MANAGEMENT DISCUSSION AND ANALYSIS

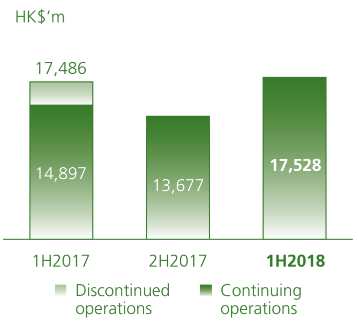
Following the completion of the acquisition of the Indonesia Business and Cambodia Business of BOC on 10 July 2017 and 6 November 2017 respectively, and that of the Vietnam Business and Philippines Business of BOC on 29 January 2018, the Group has applied the merger accounting method for the combination of entities under common control in the preparation of its financial statements. The comparative information for 2017 has been restated accordingly. The above transactions are collectively referred as the "acquisitions" in this Management Discussion and Analysis.

From 1 January 2018 onwards, the Group has adopted Hong Kong Financial Reporting Standard 9 ("HKFRS 9"), "Financial Instruments". Under this new standard, the recognition and measurement of impairment differs from that under Hong Kong Accounting Standard 39 ("HKAS 39"), "Financial Instruments: Recognition and Measurement". Changes in the impairment of the Group's financial assets in the comparative periods of 2017 remain in accordance with HKAS 39. Comparative information has not been restated.

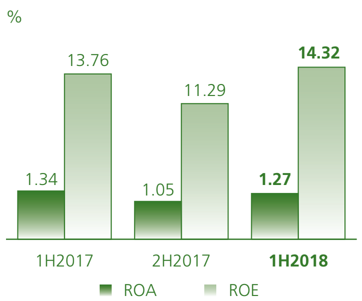
FINANCIAL PERFORMANCE AND CONDITIONS AT A GLANCE

The following table is a summary of the Group's key financial results for the first half of 2018 in comparison with the previous two half-year periods of 2017.

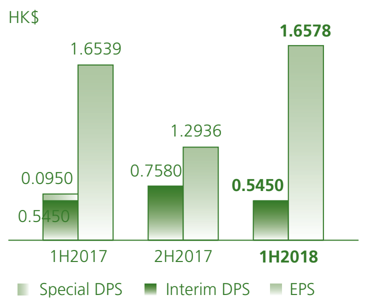
Profit Attributable to Equity Holders



Return on Average Shareholders' Equity[1] ("ROE") and Return on Average Total Assets[2] ("ROA")



Earnings Per Share ("EPS") and Dividend Per Share ("DPS")



Profit attributable to equity holders

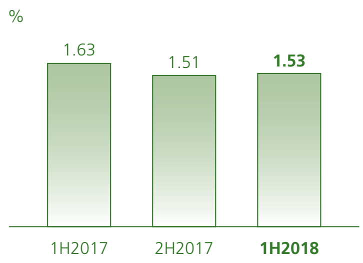
- The profit attributable to equity holders of the Group in the first half of 2018 increased by 0.2% year-on-year to HK$17,528 million. Profit attributable to equity holders from continuing operations increased by 17.7% year-on-year.

Solid returns to shareholders

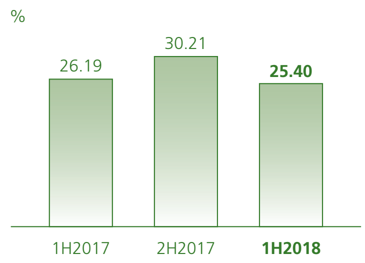
- ROE was 14.32%, up 0.56 percentage points year-on-year.
- ROA was 1.27%, down 0.07 percentage points from the previous year's figure, which had included a gain on the disposal of Chiyu.
- EPS was HK$1.6578. The interim dividend per share was HK$0.545.

MANAGEMENT DISCUSSION AND ANALYSIS

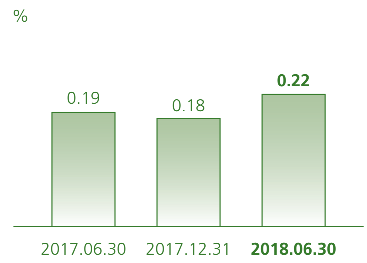
Net Interest Margin ("NIM")[3]



Cost to Income Ratio[3]



Classified or Impaired Loan Ratio[3,4]



Improvement in adjusted net interest margin ("NIM"), along with expanded asset size

- NIM was 1.53%, down 10 basis points year-on-year. If the funding income or cost of foreign currency swap contracts[5] were included, NIM would have been 1.56%, up 10 basis points, as the Group benefited from rising market interest rates and positive results from the proactive management of its assets and liabilities.

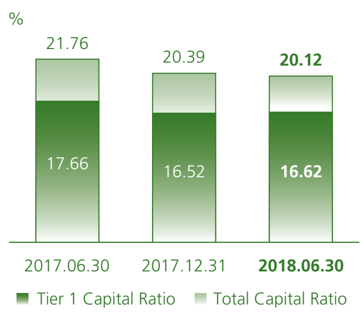
Cautious cost control with high operational efficiency

- The Group's cost to income ratio was 25.40%, down 0.79 percentage points year-on-year, representing a solid level of cost efficiency relative to industry peers.

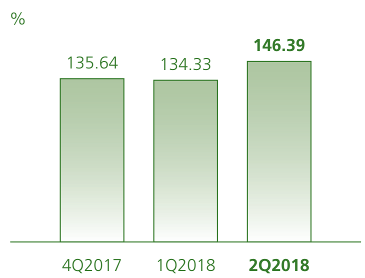
Stable asset quality with classified or impaired loan ratio below market average

- The classified or impaired loan ratio was 0.22%, well below the average level of the Group's peers.

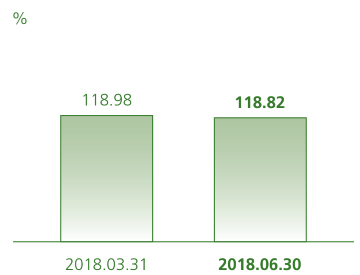
Capital Ratio



Average Value of Liquidity Coverage Ratio



Net Stable Funding Ratio



Strong capital position to support business growth

- Total capital ratio was 20.12%. Tier 1 capital ratio was 16.62%, up 0.10 percentage points from that at the end of 2017.

Sound liquidity position

- The average value of the Group's liquidity coverage ratio in the first and second quarter of 2018 remained stable at 134.33% and 146.39% respectively.
- Net stable funding ratio at the end of March 2018 and at the end of June 2018 stood at 118.98% and 118.82% respectively.

1. Return on Average Shareholders' Equity as defined in "Financial Highlights".
2. Return on Average Total Assets as defined in "Financial Highlights".
3. The financial information for the first half of 2017 was from continuing operations.
4. Classified or impaired loans represent advances that are either classified as "substandard", "doubtful" or "loss" under the Group's classification of loan quality, or classified as Stage 3.
5. Foreign exchange swap contracts are normally used for the Group's liquidity management and funding activities. In foreign exchange swap contracts, the Group exchanges one currency (original currency) for another (swapped currency) at the spot exchange rate (spot transaction) and commits to reverse the spot transaction by exchanging the same currency pair at a future maturity date at a predetermined rate (forward transaction). In this way, surplus funds in the original currency are swapped into another currency for liquidity and funding purposes with minimal foreign exchange risk. The exchange difference (funding income or cost) between the spot and forward contracts is recognised as a foreign exchange gain or loss (as included in "net trading gain"), while the corresponding interest differential between the surplus funds in the original currency and swapped currency is reflected in net interest income.

ECONOMIC BACKGROUND AND OPERATING ENVIRONMENT

In the first half of 2018, the global economy continued to recover. It was not significantly affected by the rise of trade protectionism, the continuous upward trend in interest rates, the reduction in the US Federal Reserve's balance sheet or the rising political risks of some countries. The US economy maintained moderate growth, with the unemployment rate hitting its lowest point since the subprime mortgage crisis. In Europe, economic growth slowed slightly in the first half of the year, with the European Central Bank maintaining an ultra-loose monetary policy amid somewhat intensifying political risks in some countries. The ASEAN regional economy, meanwhile, grew robustly on the back of a recovery in exports, strong foreign investment and vigorous infrastructure spending and household consumption. The Chinese mainland economy maintained a stable and positive trend, characterised by solid economic conditions.

Hong Kong's economy recorded a solid performance in the first half of 2018 with a year-on-year growth of 4.0% in real terms, thanks to strong performance in a number of areas. Foreign trade improved, supported by the ongoing recovery in the global economy. Inbound tourism bottomed out after more than three years of adjustments. A relatively low interest rate environment supported the stock and property markets, and full employment boosted consumer confidence, which led to higher consumption and stronger overall economic performance. However, there seemed to be some moderation in certain areas towards the end of the second quarter.

In mid-April 2018, the Hong Kong dollar triggered the HKMA's weak-side convertibility undertaking of 7.85 against the US dollar for the first time. The related outflow of funds prompted the normalisation of Hong Kong dollar interest rates which gradually trended upward from a low level. The average 1-month HIBOR and 1-month LIBOR rose from 0.55% and 1.11% respectively in 2017 to 1.04% and 1.81% respectively in the first half of 2018. In addition, the yield curve continued to flatten, as evidenced by the narrowing of the interest spread between the 2-year US Treasury yield and its 10-year counterpart, from 52 basis points at the end of 2017 to 33 basis points at the end of June 2018.

Global financial market volatility has increased somewhat since the beginning of the year. However, the average daily turnover of the Hong Kong stock market recorded a significant year-on-year increase in the first half of 2018, with IPO activity also remaining buoyant. This was underpinned by improved macroeconomic conditions, strong corporate earnings and capital inflows from the Chinese mainland.

In the first half of the year, the prices of private residential properties in Hong Kong reached a new high. Transaction volumes for residential properties also increased compared with the same period in 2017. The Government continued to implement demand management measures while the HKMA maintained prudent supervisory measures on mortgage loans, which helped banks to strengthen the risk management of their mortgage businesses.

The offshore RMB business in Hong Kong continued to grow steadily in the first half of 2018. A series of measures were introduced to promote capital account liberalisation and RMB internationalisation. These included the removal of limits on the foreign ownership of local banks and asset management companies, and the relaxation of the same with regard to securities houses, fund management firms, futures companies and personal insurance companies. The scale of mutual connectivity was further expanded with the daily quota of the Shanghai-Hong Kong Stock Connect and Shenzhen-Hong Kong Stock Connect increased fourfold. At the same time, the inclusion of China's A shares in the MSCI index became official in June, with Chinese bonds also to be included in the Bloomberg Barclays Global Aggregate Index. As a result of these measures, new business opportunities opened up for the financial industry in Hong Kong, further promoting the healthy development of offshore RMB markets.

In the first half of 2018, Hong Kong's banking industry faced many challenges in its operating environment, including changes in global monetary policies, rising geopolitical risks, looming trade protectionism and intensifying market competition. That said, banks in Hong Kong also gained new impetus from the enormous demand for financial services arising from the steady progress in the implementation of the Belt and Road initiative and the further implementation of two-way capital market access between Hong Kong and the Chinese mainland.

MANAGEMENT DISCUSSION AND ANALYSIS

CONSOLIDATED FINANCIAL REVIEW

The comparative information for 2017 has been restated following the Group's application of the merger accounting method in the preparation of its financial statements as a result of its acquisitions.

Financial Highlights

HK$'m	**Half-year ended 30 June 2018**	(Restated) Half-year ended 31 December 2017	(Restated) Half-year ended 30 June 2017
FROM CONTINUING OPERATIONS			
Net operating income before impairment allowances	**27,557**	25,191	23,815
Operating expenses	**(7,000)**	(7,610)	(6,238)
Operating profit before impairment allowances	**20,557**	17,581	17,577
Operating profit after impairment allowances	**20,215**	16,880	17,223
Profit before taxation	**21,185**	17,233	18,142
Profit attributable to equity holders of the Company	**17,528**	13,677	17,486
– from continuing operations	**17,528**	13,677	14,897
– from discontinued operations	**–**	–	2,589

In the first half of 2018, the Group earnestly carried out BOC Group's strategic requirements and remained committed to "Building a Top-class, Full-service and Internationalised Regional Bank". It actively responded to changes in the market environment and steadily pushed forward its key business priorities. Its core businesses realised satisfactory growth with major financial indicators remaining at solid levels. The Group seized market opportunities and developed the local market in Hong Kong. It continued to implement its regional development strategies and made satisfactory progress in its business expansion in Southeast Asia. The Group remained committed to expanding its cross-border business with a focus on integrated collaboration with BOC Group in Guangdong, Hong Kong and Macao. In pursuit of full-service capabilities, the Group focused on the construction of its diversified business platforms. Moreover, it stepped up innovation in financial technology ("Fintech") and optimised its online platforms so as to push forward its development as a digital bank. To ensure its balanced, sustainable and high-quality development, the Group continued to strengthen its risk management, internal control and compliance management, while enhancing the refined management of its assets and liabilities.

In the first half of 2018, the Group's profit attributable to equity holders amounted to HK$17,528 million, an increase of HK$42 million, or 0.2%, year-on-year. Profit attributable to equity holders from continuing operations increased by 17.7%. Net operating income before impairment allowances was HK$27,557 million, up HK$3,742 million, or 15.7%, year-on-year. Net interest income increased, owing to rising market interest rates and the positive results of the Group's proactive management of its assets and liabilities. The Group captured opportunities arising from improved investor sentiment in the market and focused on expanding its target customer base, while providing diversified investment services and optimising its service channels. As a result, net fee and commission income rose year-on-year. The net trading gain of the banking business increased, owing to rising foreign exchange income. Operating expenses rose year-on-year, in support of the Group's long-term business expansion. The net gain from fair value adjustments on investment properties also increased.

As compared with the second half of 2017, the Group's net operating income before impairment allowances rose by HK$2,366 million, or 9.4%. This was mainly attributable to an increase in net interest income arising from a rise in net interest margin and growth in average interest-earning assets. Net fee and commission income also increased. The net trading gain of the banking business increased, owing to rising foreign exchange income. Moreover, both operating expenses and the net charge of impairment allowances fell, while the net gain from fair value adjustments on investment properties rose. As a result, profit attributable to equity holders increased by HK$3,851 million, or 28.2%, compared to the second half of last year.

INCOME STATEMENT ANALYSIS

The following income statement analysis is based on the Group's continuing operations, and the comparative information has been restated to conform to the current period's presentation.

Net Interest Income and Net Interest Margin

HK$'m, except percentages	**Half-year ended 30 June 2018**	(Restated) Half-year ended 31 December 2017	(Restated) Half-year ended 30 June 2017
Interest income	**28,543**	25,491	23,586
Interest expense	**(10,053)**	(7,869)	(6,390)
Net interest income	**18,490**	17,622	17,196
Average interest-earning assets	**2,432,178**	2,317,555	2,125,381
Net interest spread	**1.37%**	1.37%	1.51%
Net interest margin*	**1.53%**	1.51%	1.63%

* Net interest margin is calculated by dividing net interest income by average interest-earning assets.

Net interest income amounted to HK$18,490 million in the first half of 2018, an increase of HK$1,294 million, or 7.5%, year-on-year. The increase was driven by growth in average interest-earning assets.

Average interest-earning assets expanded by HK$306,797 million, or 14.4%, year-on-year. The increase in deposits from customers led to an increase in advances to customers, debt securities investments and balances and placements with banks.

Net interest margin was 1.53%. If the funding income or cost of foreign currency swap contracts# were included, net interest margin would have been 1.56%, up 10 basis points year-on-year. This was mainly attributable to a rise in market interest rates. At the same time, the Group continued to proactively manage its assets and liabilities and enhance its loan and deposit spread. This, together with the improved average yield of its debt securities investments, resulted in a widening of the Group's net interest margin.

Foreign exchange swap contracts are normally used for the Group's liquidity management and funding activities. In foreign exchange swap contracts, the Group exchanges one currency (original currency) for another (swapped currency) at the spot exchange rate (spot transaction) and commits to reverse the spot transaction by exchanging the same currency pair at a future maturity date at a predetermined rate (forward transaction). In this way, surplus funds in the original currency are swapped into another currency for liquidity and funding purposes with minimal foreign exchange risk. The exchange difference (funding income or cost) between the spot and forward contracts is recognised as a foreign exchange gain or loss (as included in "net trading gain"), while the corresponding interest differential between the surplus funds in the original currency and swapped currency is reflected in net interest income.

The table below summarises the average balances and average interest rates of individual categories of assets and liabilities:

	Half-year ended 30 June 2018		(Restated) Half-year ended 31 December 2017		(Restated) Half-year ended 30 June 2017	
ASSETS	**Average balance HK$'m**	**Average yield %**	Average balance HK$'m	Average yield %	Average balance HK$'m	Average yield %
Balances and placements with banks and other financial institutions	**455,096**	**1.95**	457,138	1.92	426,928	2.44
Debt securities investments	**753,328**	**2.15**	695,117	2.07	644,365	1.88
Advances to customers	**1,206,003**	**2.67**	1,149,195	2.36	1,036,771	2.39
Other interest-earning assets	**17,751**	**1.66**	16,105	1.35	17,317	1.22
Total interest-earning assets	**2,432,178**	**2.37**	2,317,555	2.18	2,125,381	2.24
Non interest-earning assets[1]	**372,506**	**–**	356,620	–	341,170	–
Total assets	**2,804,684**	**2.05**	2,674,175	1.89	2,466,551	1.93
LIABILITIES	**Average balance HK$'m**	**Average rate %**	Average balance HK$'m	Average rate %	Average balance HK$'m	Average rate %
Deposits and balances from banks and other financial institutions	**228,021**	**1.05**	222,072	0.94	230,127	0.90
Current, savings and time deposits	**1,724,051**	**0.90**	1,638,724	0.71	1,485,180	0.64
Subordinated liabilities	**20,458**	**5.46**	19,656	5.03	18,963	4.61
Other interest-bearing liabilities	**60,946**	**1.91**	57,876	1.61	37,520	1.10
Total interest-bearing liabilities	**2,033,476**	**1.00**	1,938,328	0.81	1,771,790	0.73
Shareholders' funds[2] and other non interest-bearing deposits and liabilities[1]	**771,208**	**–**	735,847	–	694,761	–
Total liabilities	**2,804,684**	**0.72**	2,674,175	0.58	2,466,551	0.52

1. Including assets held for sale and liabilities associated with assets held for sale respectively.
2. Shareholders' funds represent capital and reserves attributable to the equity holders of the Company.

Compared with the second half of 2017, the Group's net interest income increased by HK$868 million, or 4.9%, due to growth in average interest-earning assets and an increase in net interest margin. Average interest-earning assets grew by HK$114,623 million, or 4.9%, which was driven by an increase in deposits from customers. Net interest margin was up 2 basis points. If the funding income or cost of foreign currency swap contracts were included, net interest margin would have been up 13 basis points, mainly because of the rise in market interest rates and the Group's effective control of deposit pricing, which resulted in a widening of the loan and deposit spread. This, along with the improved average yield of the Group's debt securities investments, resulted in a rise in net interest margin.

Net Fee and Commission Income

HK$'m	**Half-year ended 30 June 2018**	(Restated) Half-year ended 31 December 2017	(Restated) Half-year ended 30 June 2017
Credit card business	**1,734**	1,665	1,537
Loan commissions	**1,712**	1,522	2,086
Securities brokerage	**1,705**	1,571	1,054
Insurance	**865**	698	628
Funds distribution	**552**	545	440
Bills commissions	**400**	423	393
Payment services	**325**	326	323
Trust and custody services	**313**	301	254
Currency exchange	**268**	238	195
Safe deposit box	**154**	144	147
Others	**636**	435	575
Fee and commission income	**8,664**	7,868	7,632
Fee and commission expense	**(2,190)**	(2,045)	(1,854)
Net fee and commission income	**6,474**	5,823	5,778

In the first half of 2018, the Group's net fee and commission income amounted to HK$6,474 million, up HK$696 million or 12.0% year-on-year. The Group captured opportunities arising from improved investor sentiment in the market and focused on the continuous development of mid- to high-end and cross-border customers. It also optimised its service channels and functionalities, and enriched its product and service offerings. As a result, commission income from securities brokerage, funds distribution and insurance grew 61.8%, 25.5% and 37.7% year-on-year, respectively. The Group also leveraged its diversified business platforms to record healthy growth in a number of areas. Income from the credit card business rose by 12.8% year-on-year, with the business volumes of the Group's credit card issuing and merchant acquiring businesses rising 12.5% and 19.1% respectively. Income from currency exchange increased 37.4% year-on-year, as the Group captured opportunities arising from travelling customers' strong demand for banknotes in a range of currencies as well as the proactive expansion of its banknotes business in the Chinese mainland, Hong Kong and Southeast Asia. The Group's trust and custody business continued to expand its assets under management, resulting in a year-on-year increase of 23.2% in related income. However, loan commissions dropped. The increase in fee and commission expenses was mainly due to higher credit card, securities brokerage and insurance related expenses.

Compared with the second half of 2017, net fee and commission income increased by HK$651 million, or 11.2%. The increase mainly resulted from growth in fee and commission income from loans, insurance, securities brokerage, credit card business, currency exchange, and trust and custody services, as well as safe deposit box services. At the same time, bills commissions dropped. Fee and commission expenses increased, owing to higher credit card and insurance related expenses.

Net Trading Gain

HK$'m	Half-year ended 30 June 2018	(Restated) Half-year ended 31 December 2017	(Restated) Half-year ended 30 June 2017
Foreign exchange and foreign exchange products	**1,694**	114	83
Interest rate instruments and items under fair value hedge	**175**	324	417
Equity and credit derivative instruments	**114**	135	90
Commodities	**61**	98	107
Net trading gain	**2,044**	671	697

In the first half of 2018, the Group's net trading gain amounted to HK$2,044 million, an increase of HK$1,347 million, or 193.3%, year-on-year. Net trading gain from foreign exchange and foreign exchange products increased by HK$1,611 million, which was mainly attributable to a net gain from foreign currency swap contracts in the first half of 2018, as compared with a net loss in the same period last year, as well as growth in currency exchange income from customer transactions. Net trading gain from interest rate instruments and items under fair value hedge decreased by HK$242 million, primarily due to the mark-to-market changes of certain debt securities investments and interest rate instruments caused by interest rate movements. Net trading gain from equity and credit derivative instruments increased, supported by an increase in income from equity-linked products. Net trading gain from commodities declined, due to a decreased gain in bullion transactions.

Compared with the second half of 2017, net trading gain increased by HK$1,373 million, or 204.6%. This was mainly attributable to a net gain from foreign currency swap contracts as compared to a net loss in the second half of 2017, as well as growth in currency exchange income from customer transactions. This was partially offset by the mark-to-market changes of certain debt securities investments and interest rate instruments caused by interest rate movements.

Net (Loss)/Gain on Other Financial Instruments at Fair Value through Profit or Loss (FVTPL)

HK$'m	Half-year ended 30 June 2018	(Restated) Half-year ended 31 December 2017	(Restated) Half-year ended 30 June 2017
Net (loss)/gain on other financial instruments at fair value through profit or loss	**(1,182)**	993	1,188

The Group recorded a net loss of HK$1,182 million on other financial instruments at fair value through profit or loss, compared to a net gain of HK$1,188 million in the first half of 2017. The change was mainly attributable to a loss in the equity securities investments of BOC Life and the mark-to-market loss of its debt securities investments caused by market interest rate movements. The changes in policy reserves, as reflected in the changes in net insurance benefits and claims and movement in liabilities, were also attributable to the movement of market interest rates.

Compared with the second half of 2017, the change was mainly attributable to a loss in the equity securities investments of BOC Life and the mark-to-market loss of its debt securities investments caused by market interest rate movements. The changes in policy reserves, as reflected in the changes in net insurance benefits and claims and movement in liabilities, were also attributable to the movement of market interest rates.

Operating Expenses

HK$'m	**Half-year ended 30 June 2018**	(Restated) Half-year ended 31 December 2017	(Restated) Half-year ended 30 June 2017
Staff costs	**4,053**	4,203	3,698
Premises and equipment expenses (excluding depreciation)	**856**	889	832
Depreciation	**996**	1,024	927
Other operating expenses	**1,095**	1,494	781
Total operating expenses	**7,000**	7,610	6,238

	At 30 June 2018	(Restated) At 31 December 2017	(Restated) At 30 June 2017
Staff headcount measured in full-time equivalents*	**13,358**	13,212	12,982

* The comparative information regarding staff headcounts measured in full-time equivalents at 30 June and 31 December 2017 has been restated to enable analysis on a comparable basis.

Total operating expenses increased by HK$762 million or 12.2% year-on-year as a result of the Group's ongoing investment in human resources, business systems and platforms, and e-finance services, all of which aim to enhance overall service capabilities and support long-term business growth. The Group remained focused on disciplined cost control. Its cost to income ratio was 25.40%, a solid level of cost efficiency relative to the industry peers.

Staff costs increased by 9.6% year-on-year, mainly due to annual salary increment, increased headcount, and an increase in performance-related remuneration.

Premises and equipment expenses were up 2.9%, reflecting higher expenses related to the enhancement of business systems and platforms, and an increase in rental costs.

Depreciation increased by 7.4%, largely due to larger depreciation charges on information technology infrastructure and premises.

Other operating expenses rose by 40.2%, mainly due to a lower base for comparison resulting from the reversal of certain expenses in the first half of 2017. Meanwhile, communication and promotional expenses rose in line with increased business volume.

Compared with the second half of 2017, total operating expenses decreased by HK$610 million, or 8.0%. The decrease was due to lower staff costs and promotional and advertising expenses.

MANAGEMENT DISCUSSION AND ANALYSIS

Net Charge of Impairment Allowances on Advances and Other Accounts

HK$'m	**Half-year ended 30 June 2018**	(Restated) Half-year ended 31 December 2017	(Restated) Half-year ended 30 June 2017
Stage 1	**462**	N/A	N/A
Stage 2	**(141)**	N/A	N/A
Stage 3	**(585)**	N/A	N/A
Individually assessed	**N/A**	(80)	151
Collectively assessed	**N/A**	(616)	(501)
Net charge of impairment allowances on advances and other accounts	**(264)**	(696)	(350)

In the first half of 2018, the Group's net charge of impairment allowances on advances and other accounts amounted to HK$264 million. Impairment allowances at Stage 1 recorded a net reversal of HK$462 million, mainly reflecting the reversal caused by the upgrading of certain customers and the updating of the parameter values in the assessment model, which offset the impact of the net charge of impairment allowances arising from loan growth during the period. Impairment allowances at Stage 2 recorded a net charge of HK$141 million, as the result of increases in the credit risk of certain advances. The net charge of impairment allowances at Stage 3 amounted to HK$585 million, mainly relating to the downgrading of certain corporate advances and in the personal loan portfolio.

BALANCE SHEET ANALYSIS

The comparative figures as of 31 December 2017 have been restated to conform to the current period's presentation.

Asset Composition

HK$'m, except percentages	**At 30 June 2018** Amount	**At 30 June 2018** % of total	(Restated) At 31 December 2017 Amount	(Restated) At 31 December 2017 % of total
Cash and balances and placements with banks and other financial institutions	**375,408**	**13.5**	426,604	16.1
Hong Kong SAR Government certificates of indebtedness	**153,370**	**5.5**	146,200	5.5
Securities investments[1]	**784,552**	**28.3**	704,526	26.6
Advances and other accounts	**1,268,939**	**45.7**	1,191,554	44.9
Fixed assets and investment properties	**69,146**	**2.5**	66,937	2.5
Other assets[2]	**123,030**	**4.5**	115,265	4.4
Total assets	**2,774,445**	**100.0**	2,651,086	100.0

1. Securities investments comprise investment in securities and securities at fair value through profit or loss.
2. Interests in associates and joint ventures, deferred tax assets, derivative financial instruments and other debt instruments classified as trading assets are included in other assets.

As at 30 June 2018, the total assets of the Group amounted to HK$2,774,445 million, an increase of HK$123,359 million, or 4.7%, from the end of 2017. The Group continued to optimise its management of assets and liabilities so as to achieve balanced, sustainable and high-quality growth. Key changes in the Group's total assets include the following:

- Cash and balances and placements with banks and other financial institutions decreased by HK$51,196 million, or 12.0%, mainly due to a decrease in balances with banks;
- Securities investments increased by HK$80,026 million, or 11.4%, with increases mainly found in government-related and high-quality financial institutions bonds;
- Advances and other accounts rose by HK$77,385 million, or 6.5%, with a growth in advances to customers of HK$84,082 million, or 7.3%.

Advances to Customers

	At 30 June 2018		(Restated) At 31 December 2017	
HK$'m, except percentages	**Amount**	**% of total**	Amount	% of total
Loans for use in Hong Kong	**810,253**	**65.9**	759,038	66.2
Industrial, commercial and financial	**475,183**	**38.7**	436,754	38.1
Individuals	**335,070**	**27.2**	322,284	28.1
Trade finance	**70,492**	**5.7**	78,196	6.8
Loans for use outside Hong Kong	**349,763**	**28.4**	309,192	27.0
Total advances to customers	**1,230,508**	**100.0**	1,146,426	100.0

In the first half of 2018, the Group continued to implement BOC Group's development strategy and captured opportunities arising from the Belt and Road initiative and the development of the Guangdong-Hong Kong-Macao Greater Bay Area, as well as in Southeast Asia. It strengthened its collaboration with BOC Group in order to provide a diversified range of financial services to mainland "Going Global" enterprises as well as corporates in countries along the Belt and Road. The Group also continued to improve its services to commercial customers in Hong Kong by deepening business relationships with family-owned businesses, chambers of commerce and listed companies. In addition, it enhanced its service penetration to customers in the SME, residential mortgage and other retail loan businesses by leveraging the competitive advantages arising from its branch network and its diversified business platforms. Advances to customers grew by HK$84,082 million, or 7.3%, to HK$1,230,508 million in the first half of 2018.

Loans for use in Hong Kong grew by HK$51,215 million or 6.7%:

- Lending to the industrial, commercial and financial sectors increased by HK$38,429 million or 8.8%, reflecting growth in property development, wholesale and retail trade, financial concerns, transport and transport equipment, manufacturing and IPO financing;
- Lending to individuals increased by HK$12,786 million, or 4.0%. Residential mortgage loans (excluding those under government-sponsored home purchasing schemes) grew by 2.8% while other individual loans increased by 10.6%, mainly driven by an increase in property refinancing and personal loans for investment purposes.

Trade finance decreased by HK$7,704 million or 9.9%. Loans for use outside Hong Kong grew by HK$40,571 million or 13.1%, mainly driven by growth in loans for use in the Chinese mainland and Southeast Asia.

MANAGEMENT DISCUSSION AND ANALYSIS

Loan Quality

HK$'m, except percentages	**At 30 June 2018**	(Restated) At 31 December 2017
Advances to customers	**1,230,508**	1,146,426
Classified or impaired loan ratio	**0.22%**	0.18%
Total impairment allowances	**5,150**	4,106
Total impairment allowances as a percentage of advances to customers	**0.42%**	0.36%
Residential mortgage loans[1] – delinquency and rescheduled loan ratio[2]	**0.01%**	0.01%
Card advances – delinquency ratio[2]	**0.22%**	0.21%

	Half-year ended 30 June 2018	Half-year ended 30 June 2017
Card advances – charge-off ratio[3]	**1.47%**	1.70%

1. Residential mortgage loans exclude those under the Home Ownership Scheme and other government-sponsored home purchasing schemes.
2. The delinquency ratio is the ratio of the total amount of overdue advances (more than three months) to total outstanding advances.
3. The charge-off ratio is the ratio of total write-offs made during the period to average card receivables during the period.

The Group adhered to prudent risk management principles and maintained benign asset quality during the reporting period. The classified or impaired loan ratio was 0.22% as at 30 June 2018. Classified or impaired advances to customers increased by HK$588 million, or 28.3%, to HK$2,667 million, due to the downgrading of a few corporate advances and a certain personal loan portfolio.

The credit quality of the Group's residential mortgage loans and card advances remained sound. The combined delinquency and rescheduled loan ratio of residential mortgage loans was 0.01% as at 30 June 2018. The charge-off ratio of card advances for the first half of 2018 fell year-on-year to 1.47%.

*Deposits from Customers**

HK$'m, except percentages	At 30 June 2018 Amount	At 30 June 2018 % of total	(Restated) At 31 December 2017 Amount	(Restated) At 31 December 2017 % of total
Demand deposits and current accounts	**213,583**	**11.5**	203,837	11.5
Savings deposits	**851,691**	**45.9**	913,192	51.3
Time, call and notice deposits	**788,306**	**42.5**	658,061	37.0
	1,853,580	**99.9**	1,775,090	99.8
Structured deposits	**2,575**	**0.1**	2,784	0.2
Total deposits from customers	**1,856,155**	**100.0**	1,777,874	100.0

* Including structured deposits.

The Group continued to implement a number of strategic customer acquisition initiatives during the first half of 2018, including the launch of featured products to targeted customer groups and the development of employee payroll accounts combined with comprehensive wealth management solutions in order to deepen business relationships with government entities, large corporates, major central banks, national treasuries and sovereign wealth funds. As a result, the Group achieved satisfactory growth in both personal and corporate deposits. As at 30 June 2018, total deposits from customers amounted to HK$1,856,155 million, up HK$78,281 million or 4.4% from the end of last year. Demand deposits and current accounts grew by 4.8%, mainly driven by IPO deposits. Saving deposits decreased by 6.7%. Time, call and notice deposits were up 19.8%.

Capital and Reserves Attributable to Equity Holders of the Company

HK$'m	At 30 June 2018	(Restated) At 31 December 2017
Share capital	**52,864**	52,864
Premises revaluation reserve	**38,105**	36,689
Reserve for fair value changes/Reserve for fair value changes of available-for-sale securities	**(4,081)**	42
Reserve for own credit risk	**7**	–
Regulatory reserve	**10,746**	10,224
Translation reserve	**(827)**	(728)
Merger reserve	**–**	1,062
Retained earnings	**151,231**	143,865
Reserves	**195,181**	191,154
Capital and reserves attributable to equity holders of the Company	**248,045**	244,018

Capital and reserves attributable to equity holders of the Company amounted to HK$248,045 million as at 30 June 2018, an increase of HK$4,027 million, or 1.7%, from the end of 2017. Retained earnings rose by 5.1%, mainly reflecting the profit for the first half of 2018 following the distribution of the final dividend for 2017. The premises revaluation reserve increased by 3.9%, which was attributable to an increase in the valuation of premises in the first half of 2018. The reserve for fair value changes recorded a deficit, mainly driven by market interest rate movements. The regulatory reserve rose by 5.1%, mainly driven by growth in advances to customers. The merger reserve arose from the Group's application of the merger accounting method in relation to its combination with BOC's Vietnam Business and Philippines Business.

Capital Ratio

HK$'m, except percentages	**At 30 June 2018**	At 31 December 2017
Consolidated capital after deductions		
Common Equity Tier 1 capital	**176,702**	170,012
Additional Tier 1 capital	**–**	–
Tier 1 capital	**176,702**	170,012
Tier 2 capital	**37,137**	39,816
Total capital	**213,839**	209,828
Total risk-weighted assets	**1,063,065**	1,029,152
Common Equity Tier 1 capital ratio	**16.62%**	16.52%
Tier 1 capital ratio	**16.62%**	16.52%
Total capital ratio	**20.12%**	20.39%

In the course of formulating its internal capital management targets, the Group not only takes into consideration regulatory requirements, but also adopts the internal capital adequacy assessment process and stress testing necessary to assess the Bank's capital requirement for Pillar II. This allows it to determine the most appropriate capital level to ensure that the Group has adequate capital strength to withstand any future unexpected loss arising from a drastic change in the economic environment. At the same time, the Group will also take into account its development strategy and risk appetite, as well as its short- and long-term capital requirements (including support from capital replenishment solutions) with the ultimate aim of ensuring the long-term stability of its capital level. The Group attaches a high degree of importance to the need for capital accumulation and remains committed to strengthening internal capital generation to ensure its sustainable business development.

As at 30 June 2018, both the common equity tier 1 ("CET1") capital ratio and tier 1 capital ratio were 16.62%, up 0.10 percentage points respectively from the end of 2017. Total capital ratio was 20.12%. Profits net of dividends for the first half of 2018 increased CET1 capital by 3.9%. Total risk-weighted assets ("RWAs") were up 3.3%, driven by the growth in advances to customers in the first half of 2018.

Liquidity Coverage Ratio and Net Stable Funding Ratio

	2018	2017
Average value of liquidity coverage ratio		
First quarter	**134.33%**	121.41%
Second quarter	**146.39%**	123.88%

	At 30 June 2018	At 31 March 2018
Net stable funding ratio	**118.82%**	118.98%

The Group's liquidity position remained sound. The average value of LCR in the first and second quarter of 2018 was 134.33% and 146.39% respectively. Net stable funding ratio at 31 March and 30 June 2018 stood at 118.98% and 118.82% respectively.

BUSINESS REVIEW

Business Segment Performance

Profit before Taxation by Business Segment

HK$'m, except percentages	**Half-year ended 30 June 2018** Amount	**% of total**	(Restated) Half-year ended 30 June 2017 Amount	% of total
FROM CONTINUING OPERATIONS				
Personal Banking	**5,905**	**27.9**	4,222	23.3
Corporate Banking	**7,982**	**37.7**	7,301	40.2
Treasury	**4,985**	**23.5**	4,444	24.5
Insurance	**597**	**2.8**	683	3.8
Others	**1,716**	**8.1**	1,492	8.2
Total profit before taxation	**21,185**	**100.0**	18,142	100.0

Note: For additional segmental information, see Note 41 to the Interim Financial Information.

PERSONAL BANKING

Financial Results

Personal Banking achieved a profit before tax of HK$5,905 million in the first half of 2018, an increase of HK$1,683 million or 39.9% year-on-year, mainly driven by an increase in net interest income and net fee and commission income, and lower net impairment charges.

Net interest income increased by 18.3%. This was mainly driven by an improvement in the deposit spread along with an increase in the average balance of deposits and loans. Net fee and commission income increased by 32.8% as the Group achieved satisfactory performance in its securities brokerage, insurance and funds distribution business, including encouraging year-on-year growth in commission income. Net trading gain rose by 18.1%, owing to relatively strong growth in currency exchange income from customer transactions and income from equity-linked products. Operating expenses were up 10.4%, mainly due to an increase in staff costs and business-related expenses.

Business operations

Steady expansion in deposit and loan business

The Group's personal deposit business pursued a refined strategy for different customer segments, combining customer development and upgrading with enhanced product sales packages. Featured products were launched to targeted customer groups in a bid to grow deposits. At the same time, through collaboration between the personal and corporate banking segments, the Group strengthened its cooperation with government entities and large corporates via employee payroll account services combined with wealth management solutions. As of 30 June 2018, the Group's total personal deposits grew by 5.8% compared to the end of last year. Regarding its loan business, the Group set up six mortgage centres in the main districts of Hong Kong to enhance its professional service capabilities in mortgages. It enhanced partnerships with property developers and property agencies with a view to exploring new sources of mortgage business. The Group also assisted The Hong Kong Mortgage Corporation Limited to promote the Reverse Mortgage Programme, securing the largest share of this market.

Accelerating the upgrade of mid- to high-end customer services

The Group strived to deepen customer relationships and continued to enhance its professional service level so as to serve mid- to high-end customers. In the first half of the year, it continued to refine its business model for high-end customers and stepped up the development and promotion of a dedicated sales force. It opened its first high-end wealth management centre, the China Hong Kong City Wealth Management Centre. The Group also organised different kinds of value-added activities for customers in order to further enhance the customer experience. As at the end of June 2018, the number of mid- to high-end customers grew by 9.3% compared to the end of last year.

The Group's private banking business maintained satisfactory growth, acquiring high net-worth clients from Hong Kong, the Chinese mainland and overseas. In line with its people-oriented culture, the Group strengthened its private banking team and accelerated development in cross-border business. It optimised its open platform for private banking and enhanced the development of exclusive private banking products such as alternative investments. It also actively participated in the development of the private banking industry by supporting the Pilot Apprenticeship Programme for Private Wealth Management, which is jointly organised by the HKMA and the Private Wealth Management Association, to provide training to wealth management talent. Both the total number of private banking clients and related assets under management grew satisfactorily from the end of last year.

Stepping up general banking service innovations

Capturing opportunities from Fintech development trends, the Group stepped up innovations in its general banking services. It developed "Smart Account", set up electronic self-service channels and enhanced iService by offering an all weather video banking service to customers. The Group also enhanced the development of new smart branch by setting up the Science Park Banking Services Centre and launching a new customer service process. It also streamlined frontline operational procedures, which helped to raise branch effectiveness, and pushed forward the building of a green bank by enhancing paperless and digital business operations.

Capturing market opportunities to increase fee and commission income

The Group launched a brand new mobile banking securities trading application featuring new functions, including express trading settings, price alerts and a stock screener. It continued to support a one-stop service for online account opening, instant trading, chart analysis and portfolio holding enquiries. In addition to providing a diversified fund product range, the Group was the first retail bank to launch funds with an investment theme linked to the Belt and Road initiative. Leveraging the retirement annuities scheme promoted by the HKSAR Government, the Group integrated the concepts of retirement planning and wealth inheritance to launch the All-Round Protection Scheme, offering 45 life insurance and general insurance products. During the reporting period, income generated by securities brokerage, funds distribution, treasury products and insurance business recorded satisfactory year-on-year growth.

Integrated development of banking services in Guangdong, Hong Kong and Macao

The Group strengthened its collaboration with BOC in the Guangdong-Hong Kong-Macao Greater Bay Area and promoted integrated development by continuously reinforcing its servicing model, brand promotion and talent exchange. It implemented its point-to-point port strategy by becoming the only bank to provide branch services in Terminal 1 of Hong Kong International Airport and by formulating a plan to set up a self-service banking centre at Hong Kong West Kowloon Rail Station (the terminus of the Guangzhou-Shenzhen-Hong Kong Express Rail Link) and an automated banking site at the Hong Kong-Zhuhai-Macao Bridge. As at the end of June 2018, the total number of cross-border customers grew by 13.1% compared to the end of last year. During the reporting period, the Group was honoured with the Sing Tao Excellent Services Brand Award – Cross-border Banking Services Award by *Sing Tao Daily* in recognition of its cross-border business.

Advancing the integration of its Southeast Asian institutions

The Group enhanced development of the personal banking businesses of its Southeast Asian institutions. It put its regional product management framework into practice in an orderly manner, refined its mid- to high-end customer service infrastructure and strengthened regional risk management. It set up a wealth management model in BOC Malaysia and the Jakarta Branch so as to offer exclusive and all-round financial service solutions, thus laying a strong foundation for the Group to become a mainstream bank for overseas Chinese in Southeast Asia.

Innovation in credit card business

The Group's credit card business achieved continuous growth in cardholder spending by taking advantages of the ample business opportunities in the market. These included the continued recovery of Hong Kong retail consumption in the first half of 2018 from the end of last year, the positive wealth effect resulting from the high trading turnover of the stock market, and the increasing popularity in mobile payment and QR Code-related techniques, as well as business opportunities in the Guangdong-Hong Kong-Macao Greater Bay Area. The Greater Bay Area BOC UnionPay Dual Currency Card was launched in January 2018, featuring convenient payment and mobile payment functions which, combined with promotional offers, cater for the daily needs of frequent travellers within the Greater Bay Area. In addition, in line with the local development of stored-value facility services, the Group proactively developed its online spending business, with the related business volume recording a year-on-year growth of over 60%. During the reporting period, the Group maintained its market leadership in the UnionPay merchant acquiring and card issuing business in Hong Kong.

CORPORATE BANKING

Financial Results

In the first half of 2018, Corporate Banking achieved a profit before tax of HK$7,982 million, an increase of HK$681 million or 9.3% year-on-year. The growth was mainly driven by an increase in net interest income and net trading gain.

Net interest income increased by 14.6%, owing to an increase in the average balance of loans and deposits, coupled with improvement in the deposit spread. Net fee and commission income decreased by 13.4%, as an increase in commission income from trust and bills services was more than offset by a decrease in loan commissions. Net trading gain increased by 33.8%, owing to the growth of currency exchange income from customer transactions.

Business operations

Continuous expansion of customer base and enhancement of integrated service capabilities

Amid intense market competition, the Group strengthened its business relationships with existing customers while actively acquiring new customers. It reinforced its competitive edge in the syndicated loan business by arranging a number of syndicated loan projects of significant market influence during the reporting period, and remained the top mandated arranger in the Hong Kong and Macao syndicated loan market in the first half of 2018. Meanwhile, the Group grasped opportunities arising from the establishment of treasury centres in Hong Kong and the "Going Global" efforts of mainland enterprises in order to expedite the development of its cash pooling and treasury centre businesses, with the aim of becoming the first-choice bank for cross-border pooling services. Moreover, the total amount of funds raised from IPOs in which the Group served as the main receiving bank reached HK$40.2 billion, representing a market share of 83.8%. It was awarded a number of tender projects by the HKSAR Government and public sector organisations, further reinforcing its business relationships with government entities. The Group also established business relationships with a number of major central banks, national treasuries and sovereign wealth funds. The satisfactory growth of deposits from institutional clients provided a stable funding source for the Group's USD loan business.

Proactive development of commercial and SME customer base

The Group continued to improve its services to commercial customers by deepening business relationships with family-owned businesses, chambers of commerce and listed companies in Hong Kong, and helping them by establishing a convenient and effective financial service platform. It helped customers to access business opportunities in the Chinese mainland and overseas countries by inviting them to participate in the Cross-border Investment Matching Service organised by BOC branches around the world. In addition, by leveraging the competitive advantages arising from its branch network in Hong Kong, the Group continued to enhance its service capabilities to corporate customers. BOCHK won the Best SME's Partner Gold Award 2018 from the Hong Kong General Chamber of Small and Medium Business, in recognition of its achievement of being awarded the Best SME's Partner Award for eleven consecutive years.

Promoting business development in Southeast Asia and the Greater Bay Area

The Group continued to deepen its integrated business model and equip its Southeast Asian institutions with advanced products and services. It also expedited the establishment of a regional management system to upgrade the management capabilities of its Southeast Asian institutions and facilitate their healthy business development. To capture major business opportunities arising from the development of the Guangdong-Hong Kong-Macao Greater Bay Area, the Group strengthened its collaboration with BOC Group's entities in the Greater Bay Area and established an integrated system for marketing and services, with a view to providing a full range of financial services to support the mutual access of infrastructures within the Greater Bay Area and to boost the development of corporates within the area's technological innovation industry. At the same time, the Group supported the reform of the commercial registration system in the Guangdong Province by coordinating with the Guangdong Province Administration for Industry and Commerce and the Guangdong Branch of BOC to launch Guangdong-Hong Kong Business Registration and Banking Services Connect, in order to optimise and further promote cross-border investments between Guangdong and Hong Kong.

Continuously enhancing the competitiveness of corporate banking products and services

The Group continued to enhance its comprehensive, scenario-based and globalised service capabilities, capturing opportunities arising from the Belt and Road initiative and the development of the Guangdong-Hong Kong-Macao Greater Bay Area by enriching its product offering, refining its regional product line management and enhancing its regional product system coverage. It offered various competitive transaction banking products and comprehensive service solutions so as to develop global client markets while serving local corporates and institutions. It attracted major clients and projects, with focus on building its treasury centre and cash pooling businesses, and supported mainland "Going Global" enterprises, leading enterprises in Hong Kong and Southeast Asia and multinational corporate giants in managing their regional and global funding activities. Its continuous enhancement in product competitiveness and improvement in economies of scale were recognised by the market and the industry. BOCHK again received the Achievement Award for Best Trade Finance Bank in Hong Kong as well as Best Corporate Trade Finance Deal in Hong Kong from *The Asian Banker*. Furthermore, BOCHK was named Hong Kong Domestic Cash Management Bank of the Year for the fifth consecutive year by *Asian Banking & Finance*.

Continuous expansion in custody business

In the first half of 2018, investment markets experienced volatility amid a general downward trend. The Group continued to capture opportunities, arising from various market links, to connect with more local and overseas institutions through Bond Connect. Its market share continued to eclipse its peers, with its value of assets under custody relating to Bond Connect at one point exceeding RMB15 billion. Meanwhile, the Group's insurance and pension client segments continued to exhibit steady growth, while demand for escrow services on assets was also robust. This, coupled with active business collaboration within the Group, meant that the custody business delivered substantial growth in its key performance indicators compared to those of the same period last year. In recognition of its professional service, BOCHK was awarded Best QDII Custodian and Best QDII Mandate in *The Asset*'s Triple A Asset Servicing, Institutional Investor and Insurance Awards. At the end of June 2018, the Group's total assets under custody reached HK$1,167.7 billion.

Proactive credit risk management

In view of the uncertain economic environment, the Group adhered to a prudent credit strategy and closely monitored various potential risks, including rising corporate bond defaults in the Chinese mainland and the China-US trade war. It also enhanced analysis of affected countries and industries, and identified group customers who could be negatively impacted. Moreover, preventive measures were carried out in a timely manner to control risk, so as to support the Group's healthy business development.

TREASURY

Financial Results

Treasury recorded a profit before tax of HK$4,985 million, an increase of HK$541 million or 12.2% year-on-year. The growth was driven by an increase in net trading gain, which more than offset the impact from the decrease in net interest income.

Net interest income decreased by 21.7%, which was mainly attributable to a decrease in the average balance of RMB balances and placements with banks, as well as a decrease in the average yield of related assets caused by a drop in market interest rates. The treasury business recorded a net trading gain in the first half of 2018, as compared to a net trading loss in the same period last year. This was owing to a net gain from foreign currency swap contracts in the first half of 2018, as compared to a net loss in the same period last year, as well as growth in currency exchange income from customer transactions. This was partially offset by the mark-to-market changes of certain debt securities investments and interest rate instruments caused by interest rate movements.

Business Operations

Continuous enhancement in trading and service capabilities

In the first half of 2018, the Group actively responded to market changes and made its best efforts to promote business diversification, while strictly adhering to its risk management principles, in order to improve its ability to capture market opportunities. It steadily improved its pricing and trading capabilities by strengthening its trading system infrastructure and continuously refining its electronic trading platform. The Group also enhanced the development of innovative products and further enriched product lines to meet clients' needs. By leveraging its expertise, capitalising on market opportunities and elevating service quality, the Group achieved rapid growth in customer trading business. It also actively promoted its regional development, making continuous efforts to enhance the development framework for treasury business in Southeast Asia. In recognition of its treasury business performance, BOCHK was named the Best Overseas Member of the Interbank FX Market in 2017 by the China Foreign Exchange Trade System. It received the Best Local Currency Bond Award from *Global Capital* at the Asia Regional Capital Markets Awards 2017, and the 2017 Outstanding International Member Award from the Shanghai Gold Exchange. BOCHK also won the Key Business Partner in FIC Markets award at the 5th Annual RMB Fixed Income and Currency Conference 2018, organised by HKEX.

Proactive expansion in banknotes business

Drawing on its expertise in the wholesale banknotes business, the Group continued to strengthen the development of its banknotes business in the Asia Pacific region and became a major bank for the provision of foreign currency banknotes in Hong Kong, further reinforcing its market leadership in the local banknotes business. Capitalising on its unique edge in the Chinese mainland market, the Group established a flexible and efficient cash banknote operating mechanism, which enabled it to successfully win bids for a number of foreign currency banknotes tenders from mainland peers. As a result, it maintained a steady growth of market share in the Chinese mainland. In addition, it accurately grasped opportunities arising from market changes while actively and steadily pushing forward its regional development strategy to gradually increase its business scale in overseas markets, including Southeast Asia.

Consolidating competitive advantages in RMB clearing business

In line with the Phase II construction of the Cross-border Interbank Payment system ("CIPS") by the People's Bank of China, BOCHK successfully launched its CIPS Phase II project. This provides a longer operation window through the CIPS channel and connects with the new Deferred Net Settlement ("DNS") mechanism, further enhancing the capability and efficiency of the Clearing Bank in terms of RMB cross-border fund clearing, thus reinforcing BOCHK's leadership in the offshore RMB market.

A proactive but risk-aware investment strategy

The Group continued to take a cautious approach to managing its banking book investments by closely monitoring market changes and seeking investment opportunities to enhance return, while remaining alert to risk. During the first half of the year, the Group adjusted its investment portfolio to respond to changes in interest rates and to achieve solid returns.

Steady growth in asset management business

In the first half of 2018, BOCHK Asset Management Limited ("BOCHK AM") achieved steady growth in many areas. The monthly average of its assets under management ("AUM") in the first half of 2018 grew by 19.8% from the same period of 2017. During the reporting period, BOCHK AM further enriched its investment product range by proactively offering innovative products. Two new funds, including a public fund (BOCHK All Weather Asia Pacific High Income Fund) and a private fund which invests in technology company IPOs, were launched to meet the investment needs of different client segments. Additionally, BOCHK AM acquired further new clients and deepened business relationships with existing clients. Discretionary managed account services were launched during the reporting period, with a number of institutional clients increasing their investments in BOCHK AM's funds. Meanwhile, BOCHK AM continued to push for growth in the distribution of cross-border funds. Following the BOCHK All Weather China High Yield Bond Fund, the BOCHK All Weather Hong Kong Equity Fund was approved for distribution in the mainland, becoming the second northbound fund under the Mainland-Hong Kong Mutual Recognition of Funds scheme ("MRF"). It is expected that this new fund will be launched for public distribution in the mainland in the second half of this year. In recognition of its expertise in the market and the industry, BOCHK AM was awarded Best Offshore RMB Bond Performance (5 years) and was named Best RMB Manager in the 2018 Best of the Best Awards organised by *Asia Asset Management*.

Continuous growth in trustee business and technological upgrades to services

The Group provides trustee and fund administration services for occupational retirement schemes and mandatory provident fund ("MPF") schemes as well as trustee and custodian services for unit trusts through its subsidiary company BOCI-Prudential Trustee Limited ("BOCI-Prudential Trustee"). BOCI-Prudential Trustee strives to deliver a holistic retirement planning solution by generating corporate synergy, actively broadening diversified distribution channels, optimising referral mechanisms, promoting innovative marketing and pushing forward the technological upgrading of system functions in order to eventually meet the medium- to long-term goal of the HKSAR Government to establish an eMPF centralised electronic platform and enhance the administrative efficiency of MPF schemes. In the first half of 2018, BOCI-Prudential Trustee upgraded its MPF services by introducing leading human resources and payroll management software. It adopted an advanced interactive voice response system (IVRS) in order to enhance the quality of its interactive voice system services, and rapidly expanded its customer service hotline capacity. As at the end of June 2018, the MPF asset size of BOCI-Prudential Trustee increased by 13.3% from the end of June last year. Moreover, BOCI-Prudential Trustee actively explored new business opportunities with large global asset management companies and continued to be a reputable transfer agent for MRF northbound funds by providing quality trustee services. Given the ongoing financial integration between the mainland and Hong Kong and the accelerated approval process for MRF northbound funds, BOCI-Prudential Trustee will actively support fund house clients in their applications for the distribution of MRF northbound funds.

In the first half of 2018, BOCI-Prudential Trustee received a total of 11 awards from independent rating agency, the industry and market as well as the innovation and technology sector in recognition of its outstanding performance and strength. BOCI-Prudential Trustee's My Choice MPF Scheme and BOC-Prudential Easy-Choice MPF Scheme received multiple accolades at the MPF Awards 2018, organised by MPF Ratings. It was awarded Excellent Brand of MPF Online Platform for the third consecutive year in the Hong Kong Leaders' Choice Brand Awards 2018, organised by Metro Finance. Furthermore, it was recognised as the Best Group Over 3 Years – Overall and received a number of fund awards at the 2018 Lipper Hong Kong Fund Awards, organised by Lipper.

Continuous growth in securities and futures brokerage services

The Group engages in the provision of brokerage services for securities, futures and options trading through its subsidiary company, Po Sang Securities and Futures Limited ("Po Sang Securities and Futures"). In 2018, Po Sang Securities and Futures deepened its engagement in the Hong Kong securities and futures market and focused on enhancing its level of operational risk management and compliance control. At the same time, it was committed to expanding its client base, product and service lines, including the expansion of its account executive team and institutional sales services. In the first half of 2018, each business line achieved satisfactory growth, with the gross turnover of its securities brokerage business growing by over 83% compared to the same period last year.

INSURANCE

Financial Results

Profit before tax in the Group's Insurance segment was HK$597 million in the first half of 2018, down 12.6% year-on-year. The decrease was mainly attributable to losses recorded in equity securities and bond fund investments amid the downturn in investment markets, in contrast to the gains recorded in the same period of 2017.

The loss was, however, partially offset by higher interest income from bond investments and reinsurance income. The insurance premium mix continued to be optimised, with strong growth in regular premium business, leading to an increase in net insurance premium income of 34.9% year-on-year.

Business Operations

Proactive application of InsurTech to improve customer experience

In the first half of 2018, an innovative artificial intelligence chatbot service, Easy Chat, was launched to answer customers' enquiries on claims and certain policy-related matters. This helped to develop and activate the younger customer segment, enhance the Group's corporate image and ease the pressure on customer service hotlines. The Group also promoted interaction with customers using social media platforms, including the launch of the brand new BOC Life WeChat Official Account, two Facebook pages (BOC Life and BOC Life Wealth Management Team) and other internet services. The promotion of electronic insurance policy services also reinforced the Group's image as an adopter of innovative technology and services that enhance operational efficiency.

Maintaining a leading position in RMB insurance business, recognised for quality service

In the first half of 2018, the Group maintained its leading position in Hong Kong's RMB life insurance business. In recognition of its quality service and professional image, BOC Life received a number of awards locally and internationally, including the Cross Border Insurance Service – Excellence, Annuity Plan – Outstanding Performance, Customer Service – Outstanding Performance and Claims Management – Excellence awards from *Bloomberg Businessweek*'s Financial Institution Awards 2018; the Outstanding Insurance Business – Customer Service Award (Hong Kong China) and Annuity Award (Hong Kong China) from the 2018 RMB Business Outstanding Awards, jointly organised by Metro Finance and Hong Kong Ta Kung Wen Wei Media Group; and the Award for Innovative Management in Financial Industries: Silver Stevie Winner and Award for Innovation in Human Resources Management, Planning & Practice (Financial Services Industries): Bronze Stevie Winner from the 5th Asia-Pacific Stevie Awards.

Enhancement and innovation of products and development of diversified distribution channels

In the first half of 2018, the Group responded to market trends and launched new products to meet customers' different insurance needs. Based on the success of the SmartUp whole life insurance plan series, the Group launched the SmartUp Plus Whole Life Insurance Plan, an enhanced version with more protection features, so as to raise the value of new business. As regards to savings products, the Group launched two short-term products, the Target 3 Years Insurance Plan and the ReachUp Insurance Plan. The Group joined up with innovative sales platforms, launching the first critical illness product, AlongPro Critical Illness Plan, on the WeChat Pay HK and AlipayHK electronic payment platforms. This product was also launched on BOC Life's online platform, in order to attract customers using mobile networks.

BOC Life's 20th anniversary brand promotions

The year 2018 marked the 20th anniversary of BOC Life. The Group title-sponsored a number of TV programmes using the slogan, Presented by BOC Life 20th Anniversary. A series of promotional programmes was launched to raise awareness of the Group's life insurance business and to further strengthen its brand image.

Regional Business

Improving BOCHK's overall development strategy in Southeast Asia with the aim of becoming a mainstream foreign bank in the region

Southeast Asia has remarkable development potential, both as a core focus of China's Belt and Road initiative, as a key market for RMB internationalisation and as a target region for Chinese enterprises' "Going Global" efforts. BOCHK values the important opportunity that lies in pushing forward its asset restructuring in Southeast Asia and accelerating its self-development, and remains committed to building into a top-class, full-service and internationalised regional bank. Acting as the regional hub for Southeast Asia and leveraging its competitive edges in capital funding, products, talent, management, services and technology, the Group actively developed an advanced, efficient and integrated regional development and management model, while accelerating improvements in the operational capacity, competitiveness and risk management capabilities of its Southeast Asian institutions. All of these initiatives were designed to enhance the management framework and enrich the quality of business development in order to realise the long-term, sustainable and healthy growth of its Southeast Asian institutions. These institutions aim to gradually become mainstream foreign banks in their local areas, with a focus on serving clients including Chinese enterprises "Going Global" under the Belt and Road initiative, large-scale multinational enterprises and institutions in local areas, overseas Chinese and local high-net-worth individuals.

Accelerating the integration of the Southeast Asian institutions and promoting the transformation and development of regional management

Following the completion of the acquisition of the Philippines Business and Vietnam Business of BOC on 29 January 2018, the Group's operational network now extends to the Southeast Asian countries of Thailand, Malaysia, Vietnam, the Philippines, Indonesia, Cambodia and Brunei. It continued to promote logical integration and stepped up its efforts to improve the management system and mechanism of the Southeast Asian institutions. It also accelerated full integration with the Southeast Asian institutions and strived to enhance the capacity and level of its regional management. Through the implementation of differentiated regional development and management strategies at the front, middle and back offices, the Group gradually improved its regional management model. The Group's frontline units further defined its differentiated regional business positioning and management model, so as to implement integrated operational and management objectives. The middle office units strengthened the internal risk and compliance control of the Southeast Asian institutions in order to effectively improve their overall internal risk control and anti-money laundering capabilities. The back offices enhanced regional management services and resource support in order to enhance the capacity of back office operations across Southeast Asia.

Strengthening the integrated development of regional business and expanding local mainstream markets

Since the start of 2018, the Group's Hong Kong operations have pushed forward the development of business in Southeast Asia and have achieved fruitful results through cooperation with its Southeast Asian institutions. In the corporate banking business, the Group actively promoted the marketing and expansion of the Belt and Road related projects, following the concept of integrated management and on a whitelist basis. It established a regional main relationship manager system to extend its cooperation mechanism between customer relationships and channels. The Group also promoted a regional product management model to expand its competitive products and services from Hong Kong to Southeast Asia and made a concerted effort to launch regional integrated business marketing, product development, and customer relationships management in order to accelerate its regional development. The Group also actively developed its businesses with institutional clients, promoted RMB products and treasury operations. The Manila Branch supported the Central Bank of the Philippines to issue RMB1.46 billion of Panda Bonds in China's interbank bond market. Meanwhile, the Phnom Penh Branch strengthened its collaboration with policy banks to provide project financing for the development of Chinese enterprises in Cambodia. In the personal banking business, the Group continued to strengthen its infrastructure by building its service capabilities in personal financial products and services in Southeast Asia, implementing differentiated management and deploying the appropriate products and personnel to support business development in the region. It also refined its regional management infrastructure to enhance its risk management capabilities. In addition, it strengthened customer positioning and management to optimise its customer mix. With a solid foundation in products and services, the Group strived to expand its scale of business and increase business revenue. BOC Malaysia launched two housing loan insurance products and continued to strengthen the distribution of fund products, which were well received by the market. The Jakarta Branch launched a cross-border RMB direct remittance product and began to set up a personal banking wealth management centre, laying a solid foundation for the sustainable development of its personal banking business. The Ho Chi Minh City Branch actively expanded the employee payroll account business of Chinese enterprises and managed to attract more potential mid- to high-end customers.

The development of the Group's Southeast Asia business achieved satisfactory results in the first half of 2018. Net operating income before impairment allowances of its Southeast Asian institutions* was HK$1,074 million, a growth of 24.4% year-on-year. As of 30 June 2018, deposits from customers and advances to customers amounted to HK$41,581 million and HK$36,350 million respectively, up 7.2% and 11.3% respectively from the end of 2017.

* Specifically the consolidated data of the seven Southeast Asian institutions, prepared in accordance with Hong Kong Financial Reporting Standards.

Adhering to the Three Lines of Defense and Take-the-Most-Stringent-Approach principles to achieve sustainable and healthy development

Adhering to its Three Lines of Defense and Take-the-Most-Stringent-Approach principles, the Group pushed forward the full implementation of its risk management framework and stepped up the construction of the management structure and staffing of its Southeast Asian institutions, in order to ensure high levels of compliance and anti-money laundering management. Also, it comprehensively enhanced its supervision of the Southeast Asian institutions' management of credit risk, internal control and compliance, as well as anti-money laundering, in order to safeguard these institutions' capabilities in related areas, to operate in accordance with the standards stipulated by the Group and to ensure compliance with the regulatory requirements of the HKMA and local regulators.

In conjunction with the Group's implementation of the Southeast Asian Institutional Risk Management Framework, it promoted anti-money laundering management in Southeast Asia through related policies and systems, organisational structure, professional staffing and technological systems, with a special focus on system application. The Group also adopted effective measures to gradually improve the credit policies, credit models, loan approval processes, loan time and post-lending management of its Southeast Asian institutions, and to continuously improve and strengthen the Group's capabilities in regional credit risk management.

Technology and Operations

The Group actively participated in and encouraged the development of innovation and technology, adhering to the concept of "navigated by technology, driven by innovation", while striving to enhance the competitiveness of its e-finance services in order to become a leading digital bank. During the reporting period, the Group strengthened the application of innovative technologies, promoted the construction of big data and internal knowledge sharing platforms and achieved breakthroughs in biometrics and artificial intelligence. It completed a number of big data integration projects that comprehensively strengthened data quality management. The introduction of finger vein authentication services on all branches and ATMs provided customers with more convenient identity authentication options. At the same time, with the support of big data, the Group bolstered its omni-channel infrastructure by introducing a smart branch to promote different smart channels and product innovations. The Group launched a new mobile banking platform featuring new intelligent elements, including support for fingerprint and facial recognition authentication and the introduction of mobile token technology to simplify the identity authentication process. This has brought a new, safe and convenient mobile banking experience to customers, while significantly improving service efficiency and customer experience. As a result of the innovative applications mentioned above, the total number of customers using e-channels, including internet and mobile banking services, continued to rise, alongside a year-on-year increase in the total number of related transactions. The BOCHK WeChat official account, launched last year, grew rapidly in the first half of 2018, with satisfactory growth in the number of bundled customers and active users. Meanwhile, the Group actively promoted the development of Fintech applications in the Hong Kong banking industry. It held the "BOCHK Fintech Hackathon" competition with the theme of "Future Bank and Artificial Intelligence" to explore innovative solutions and identify outstanding Fintech talent. Furthermore, the Group strengthened its cooperation and idea exchanges with various parties involved in innovation research and development, including setting up seminars, innovative research programmes and Fintech talent cultivation schemes. In response to the proposed launch of Faster Payment System, one of the seven initiatives unveiled by the HKMA, the Group has completed the necessary infrastructure to fully support the HKSAR Government's aims of providing green banking services to the market.

In addition, the Group actively promoted strategic cooperation in order to build a digital financial ecosystem. During the reporting period, it opened a new smart branch in Hong Kong Science Park, showcasing the technology innovation of Science Park companies. The Group also worked with Cyberport to replace the traditional counter setting with advanced smart equipment, so as to provide customers with more convenient 24-hour banking services. The Group undertook continuous and extensive cooperation with large internet and telecommunications companies in the field of mobile payment and precision marketing in order to further enrich its e-finance application scenarios. With regard to technology risk and cybersecurity control, the Group responded to the Cybersecurity Fortification Initiative launched by the HKMA by adopting international best practices and continuously improving its technology risk management and cybersecurity capabilities.

With a view to strengthening its IT and operational infrastructure in line with BOC Group's global IT strategic deployment, the Group completed the system integration project with BOC Group, thus establishing a foundation for the Group's goal of building a top-class, full-service and internationalised regional bank. Putting customers in first consideration, the Group completed the system upgrade within the expected timeframe, with operations running smoothly afterwards. In support of its Southeast Asia development strategy, the Group pushed forward the integration of its Southeast Asian operations in order to enhance the overall operational efficiency and operational risk control of the Group.

In recognition of its innovation achievements in technology and IT development, BOCHK was recognised as Excellent Brand of FinTech-Banking in the Hong Kong Leaders' Choice Brand Awards 2018, organised by Metro Finance. In the 13th Retail Banking Awards, organised by *Asian Banking & Finance*, BOCHK received the Service Innovation of the Year – Hong Kong award for the first time, the Mobile Banking Initiative of the Year – Hong Kong award for the fourth consecutive year and the Digital Banking Initiative of the Year – Hong Kong award for the third consecutive year. The Group's blockchain application for mortgage valuation process won the Fintech Initiatives Award at the Shenzhen-Hong Kong Fintech Awards, jointly organised by the HKMA and the People's Government of Shenzhen Municipality.

RISK MANAGEMENT

Banking Group

Overview

The Group believes that sound risk management is crucial to the success of any organisation. In its daily operation, the Group attaches a high degree of importance to risk management and emphasises that a balance must be struck between risk control and business development. The principal types of risk inherent in the Group's businesses are credit risk, interest rate risk, market risk, liquidity risk, operational risk, reputation risk, legal and compliance risk, and strategic risk. The Group's risk management objective is to enhance shareholder value by maintaining risk exposures within acceptable limits. The Group has a defined risk appetite statement approved by the Board, which is an expression of the types and level of risk that the Group is willing to take in a controllable way in order to achieve its business goals and to meet the expectations of its stakeholders.

Risk management governance structure

The Group's risk management governance structure is designed to cover all business processes and ensures various risks are properly managed and controlled in the course of conducting business. The Group has a robust risk management organisational structure with a comprehensive set of policies and procedures to identify, measure, monitor and control various risks that may arise. These risk management policies and procedures are regularly reviewed and updated to reflect changes in markets and business strategies. Various groups of risk takers assume their respective responsibilities for risk management.

The Board of Directors, representing the interests of shareholders, is the highest decision-making authority of the Group and has the ultimate responsibility for risk management. The Board, with the assistance of its committees, has the primary responsibility for the formulation of risk management strategies and ensuring that the Group has an effective risk management system to implement these strategies.

The Risk Committee ("RMC"), a standing committee established by the Board of Directors, is responsible for overseeing the Group's various types of risks, approving Level I risk management policies and monitoring their implementation, reviewing significant or high risk exposures or transactions and exercising its power of veto if it considers that any transaction should not proceed. The Audit Committee assists the Board in fulfilling its role in overseeing the internal control system.

The Chief Executive ("CE") is responsible for managing the Group's various types of risks, and approving material risk exposures or transactions within his authority delegated by the Board of Directors. The Deputy Chief Executives ("DCEs") assist the CE in fulfilling his responsibilities on the day-to-day management of various types of risk, and are responsible for approving material risk exposures or transactions within their authorities delegated by the CE. The Chief Risk Officer ("CRO") assists the CE in fulfilling his responsibilities for the day-to-day management of risks. The CRO is responsible for initiating new risk management strategies, projects and measures in response to regulatory changes that will enable the Group to better monitor and manage any risks that may arise from time to time from new businesses, products and changes in the operating environment. The CRO is also responsible for reviewing material risk exposures or transactions within his delegated authority. In accordance with the principle of setting the hierarchy of risk management policies approved by the Board, senior management are also responsible for approving the detailed risk management policies of their responsible areas.

Various units of the Group have their respective risk management responsibilities. Business units act as the first line of defence while risk management units, which are independent from the business units, are responsible for the day-to-day management of different kinds of risks. Risk management units have the primary responsibilities for drafting, reviewing and updating various risk management policies and procedures.

The Group's principal banking subsidiaries are subject to risk management policies that are consistent with those of the Group. Moreover, the Group's non-banking subsidiaries, such as BOC Life, are subject to the Group's risk management requirements. These subsidiaries are required to formulate their respective risk management policies based on the characteristics of their own industries, perform daily risk management responsibilities and report to BOCHK on a regular basis. Risk management units of BOCHK monitor the risk management status of these subsidiaries.

Credit risk management

Credit risk is the risk of loss that a customer or counterparty is unable to or unwilling to meet its contractual obligations. Credit risk exists in the trading book and banking book, as well as from on- and off-balance sheet transactions of the Group. It arises principally from lending, trade finance and treasury businesses. The Chief Credit Officer, who reports directly to the CRO, takes charge of credit risk management and is also responsible for the control of credit risk exposures of subsidiaries in line with the credit risk management principles and requirements set by the Group.

For advances, different credit approval and control procedures are adopted according to the level of risk associated with the customer, counterparty or transaction. The Credit Risk Assessment Committee, comprising experts from credit and other functions, is responsible for making an independent assessment of material credit applications which require the approval of DCEs or above. Credit applications for non-retail exposures are independently reviewed and objectively assessed by risk management units. Obligor ratings (in terms of probability of default) and facility ratings (in terms of loss given default) are assigned to these portfolios to support credit approval. Retail internal rating systems are deployed in the risk assessment of retail credit transactions, including small business retail exposures, residential mortgage loans, personal loans and credit cards. Loan grades, obligor and facility ratings as well as loss estimates (if applicable) are used to support credit approval.

The Group also uses loan grades, obligor ratings and loss estimates (if applicable) to support credit monitoring, reporting and analysis of credit risk information. For non-retail exposures, more frequent rating review and closer monitoring are required for higher-risk customers. For retail exposures, monthly updated internal ratings and loss estimates are used for credit monitoring on a portfolio basis. More comprehensive review is required for obligors being identified under high-risk pools. The Group adopts loan grading criteria which divides credit assets into five categories with reference to the HKMA's guidelines. The Risk Management Department ("RMD") provides regular credit management information reports and ad hoc reports to the Management Committee ("MC"), RMC and Board of Directors to facilitate their continuous monitoring of credit risk. In addition, the Group identifies credit concentration risk by industry, geography, customer and counterparty. The Group monitors changes to counterparty credit risk, quality of the credit portfolio and credit risk concentrations, and reports regularly to the Group's Management.

The Group employs an internal master rating scale that can be mapped to Standard & Poor's external credit ratings. The structure of internal master rating scale is in compliance with the requirement of the Banking (Capital) Rules under the Hong Kong Banking Ordinance.

For investments in debt securities and securitisation assets, the obligor ratings or external credit ratings, assessment of the underlying assets and credit limits setting on customer/security issuer basis are used for managing credit risk associated with the investment. For derivatives, the Group sets customer limits to manage the credit risk involved and follows the same approval and control processes as applied for advances. On-going monitoring and stop-loss procedures are established. The methodology and assumptions used for impairment assessments are reviewed regularly.

Market risk management

Market risk refers to the risk of loss arising from movements in the value of foreign exchange, interest rate, equity and commodity positions held by the Group due to the volatility of financial market price (foreign exchange rate, interest rate, equity price, commodity price). The Group adopts a moderate market risk appetite to achieve a balance between risk and return. The Group's objective in managing market risk is to secure healthy growth of the treasury business, by effective management of potential market risk in the Group's business, according to the Group's overall risk appetite and strategy of treasury business on the basis of a well-established risk management regime and related management measures.

In accordance with the Group's corporate governance principles in respect of risk management, the Board and RMC, senior management and functional departments/units perform their duties and responsibilities to manage the Group's market risk. The RMD is mainly responsible for managing market risk, assisting senior management to perform their day-to-day duties, independently monitoring the market risk profile and compliance of management policies and limits of the Group and BOCHK, and ensuring that the aggregate and individual market risks are within acceptable levels.

The Group's market risk management covers BOCHK and its subsidiaries. The Group establishes market risk management policies to regulate BOCHK's and subsidiaries' market risk management; meanwhile, the Group sets up the Group VAR and stress test limits, which are allocated and monitored across the Group according to the business requirements and risk tolerance levels. In line with the requirements set in the Group policy, the subsidiaries formulate the detailed policies and procedures and are responsible for managing their daily market risk.

The Group sets up market risk indicators and limits to identify, measure, monitor and control market risk. Major risk indicators and limits include but are not limited to VAR, Stop Loss, Open Position, Stress Testing and Sensitivity Analysis (Basis Point Value, Greeks), etc. To meet management requirements, major risk indicators and limits are classified into four levels, and are approved by the RMC, MC, CRO and the DCE in charge of the treasury business or the head of the respective business unit respectively. Treasury business units of BOCHK and subsidiaries (as for Group Limit) are required to conduct their business within approved market risk indicators and limits.

The Group uses the VAR to measure and report general market risks to the RMC and senior management on a periodic basis. The Group adopts a uniformed VAR calculation model, using a historical simulation approach and two years of historical market data, to calculate the VAR of the Group and subsidiaries over a one-day holding period with a 99% confidence level, and sets up the VAR limit of the Group and subsidiaries.

The Group adopts back-testing to measure the accuracy of VAR model results. The back-testing compares the calculated VAR figure of market risk positions of each business day with the actual and hypothetical gains or losses arising from those positions on the next business day. Generally speaking, the number of back-testing exceptions in a rolling 12-month period will not exceed four times, given a 99% confidence level.

Interest rate risk management

Interest rate risk means the risks to a bank's earnings and economic value arising from movements in interest rate and term structures of the bank's asset and liability positions. The Group's interest rate risk exposures are mainly structural. The major types of interest rate risk from structural positions are:

- Repricing risk: mismatches in the maturity or repricing periods of assets and liabilities that may affect net interest income;
- Basis risk: different pricing basis for different transactions resulting that the yield on assets and cost of liabilities may change by different amounts within the same repricing period;
- Yield curve risk: non-parallel shifts in the yield curve that may have an adverse impact on net interest income or economic value; and
- Option risk: exercise of the options embedded in assets, liabilities or off-balance sheet items that can cause a change in the cash flows of assets and liabilities.

The Group's risk management framework applies also to interest rate risk management. The Asset and Liability Management Committee ("ALCO") exercises its oversight of interest rate risk in accordance with the "BOCHK Group Banking Book Interest Rate Risk Management Policy" approved by the RMC. RMD (Interest Rate and Liquidity Risk Management) is responsible for interest rate risk management. With the cooperation of the Asset and Liability Management Division of Financial Management Department, Treasury, and Investment Management, RMD assists the ALCO to perform day-to-day interest rate risk management. Its roles include, but are not limited to, the formulation of management policies, selection of methodologies, setting of risk indicators and limits, assessment of target balance sheet, monitoring of the compliance with policies and limits, and submission of interest rate risk management reports to the senior management and RMC, etc.

The Group sets out interest rate risk indicators and limits to identify, measure, monitor and control interest rate risk. The indicators and limits include, but are not limited to, repricing gap limits, basis risk, duration, price value of a basis point ("PVBP"), Greeks, net interest income sensitivity ratio ("NII"), economic value sensitivity ratio ("EV"), etc. The indicators and limits are classified into different levels, which are approved by the CFO and CRO, ALCO, RMC accordingly. Risk-taking business units are required to conduct their business within the boundary of the interest rate risk limits. Before launching a new product or business in the banking book, the relevant departments are required to go through a risk assessment process, which includes the assessment of underlying interest rate risk and consideration of the adequacy of current risk monitoring mechanism. Any material impact on interest rate risk noted during the risk assessment process will be submitted to the RMC for approval.

NII and EV assess the impact of interest rate movement on the Group's net interest income and capital base. They are the Group's key interest rate risk indicators. The former assesses the impact of interest rate movement on net interest income as a percentage to the projected net interest income for the year. The latter assesses the impact of interest rate movement on economic value (i.e. the net present value of cash flows of assets, liabilities and off-balance sheet items discounted using market interest rate) as a percentage to the latest capital base. Limits are set by the RMC on these two indicators to monitor and control the Group's banking book interest rate risk.

The Group uses scenario analyses and stress tests to assess the banking book interest rate risk that the Group would face under adverse circumstances. Scenario analyses and stress tests are also used to assess the impact on net interest income and economic value arising from the optionality of savings deposits, the prepayment of mortgage loans and the prepayment of debt securities with embedded options.

Liquidity risk management

Liquidity risk is the risk that banks may not be able to obtain sufficient and timely funding at reasonable cost to meet their obligations as they fall due. The Group maintains sound liquidity risk appetite to provide stable, reliable and adequate sources of cash to meet liquidity needs under normal circumstances or stressed scenarios; and to survive with net positive cumulative cash flow in extreme scenarios, without requesting the HKMA to act as the lender of last resort.

The Group's liquidity risk management objective is to effectively manage the liquidity of on- and off-balance sheet items with reasonable cost based on the liquidity risk appetite to achieve sound operation and sustainable profitability. Deposits from customers are the Group's primary source of funds. To ensure stable and sufficient source of funds are in place, the Group actively attracts new deposits, keeps the core deposit and obtains supplementary funding from the interbank market and by issuing bills in the capital market. According to different term maturities and the results of funding needs estimated from stressed scenarios, the Group adjusts its asset structure (including loans, bonds investment, interbank placement, etc.) to maintain sufficient liquid assets which provides adequate funds in support of normal business needs and ensure its ability to raise funds at a reasonable cost to serve external claims in case of emergency. The Group is committed to diversify the source of funds and the use of funds to avoid excessive concentration of assets and liabilities and prevent triggering liquidity risk due to the break of funding strand when problem occurred in one concentrated funding source. The Group has established intra-group liquidity risk management guideline to manage the liquidity funding among different entities within the Group, and to restrict their reliance of funding on each other. The Group also pays attention to manage liquidity risk created by off-balance sheet activities, such as loan commitments, derivatives, options and other complex structured products. The Group has an overall liquidity risk management strategy to cover the liquidity management of foreign currency assets and liabilities, collateral, intra-day liquidity, intra-group liquidity, the liquidity risk arising from other risks, etc., and has formulated corresponding contingency plan.

The RMC is the decision-making authority of liquidity risk management, and assumes the ultimate responsibility of liquidity risk management. As authorised by the RMC, ALCO exercises its oversight of liquidity risk and ensures the daily operations of the Group are in accordance with risk appetite and policies as set by the RMC. RMD (Interest Rate and Liquidity Risk Management) is responsible for overseeing the Group's liquidity risk. It cooperates with the Asset and Liability Management Division of Financial Management Department, Treasury, and Investment Management, etc. to assist the ALCO to perform liquidity management functions according to their specific responsibilities.

The Group established liquidity risk management indicators and limits to identify, measure, monitor and control liquidity risk on daily basis. These indicators and limits include, but are not limited to liquidity coverage ratio ("LCR"), net stable funding ratio ("NSFR"), loan-to-deposit ratio, Maximum Cumulative Cash Outflow ("MCO") and liquidity cushion. The Group applies cash flow analysis to assess the Group's liquidity condition under normal conditions and also performs a liquidity stress test (including institution specific, general market crisis and combined crisis) and other methods at least on monthly basis to assess the Group's capability to withstand various severe liquidity crises. Also, relevant management information systems such as Assets and Liabilities Management System and Basel Liquidity Ratio Management System are developed to provide data and the preparation for regular management reports to facilitate liquidity risk management duties.

In accordance with the requirements of Supervisory Policy Manual LM-2 "Sound Systems and controls for Liquidity Risk Management" issued by the HKMA, the Group has implemented behaviour model and assumptions of cash flow analysis and stress test to enhance the Group's cash flow analysis under both normal and stressed conditions. In cash flow analysis under normal circumstances, assumptions have been made relating to on-balance sheet items (such as deposits from customers) and off-balance sheet items (such as loan commitments). According to various characteristics of the assets, liabilities and off-balance sheet items, the Group forecasts the future cash flow based on contractual maturity date and the assumptions of customer behaviour and balance sheet changes. The Group establishes MCO indicator which predicts the future 30 days maximum cumulative net cash outflow in normal situations based on the above assumptions, to assess if the Group has sufficient financing capacity to meet the cash flow gap in order to achieve the objective of continuing operation.

In the liquidity stress test, institution specific, general market crisis and combined crisis scenarios have been set up, combined crisis scenario is a combination of institution specific and general market crisis to assess the Group's capability to withstand a more severe liquidity crisis, with a more stringent set of assumptions being adopted. Stress test assumptions include the run-off rate of retail, wholesale and interbank deposits; drawdown rate of loan commitments and trade-related contingent liabilities; delinquency ratio and rollover rate of customer loans; and haircut of interbank placement and marketable securities. As at 30 June 2018, the Group was able to maintain a net cash inflow under the three stressed scenarios, indicating the Group has the ability to meet financing needs under stressed conditions. In addition, the Group has a policy in place to maintain a liquidity cushion which includes high quality or comparable quality marketable securities issued or guaranteed by sovereigns, central banks, public sector entities or multilateral development banks with 0% or 20% risk weight or marketable securities issued by non-financial corporate with a corresponding external credit rating of A- or above to ensure funding needs even under stressed scenarios. A contingency plan is being established which details the conditions to trigger the plan based on stress test results and early warning indicators, the action plans and relevant procedures and responsibility of relevant departments.

The LCR is calculated in accordance with the Banking (Liquidity) Rules effective from 1 January 2015, the Group, being classified as category 1 authorised institution by the HKMA, is required to calculate LCR on consolidated basis. During the year of 2018, the Group is required to maintain a LCR not less than 90%.

The NSFR is calculated in accordance with the Banking (Liquidity) (Amendment) Rules 2017 effective from 1 January 2018, the Group, being classified as category 1 authorised institution by the HKMA, is required to calculate NSFR on consolidated basis and maintain a NSFR not less than 100%.

In certain derivative contracts, the counterparties have right to request from the Group additional collateral if they have concerns about the Group's creditworthiness.

The Group's liquidity risk management also covers new products or business developments. Before launching a new product or business, the relevant departments are required to go through a risk assessment process, which includes the assessment of underlying liquidity risk and consideration of the adequacy of the current risk management mechanism. Any material impact on liquidity risk noted during the risk assessment process will be reported to the RMC for approval.

The Group has established a set of uniform liquidity risk management policies which serve as standards and guidance to all the Group's members for liquidity risk management. On the basis of the Group's uniform policy, each of the subsidiaries develops its own liquidity management policies according to its own characteristics, and assumes its own liquidity risk management responsibility. Subsidiaries are required to report their respective liquidity positions on a regular basis to RMD (Interest Rate and Liquidity Risk Management) of BOCHK, which consolidates this information and evaluates group-wide liquidity risk.

Operational risk management

Operational risk is the risk of loss resulting from inadequate or failed internal process, people and system, or from external events. The risk is inherent in every aspect of business operations and confronted by the Group in its day-to-day operational activities.

The Group has implemented the "Three Lines of Defence" for its operational risk management. All departments or functional units as the first line of defence are the first parties responsible for operational risk management, and carry out the duties and functions of self risk control in the process of business operation through self assessment and self enhancement. The Legal & Compliance and Operational Risk Management Department ("LCO"), together with certain specialist functional units in relation to operational risk management within the Group, including the Human Resources Department, Information Technology Department, Corporate Services Department, Financial Crime Compliance Department, Financial Management Department, Treasury and General Accounting & Accounting Policy Department (collectively known as "specialist functional units"), are the second line of defence. They are responsible for assessing and monitoring the operational risk conditions in the first line of defence, and providing them with guidance. The LCO, being independent from the business units, is responsible for assisting the Management in managing the Group's operational risk, including the establishment and review of the operational risk management policy and framework, designing the operational risk management tools and reporting mechanism, and assessing and reporting the overall operational risk position to the Management and RMC. Specialist functional units are required to carry out their managerial duties of the second line of defence with respect to some specific aspects of operational risk and its related issues. Besides taking charge of operational risk management in their own units, these units are also required to provide other units with professional advice/training in respect of certain operational risk categories and to lead the group-wide operational risk management. Group Audit is the third line of defence which provides independent assessment to the effectiveness and adequacy of the operational risk management framework and is required to conduct periodic audit of the operational risk management activities of various departments or functional units within the Group regarding their compliance and effectiveness and to put forward recommendations for remedial actions.

The Group has put in place an effective internal control process which requires the establishment of policies and control procedures for all the key activities. The Group adheres to the fundamental principle of proper segregation of duties and authorisation. The Group adopts various operational risk management tools or methodologies such as key risk indicators, self-assessment, operational risk events reporting and review to identify, assess, monitor and control the risks inherent in business activities and products, as well as purchase of insurance to mitigate unforeseeable operational risks. Business continuity plans are established to support business operations in the event of an emergency or disaster. Adequate backup facilities are maintained and periodic drills are conducted.

Reputation risk management

Reputation risk is the risk that negative publicity about the Group's business practices, whether genuine or not, will cause a potential decline in the customer base, or lead to costly litigation or revenue decrease. Reputation risk is inherent in other types of risk and every aspect of business operation and covers a wide spectrum of issues.

In order to mitigate reputation risk, the Group has formulated and duly followed its Reputation Risk Management Policy. The policy aims to identify and prevent reputation risk proactively at an early stage when an incident occurs. Since reputation risk is often caused by various types of operational and strategic issues that negatively impact the trust and perception of the Group, all operational and key risks identified are assessed through the established Key Control Self-Assessment framework, including risk assessment tools, to evaluate the severity of their impact on the Group, including the damage to reputation.

In addition, the Group has put in place a comprehensive framework to continuously monitor reputation risk incidents in the financial industry. This continuous monitoring enables the Group to effectively manage, control and mitigate any potential adverse impact from an incident. The Group also adopts robust disclosure practices to keep our stakeholders informed at all times, which helps build confidence in the Group and establish a strong public image.

Legal and compliance risk management

Legal risk is the risk that unenforceable contracts, lawsuits or adverse judgments may disrupt or otherwise negatively affect the operations or financial conditions of the Group. Compliance risk is the risk of legal or regulatory sanctions, financial losses or losses in reputation the Group may suffer as a result of its failure to comply with applicable laws and regulations. Legal and compliance risks are managed by the LCO, while the risks related to money laundering, terrorist financing and relevant financial crime including bribery and corruption are independently managed and controlled by the Financial Crime Compliance Department ("FCC"). Both LCO and FCC report directly to the CRO. As part of the Group's corporate governance framework, the policies for the management of legal and compliance risks, and money laundering, terrorist financing and financial crime compliance risks are approved by the RMC as delegated by the Board.

Strategic risk management

Strategic risk generally refers to the risks that may cause current or future negative impacts on the earnings, or capital or reputation or market position of the Group because of poor business decisions, improper implementation of strategies and inadequacies in the response to the changing market condition. The Board reviews and approves the strategic risk management policy. Key strategic issues have to be fully evaluated and properly endorsed by the senior management and the Board.

The Group regularly reviews its business strategies to cope with the latest market situation and developments.

Capital management

The major objective of the Group's capital management is to maximise total shareholders' return while maintaining a capital adequacy position in relation to the Group's overall risk profile. The Asset and Liability Management Committee ("ALCO") periodically reviews the Group's capital structure and adjusts the capital mix where appropriate to maintain an optimal balance among risk, return and capital adequacy.

To comply with the HKMA's requirements as stated in the Supervisory Policy Manual "Supervisory Review Process", the Group adopts the internal capital adequacy assessment process ("ICAAP") and reviews it annually. Based on the HKMA's guidelines on Pillar II, ICAAP has been initiated to assess the extra capital needed to cover the material risks not captured or not adequately captured under Pillar I, and therefore minimum Common Equity Tier 1 capital ratio, minimum Tier 1 capital ratio and minimum Total capital ratio are determined. Meanwhile, operating ranges for the aforementioned capital ratios have also been established which enable the flexibility for future business growth and efficiency of capital utilisation.

Stress testing

The Group supplements the analysis of various types of risks with stress testing. Stress testing is a risk management tool for estimating risk exposures under stressed conditions arising from extreme but plausible market or macroeconomic movements. These tests are conducted on a regular basis by the Group's various risk management units in accordance with the principles stated in the Supervisory Policy Manual "Stress-testing" published by the HKMA. The ALCO monitors the results against the key risk limits approved by the RMC. The Financial Management Department reports the combined stress test results of the Group to the Board and RMC regularly.

BOC Life

BOC Life's principal business underwrites long-term insurance business in life and annuity (Class A), linked long term business (Class C), permanent health (Class D), retirement scheme management category I (Class G) and retirement scheme management category III (Class I) in

Hong Kong. Major types of risk arising from BOC Life's insurance business are insurance risk, interest rate risk, liquidity risk, credit risk, equity price risk and currency risk. BOC Life closely monitors these risks and reports to its Risk Management Committee on a regular basis. Furthermore, BOC Life has regular communication with the Group to ensure consistency with the Group's risk management strategy. The key risks of its insurance business and related risk control process are as follows:

Insurance risk management

BOC Life is in the business of insuring against the risk of mortality, morbidity, disability, critical illness, accidents and related risks. These risks are managed through the application of underwriting strategy and reinsurance arrangements.

The underwriting strategy is intended to set premium pricing at an appropriate level that corresponds with the underlying exposure of the risks underwritten and BOC Life's underwriting procedures include the screening processes, such as the review of health condition and family medical history, to ensure alignment with the underwriting strategy.

The reinsurance arrangement transfers the insurance risk associated with the insurance contracts to the third party. It does not, however, discharge BOC Life's liability as the primary insurer. If a reinsurer fails to pay a claim for any reasons, BOC Life remains liable for the payment to the policyholder. The creditworthiness of reinsurers is considered by reviewing the reinsurers' financial strength prior to finalisation of any reinsurance contract. BOC Life directs its reinsurance placement policy and assesses the creditworthiness of all reinsurers and intermediaries by reviewing credit grades provided by rating agencies and other publicly available financial information. BOC Life also monitors the reinsurance counterparty risk exposure on an ongoing basis.

For details of the Group's Insurance Risk Management, please refer to Note 3.4 to the Interim Financial Information.

Interest rate risk management

An increase in interest rates may result in the depreciation of the value of BOC Life's investment assets. A decrease in interest rates may result in an increase in insurance liability and customer dissatisfaction due to decrease in returns. BOC Life manages the matching of assets and liabilities of its portfolios within an asset liability management framework that has been developed to achieve investment returns that match its obligations under insurance contracts; and to manage the adverse impact due to interest rate movement.

Liquidity risk management

BOC Life's liquidity risk is the risk of not being able to meet obligations as they fall due. BOC Life's asset and liability management framework includes cash flow management to preserve liquidity to match policy payout from time to time.

Credit risk management

BOC Life has exposure to credit risk that a customer, debtor or counterparty will be unable to or unwilling to meet a commitment that they have entered into. Key areas to which BOC Life's insurance business is exposed include:

- Default risk associated with bonds, notes and counterparties
- Credit spread widening as a result of credit migration (downgrade)
- Reinsurers' share of insurance unpaid liabilities
- Amounts due from reinsurers in respect of claims already paid
- Amounts due from insurance contract holders
- Amounts due from insurance intermediaries

BOC Life manages credit risk by placing limits on its exposure to each investment counterparty and issuer. Such limits are subject to review by the Management at least once a year.

Equity price risk management

BOC Life's equity price risk refers to the risk of loss due to volatility of market price in equity securities, equity funds, private equity and real asset. BOC Life's asset and liability framework includes managing the adverse impact due to equity price movement through stress test and exposure limit.

Currency risk management

BOC Life's currency risk refers to the risk of loss due to volatility of exchange rate. BOC Life's asset and liability framework includes managing the adverse impact due to exchange rate movement through stress test, exposure limit and risk limit.