407 2017 120,195 (8,789) 111,407 2017 108,256 (7,395) 100,861 Claims and benefits paid (9,298) 572 (8,726) Increase in liabilities to policyholders 15,774 (1,077) 14,697 Foreign exchange and other movements 732 (332) 400 At 31 December 115,464 (8,232) 107,232 Unit-linked 111 - 70 - At 1 January 70	Claims and benefits paid	(13,999)	1,404	(12,595)
At 31 December 120,134 (8,788) 111,346 Unit-linked 81 - 81 At 1 January 81 - 81 Claims and benefits paid (14) - (14) Decrease in liabilities to policyholders (6) - - Foreign exchange and other movements - - - At 31 December 61 - 61 120,195 (8,788) 111,407 2017 61 - 61 Non-linked (9,298) 572 (8,726) Increase in liabilities to policyholders 108,256 (7,395) 100,861 Claims and benefits paid (9,298) 572 (8,726) Increase in liabilities to policyholders 15,774 (1,077) 14,697 Foreign exchange and other movements 732 (332) 400 At 31 December 115,464 (8,232) 107,232 Unit-linked 111 - 70 - At 1 January 70 - 70 22 Claims and benefits paid (11) <th>Increase in liabilities to policyholders</th> <th>16,265</th> <th>(2,042)</th> <th>14,223</th>	Increase in liabilities to policyholders	16,265	(2,042)	14,223
Unit-linked81-81At 1 January81-81Claims and benefits paid(14)-(14)Decrease in liabilities to policyholders(6)-(6)Foreign exchange and other movements-61-61At 31 December61-61-612017108,256(7,395)100,861111,4072017108,256(7,395)100,861108,256(7,395)100,861Claims and benefits paid(9,298)572(8,726)106,875Increase in liabilities to policyholders15,774(1,077)14,697Foreign exchange and other movements732(332)400At 31 December115,464(8,232)107,232Unit-linked115,464(8,232)107,232Unit-linked111-(11)Increase in liabilities to policyholders70-70Claims and benefits paid(11)-(11)Increase in liabilities to policyholders22-22Foreign exchange and other movements22-22Foreign exchange and other movementsAt 1 January70Claims and benefits paid(11)-(11)-11)Increase in liabilities to policyholders22-22-Foreign exchange and other movementsAt 1 January6- <td< th=""><th>Foreign exchange and other movements</th><th>2,404</th><th>82</th><th>2,486</th></td<>	Foreign exchange and other movements	2,404	82	2,486
At January81-81Claims and benefits paid(14)-(14)Decrease in liabilities to policyholders(6)-(6)Foreign exchange and other movementsAt 31 December61-61 Non-linked 100,855(7,395)100,861Claims and benefits paid(9,298)572(8,726)Increase in liabilities to policyholders15,774(1,077)14,697Foreign exchange and other movements732(332)400At 31 December115,664(8,232)107,232 Uni-linked At 1 January70-70Claims and benefits paid(11)-(11)Increase in liabilities to policyholders72(322)400At 31 December70-702At 1 January70-7014,697Claims and benefits paid(11)-(11)10,252Increase in liabilities to policyholders22-22Foreign exchange and other movements22-22Foreign exchange and other movementsAt 31 DecemberAt 31 DecemberAt 31 DecemberAt 31 DecemberAt 31 DecemberAt 31 December <th>At 31 December</th> <th>120,134</th> <th>(8,788)</th> <th>111,346</th>	At 31 December	120,134	(8,788)	111,346
Claims and benefits paid (14) - (14) Decrease in liabilities to policyholders (6) - (6) Foreign exchange and other movements - - - At 31 December 61 - 61 120,195 (8,788) 111,407 2017 Non-linked 1 1 At 1 January 108,256 (7,395) 100,861 Claims and benefits paid (9,298) 572 (8,726) Increase in liabilities to policyholders 15,774 (1,077) 14,697 Foreign exchange and other movements 732 (332) 400 At 31 December 115,464 (8,232) 107,232 Unit-linked 115,464 (8,232) 107,232 Unit-linked 110 - 70 70 At 1 January 70 - 70 22 Claims and benefits paid (11) - 22 22 Foreign exchange and other movements 22 - 22 22	Unit-linked			
Decrease in liabilities to policyholders(6)-(6)Foreign exchange and other movementsAt 31 December61-61-612017120,195(8,788)111,407Non-linked108,256(7,395)100,861Claims and benefits paid(9,298)572(8,726)Increase in liabilities to policyholders15,774(1,077)14,697Foreign exchange and other movements732(332)400At 31 December115,464(8,232)107,232Unit-linked115,464(8,232)107,232K1 January70-70Claims and benefits paid(11)-(11)Increase in liabilities to policyholders22-22Foreign exchange and other movements22-22At 31 January70At 1 January61At 31 December2121Foreign exchange and other movements22-22Foreign exchange and other movementsAt 31 DecemberAt 31 DecemberAt 31 DecemberAt 31 DecemberAt 31 DecemberAt 31 DecemberAt 31 December <t< th=""><th>At 1 January</th><th>81</th><th>-</th><th>81</th></t<>	At 1 January	81	-	81
Foreign exchange and other movementsAt 31 December61-61120,195(8,788)111,4072017Non-linked108,256(7,395)100,861At 1 January108,256(7,395)100,861Claims and benefits paid(9,298)572(8,726)Increase in liabilities to policyholders15,774(1,077)14,697Foreign exchange and other movements732(332)400At 31 December115,464(8,232)107,232Unit-linked115,464(8,232)107,232At 1 January70-70Claims and benefits paid(11)-(11)Increase in liabilities to policyholders22-22Foreign exchange and other movements22-22At 1 January21At 1 January81-81-81	Claims and benefits paid	(14)	-	(14)
At 31 December 61 - 61 120,195 (8,788) 111,407 2017 Non-linked At 1 January 108,256 (7,395) 100,861 Claims and benefits paid (9,298) 572 (8,726) Increase in liabilities to policyholders 15,774 (1,077) 14,697 Foreign exchange and other movements 732 (332) 400 At 31 December 115,464 (8,232) 107,232 Unit-linked 115,464 (8,232) 107,232 At 1 January 70 - 70 Claims and benefits paid (11) - (11) Increase in liabilities to policyholders 22 - 22 Foreign exchange and other movements 22 - 22 Foreign exchange and other movements - - - At 1 January 70 - 70 Claims and benefits paid (11) - 22 22 Foreign exchange and other movements - - - - - At 31	Decrease in liabilities to policyholders	(6)	-	(6)
120,195(8,788)111,4072017Non-linkedAt 1 January108,256(7,395)100,861Claims and benefits paid(9,298)572(8,726)Increase in liabilities to policyholders15,774(1,077)14,697Foreign exchange and other movements732(332)400At 31 December115,464(8,232)107,232Unit-linked115,464(8,232)107,232Claims and benefits paid(11)-70Claims and benefits paid(11)-(11)Increase in liabilities to policyholders22-22Foreign exchange and other movements22-22K1 January20At 31 December21At 31 December81-81-	Foreign exchange and other movements		-	-
2017 Non-linked At 1 January 108,256 (7,395) 100,861 Claims and benefits paid (9,298) 572 (8,726) Increase in liabilities to policyholders 15,774 (1,077) 14,697 Foreign exchange and other movements 732 (332) 400 At 31 December 115,464 (8,232) 107,232 Unit-linked 111 - 70 At 1 January 70 - 70 Claims and benefits paid (11) - (11) Increase in liabilities to policyholders 22 - 22 Foreign exchange and other movements 22 - 22 At 1 January - - - At 1 January 70 - 70 Claims and benefits paid (11) - (11) Increase in liabilities to policyholders 22 - 22 Foreign exchange and other movements - - - At 31 December 81 - 81 -	At 31 December	61	-	61
Non-linkedAt 1 January108,256(7,395)100,861Claims and benefits paid(9,298)572(8,726)Increase in liabilities to policyholders15,774(1,077)14,697Foreign exchange and other movements732(332)400At 31 December115,464(8,232)107,232Unit-linkedAt 1 January70-70Claims and benefits paid(11)-(11)Increase in liabilities to policyholders222-22Foreign exchange and other movementsAt 31 December2121Kat 31 December22-22-At 31 December81-81-		120,195	(8,788)	111,407
At 1 January 108,256 (7,395) 100,861 Claims and benefits paid (9,298) 572 (8,726) Increase in liabilities to policyholders 15,774 (1,077) 14,697 Foreign exchange and other movements 732 (332) 400 At 31 December 115,464 (8,232) 107,232 Unit-linked At 1 January 70 - 70 Claims and benefits paid (11) - (11) Increase in liabilities to policyholders 22 - 22 Foreign exchange and other movements 22 - 22 At 1 January 70 - - - Claims and benefits paid (11) - (11) 10 Increase in liabilities to policyholders 22 - 22 22 Foreign exchange and other movements - - - - At 31 December 81 - 81 - 81	2017			
Claims and benefits paid(9,298)572(8,726)Increase in liabilities to policyholders15,774(1,077)14,697Foreign exchange and other movements732(332)400At 31 December115,464(8,232)107,232Unit-linkedAt 1 January70-70Claims and benefits paid(11)-(11)Increase in liabilities to policyholders22-22Foreign exchange and other movementsAt 31 December81-81	Non-linked			
Increase in liabilities to policyholders15,774(1,077)14,697Foreign exchange and other movements732(332)400At 31 December115,464(8,232)107,232Unit-linkedAt 1 January70-70Claims and benefits paid(11)-(11)Increase in liabilities to policyholders22-22Foreign exchange and other movementsAt 31 December81-81	At 1 January	108,256	(7,395)	100,861
Foreign exchange and other movements732(332)400At 31 December115,464(8,232)107,232Unit-linkedAt 1 January70-70Claims and benefits paid(11)-(11)Increase in liabilities to policyholders22-22Foreign exchange and other movementsAt 31 December81-81	Claims and benefits paid	(9,298)	572	(8,726)
At 31 December115,464(8,232)107,232Unit-linkedAt 1 January70-70Claims and benefits paid(11)-(11)Increase in liabilities to policyholders22-22Foreign exchange and other movementsAt 31 December81-81	Increase in liabilities to policyholders	15,774	(1,077)	14,697
Unit-linkedAt 1 January70-70Claims and benefits paid(11)-(11)Increase in liabilities to policyholders22-22Foreign exchange and other movementsAt 31 December81-81	Foreign exchange and other movements	732	(332)	400
At 1 January70-70Claims and benefits paid(11)-(11)Increase in liabilities to policyholders22-22Foreign exchange and other movementsAt 31 December81-81	At 31 December	115,464	(8,232)	107,232
Claims and benefits paid(11)-(11)Increase in liabilities to policyholders22-22Foreign exchange and other movementsAt 31 December81-81	Unit-linked			
Increase in liabilities to policyholders22-22Foreign exchange and other movementsAt 31 December81-81	At 1 January	70	_	70
Foreign exchange and other movementsAt 31 December81-81	Claims and benefits paid	(11)	_	(11)
At 31 December 81 - 81	Increase in liabilities to policyholders	22	-	22
	Foreign exchange and other movements		_	_
115,545 (8,232) 107,313	At 31 December	81	-	81
		115,545	(8,232)	107,313

1 Amounts recoverable from reinsurance of liabilities under insurance contracts are included in the consolidated balance sheet in "Other assets".

42. Current tax and deferred tax

(a) Current tax and deferred tax are represented in the balance sheet:

	2018	2017
Included in "Other assets":		
Current taxation recoverable	47	3
Deferred tax assets	111	211
	158	214
Current tax liabilities:		
Provision for Hong Kong profits tax	673	546
Provision for taxation outside Hong Kong	23	22
	696	568
Deferred tax liabilities	6,394	6,016
	7,090	6,584

(b) Deferred tax assets and liabilities recognised

The major components of deferred tax (assets)/liabilities recognised in the balance sheet and the movements during the year are as follows:

	Depreciation allowances in excess of related depreciation	Revaluation of properties	Loan impairment allowances	Fair value adjustments for financial assets at FVOCI/ available- for-sale	Cash flow hedge	Other	Total
At 31 December 2017	207	3,743	(108)	(37)	(19)	2,019	5,805
Impact on transition to HKFRS 9		_	(178)	_	-	1	(177)
At 1 January 2018	207	3,743	(286)	(37)	(19)	2,020	5,628
Exchange adjustment and others	1	(4)	(30)	(3)	-	11	(25)
Charged/(credited) to income statement (note 18(a))	4	(110)	(51)	_	-	439	282
Charged/(credited) to reserves	-	410	-	87	17	(116)	398
At 31 December 2018	212	4,039	(367)	47	(2)	2,354	6,283
At 1 January 2017	231	3,455	(243)	(28)	(25)	1,612	5,002
Exchange adjustment and others	(5)	2	(9)	(2)	-	(3)	(17)
Charged/(credited) to income statement (note 18(a))	(19)	(95)	144	_	_	317	347
Charged/(credited) to reserves	_	381	-	(7)	6	93	473
At 31 December 2017	207	3,743	(108)	(37)	(19)	2,019	5,805

42. Current tax and deferred tax continued

(c) Deferred tax assets not recognised

The amounts of unused tax losses for which no deferred tax asset is recognised in the balance sheet are HK\$1,236m (2017: HK\$595m). Of these amounts, HK\$239m (2017: HK\$252m) have no expiry date and the remaining will expire within 10 years.

There was no other temporary difference for which no deferred tax asset is recognised in the balance sheet as at 31 December 2018 (2017: HK\$201m).

(d) Deferred tax liabilities not recognised

There were no deferred tax liabilities not recognised as at 31 December 2018 (2017: Nil).

43. Share capital

	2018		2017	
	No. of shares HK\$		No. of shares	HK\$
Ordinary shares, issued and fully paid				
At 1 January and 31 December	1,911,842,736	9,658	1,911,842,736	9,658

44. Other equity instruments

Nominal value	Description	2018	2017
US\$900 million	Floating rate perpetual capital instrument callable from December 2019 ¹	6,981	6,981

1~ Coupon rate at one-year US dollar LIBOR plus 3.84 per cent.

The additional tier 1 capital instruments are perpetual and subordinated, and the coupon payments may be cancelled at the sole discretion of the Bank. The capital instruments will be written down at the point of non-viability on the occurrence of a trigger event as defined in the Banking (Capital) Rules. They rank higher than ordinary shares in the event of a winding-up.

45. Contingent liabilities and commitments

(a) Off-balance sheet contingent liabilities and commitments

	2018	2017
Contingent liabilities and financial guarantee contracts		
Guarantee and irrevocable letters of credit pledged as collateral security	16,216	15,267
Other contingent liabilities	172	61
	16,388	15,328
Commitments		
Documentary credits and short-term trade-related transactions	3,310	3,188
Forward asset purchases and forward forward deposits placed	2,895	983
Undrawn formal standby facilities, credit lines and other commitments to lend	461,480	433,970
	467,685	438,141

The above table discloses the nominal principal amounts of commitments (excluding capital commitments), guarantees and other contingent liabilities, which represent the amounts at risk should contracts be fully drawn upon and clients default. The amount of the loan 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 contractual amounts is not representative of future liquidity requirements.

(b) Contingencies

There is no material litigation expected to result in a significant adverse effect on the financial position of the Group, either collectively or individually. Management believes that adequate provisions have been made in respect of such litigations.

46. Other commitments

(a) Capital commitments

At 31 December 2018, capital commitments, mainly related to the commitment for renovation of branches and offices, were HK\$639m (2017: HK\$540m).

(b) Lease commitments

The Group leases certain properties and equipment under operating leases. The leases typically run for an initial period of one to five years and may include an option to renew the lease when all terms are renegotiated. None of these leases includes contingent rentals. The total future minimum lease payments payable under non-cancellable operating leases are as follows:

	2018	2017
Within one year	577	566
Between one and five years	568	721
Over five years	1	1
	1,146	1,288

47. Offsetting of financial assets and financial liabilities

	Amounts subject to enforceable netting arrangements								
	Effects of offs	etting in the ba	alance sheet	Amou	nts not set-off i	n the balance sh	eet	_	
	Gross amounts	Amounts offset	Net Amounts reported in the balance sheet	Financial instruments	Non-cash collateral	Cash collateral	Net amount	Amounts not subject to enforceable netting agreements ¹	Balance sheet total
Financial assets									
Derivatives	7,161	-	7,161	(4,937)	-	(434)	1,790	980	8,141
Reverse repos, stock borrowing and similar agreements classified as:	_	-	-	_	-	_	-	-	-
 trading assets 	-	-	-	-	-	-	-	-	_
 non-trading assets 	-	-	-	-	-	-	-	-	-
Other assets ⁴	1,112	(889)	223	-	-	-	223	-	223
At 31 December 2018	8,273	(889)	7,384	(4,937)	-	(434)	2,013	980	8,364 ²
Derivatives	9,716	-	9,716	(8,044)	-	(796)	876	1,120	10,836
Reverse repos, stock borrowing and similar agreements classified as:	-	-	-	_	_	_	_	-	-
 trading assets 	-	-	-	-	-	-	-	-	-
 non-trading assets 	-	-	-	-	-	-	-	-	-
Loans and advances to customers at amortised cost ⁴	2,305	(1,226)	1,079	_	-	-	1,079	_	1,079
At 31 December 2017	12,021	(1,226)	10,795	(8,044)	-	(796)	1,955	1,120	11,915
Financial liabilities									
Derivatives	7,299	-	7,299	(4,937)	-	(1,421)	941	971	8,270
Repos, stock lending and similar agreements classified as:		-	-	_	-	-	-	410	410
 trading liabilities 	-	-	-	-	-	-	-	-	-
 non-trading liabilities 	-	-	-	-	-	-	-	410	410
Other liabilities ⁴	966	(889)	77	-	-	-	77	-	77
At 31 December 2018	8,265	(889)	7,376	(4,937)	-	(1,421)	1,018	1,381	8,757 ³
Derivatives	9,918	-	9,918	(8,044)	-	(1,362)	512	1,251	11,169
Repos, stock lending and similar agreements classified as:	-	-	-	-	-	-	-	2,389	2,389
 trading liabilities 	-	-	-	-	-	-	-	-	-
 non-trading liabilities 	-	-	-	-	-	-	-	2,389	2,389
Customer accounts at amortised cost ⁴	1,231	(1,226)	5	_	-	_	5	_	5
At 31 December 2017	11,149	(1,226)	9,923	(8,044)	-	(1,362)	517	3,640	13,563

1 These exposures continue to be secured by financial collateral, but the Bank may not have sought or been able to obtain a legal opinion evidencing enforceability of the offsetting right.

2 Amounts presented in the balance sheet included balances due from HSBC entities of HK\$1,927m (2017: HK\$2,405m).

3 Amounts presented in the balance sheet included balances due to HSBC entities of HK\$2,144m (2017: HK\$2,092m).

4 Settlement accounts previously presented as "Loans and advances to customers" and "Customer accounts" have been represented in "Other assets" and "Other liabilities" as mentioned in "Changes in accounting policy" within note 1.
47. Offsetting of financial assets and financial liabilities continued

Financial assets and financial liabilities are offset and the net amount is reported in the balance sheet when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis, or realise the asset and settle the liability simultaneously ("the offset criteria").

The "Amounts not set off in the balance sheet" for derivatives and reverse repurchase/repurchase, stock borrowing/lending and similar arrangements include transactions where:

- the counterparty has an offsetting exposure with the Group and a master netting or similar arrangement is in place with a right of set off only in the event of default, insolvency or bankruptcy, or the offset criteria are otherwise not satisfied; and
- cash and non-cash collaterals are received and pledged in respect of the transactions described above.

48. Employee retirement benefits

(a) Defined benefit schemes

The Group operates three defined benefit schemes, the Hang Seng Bank Limited Defined Benefit Scheme ("HSBDBS"), which is the principal scheme which covers about 20 per cent of the Group's employees, and two other schemes, the Hang Seng Bank Limited Pension Scheme ("HSBPS") and the Hang Seng Bank Limited Non-contributory Terminal Benefits Scheme ("HSBNTBS"). HSBDBS was closed to new entrants with effect from 1 April 1999, and HSBPS and HSBNTBS were closed to new entrants with effect from 31 December 1986. HSBNTBS was terminated in 2018. Since the defined benefit section of the HSBDBS is a final salary lump sum scheme, its exposure to longevity risk and interest rate risk is limited.

These schemes are registered under Occupational Retirement Schemes Ordinance (Cap. 426 of the law of Hong Kong) ("the Ordinance"). The trustee assumes the overall responsibility for the HSBDBS but a management committee has also been established to broaden the governance. Its assets are held separately from the assets of the Group. The trustees are required by the Trust Deed to act in the best interest of the scheme participants.

HSBDBS is predominantly a funded scheme with assets which are held in trust funds separate from the Group. The actuarial funding valuation of the HSBDBS is reviewed at least on a triennial basis in accordance with local regulations. The actuarial assumptions used to conduct the actuarial funding valuation of the HSBDBS vary according to the economic conditions.

The investment strategy of the HSBDBS is to hold the majority of assets in bonds with a smaller portion in equities and each investment manager has been assigned an investment mandate with the targeted asset allocation. The ranges of target asset allocations for the portfolio are as follows: Bonds (0-72%) and Equity (0-28%).

(i) Cumulative actuarial gains/(losses) recognised in other comprehensive income in respect of defined benefit schemes

	2018	2017
At 1 January	(748)	(1,312)
Actuarial gains/(losses) recognised in other comprehensive income	(703)	564
At 31 December	(1,451)	(748)

- (a) Defined benefit schemes continued
- (ii) Movements in the scheme assets and present value of the defined benefit obligations
- Net asset/(liability) under defined benefit schemes

Current service cost (note 13) - (166) (166) Interest income/(cost) on the defined benefit scheme asset/(liability) (note 13) 83 (83) - Remeasurement effects recognised in other comprehensive income (270) (433) (703) - Actuarial losses from changes in financial assumptions - (9) (9) - Actuarial losses from experience (270) (151) (421) Contributions by the Group 120 - 120 Benefits paid (490) 490 - (81) Administrative costs and taxes paid by scheme (note 13) (6) - (6) At 31 December 2018 4,426 (5,247) (821) Retirement benefit tabilities recognised in balance sheet (included in "Other accounts" of "Other assets") 160 (147) 13 Present value of defined benefit obligation retating to: - (144) - - - Actives (5,103) - (182) (182) Interest income/(cost) on the defined benefit scheme asset/(liability) (note 13) 83 (93) (10) I January 2017<		Fair value of scheme assets	Present value of defined benefit obligations	Net defined benefit (liability)/asset
Interest income/(cost) on the defined benefit scheme asset/(liability) (net 13) 83 (83) - Remeasurement effects recognised in other comprehensive income (270) (433) (703) - Actuarial losses from changes in demographic assumptions - (9) (9) - Actuarial losses from changes in demographic assumptions - (270) (273) (273) - Actuarial losses from changes in demographic assumptions 120 - 120 - 120 Contributions by the Group 120 - (30) - (40) - (40) - - (40) - - (40) - - - <td< td=""><td>At 1 January 2018</td><td>5,019</td><td>(5,055)</td><td>(36)</td></td<>	At 1 January 2018	5,019	(5,055)	(36)
Remeasurement effects recognised in other comprehensive income (270) (433) (703) - Actuarial losses from changes in financial assumptions - (9) (9) - Actuarial losses from changes in financial assumptions - (273) (273) - Actuarial losses from changes in financial assumptions 120 - (270) (151) (421) Contributions by the Group 120 - (30) - - (30) - - - -	Current service cost (note 13)	-	(166)	(166)
- Actuarial losses from changes in demographic assumptions - (9) (9) - Actuarial losses from experience (270) (151) (421) Contributions by the Group 120 - 120 Benefits paid (490) 490 - Others (30) - (30) - (30) Administrative costs and taxes paid by scheme (note 13) (6) - (6) (8) At 31 December 2018 (4,426) (5,247) (821) Retirement benefit labilities recognised in balance sheet (included in "Other accounts" of "Other assets") 160 (147) 13 Present value of defined benefit obligation relating to: - (4,518) (5,103) (5,103) - Actives (144) 13 160 (147) 13 Presioners (144) 13 160 (147) 13 Current service cost (note 13) - (182) (144) 13 Current service cost (note 13) - (182) (142) 14 14 14 14 14 14 14 14 14 14 14	Interest income/(cost) on the defined benefit scheme asset/(liability) (note 13)	83	(83)	-
- Actuarial losses from changes in financial assumptions - (273) (273) - Actuarial losses from experience (270) (151) (421) Contributions by the Group 120 - (270) (151) (421) Benefits paid (30) - 30 - - -	Remeasurement effects recognised in other comprehensive income	(270)	(433)	(703)
- Actuarial losses from experience (270) (151) (421) Contributions by the Group 120 - 120 Benefits paid (400) 400 - Others (30) - (30) Administrative costs and taxes paid by scheme (note 13) (6) - (6) At 31 December 2018 4.426 (5,247) (821) Retirement benefit liabilities recognised in balance sheet (included in "Other accounts" of "Other assets") 160 (147) 133 Present value of defined benefit obligation relating to: - (5,103) - - - Actives (5,103) - (144) - - - Pensioners - (182) (182) - - Current service cost (note 13) - (182) (182) - - Current service cost (note 13) - 4.618 (5,199) (581) Current service cost (note 13) - (182) (182) - - Current service cost (note 13) - - (182) (182) - - - - -<	 Actuarial losses from changes in demographic assumptions 	-	(9)	(9)
Contributions by the Group 120 - 120 Benefits paid (490) 490 - Others (30) - (30) Administrative costs and taxes paid by scheme (note 13) (6) - (6) At 31 December 2018 4,426 (5,247) (821) Retirement benefit liabilities recognised in balance sheet (included in "Other accounts" of "Other assets") 160 (147) 13 Present value of defined benefit obligation relating to: - Actives (5,103) (581) - Pensioners (144) - (182) (182) Interest income/(cost) on the defined benefit scheme asset/(liability) (note 13) 83 (93) (10) Remeasurement effects recognised in balance sheet (included in "Other accounts" of "Other assets") - (182) (182) Interest income/(cost) on the defined benefit scheme asset/(liability) (note 13) 83 (93) (10) Retirement effects recognised in other comprehensive income 624 (60) 5564 - Actuarial gains (flosses) from changes in financial assumptions - 433 433	 Actuarial losses from changes in financial assumptions 	-	(273)	(273)
Benefits paid (490) 490 - Others (30) - (30) - (30) Administrative costs and taxes paid by scheme (note 13) (6) - - (6) - - (7) - - (14) - - (14) - - - 10 - 10 10 - 10 10 - 10 10 10 - 10 10 10 <t< td=""><td> Actuarial losses from experience </td><td>(270)</td><td>(151)</td><td>(421)</td></t<>	 Actuarial losses from experience 	(270)	(151)	(421)
Others(30)(30)Administrative costs and taxes paid by scheme (note 13)(6)(6)At 31 December 20184,426(5,247)(821)Retirement benefit itabilities recognised in balance sheet (included in "Other liabilities")4,266(5,100)(834)Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets")160(147)13Present value of defined benefit obligation relating to:-(5,103)(147)13- Actives(5,103)(144)(148)(149)(182)The Group expects to make HK\$122m of contributions to defined benefit schemes during 20174,618(5,199)(561)Current service cost (note 13)-(182)(162)(162)Interest income/(cost) on the defined benefit scheme asset/(liability) (note 13)83(93)(10)Remeasurement effects recognised in dher comprehensive income624(60)564- Actuarial gains from changes in financial assumptions-(43)(43)- Actuarial gains/(losses) from experience(479)479-Contributions by the Group175-175Benefits paster ecognised in balance sheet (included in "Other accounts" of "016)(5,055)(36)Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "016)(4,903)(89)- Actuarial togains/(tosses) from experience(2)-(2)Atomaria tassets recognised in balance sheet (included in "Other accounts" of "016)(4,90	Contributions by the Group	120	_	120
Administrative costs and taxes paid by scheme (note 13) (6) - (6) - (6) At 31 December 2018 (4,426 (5,247) (821) Retirement benefit liabilities recognised in balance sheet (included in "Other accounts" of "Other assets") 160 (147) 13 Present value of defined benefit obligation relating to: - (5,103) (5,103) - Actives (144) (144) (144) The Group expects to make HK\$122m of contributions to defined benefit schemes during 2019. (182) (182) At 1 January 2017 4,618 (5,199) (581) Current service cost (note 13) - (182) (182) Interest income/(cost) on the defined benefit scheme asset/(liability) (note 13) 83 (93) (10) Remeasurement effects recognised in other comprehensive income 624 (60) 564 Actuarial gains from changes in demographic assumptions - (93) (93) - Acturial gains/(losses) from experience (22) - (2) Administrative costs and taxes paid by scheme (note 13) (2) - (2) Attarial gains/(losses) from experience (22) (30) <t< td=""><td>Benefits paid</td><td>(490)</td><td>490</td><td>-</td></t<>	Benefits paid	(490)	490	-
At 31 December 20184,426(5,247)(821)Retirement benefit liabilities recognised in balance sheet (included in "Other liabilities")4,266(5,100)(834)Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets")160(147)13Present value of defined benefit obligation relating to: Actives(5,103)	Others	(30)	_	(30)
Retirement benefit liabilities recognised in balance sheet (included in "Other liabilities")4,266(5,100)(834)Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets")160(147)13Present value of defined benefit obligation relating to: - Actives(5,103)(5,103)- Actives(144)(144)The Group expects to make HK\$122m of contributions to defined benefit schemes during 2019.4,618(5,199)(581)At 1 January 20174,618(5,199)(182)Current service cost (note 13)-(182)(182)Interest income/(cost) on the defined benefit scheme asset/(liability) (note 13)83(93)(10)Remeasurement effects recognised in other comprehensive income624(60)564- Actuarial gains from changes in demographic assumptions-(93)(93)- Actuarial gains/(losses) from experience624(10)614Contributions by the Group175-175Benefits paid(479)479-(2)At 31 December 20175,019(5,055)(36)Retirement benefit iabilities recognised in balance sheet (included in "Other accounts" of "Other assets")4,814(4,903)(89)Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets")205(152)53Present value of defined benefit obligation relating to: - Actives(4,906)4(4,906)	Administrative costs and taxes paid by scheme (note 13)	(6)	-	(6)
Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets")160(147)13Present value of defined benefit obligation relating to: - Actives(5.103)(144)(144)- Actives(144)(144)(144)- Pensioners4,618(5,199)(581)Current service cost (note 13)-(182)(182)Interest income/(cost) on the defined benefit scheme asset/(liability) (note 13)83(93)(10)Remeasurement effects recognised in other comprehensive income624(60)564- Actuarial gains from changes in demographic assumptions-(93)(93)- Actuarial uses from changes in financial assumptions-(93)(93)- Actuarial gains/(losses) from experience(479)479-Contributions by the Group175-175(2)Benefits paid(479)4,814(4,903)(89)Retirement benefit tasets recognised in balance sheet (included in "Other liabilities")4,814(4,903)(89)Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets")205(152)53Present value of defined benefit obligation relating to: - Actives(4,906)54	At 31 December 2018	4,426	(5,247)	(821)
"Other assets")160(147)13Present value of defined benefit obligation relating to:(5,103)- Actives(5,103)- Pensioners(144)The Group expects to make HK\$122m of contributions to defined benefit schemes during 2019.(144)At 1 January 20174,618(5,199)(581)Current service cost (note 13)-(182)(182)Interest income/(cost) on the defined benefit scheme asset/(liability) (note 13)83(93)(10)Remeasurement effects recognised in other comprehensive income624(60)564- Acturial gains from changes in financial assumptions-(13)(14)- Acturial losses from changes in financial assumptions-(13)(10)- Acturial costs and taxes paid by scheme (note 13)-(10)614Contributions by the Group175-175Benefits paid(2)-(2)-At 31 December 20175019(5.055)(36)Retirement benefit liabilities recognised in balance sheet (included in "Other accounts" of "Other assets")4,814(4,903)(89)Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets")503(152)53Present value of defined benefit obligation relating to:205(152)53Present value of defined benefit obligation relating to: Actives Atives<	Retirement benefit liabilities recognised in balance sheet (included in "Other liabilities")	4,266	(5,100)	(834)
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Pensioners(144)The Group expects to make HK\$122m of contributions to defined benefit schemes during 2019.At 1 January 20174,618(5,199)(581)Current service cost (note 13)-(182)(182)Interest income/(cost) on the defined benefit scheme asset/(liability) (note 13)83(93)(10)Remeasurement effects recognised in other comprehensive income624(60)564- Actuarial gains from changes in financial assumptions-43343- Actuarial tosses from changes in financial assumptions-(93)(93)- Actuarial gains/(losses) from experience624(10)614Contributions by the Group175-175Benefits paid(479)479-Administrative costs and taxes paid by scheme (note 13)(2)-(2)At 31 December 20175.019(5.055)(36)Retirement benefit liabilities recognised in balance sheet (included in "Other liabilities")4.814(4.903)(89)Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets")205(152)53Present value of defined benefit obligation relating to:-4.90%)53- Actives(4.90%)535353	Present value of defined benefit obligation relating to:			
The Group expects to make HK\$122m of contributions to defined benefit schemes during 2019.At 1 January 20174,618(5,199)(581)Current service cost (note 13)–(182)(182)Interest income/(cost) on the defined benefit scheme asset/(liability) (note 13)83(93)(10)Remeasurement effects recognised in other comprehensive income624(60)564- Actuarial gains from changes in demographic assumptions–4343- Actuarial losses from changes in financial assumptions–(93)(93)- Actuarial gains/(losses) from experience624(10)614Contributions by the Group175–175Benefits paid(479)479–Administrative costs and taxes paid by scheme (note 13)(2)–(2)At 31 December 20175,019(5,055)(36)Retirement benefit liabilities recognised in balance sheet (included in "Other liabilities")4,814(4,903)(89)Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets")205(152)53Present value of defined benefit obligation relating to:–4,4906)54- Actives(4,906)5454	- Actives		(5,103)	
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Current service cost (note 13)–(182)(182)Interest income/(cost) on the defined benefit scheme asset/(liability) (note 13)83(93)(10)Remeasurement effects recognised in other comprehensive income624(60)564- Actuarial gains from changes in demographic assumptions–4343- Actuarial losses from changes in financial assumptions–(93)(93)- Actuarial gains/(losses) from experience624(10)614Contributions by the Group175–175Benefits paid(479)479–Administrative costs and taxes paid by scheme (note 13)(2)–(2)At 31 December 20175,019(5,055)(36)Retirement benefit liabilities recognised in balance sheet (included in "Other liabilities")4,814(4,903)(89)Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets")205(152)53Present value of defined benefit obligation relating to:–(4,906)54- Actives(4,906)152153	The Group expects to make HK\$122m of contributions to defined benefit schemes during 2	019.		
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Remeasurement effects recognised in other comprehensive income624(60)564- Actuarial gains from changes in demographic assumptions-4343- Actuarial losses from changes in financial assumptions-(93)(93)- Actuarial gains/(losses) from experience624(10)614Contributions by the Group175-175Benefits paid(479)479-Administrative costs and taxes paid by scheme (note 13)(2)-(2)At 31 December 20175.019(5.055)(36)Retirement benefit liabilities recognised in balance sheet (included in "Other liabilities")4.814(4.903)(89)Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets")205(152)53Present value of defined benefit obligation relating to:4.906) Actives(4.906)	Current service cost (note 13)	-	(182)	(182)
- Actuarial gains from changes in demographic assumptions-4343- Actuarial losses from changes in financial assumptions-(93)(93)- Actuarial gains/(losses) from experience624(10)614Contributions by the Group175-175Benefits paid(479)479-Administrative costs and taxes paid by scheme (note 13)(2)-(2)At 31 December 20175,019(5,055)(36)Retirement benefit liabilities recognised in balance sheet (included in "Other liabilities")4,814(4,903)(89)Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets")205(152)53Present value of defined benefit obligation relating to:-(4,906)-	Interest income/(cost) on the defined benefit scheme asset/(liability) (note 13)	83	(93)	(10)
- Actuarial losses from changes in financial assumptions-(93)(93)- Actuarial gains/(losses) from experience624(10)614Contributions by the Group175-175Benefits paid(479)479-Administrative costs and taxes paid by scheme (note 13)(2)-(2)At 31 December 20175,019(5,055)(36)Retirement benefit liabilities recognised in balance sheet (included in "Other liabilities")4,814(4,903)(89)Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets")205(152)53Present value of defined benefit obligation relating to:-(4,906)-	Remeasurement effects recognised in other comprehensive income	624	(60)	564
- Actuarial gains/(losses) from experience624(10)614Contributions by the Group175-175Benefits paid(479)479-Administrative costs and taxes paid by scheme (note 13)(2)-(2)At 31 December 20175,019(5,055)(36)Retirement benefit liabilities recognised in balance sheet (included in "Other liabilities")4,814(4,903)(89)Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets")205(152)53Present value of defined benefit obligation relating to: - Actives(4,906)(4,906)(4,906)	 Actuarial gains from changes in demographic assumptions 	_	43	43
Contributions by the Group175-175Benefits paid(479)479-Administrative costs and taxes paid by scheme (note 13)(2)-(2)At 31 December 20175,019(5,055)(36)Retirement benefit liabilities recognised in balance sheet (included in "Other liabilities")4,814(4,903)(89)Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets")205(152)53Present value of defined benefit obligation relating to:-(4,906)-	 Actuarial losses from changes in financial assumptions 	-	(93)	(93)
Benefits paid(479)479-Administrative costs and taxes paid by scheme (note 13)(2)-(2)At 31 December 20175,019(5,055)(36)Retirement benefit liabilities recognised in balance sheet (included in "Other liabilities")4,814(4,903)(89)Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets")205(152)53Present value of defined benefit obligation relating to: - Actives(4,906)(4,906)	 Actuarial gains/(losses) from experience 	624	(10)	614
Administrative costs and taxes paid by scheme (note 13)(2)-(2)At 31 December 20175,019(5,055)(36)Retirement benefit liabilities recognised in balance sheet (included in "Other liabilities")4,814(4,903)(89)Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets")205(152)53Present value of defined benefit obligation relating to:(4,906)	Contributions by the Group	175	-	175
At 31 December 20175,019(5,055)(36)Retirement benefit liabilities recognised in balance sheet (included in "Other liabilities")4,814(4,903)(89)Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets")205(152)53Present value of defined benefit obligation relating to: - Actives(4,906)(4,906)	Benefits paid	(479)	479	_
Retirement benefit liabilities recognised in balance sheet (included in "Other liabilities") 4,814 (4,903) (89) Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets") 205 (152) 53 Present value of defined benefit obligation relating to: - (4,906) (4,906)	Administrative costs and taxes paid by scheme (note 13)	(2)	-	(2)
Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets") 205 (152) 53 Present value of defined benefit obligation relating to: - Actives (4,906)	At 31 December 2017	5,019	(5,055)	(36)
"Other assets")205(152)53Present value of defined benefit obligation relating to:- Actives(4,906)	Retirement benefit liabilities recognised in balance sheet (included in "Other liabilities")	4,814	(4,903)	(89)
- Actives (4,906)	Retirement benefit assets recognised in balance sheet (included in "Other accounts" of "Other assets")	205	(152)	53
	Present value of defined benefit obligation relating to:			
- Pensioners (149)	- Actives		(4,906)	
	- Pensioners		(149)	

(a) Defined benefit schemes continued

(iii) Benefits expected to be paid

Benefits expected to be paid from the HSBDBS and HSBPS to retirees over each of the next five years, and in aggregate for the five years thereafter, are as follows:

	2019	2020	2021	2022	2023	2024–2028
HSBDBS	371	514	599	595	462	2,014
HSBPS	13	12	11	11	10	43

The duration of the principal scheme HSBDBS is 6.3 years (2017: 6.4 years) under the disclosure assumptions adopted.

(iv) Fair value of scheme assets by asset classes

	Value	Quoted market price in active market	Of which placed with the Group
2018			
Fair value of scheme assets			
- Equities	1,217	1,217	-
- Bonds	3,004	3,004	-
- Other*	205	205	101
	4,426	4,426	101
2017			
Fair value of scheme assets			
- Equities	1,401	1,401	-
- Bonds	3,480	3,480	-
- Other*	138	138	53
	5,019	5,019	53

* Other mainly consists of cash and deposits.

(a) Defined benefit schemes continued

(v) The Principal Scheme's actuarial financial assumptions

These schemes are funded defined benefit schemes and are administered by trustees with assets held separately from those of the Group. The latest annual actuarial valuations at 31 December 2018 were performed by Joseph Yip, Fellow of the Society of Actuaries of the United States, of Mercer (Hong Kong) Limited, using the Attained Age Method.

The Ordinance requires that registered retirement benefit schemes shall at all time be fully funded to meet its aggregate vested liability (i.e. on a wind-up basis) in accordance with the recommendations contained in an actuarial certificate supplied under the Ordinance. Any shortfall must be made up within the specified time under the Ordinance. Any deficits to meet the aggregate past service liability (i.e. on an on-going basis) can however be eliminated over a period of time in accordance with the funding recommendations of an actuary.

On an on-going basis, the value of the principal scheme assets of HSBDBS represented 97 per cent (2017: 112 per cent) of the benefits accrued to scheme members, after allowing for expected future increases in salaries, and the resulting deficit amounted to HK\$124m (surplus in 2017: HK\$501m). On a wind-up basis, the actuarial value of the HSBDBS assets represented 99 per cent (2017: 113 per cent) of the members' vested benefits, based on salaries at that date, and the resulting deficit amounted to HK\$24m (surplus in 2017: HK\$546m).

The determinations for actuarial funding valuation purposes are based on different methods and assumptions from those used for financial reporting purposes, and as a result should neither be compared nor related to other determinations included in these financial statements.

The present value of the principal scheme's obligation was a final lump sum salary of HK\$5,100m (2017: HK\$4,903m). The principal actuarial assumptions used to calculate the Group's obligations for the HSBDBS for each year, and used as the basis for measuring the expenses in relation to the scheme, were as follows:

Principal actuarial assumptions for the principal scheme

	HSBDBS
	%
2018	
Discount rate	1.90
Expected rate of salary increases	4.00
of which:	
- 2019	4.00
- thereafter	4.00
2017	
Discount rate	1.70
Expected rate of salary increases	3.00
of which:	
- 2018	3.00
- thereafter	3.00

The Group determines the discount rates to be applied to its obligations in consultation with the schemes' actuaries, on the basis of current average yields of high quality (AA rated or equivalent) debt instruments, with maturities consistent with those of the defined benefit obligations. Where there is not a deep market in corporate bonds, government bond yields have been used, and this is the case for HSBDBS. The yield curve has been extrapolated where the term of the liabilities is longer than the duration of available bonds and the discount rate used then takes into account the term of the liabilities and the shape of the yield curve.

(a) Defined benefit schemes continued

(vi) Actuarial assumption sensitivities

The discount rate and rate of pay increase are sensitive to changes in market conditions arising during the reporting year. The following table shows the effect of changes in these on the HSBDBS:

The effect of changes in key assumptions:

	HSBDBS	
	2018	2017
Discount rate		
 change in retirement benefit obligation at year end from a 25bps increase 	(78)	(76)
 change in retirement benefit obligation at year end from a 25bps decrease 	81	78
 change in 2019/2018 retirement benefit cost from a 25bps increase 	(2)	(4)
 change in 2019/2018 retirement benefit cost from a 25bps decrease 	2	4
Rate of pay increase		
 change in retirement benefit obligation at year end from a 25bps increase 	88	86
 change in retirement benefit obligation at year end from a 25bps decrease 	(86)	(84)
 change in 2019/2018 retirement benefit cost from a 25bps increase 	5	5
 change in 2019/2018 retirement benefit cost from a 25bps decrease 	(5)	(5)

(b) Defined contribution schemes

The principal defined contribution scheme for Group employees joining on or after 1 April 1999 is the HSBC Group Hong Kong Local Staff Defined Contribution Scheme. The Group also operates two other defined contribution schemes, the Hang Seng Bank Provident Fund Scheme which was closed to new entrants since 31 December 1986 and the Hang Seng Insurance Company Limited Employees' Provident Fund. The Hang Seng Bank Provident Fund Scheme was terminated in 2018. The Bank and relevant Group entities also participate in mandatory provident fund schemes ("MPF schemes") registered under the Hong Kong Mandatory Provident Fund Ordinance, which are also defined contribution schemes.

Contributions made in accordance with the relevant scheme rules to these defined contribution schemes (including MPF schemes) are charged to the income statement as below:

	2018	2017
Amounts charged to the income statement (note 13)	259	208

Under the schemes, the Group's contributions are reduced by contributions forfeited by those employees who leave the schemes prior to the contributions vesting fully. The forfeited contributions utilised during the year or available at the year-end to reduce future contributions is HK\$0.1m (2017: HK\$0.5m).

49. Share-based payments

The Group participated in various share compensation plans as listed in the following tables that are operated by the HSBC Group for acquiring of HSBC Holdings plc shares. These are to be settled by the delivery of shares of HSBC Holdings plc.

Share awards and option plans

Award	Policy
Deferred Share Awards	 Vesting of awards generally subject to continued employment with the Group Vesting often staggered over a period ranging from three to five years Certain shares subject to a retention requirement post-vesting Awards are generally subject to the rules of Share Plan and any performance conditions Awards granted from 2010 onwards are subject to a malus provision prior to vesting
International Employee Share Purchase Plan	 The plan was introduced in 2013 Eligible employees make contributions up to the local equivalent of GBP250 per month which are applied in the purchase of shares on a quarterly basis. For every three shares purchased, the employee is granted a matching award by the HSBC Group of one share The matching award vests subject to continued employment with the Group and retention of the purchased shares in the plan until the third anniversary of the start of the relevant plan year
Savings-related Share Option Plan	 Eligible employees save up to the local equivalent of GBP250 per month, with the option to use the savings to acquire shares. The last grant of options under this plan was in 2012 Exercisable within six months following either the third or fifth anniversaries of the commencement of three-year or five-year contracts, respectively The option price is set at a 20% discount to the market value preceding the date of invitation

(a) Savings-related share option plan

The number of options, weighted average exercise price, and the weighted average remaining contractual life for options outstanding at the balance sheet date, are as follows:

Option scheme with exercise price set in Hong Kong dollars

	2018		2017	
	Weighted average exercise price HK\$	Number ('000)	Weighted average exercise price HK\$	Number ('000)
Outstanding at 1 January	55.47	10	55.47	79
Exercised in the year	55.47	(6)	55.47	(62)
Less: Cancellation/Lapsed in the year	55.47	(4)	55.47	(7)
Outstanding at 31 December	-	_	55.47	10
Exercisable at 31 December	-	_	_	

The weighted average share price at the date the options were exercised was HK\$83.67 (2017: HK\$75.77).

No option outstanding at the year end of 2018. The options outstanding at the year end of 2017 had an exercise price of HK\$55.47 and a weighted average remaining contractual life of 0.08 years.

No share option was granted during 2018 and 2017.

49. Share-based payments continued

(b) HSBC share awards

	2018	2017
	Number ('000)	Number ('000)
Outstanding at 1 January	1,018	1,131
Additions during the year	513	537
Less: Released/Lapsed in the year	(614)	(650)
Outstanding at 31 December	917	1,018

The closing price of the HSBC Holdings plc share at 31 December 2018 was £6.47 (2017: £7.67).

The weighted average remaining vesting period as at 31 December 2018 was 0.62 years (2017: 0.60 years).

(c) Calculation of fair value

The fair values of share options at the date of grant of the options are calculated using a Black-Scholes model. The fair value of a share award is based on the share price at the date of the grant.

(d) Income statement charge

	2018	2017
Restricted share awards	45	21
Savings-related share awards and option plans	_	12
Income statement charge (note 13)	45	33
Equity-settled share-based payments	38	26
Cash-settled share-based payments	7	7
	45	33

The above charge was computed from the fair values of the share-based payment transaction when contracted, that arose under employee share awards made in accordance with HSBC's reward structures.

50. Material related-party transactions

(a) Immediate holding company and its subsidiaries and fellow subsidiaries

The Group entered into transactions with its immediate holding company and its subsidiaries as well as its fellow subsidiaries in the ordinary course of business, mainly including lending activities, acceptance and placement of interbank deposits, correspondent banking transactions, off-balance sheet transactions and the provision of other banking and financial services. The activities were on substantially the same terms, including interest rates and security, as for comparable transactions with third party counterparties.

The Group used the IT service of, and shared an automated teller machine network with, its immediate holding company. The Group also shares the costs of certain IT projects with and used certain processing services of fellow subsidiaries.

The Group maintained a staff retirement benefit scheme for which a fellow subsidiary company acts as trustee and the Group's immediate holding company act as administrator.

A fellow subsidiary company was appointed as fund manager to manage the Group's life insurance investment portfolios. There was an arrangement whereby a fellow subsidiary provided certain management services to the Group's insurance subsidiary. The fees on these transactions are determined on an arm's length basis.

The Bank acted as agent for the marketing of Mandatory Provident Fund products for its immediate holding company and a fellow subsidiary during 2018, and distribution of retail investment funds for a fellow subsidiary company.

During 2018, the Bank has paid coupon on AT1 capital instrument of HK\$418m to its immediate holding company (2017: HK\$389m).

The aggregate amount of income and expenses arising from these transactions during the year, the balances of amounts due to and from the relevant related parties, and the total contract amount of off-balance sheet transactions at the year-end are as follows:

	Immediate holding company and its subsidiaries		Fellow subsidiaries	
	2018	2017	2018	2017
Interest income	136	92	6	2
Interest expense	(102)	(209)	-	_
Other operating income/(expenses)	174	95	(15)	(9)
Operating expenses*	(639)	(538)	(1,247)	(1,010)
Amounts due from:				
Placings with and advances to banks	8,578	8,795	214	807
Derivative financial instruments	1,903	2,324	24	81
Other assets	462	449	216	9
	10,943	11,568	454	897
Amounts due to:				
Current, savings and other deposit accounts	2,413	1,631	-	_
Deposits from banks	936	1,073	54	25
Derivative financial instruments	1,959	1,851	185	241
Certificates of deposit and other debt securities in issue	3,000	-	-	-
Other liabilities	868	596	178	203
	9,176	5,151	417	469
Derivative contracts:				
Contract amount	397,020	340,544	16,059	24,013

* 2018 operating expenses included payment of HK\$107m (2017: HK\$61m) of software costs which were capitalised as intangible assets in the balance sheet of the Group.

50. Material related-party transactions continued

(b) Key management personnel remuneration

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Group and Bank. It includes members of the Board of Directors and Executive Committee of the Bank. During the year, the members of the Bank's Executive Committee has increased from 14 to 15. The amount of remuneration paid to key management personnel was pro-rata from the date of being appointed as Directors of the Bank or members of Executive Committee, if any. The aggregate amount of remuneration of the key management personnel during the year are as follows:

	2018	2017
Salaries, allowances and benefits in kind	60	59
Payments in respect of termination of services/other payments	-	11
Retirement scheme contributions	5	4
Variable bonuses		
- Cash bonus	28	22
 Share-based payment 	21	16
	114	112

(c) Material transactions with key management personnel

During the year, the Group provided credit facilities to and accepted deposits from key management personnel of the Bank and its holding companies, their close family members and companies controlled or significantly influenced by them. The credit facilities extended and deposit taken were provided in the ordinary course of business and on substantially the same terms as for comparable transactions with persons of a similar standing or, where applicable, with other employees.

Material transactions conducted with key management personnel of the Bank and its holding companies and parties related to them are as follows:

	2018	2017
For the year		
Interest income	568	396
Interest expense	85	41
Fees and commission income	28	56
Maximum aggregate amount of loans and advances	28,866	29,760
At the year-end		
Loans and advances	26,089	23,854
Deposits	14,318	11,575
Guarantees issued	373	57
Undrawn commitments	3,112	2,531

Change in expected credit losses recognised for the year and impairment allowances against balances outstanding at the end of the year as required under HKFRS 9, in respect of Key Management Personnel were insignificant (2017: nil).

The Group adheres to section 83 of the Hong Kong Banking Ordinance regarding lending to related parties; this includes unsecured lending to key management personnel, their relatives and companies that may be directly or indirectly influenced or controlled by such individuals.

50. Material related-party transactions continued

(d) Loans to Directors

Particulars of loans to directors disclosed pursuant to section 17 of the Companies (Disclosure of Information about Benefits of Directors) Regulations for the year ended 31 December 2018 are shown as below.

	20	18	2017	
	Highest balance Balance at during the year 31 December		Highest balance during the year	Balance at 31 December
- Loans and advances	26,290	23,769	27,744	22,118
- Guarantees issued	382	369	429	53

The above relevant transactions in 2018 were all transacted by the Bank.

(e) Directors' material interests in transactions, arrangements or contracts

No transaction, arrangement or contract (that is significant in relation to the Bank's business), to which the Bank or any of its holding companies or any of its subsidiaries or fellow subsidiaries was a party and in which a Director of the Bank had, directly or indirectly, a material interest, subsisted as at the end of the year or at any time during the year.

(f) Associates

The Group provides certain banking and financial services to associates, including loans, overdrafts, interest and non-interest bearing deposits and current accounts. Details of interests in associates can be found in note 32. Transactions and balances during the year with associates were as follows:

	20	18	20	17
	Highest balance during the year	Balance at 31 December	Highest balance during the year	Balance at 31 December
Amounts due from associates [#]	7,122	5,106	4,368	4,006
Amounts due to associates#	1,700	419	3,791	813
			2018	2017
For the year				
Net interest income			100	23
Operating expenses			(30)	(31)

Representing associates in HSBC Group

The disclosure of the year-end balance and the highest amounts outstanding during the year is considered to be the most meaningful information to represent the amount of transactions and outstanding balances during the year.

The transactions resulting in outstanding balances arose in the ordinary course of business and on substantially the same terms, including interest rates and security, as for comparable transactions with third party counterparties.

(g) Ultimate holding company

The Group participates in various share option and share plans operated by HSBC Holdings plc whereby share options or shares of HSBC Holdings plc are granted to employees of the Group. As disclosed in note 49, the Group recognises an expense in respect of these share options and share awards. The cost borne by the ultimate holding company in respect of these share options and share awards is treated as a capital contribution and is recorded under "Other reserves". The balance of this reserve as at 31 December 2018 amounted to HK\$669m comprising HK\$668m relating to share option schemes and HK\$1m relating to share award schemes (2017: HK\$638m comprising HK\$668m relating to share option schemes and negative reserve amounted to HK\$30m relating to share award schemes).

51. Fair value of financial instruments

(a) Fair value of financial instruments carried at fair value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The following tables set out the financial instruments carried at fair value.

	Va	aluation techniqu	es	_		
	Quoted market price Level 1	Using observable inputs Level 2	With significant unobservable inputs Level 3	Third party total	Amounts with HSBC entities*	Total
Recurring fair value measurements						
2018						
Assets						
Trading assets	44,591	2,573	-	47,164	-	47,164
Financial assets designated and otherwise mandatorily measured at fair value	6,386	2,595	4,089	13,070	_	13,070
Derivative financial instruments	386	5,804	24	6,214	1,927	8,141
Financial investments	284,696	43,197	1,287	329,180	-	329,180
Liabilities						
Trading liabilities	33,649	-	-	33,649	-	33,649
Financial liabilities designated at fair value	-	21,140	12,314	33,454	-	33,454
Derivative financial instruments	29	6,026	71	6,126	2,144	8,270
Recurring fair value measurements 2017						
Assets	(0.702	12.000		E0 000	11	E2 70 /
Trading assets	40,793 6,481	12,900 1,000	- 1,832	53,693 9,313		53,704 9,313
Financial assets designated at fair value Derivative financial instruments	319	8,104	1,032	9,313	2,405	9,313
Available-for-sale financial investments	178,390	110,359	1,455	290,204	2,400	290,204
	110,000	110,000	1,400	230,204		230,204
Liabilities						
Trading liabilities	48,695	39,154	392	88,241	29	88,270
Financial liabilities designated at fair value	-	1,047	-	1,047	-	1,047
Derivative financial instruments	17	9,057	3	9,077	2,092	11,169

* Included structured instruments and derivative contracts transacted with HSBC entities which were mainly classified within Level 2 of the valuation hierarchy.

(a) Fair value of financial instruments carried at fair value continued

		As	sets			Liabilities	
	Financial investments	Trading assets	Designated and otherwise mandatorily measured at fair value	Derivatives	Trading liabilities	Designated at fair value	Derivatives
At 31 December 2018							
Transfer from Level 1 to Level 2	-	-	-	-	-	-	-
Transfer from Level 2 to Level 1	55,329	7,217	-	-	-	-	-
	Available- for-sale	Held for trading	Designated at fair value through profit or loss	Derivatives	Held for trading	Designated at fair value through profit or loss	Derivatives
At 31 December 2017							
Transfer from Level 1 to Level 2	1,463	9,437	-	-	-	-	-
Transfer from Level 2 to Level 1	-	-	-	-	-	-	-

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 observability of valuation inputs and price transparency.

Control framework

Fair values are subject to a control framework designed to ensure that they are either determined or validated by a function independent of the risk-taker.

For all financial instruments where fair values are determined by reference to externally quoted prices or observable pricing inputs to models, independent price determination or validation is utilised. In inactive markets, direct observation of a traded price may not be possible. In these circumstances, the Group will source alternative market information to validate the financial instrument's fair value, with greater weight given to information that is considered to be more relevant and reliable.

For fair values determined using a valuation model, the control framework may include, as applicable, development or validation by independent support functions of (i) the logic within valuation models; (ii) the inputs to those models; (iii) any adjustments required outside the valuation models; and (iv) where possible, model outputs. Valuation models are subject to a process of due diligence and calibration before becoming operational and are calibrated against external market data on an ongoing basis.

To this end, ultimate responsibility for the determination of fair values lies with Finance. Finance establishes the accounting policies and procedures governing valuation, and is responsible for ensuring compliance with all relevant accounting standards.

Determination of fair value

Fair values are determined according to the following hierarchy:

(i) Level 1: Quoted market price

Financial instruments with quoted prices for identical instruments in active markets that the Group can access at the measurement date.

(ii) Level 2: Valuation technique using observable inputs

Financial instruments with quoted prices for similar instruments in active markets or quoted prices for identical or similar instruments in inactive markets and financial instruments valued using models where all significant inputs are observable.

(iii) Level 3: Valuation technique with significant unobservable inputs

Financial instruments valued using valuation techniques where one or more significant inputs are unobservable.

The judgement as to whether a market is active may include, but is not restricted to, the consideration of factors such as the magnitude and frequency of trading activity, the availability of prices and the size of bid/offer spreads. The bid/offer spread represents the difference in prices at which a market participant would be willing to buy compared with the price at which they would be willing to sell. In inactive markets, obtaining assurance that the transaction price provides evidence of fair value or determining the adjustments to transaction prices that are necessary to measure the fair value of the instrument requires additional work during the valuation process.

(a) Fair value of financial instruments carried at fair value continued

Financial liabilities measured at fair value

Structured notes issued and certain other hybrid instrument liabilities are included within trading liabilities and are measured at fair value. The credit spread applied to these instruments is derived from the spreads at which the Group issues structured notes.

Fair value adjustments

Fair value adjustments are adopted when the Group considers that there are additional factors that would be considered by a market participant that are not incorporated within the valuation model. Movements in the level of fair value adjustments do not necessarily result in the recognition of profits or losses within the income statement. For example, as models are enhanced, fair value adjustments may no longer be required.

Risk-related adjustments

Bid-offer

HKFRS 13 requires use of the price within the bid-offer spread that is most representative of fair value. Valuation models will typically generate mid-market values. The bid-offer adjustment reflects the extent to which bid-offer cost would be incurred if substantially all residual net portfolio market risks were closed using available hedging instruments or by disposing of or unwinding the position.

- Uncertainty

Certain model inputs may be less readily determinable from market data, and/or the choice of model itself may be more subjective. In these circumstances, an adjustment may be necessary to reflect the likelihood that market participants would adopt more conservative values for uncertain parameters and/or model assumptions than those used in the Group's valuation model.

- Credit valuation adjustment ("CVA") and debit valuation adjustment ("DVA")

The CVA is an adjustment to the valuation of over-the-counter ("OTC") derivative contracts to reflect within fair value the possibility that the counterparty may default and that the Group may not receive the full market value of the transactions.

The DVA is an adjustment to the valuation of OTC derivative contracts to reflect the possibility that the Group may default, and that the Group may not pay the full market value of the transactions.

The Group calculates a separate CVA and DVA for each legal entity, and for each counterparty to which the entity has exposure. With the exception of central clearing parties, all third-party counterparties are included in the CVA and DVA calculations, and these adjustments are not netted across Group entities.

The Group calculates the CVA by applying the probability of default ("PD") of the counterparty, conditional on the non-default of the Group, to the Group's expected positive exposure to the counterparty and multiplying the result by the loss expected in the event of default. Conversely, the Group calculates the DVA by applying the PD of the Group, conditional on the non-default of the counterparty, to the expected positive exposure of the counterparty to the Group and multiplying the result by the loss expected in the event of default. Both calculations are performed over the life of the potential exposure.

For most products the Group uses a simulation methodology, which incorporates a range of potential exposures over the life of the portfolio, to calculate the expected positive exposure to a counterparty. The simulation methodology includes credit mitigants, such as counterparty netting agreements and collateral agreements with the counterparty.

The methodologies do not, in general, account for "wrong-way risk" which arises when the underlying value of the derivative prior to any CVA is positively correlated to the PD of the counterparty. When there is significant wrong-way risk, a trade-specific approach is applied to reflect this risk in the valuation.

Funding fair value adjustment

The funding fair value adjustment is calculated by applying future market funding spreads to the expected future funding exposure of any uncollateralised component of the OTC derivative portfolio. The expected future funding exposure is calculated by a simulation methodology, where available and is adjusted for events that may terminate the exposure, such as the default of the Group or the counterparty. The funding fair value adjustment and debit valuation adjustment are calculated independently.

(a) Fair value of financial instruments carried at fair value continued

Fair value adjustments continued

Model-related adjustments

- Model limitation

Models used for portfolio valuation purposes may be based upon a simplifying set of assumptions that do not capture all material market characteristics. In these circumstances, model limitation adjustments are adopted.

- Inception profit (Day 1 P&L reserves)

Inception profit adjustments are adopted where the fair value estimated by a valuation model is based on one or more significant unobservable inputs.

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

		As	sets		Liabilities		
	Financial investments	Trading assets	Designated and otherwise mandatorily measured at fair value	Derivatives	Trading liabilities	Designated at fair value	Derivatives
2018							
Private equity	1,287	-	4,089	-	-	-	-
Structured notes	-	-	-	-	-	12,314	-
Derivatives	-	-	-	24	-	-	71
	1,287	_	4,089	24	_	12,314	71
	Available- for-sale	Held for trading	Designated at fair value through profit or loss	Derivatives	Held for trading	Designated at fair value through profit or loss	Derivatives
2017							
Private equity	1,455	-	1,832	-	-	-	-
Structured notes	-	-	-	-	392	-	-
Derivatives	_	-	-	8	-	-	3
	1,455	-	1,832	8	392	-	3

(a) Fair value of financial instruments carried at fair value continued

Movement in Level 3 financial instruments

		As	sets			Liabilities			
	Financial investments	Trading assets	Designated and otherwise mandatorily measured at fair value	Derivatives	Trading liabilities	Designated at fair value	Derivatives		
At 1 January 2018	1,455	_	1,832	8	392	_	3		
Total gains or losses recognised in profit or loss									
 net income from financial instruments measured at fair value 	-	_	334	26	6	51	9		
Total gains or losses recognised in other comprehensive income									
– fair value gains	(170)	-	-	-	-	-	-		
 exchange differences 	-	-	-	-	-	-	-		
Purchases	34	-	2,460	-	-	1	-		
Issues/deposit taking	-	-	-	-	-	9,316	-		
Sales	-	-	-	-	-	-	-		
Settlements	-	-	(569)	-	-	(1,158)	-		
Transfers out	(32)	-	-	(17)	(398)	(164)	(5)		
Transfers in	-	-	32	7	-	4,268	64		
At 31 December 2018	1,287	-	4,089	24	-	12,314	71		
Unrealised gains or losses recognised in profit or loss relating to those assets and liabilities held at the end of the reporting period									
 net income from financial instruments measured at fair value 	-	_	334	24	_	54	71		

(a) Fair value of financial instruments carried at fair value continued

Movement in Level 3 financial instruments continued

		As	sets		Liabilities			
·	Available- for-sale	Held for trading	Designated at fair value through profit or loss	Derivatives	Held for trading	Designated at fair value through profit or loss	Derivatives	
At 1 January 2017	1,222	_	727	32	79	_	46	
Total gains or losses recognised in profit or loss								
- trading income	-	-	-	(12)	(165)	-	(28)	
 net income from financial instruments designated at fair value 	_	-	325	_	-	_	_	
Total gains or losses recognised in other comprehensive income								
– fair value gains	233	-	-	-	-	-	-	
 exchange differences 	-	-	-	-	-	-	-	
Purchases	-	-	997	-	-	-	-	
Issues/deposit taking	-	-	-	-	762	-	-	
Sales	-	-	-	-	-	-	-	
Settlements	-	-	(217)	-	(66)	-	-	
Transfers out	-	-	-	(12)	(218)	-	(16)	
Transfers in	-	-	-	-	-	-	1	
At 31 December 2017	1,455	-	1,832	8	392	_	3	
Unrealised gains or losses recognised in profit or loss relating to those assets and liabilities held at the end of the reporting period								
- trading income	-	-	-	8	6	-	(2)	
 net income from financial instruments designated at fair value 	_	-	325	-	-	-	-	

In 2018, the transfer out/in of Level 3 derivative assets and derivative liabilities were predominantly resulted from change in observability in FX and equity volatilities. The transfer out of Level 3 trading liabilities reflected the change in observability of correlations between equity and equity index used for pricing the instrument and partly due to reclassification of structured deposits from trading liabilities to financial liabilities designated at fair value. The transfer out/in of Level 3 liabilities designated at fair value reflected the change in observability of FX and equity volatility and correlations between equity and equity index used for pricing the instrument, and change in fair value levelling methodology. The transfer out of Level 3 financial investments reflected the reclassification of equity investment from fair value through other comprehensive income to mandatorily measured at fair value under HKFRS 9.

(a) Fair value of financial instruments carried at fair value continued

Effect of changes in significant unobservable assumptions to reasonably possible alternatives

As discussed above, the fair value of financial instruments are, in certain circumstances, measured using valuation techniques that incorporate assumptions which are not evidenced by prices from observable current market transactions in the same instrument and are not based on observable market data.

Sensitivity of Level 3 fair values to reasonably possible alternative assumptions by instrument type

	Reflected in profit or loss		Reflected in other comprehensive income		
	Favourable changes	Unfavourable changes	Favourable changes	Unfavourable changes	
2018					
Private equity	204	(204)	51	(51)	
Derivatives	20	(20)	-	-	
	224	(224)	51	(51)	
2017					
Private equity	92	(92)	63	(63)	
Derivatives		-	_		
	92	(92)	63	(63)	

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

For private equity, favourable and unfavourable changes are determined on the basis of 5% changes (2017: 5%) in the value of the instrument as a result of varying the levels of the unobservable parameters using statistical techniques. When parameters are not amendable to statistical analysis, quantification of uncertainty is judgemental.

(a) Fair value of financial instruments carried at fair value continued Quantitative information about significant unobservable inputs in Level 3 valuations

	Fair value at 31 December 2018	Valuation technique(s)	Unobservable input(s)	Range
Assets				
Private equity	5,376	Net asset value	N/A	N/A
		Market-comparable approach	Earnings Multiple	24 - 31
			P/B ratios	0.52 – 1.25
			Liquidity Discount	10% - 30%
Derivatives	24	Option model	Equity Volatility	26.99% - 38.27%
Liabilities				
Structured notes	12,314	Option model	Equity Volatility	14.95% - 55.96%
			FX Volatility	1.04% - 16.66%
			Equity and Equity Index Correlation	0.17 – 0.69
Derivatives	71	Option model	Equity Volatility	24.52% - 34.53%
	Fair value at 31 December 2017	Valuation technique(s)	Unobservable input(s)	Range
Assets				
Private equity	3,287	Net asset value	N/A	N/A
		Market-comparable approach	Earnings Multiple	24 – 35
			P/B ratios	0.69 - 1.68
			Liquidity Discount	10% - 30%
Derivatives	8	Option model	Equity Volatility	20.80% - 83.54%
			FX Volatility	5.51% - 20.31%
Liabilities				
Structured notes	392	Option model	FX Volatility	5.49% - 10.77%
			Equity and Equity Index Correlation	0.14 - 0.52
Derivatives	3	Option model	Equity Volatility	13.00% - 83.54%
			FX Volatility	7.68% - 20.31%

Key unobservable inputs to Level 3 financial instruments

The key unobservable inputs to Level 3 financial instruments include volatility and correlation for structured notes and deposits valued using option models, and multiple items for private equity. In the absence of an active market, the fair value of private equity is estimated on the basis of an analysis of the investee's financial position and results, risk profile, prospects and other factors, as well as by reference to market valuations for similar entities quoted in an active market, or the price at which similar companies have changed ownership. The change in fair values due to changes in reasonably possible alternative assumptions for these unobservable inputs is not significant.

(b) Fair value of financial instruments not carried at fair value

The following table provides an analysis of the fair value of financial instruments not measured at fair value on the balance sheet:

	Carrying amount	Quoted market price Level 1	Using observable inputs Level 2	With significant unobservable inputs Level 3	Fair value
2018					
Financial Assets					
Placings with and advances to banks	79,400	-	79,345	_	79,345
Loans and advances to customers	874,456	-	-	875,505	875,505
Financial investments – at amortised cost	99,352	2,619	96,641	-	99,260
Financial Liabilities					
Current, savings and other deposit accounts	1,154,415	-	1,154,216	_	1,154,216
Repurchase agreements – non-trading	410	-	410	_	410
Deposits from banks	2,712	-	2,712	_	2,712
Certificates of deposit and other debt securities in issue	3,748	-	3,748	-	3,748
2017					
Financial Assets					
Placings with and advances to banks	103,113	-	103,146	-	103,146
Loans and advances to customers	806,573	-	2,317	805,903	808,220
Held-to-maturity debt securities	95,057	1,143	96,471	-	97,614
Financial Liabilities					
Current, savings and other deposit accounts	1,074,837	-	1,074,903	-	1,074,903
Repurchase agreements – non-trading	2,389	-	2,389	-	2,389
Deposits from banks	3,676	-	3,676	-	3,676
Certificates of deposit and other debt securities in issue	600	-	600	-	600

Other financial instruments not carried at fair value are typically short-term in nature or reprice to current market rates frequently. Accordingly, their carrying amounts are reasonable approximations of their fair values.

The calculation of fair values of financial instruments that are not carried at fair value is described below.

The calculation of fair value incorporates the Group's estimate of the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. It does not reflect the economic benefits and costs that the Group expects to flow from the instruments' cash flows over their expected future lives.

(b) Fair value of financial instruments not carried at fair value continued

(i) Repurchase and reverse repurchase agreements - non-trading

Fair values are estimated by using discounted cash flows, applying current rates. Fair values approximate carrying amounts as their balances are generally short dated.

(ii) Loans and advances to banks and customers

The fair value of loans and advances is based on observable market transactions, where available. In the absence of observable market transactions, fair value is estimated using valuation models that incorporate a range of input assumptions. Loans are grouped, as far as possible, into homogeneous groups and stratified by loans with similar characteristics to improve the accuracy of estimated valuation outputs. The stratification of a loan book considers all material factors. The fair value of a loan reflects loan impairments at the balance sheet date. For impaired loans, fair value is estimated by discounting the future cash flows over the time period they are expected to be recovered.

(iii) Deposits from banks and customer accounts

Fair values are estimated using discounted cash flows, applying current rates offered for deposits of similar remaining maturities. The fair value of a deposit repayable on demand is assumed to be the amount payable on demand at the balance sheet date.

(iv) Debt securities in issue

Fair values are determined using quoted market prices at the balance sheet date where available, or by reference to quoted market prices for similar instruments.

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

(c) Involvement with unconsolidated structured entities

The Group enters into transactions with unconsolidated structured entities in the normal course of business through the holding of collective investment funds established by HSBC and third parties. The majority of these funds held related to the insurance business. At 31 December 2018, the Group's interests in unconsolidated structured entities were recognised in financial assets mandatorily measured at fair value of HK\$6,267m and trading assets of HK\$16m (2017: financial assets designated at fair value of HK\$3,035m, trading assets of HK\$24m and financial investments of HK\$1,269m). These collective investment funds include investment in unit trusts, private equity funds, hedge funds and infrastructure funds which provide the Group with a variety of investment opportunities through managed investment strategies.

Owing to the passive nature of these investments, the maximum exposure to loss from these interests is limited to the associated equity price risk and the capital commitments. The maximum exposure to loss, which represents the maximum loss that the Group could be required to report as a result of its involvement with these collective investment funds regardless of the probability of the loss being incurred, is equivalent to the carrying amount of these investments and the outstanding capital commitments of HK\$2,895m (2017: HK\$983m) to invest in several private equity funds for funding future private equity investments in global companies under respective investment contracts.

52. Comparative figures

Certain comparative figures in the consolidated financial statements have been reclassified to conform with current year's presentation.

53. Immediate and ultimate holding companies

The immediate and ultimate holding companies of the Bank are The Hongkong and Shanghai Banking Corporation Limited (incorporated in Hong Kong) and HSBC Holdings plc (incorporated in England) respectively.

54. Bank balance sheet and statement of changes in equity Bank balance sheet at 31 December 2018

	2018	2017
ASSETS		
Cash and sight balances at central banks	11,559	19,242
Placings with and advances to banks	63,929	75,690
Trading assets	46,647	53,046
Financial assets designated and otherwise mandatorily measured at fair value	163	N/A
Derivative financial instruments	7,165	10,001
Loans and advances to customers	811,268	737,368
Amounts due from subsidiaries	13,406	26,543
Financial investments	310,179	264,248
Investments in subsidiaries	19,925	19,925
Investment properties	4,385	4,212
Premises, plant and equipment	24,478	23,172
Intangible assets	422	362
Other assets	26,327	16,669
Total assets	1,339,853	1,250,478
LIABILITIES AND EQUITY		
Liabilities		
Current, savings and other deposit accounts	1,105,869	1,028,189
Deposits from banks	2,712	3,316
Trading liabilities	33,649	53,209
Financial liabilities designated at fair value	6,436	493
Derivative financial instruments	7,295	10,857
Certificates of deposit and other debt securities in issue	3,748	-
Amounts due to subsidiaries	6,955	9,273
Other liabilities	38,254	18,140
Current tax liabilities	687	549
Deferred tax liabilities	2,889	2,893
Total liabilities	1,208,494	1,126,919
Equity		
Share capital	9,658	9,658
Retained profits	96,887	89,757
Other equity instruments	6,981	6,981
Other reserves	17,833	17,163
Shareholders' equity	131,359	123,559
Total equity and liabilities	1,339,853	1,250,478

Louisa Cheang Vice-Chairman and Chief Executive John C C Chan Director Eric K C Li Director

Andrew W L Leung Chief Financial Officer

54. Bank balance sheet and statement of changes in equity continued Bank statement of changes in equity for the year ended 31 December 2018

				Other reserves					
	Share capital	Other equity instruments	Retained profits ¹	Premises revaluation reserve ²	Financial assets at FVOCI ³ reserve	Cash flow hedge reserve ⁴	Foreign exchange reserve⁵	Others ⁶	Total equity
At 31 December 2017	9,658	6,981	89,757	14,619	1,980	(99)	20	643	123,559
Impact on transition to HKFRS 9	-	-	(916)	-	4	_	-	-	(912)
At 1 January 2018	9,658	6,981	88,841	14,619	1,984	(99)	20	643	122,647
Profit for the year	-	-	21,875	-	-	-	-	-	21,875
Other comprehensive income (net of tax)	_	_	(587)	1,805	(761)	88	1	(5)	541
Debt instruments at fair value through other comprehensive income	_	_	_	_	(18)	_	_	_	(18)
Equity instruments at fair value through other comprehensive income	_	_	_	_	(743)	_	_	_	(743)
Cash flow hedges	-	-	-	-	-	88	-	-	88
Change in fair value of financial liabilities designated at fair value arising from changes in own credit risk	_	_	_	_	_	_	_	(5)	(5)
Property revaluation	-	_	-	1,805	-	-	-	_	1,805
Actuarial losses on defined benefit plans	_	_	(587)	_	_	_	_	_	(587)
Exchange differences and others	-	_	-	_	_	-	1	_	1
Total comprehensive income for the year	_	_	21,288	1,805	(761)	88	1	(5)	22,416
Dividends paid	-	_	(13,382)	_	_	-	_	_	(13,382)
Coupon paid to holder of AT1 capital instrument	_	_	(418)	-	-	-	_	_	(418)
Movement in respect of share- based payment arrangements	-	-	(4)	-	_	_	_	31	27
Others	-	-	69	-	-	-	-	_	69
Transfers	-	-	493	(493)	-	-	_	_	-
At 31 December 2018	9,658	6,981	96,887	15,931	1,223	(11)	21	669	131,359

54. Bank balance sheet and statement of changes in equity continued Bank statement of changes in equity for the year ended 31 December 2018 continued

				Other reserves					
	Share capital	Other equity instruments	Retained profits ¹	Premises revaluation reserve ²	Available- for-sale investment reserve ³	Cash flow hedge reserve ⁴	Foreign exchange reserve⁵	Others ⁶	Total equity
At 1 January 2017	9,658	6,981	83,434	13,318	1,246	(128)	24	657	115,190
Profit for the year	-	-	17,992	-	-	-	-	-	17,992
Other comprehensive income (net of tax)	_	_	471	1,734	734	29	(4)	(4)	2,960
Available-for-sale investments	-	-	-	-	734	-	-	-	734
Cash flow hedges		-	-	-	-	29	-	-	29
Change in fair value of financial liabilities designated at fair value arising from changes in own credit risk	_	_	_	_	_	_	_	(4)	(4)
Property revaluation	-	-	-	1,734	-	-	-	-	1,734
Actuarial gains on defined benefit plans	_	_	471	-	-	_	_	_	471
Exchange differences and others		-	-	-	-	-	(4)	-	(4)
Total comprehensive income for the year	_	_	18,463	1,734	734	29	(4)	(4)	20,952
Dividends paid	-	-	(12,235)	-	-	-	-	-	(12,235)
Coupon paid to holder of AT1 capital instrument	_	_	(389)	-	_	_	_	_	(389)
Movement in respect of share- based payment arrangements	_	_	(4)	_	-	_	_	(19)	(23)
Others	-	-	64	-	-	-	-	-	64
Transfers		-	424	(433)	-	-	-	9	-
At 31 December 2017	9,658	6,981	89,757	14,619	1,980	(99)	20	643	123,559

1 Retained profits are the cumulative net earnings of the Bank that have not been paid out as dividends, but retained to be reinvested in the business. To satisfy the provisions of the Hong Kong Banking Ordinance and local regulatory requirements for prudential supervision purposes, the Bank has earmarked a "Regulatory reserve" from retained profits. Movements in the reserve are made directly through retained earnings. As at 31 December 2018, the effect of this requirement is to restrict the amount of reserves which can be distributed by the Bank to shareholders by HK\$4,785m (2017: HK\$5,755m).

2 The premises revaluation reserve represents the difference between the fair value of the premises and its original depreciated cost. There is no premises revaluation reserve related to premises classified as assets held for sale included in "Other assets" in the balance sheet at 31 December 2018 (2017: Nil).

3 FVOCI stands for fair value through other comprehensive income and the balance at 31 December 2017 represents the available-for-sale investment reserve under HKAS 39 basis.

4 The cash flow hedging reserve comprises the effective portion of the cumulative net change in the fair value of cash flow hedging instruments related to hedged transactions.

5 The foreign exchange reserve comprises all foreign exchange differences arising from the translation of the financial statements of foreign operations.

6 Other reserves comprise share-based payment reserve and own credit risk reserve. The share-based payment reserve is used to record the corresponding amount of share options granted by the ultimate holding company to the Group's employees and other cost of share-based payment arrangement. The own credit risk reserve is for the change in fair value of financial liabilities designated at fair value upon initial recognition arising from changes in own credit risk.

The Bank and its banking subsidiaries operate under regulatory jurisdictions which require the maintenance of minimum capital adequacy ratios and which could therefore potentially restrict the amount of realised profits which can be distributed to shareholders.

At 31 December 2018, the aggregate amount of reserves available for distribution to equity shareholders of the Bank as calculated under the provision of Part 6 of the Hong Kong Companies Ordinance (Cap. 622) amounted to HK\$86,400m (2017: HK\$78,463m). After considering regulatory capital requirement and business development needs, an amount of HK\$6,883m (2017: HK\$5,927m) has been declared as the proposed fourth interim dividend in respect of the financial year ended 31 December 2018. The difference between the aggregate distributable reserves of HK\$86,400m and the Bank's retained profit of HK\$96,887m as reported above mainly represents the exclusion of unrealised revaluation gain on investment properties and the regulatory reserve of the Bank.

55. Approval of financial statements

The financial statements were approved and authorised for issue by the Board of Directors on 19 February 2019.

Independent Auditor's Report

To the Members of Hang Seng Bank Limited

(incorporated in Hong Kong with limited liability)

Opinion

What we have audited

The consolidated financial statements of Hang Seng Bank Limited (the "Bank") and its subsidiaries (together, the "Group") set out on pages 150 to 237, which comprise:

- the consolidated balance sheet as at 31 December 2018;
- the consolidated income statement for the year then ended;
- the consolidated statement of comprehensive income for the year then ended;
- the consolidated statement of changes in equity for the year then ended;
- the consolidated statement of cash flows for the year then ended; and
- the notes¹ to the consolidated financial statements, which include a summary of significant accounting policies.
- 1 Certain required disclosures as described in Note 1(b) have been presented elsewhere in the Annual Report 2018, rather than in the notes to the consolidated financial statements. These are cross-referenced from the consolidated financial statements and are identified as audited.

Our opinion

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2018, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA") and have been properly prepared in compliance with the Hong Kong Companies Ordinance.

Basis for Opinion

We conducted our audit in accordance with Hong Kong Standards on Auditing ("HKSAs") issued by the HKICPA. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report.

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

Independence

We are independent of the Group in accordance with the HKICPA's Code of Ethics for Professional Accountants ("the Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matters identified in our audit are summarised as follows:

- Impairment of loans and advances to customers
- Information Technology access management
- The present value of in-force long-term insurance business and liabilities under non-linked life insurance contracts

Key Audit Matters continued

Impairment of loans and advances to customers

Nature of the Key Audit Matter

As this is the first year of adoption of HKFRS 9, there is limited experience available to back-test the expected credit loss ("ECL") charge and allowance against actual results.

There has been a significant increase in the number of data points required for the impairment calculation. The data are sourced from a number of systems that have not been used previously for the preparation of the accounting records. This increases the risk around completeness and accuracy of certain data used to create assumptions and operate the model.

The global credit environment has remained relatively benign for an extended period of time, in part due to the low interest rate environment, and the relative strength of the global economy. However, there are a number of headwinds to the global economy as well as certain specific risks. As a result, whilst the current levels of delinquencies and defaults remains low, the risk of impairment remains significant.

Matters discussed with the Audit Committee

At each Audit Committee meeting, there was a discussion on changes to risk factors and other inputs within the models, geopolitical risks, such as escalating China-US trade tensions, as well as individually significant loan impairments.

The more judgemental interpretations of HKFRS 9 made by management were also discussed, in particular the application of forward economic guidance, including the severity and magnitude of modelled downside scenarios; and associated considerations of post model adjustments.

As the control environment for the calculation of ECL under HKFRS 9 continued to be strengthened following initial adoption, we provided updates on the changes being made and the results of our testing procedures.

How our audit addressed the Key Audit Matter

We performed the following audit procedures over the ECL allowances which included:

- We tested the controls over the model performance monitoring and validation, including periodic policy and independent model reviews, back testing of performance and approval of model changes. We also performed risk based substantive testing of models, including independently re-building certain assumptions;
- We tested the review and challenge of multiple economic scenarios by an expert panel and internal governance committee, and assessed the reasonableness of the multiple economic scenarios and variables using our economic experts;
- We tested the controls over the inputs of critical data, into source systems, and the flow and transformation of data between source systems to the impairment calculation system. We also performed substantive testing over a sample of the critical data used in the year end ECL calculation;
- We assessed management's user acceptance testing over the automated calculation of ECL to ensure it is performed in line with business requirements, as well as independently reviewing the underlying system script to validate that the calculation operated as we would have expected;
- We observed management's challenge forums to assess the ECL output and approval of post model adjustments; and
- We tested the approval of the key inputs, assumptions and discounted cash-flows that supported the impairment provisions for a sample
 of significant individually assessed loans.

Relevant references in the Annual Report 2018

- Management Discussion and Analysis Risk Management, (a) Credit Risk, pages 46-65
- Note 1: Basis of preparation, pages 157-158
- Note 2: Significant accounting policies, (j) Impairment of amortised cost and FVOCI financial assets, pages 163-169
- Note 12: Change in expected credit losses and other credit impairment charges/ Loan impairment charges and other credit risk provisions, page 184
- Note 28: Loans and advances to customers, pages 196-198

Key Audit Matters continued

Information Technology ("IT") access management

Nature of the Key Audit Matter

The audit approach relies extensively on automated controls and therefore on the effectiveness of controls over IT systems.

In previous years, we identified and reported that controls over access to applications, operating systems and data in the financial reporting process required improvements. Access management controls are critical to ensure that changes to applications and underlying data are made in an appropriate manner. Appropriate access controls contribute to mitigating the risk of potential fraud or errors as a result of changes to applications and data.

Management has implemented remediation activities that have contributed to reducing the risk over access management in the financial reporting process.

However, issues related to privileged access and business user access remained unresolved on parts of the technology infrastructure, requiring our audit approach to respond to the risks presented.

How our audit addressed the Key Audit Matter

We tested access rights to applications, operating systems and databases relied upon for financial reporting. Specifically, we tested that:

- New access requests for joiners were properly reviewed and authorised;
- User access rights were removed on a timely basis when an individual left or moved role;
- Access rights to applications, operating systems and databases were periodically monitored for appropriateness; and
- Highly privileged access was restricted to appropriate personnel.

Other areas that were independently assessed included password policies, security configurations, controls over changes to applications and databases; and that business users, developers and production support did not have access to change applications, the operating system or databases in the production environment.

As a consequence of the deficiencies identified, we performed a range of other procedures which included:

- Where inappropriate access was identified, we understood the nature of the access, and obtained additional evidence on the appropriateness
 of the activities performed;
- We performed additional substantive testing on specific year-end reconciliations (i.e. custodian, bank account and suspense account reconciliations) and confirmations with external counterparties;
- We performed testing on other compensating controls such as business performance reviews;
- We also tested controls that prevent inappropriate combinations of access; and
- We obtained a list of users' access permissions and manually compared to other access lists where segregation of duties was deemed to be of higher risk, for example users having access to both core banking and payments systems.

Relevant references in the Annual Report 2018

- Management Discussion and Analysis - Risk Management, (e) Operational Risk, pages 89-90

Matters discussed with the Audit Committee

We discussed with the Audit Committee the status of the management's remediation, our audit response and the results of our testing procedures at the meetings in 2018 and 2019.

Key Audit Matters continued

The present value of in-force long-term insurance business ("PVIF") and liabilities under non-linked life insurance contracts

Nature of the Key Audit Matter

The Group has recorded an asset for PVIF of HK\$15,910 million and liabilities under non-linked life insurance contracts of HK\$120,134 million as at 31 December 2018.

The determination of these balances requires the use of appropriate actuarial methodologies and also highly judgemental assumptions. Such assumptions include the long term economic returns of insurance contracts issued, assumptions over policyholder behaviour such as longevity, mortality and persistency, and management assumptions over the future costs of obtaining and maintaining the Group's insurance business.

Small movement in these assumptions can have a material impact on the PVIF asset and the liabilities under non-linked life insurance contracts.

How our audit addressed the Key Audit Matter

We understood and tested the controls that management had established over the valuation of the PVIF asset and the liabilities under non-linked life insurance contracts which included those controls over:

- policy data reconciliations from the policyholder administration system to the actuarial valuation system;
- assumptions setting;
- review and determination of valuation methodologies;
- restriction of user access to the actuarial models; and
- production and approval of the actuarial results.

With the assistance of our actuarial experts, we independently assessed the appropriateness of the models, methodologies and assumptions used for reasonableness which included those assumptions in respect of:

- long term economic returns of insurance contracts issued;
- policyholder behaviour such as longevity, mortality and persistency; and
- future costs of obtaining and maintaining the insurance business.

We evaluated and challenged management's key judgements and assumptions. Our challenge and evaluation included whether these were supported by relevant experience, market information and formed a reasonable basis for setting the assumptions.

Relevant references in the Annual Report 2018

- Management Discussion and Analysis Risk management, (d) Insurance risk, page 82
- Note 2: Significant accounting policies, (t) Insurance contracts, pages 172-173
- Note 34: Intangible assets, page 206
- Note 41: Liabilities under insurance contracts, page 210

Matters discussed with the Audit Committee

We discussed with the Audit Committee the results of our testing procedures over key assumptions used in the valuation of the PVIF asset and the liabilities under non-linked life insurance contracts including testing of changes made during the reporting period to the models and to the basis of the determination of key assumptions.

Independent Auditor's Report

Other Information

The directors of the Bank are responsible for the other information. The other information comprises all of the information included in the Annual Report other than the consolidated financial statements and our auditor's report thereon, which we obtained prior to the date of this auditor's report, and the Banking Disclosure Statement for the year ended 31 December 2018, which is expected to be made available to us after the date of this auditor's report.

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

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information that we obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

When we read the Banking Disclosure Statement for the year ended 31 December 2018, if we conclude that there is a material misstatement therein, we are required to communicate the matter to the Audit Committee and take appropriate action considering our legal rights and obligations.

Responsibilities of Directors and the Audit Committee for the Consolidated Financial Statements

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

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

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

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. We report our opinion solely to you, as a body, in accordance with Section 405 of the Hong Kong Companies Ordinance and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with HKSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

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

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

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and
 perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our
 opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may
 involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to
 express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the
 Group audit. We remain solely responsible for our audit opinion.

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

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

From the matters communicated with the Audit Committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is Mr. Tam Man Kit, James.

PricewaterhouseCoopers Certified Public Accountants

Hong Kong, 19 February 2019

Analysis of Shareholders

	Shareho	Shareholders		Number of Shares		
As at 31 December 2018	Number	Percentage of total	Number in millions	Percentage of total		
Number of shares held						
1-500	6,437	35.77	1.48	0.08		
501 – 2,000	5,456	30.31	6.63	0.35		
2,001 - 5,000	2,884	16.02	9.84	0.51		
5,001 - 20,000	2,419	13.44	24.64	1.29		
20,001 - 50,000	531	2.95	16.63	0.87		
50,001 - 100,000	147	0.82	10.43	0.54		
100,001 - 200,000	69	0.38	10.12	0.53		
Over 200,000	56	0.31	1,832.07	95.83		
	17,999	100.00	1,911.84	100.00		
Geographical Distribution						
Hong Kong	17,729	98.50	1,909.04	99.85		
Malaysia	49	0.27	0.33	0.02		
Singapore	41	0.23	1.75	0.09		
Canada	38	0.21	0.13	0.01		
Macau	30	0.17	0.13	0.01		
United States of America	30	0.17	0.17	0.01		
Australia	28	0.15	0.07	0.00		
United Kingdom	27	0.15	0.02	0.00		
Others	27	0.15	0.20	0.01		
	17,999	100.00	1,911.84	100.00		

Subsidiaries*

Fulcher Enterprises Company Limited Hang Seng Bank (China) Limited Hang Seng Bank (Trustee) Limited Hang Seng Bullion Company Limited Hang Seng Credit Limited Hang Seng Data Services Limited Hang Seng Finance Limited Hang Seng Financial Information Limited Hang Seng Futures Limited (in Members' Voluntary Winding Up) Hang Seng Indexes Company Limited Hang Seng Insurance Company Limited Hang Seng Investment Management Limited Hang Seng Investment Services Limited Hang Seng Life Limited Hang Seng (Nominee) Limited Hang Seng Qianhai Fund Management Company Limited Hang Seng Real Estate Management Limited Hang Seng Security Management Limited Hang Seng Securities Limited Haseba Investment Company Limited High Time Investments Limited HSI International Limited Imenson Limited Yan Nin Development Company Limited

* As defined in Section 15 of the Hong Kong Companies Ordinance (Cap 622).

Directors of Subsidiaries

The names of Directors who have served on the Boards of the Bank's subsidiaries during the period from 1 January 2018 to the date of Report of the Directors of this Annual Report (unless otherwise stated) are set out below:

CHAN Shuk Pui Ivy	LI Qiang*
Sridhar CHANDRASEKHARAN	LIANG Chun Fei Belle
CHEANG Wai Wan Louisa	LIM Sau Fung
CHEN Kwan Yiu Edward	LIN Yik Kwong*
CHENG Cheng Shing Agnes	LIU Hung Ho*
CHEUNG Ho Fai Derek	LIU Yu
CHEUNG Yiu Kwong	LUK Sai Lung*
FU Yin Ho	LUK Ting Lung Alan
HO Wing Hung	MAU Suet Fan
JIA Tingyu*	MENG Xiao
JIN Jiejun	MO Yuen Man Anita
Bryce Leslie JOHNS	MUK Chung Wing
KONG Kwong Ming	NG Kar Wah
KWAN Wing Han Margaret	NGAN Man Kit
KWAN Wing Shing Vincent	POON Chun Ming David*
LAM Shang Ling*	POON Sun Cheong
LAM Wai Chung Gordon*	PUN Tze Wah*
LAM Yin Shing Donald	SHEN Sibao
LAM CHEUNG Alexa*	SONG Yue Sheng Ryan
LEE Pui Shan	TAM Chi Kok Gabriel*
LEE Sai Kit	TAM Lai King Peggy*
LEE Yuk Shan	TANG Chee Ping Wilson
LEONG Ka Chai	TONG Hing Yuen Michael*
LEUNG Cheuk Yee Eunice	TSUI Chun Man Thomas*
LEUNG Kin Ping	WANG Yee Ning Elaine
LEUNG Wing Lok	WONG Chun Fai*
LEUNG Yee Mei Annie	WONG Wai Hung
LI Chi Chung	YIP Kay Chun Katie
LI Chi Kwong Jason	YOU Anshan
LI Jianfeng	YUEN Kin Chung

* He/She has resigned/ceased as a Director of the relevant subsidiary(ies) of the Bank.

Corporate Information and Calendar

Corporate Information

Board of Directors

Chairman Raymond K F Ch'ien GBS, CBE, JP

Vice-Chairman

Louisa Cheang

Directors

John C C Chan GBS, JP Nixon L S Chan L Y Chiang JP Margaret W H Kwan Irene Y L Lee Sarah C Legg Eric K C Li GBS, OBE, JP Vincent H S Lo GBM, JP Kenneth S Y Ng Peter T S Wong JP Michael W K Wu

Secretary

C C Li

Registered Office

83 Des Voeux Road Central, Hong Kong Website: www.hangseng.com Email: hangseng@computershare.com.hk

Stock Code

The Stock Exchange of Hong Kong Limited: 11

Registrar

Computershare Hong Kong Investor Services Limited Shops 1712–1716, 17th Floor, Hopewell Centre 183 Queen's Road East, Wanchai, Hong Kong

Depositary*

BNY Mellon Shareowner Services PO Box 505000 Louisville, KY 40233-5000, USA Website: www.mybnymdr.com Email: shrrelations@cpushareownerservices.com

* The Bank offers investors in the United States a Sponsored Level-1 American Depositary Receipts Programme through The Bank of New York Mellon Corporation.

Annual Report 2018

This Annual Report 2018 in both English and Chinese is now available in printed form and on the Bank's website (www.hangseng.com) and the website of Hong Kong Exchanges and Clearing Limited ("HKEx") (www.hkexnews.hk).

Shareholders who:

- A) browse this Annual Report 2018 on the Bank's website and wish to receive a printed copy; or
- B) receive this Annual Report 2018 in either English or Chinese and wish to receive a printed copy in the other language version,

may send a request form, which can be obtained from the Bank's Registrar or downloaded from the Bank's website (www.hangseng.com) or HKEx's website (www.hkexnews.hk), to the Bank's Registrar:

Computershare Hong Kong Investor Services Limited 17M Floor, Hopewell Centre 183 Queen's Road East Wanchai, Hong Kong Facsimile: (852) 2529 6087 Email: hangseng@computershare.com.hk

If shareholders who have chosen (or are deemed to have chosen) to read this Annual Report 2018 on the Bank's website, have difficulty in reading or gaining access to this Annual Report 2018 via the Bank's website for any reason, the Bank will promptly send this Annual Report 2018 in printed form free of charge upon the shareholders' request.

Shareholders may change their choice of means of receipt or language of the Bank's future corporate communications at any time, free of charge, by giving the Bank c/o the Bank's Registrar reasonable notice in writing or by email to hangseng@computershare.com.hk.

Calendar

2018 Full Year Results	
Announcement date	19 February 2019
2018 Fourth Interim Dividend*	
Announcement date	19 February 2019
Book close and record date	6 March 2019
Payment date	22 March 2019
2018 Annual Report	

to be posted to shareholders before the end of March 2019

Annual General Meeting

to be held on 9 May 2019

^{*} The Register of Shareholders of the Bank will be closed on Wednesday, 6 March 2019, during which no transfer of shares can be registered. To qualify for the fourth interim dividend, all transfers, accompanied by the relevant share certificates, must be lodged with the Bank's Registrar, Computershare Hong Kong Investor Services Limited, at Shops 1712-1716, 17th Floor, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong, for registration not later than 4:30 pm on Tuesday, 5 March 2019. The fourth interim dividend will be payable on Friday, 22 March 2019 to shareholders on the Register of Shareholders of the Bank on Wednesday, 6 March 2019. Shares of the Bank will be traded ex-dividend as from Monday, 4 March 2019.

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