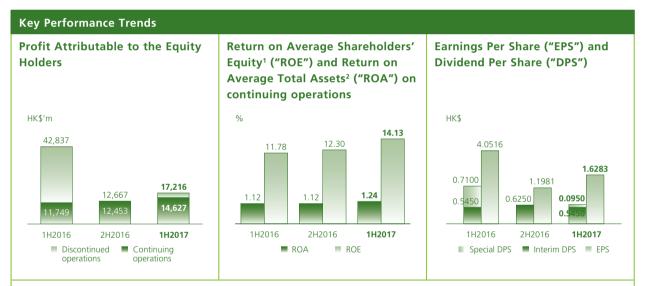
As a result of the disposal of Chiyu, the Group reported the operating results of Chiyu as profit from discontinued operations in the condensed consolidated income statement with comparative information restated. Assets and liabilities of Chiyu as at 31 December 2016 were presented separately as assets held for sale and liabilities associated with assets held for sale in the condensed consolidated balance sheet. Certain comparative figures in this Management's Discussion and Analysis have been restated to conform with the current period's presentation.

Following the completion of the share acquisition of Bank of China (Malaysia) Berhad ("BOC Malaysia") and Bank of China (Thai) Public Company Limited ("BOC Thailand") on 17 October 2016 and 9 January 2017 respectively, the Group has applied the merger accounting method in the preparation of financial statements for the combination with entities under common control. The comparative information for the year 2016 has been restated accordingly.

The above transactions are collectively referred as the "disposal and acquisitions" in this Management's Discussion and Analysis.

## FINANCIAL PERFORMANCE AND CONDITION AT A GLANCE

The following table is a summary of the Group's key financial results for the first half of 2017 in comparison with the previous two half-yearly periods. The average value of the liquidity coverage ratio is reported on a quarterly basis.



### Profit attributable to the equity holders

• The Group's profit attributable to the equity holders in the first half of 2017 amounted to HK\$17,216 million. Profit attributable to the equity holders from continuing operations increased by 24.5% year-on-year to HK\$14,627 million. Profit attributable to the equity holders from discontinued operations was HK\$2,589 million, which mainly accounted for the gain on the disposal of Chiyu.

### Solid returns to shareholders

- ROE was 13.72%. ROE on continuing operations was 14.13%, up 2.35 percentage points year-on-year.
- ROA was 1.33%. ROA on continuing operations was 1.24%, up 0.12 percentage point year-on-year.
- EPS was HK\$1.6283. The interim dividend per share was HK\$0.545 and the special dividend was HK\$0.095 per share.



### Loan to deposit ratio at a healthy level

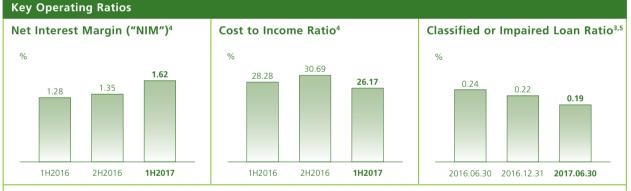
• Advances to customers and deposits from customers grew by 12.9% and 9.3% respectively from the end of 2016, outperforming market growth. The loan to deposit ratio was 66.78%, up 2.12 percentage points from 64.66% at the end of 2016.

#### Strong capital position to support business growth

• Tier 1 capital ratio was 17.66%, down 0.03 percentage point from that at the end of 2016. Total capital ratio was 21.76%.

#### Sound liquidity position

• Average value of liquidity coverage ratio in the first and second quarter of 2017 was 121.41% and 123.88% respectively, well above the regulatory requirement.



#### Significant improvement in NIM

• NIM was 1.62%, up 34 basis points year-on-year.

#### Cautious cost control with better operational efficiency

• The cost to income ratio was 26.17%, improved 2.11 percentage points year-on-year, putting cost efficiency at a relatively good level in the industry.

#### Asset quality remained benign with classified or impaired loan ratio below market average

• The classified or impaired loan ratio was 0.19%, well below the market average.

- ROE on continuing operations is calculated by dividing profit attributable to the equity holders from continuing operations by the average of the beginning
  and ending balance of capital and reserves attributable to the equity holders that excludes the impact of profit attributable to the equity holders from
  discontinued operations and special dividend paid.
- 2. ROA on continuing operations is calculated by dividing profit for the period from continuing operations by the daily average balance of total assets excluding those of discontinued operations.
- 3. The financial information for the year 2017 and 2016 excludes assets held for sale and liabilities associated with assets held for sale. The Group has applied the merger accounting method in the preparation of financial statements for the combination with entity under common control in 2017. The comparative information for 31 December 2016 has been restated accordingly. However, the financial information for 30 June 2016 had not been restated as the difference before and after restatement is insignificant.

4. The financial information for the year 2017 is from continuing operations, and the comparative information for 2016 has been restated accordingly.

5. Classified or impaired loans represent advances which are either classified as "substandard", "doubtful" or "loss" under the Group's classification of loan quality, or individually assessed to be impaired.

### ECONOMIC BACKGROUND AND OPERATING ENVIRONMENT

In the first half of 2017, there were no signs of notable improvement in a global economy of subdued growth. In the US, the economy continued to grow modestly in anticipation by the market of rising investment and consumption sentiment owing to a fiscal stimulus from the policy reform under the new administration. The US Federal Reserve continued to normalise its stance on monetary policy with the rise in the federal funds target rate in March and June. In Europe, the European Central Bank maintained an easing monetary policy, providing support to stable economic expansion in the Eurozone. In ASEAN, economic growth remained on track. The recovery of the advanced economies and commodity prices, together with increased infrastructure investments in certain countries helped boost industrial production and export growth. In the Mainland of China, growth continued to stabilise with the upward momentum in fixed asset investments, retail sales, imports and exports remaining largely steady.

In Hong Kong, real GDP growth in the first half of 2017 was 4.0% over the same period last year although inbound tourism and retail sales were hindered by structural adjustments. However, there was gradual stabilisation in the global and Mainland economies. Merchandise trade and the labour market recorded improvements. These trends, coupled with rising asset prices, provided strong support to local consumption and the overall economic performance of Hong Kong. In the first half of 2017, the local residential property market was relatively buoyant as transaction volumes and property prices rose, prompting the Government to introduce additional corrective measures. These included the tightening of the stamp duty mechanism and a new round of prudential measures on property mortgage loans to strengthen banks' risk management.

There was abundant liquidity in the Hong Kong banking sector overall but market interest rates rose in line with the US interest rate hike. The average 1-month HIBOR and 1-month LIBOR rose from 0.25% and 0.44% respectively in the first half of 2016 to 0.47% and 0.94% respectively in the first half of 2017.

The offshore RMB business in Hong Kong continued to grow steadily in the first half of 2017. A number of initiatives were introduced to promote capital account convertibility and the internationalisation of the RMB. These included expanding the Free Trade Zones ("FTZs") in seven provinces including Henan, Hubei, Sichuan, Zhejiang, Liaoning, Shanxi and Chongqing; allowing offshore institutional investors to engage in derivative businesses in RMB against foreign currencies with eligible onshore financial institutions; and the launching of Bond Connect. As a result of these initiatives, development opportunities opened up for the financial industry and offshore RMB business in Hong Kong, further reinforcing Hong Kong's position as the major offshore RMB centre.

In the first half of 2017, global economic growth stayed in a low-growth trajectory, while uncertainties over the global political and economic environment, rising trade protectionism, prevailing low interest rates and intensifying market competition created challenges for operations and development of banks in Hong Kong. Nevertheless, these challenges were accompanied by opportunities. New growth drivers for the development of banks in Hong Kong included the enormous demand for infrastructure financing from the Belt and Road Initiative; the demand for financial services arising from the expanded supply-side reforms, industrial upgrades and technological innovation; the launch of Bond Connect; the developing framework of the Guangdong-Hong Kong-Macau Bay Area; the stabilisation of the offshore RMB market; the rising demand for overseas assets deployment from Mainland corporates and individual investors; and Hong Kong's stronger role as a super-connector owing to its membership in the Asian Infrastructure Investment Bank.

### **CONSOLIDATED FINANCIAL REVIEW**

The comparative information for the first and second half of 2016 has been restated as a result of the Group's disposal and acquisitions.

### **Financial Highlights**

|  | Half-year ended | (Restated)<br>Half-year ended | (Restated)<br>Half-year ended |
|--|-----------------|-------------------------------|-------------------------------|
| HK\$'m   | 30 June 2017    | 31 December 2016              | 30 June 2016                  |
| FROM CONTINUING OPERATIONS                         |                 |                               |                               |
| Net operating income before impairment allowances  | 23,324          | 21,411                        | 20,511                        |
| Operating expenses                                 | (6,105)         | (6,570)                       | (5,801)                       |
| Operating profit before impairment allowances      | 17,219          | 14,841                        | 14,710                        |
| Operating profit after impairment allowances       | 16,866          | 14,769                        | 14,196                        |
| Profit before taxation                             | 17,785          | 15,105                        | 14,349                        |
| Profit attributable to the equity holders of       |                 |                               |                               |
| the Company  | 17,216          | 12,667                        | 42,837                        |
| <ul> <li>from continuing operations</li> </ul>     | 14,627          | 12,453                        | 11,749                        |
| <ul> <li>– from discontinued operations</li> </ul> | 2,589           | 214                           | 31,088                        |

In the first half of 2017, the Group adhered to the BOC Group's strategic goal of "Serving Society and Delivering Excellence", and seized market opportunities for development, while effectively responding to the complex operating environment. As a result, the Group achieved satisfactory performance in its core business areas with key financial indicators remaining at solid levels. During the review period, the Group cultivated the local market in Hong Kong and increased collaboration with BOC and strengthened its cross-border business development. At the same time, it accelerated the implementation of its regional development plan and conducted the restructuring of its ASEAN business in an orderly manner. Additionally, the Group sharpened its competitive edge in the financial market business, gathered pace in business diversification and improved the development of key business platforms. It also continued to deepen the channel integration and make advances in financial technology ("FinTech") and introduced more intelligent services and products to support business growth. To ensure its sustainable and healthy development, the Group further strengthened its risk management, internal controls and compliance management.

During the period, the Group stepped up its regional development strategy and carried out the restructuring of its assets in an orderly manner with the completion of the disposal of Chiyu on 27 March 2017. The Group also steadily pushed forward the restructuring of its business in the ASEAN region and completed the share acquisition of BOC Thailand on 9 January 2017. On 28 February 2017, it entered into Asset Purchase Agreements with BOC in relation to the acquisition of the Indonesia Business and the Cambodia Business respectively. The completion of the acquisition of the Indonesia Business subsequently took place on 10 July. The Group further refined the management system and mechanism of its ASEAN entities, while continuing to integrate its operations and promote collaboration for further regional synergy.

In the first half of 2017, profit attributable to the equity holders amounted to HK\$17,216 million. Profit attributable to the equity holders from continuing operations amounted to HK\$14,627 million, an increase of HK\$2,878 million, or 24.5%, year-on-year. Net operating income before impairment allowances was HK\$23,324 million, up HK\$2,813 million, or 13.7%, year-on-year, mainly contributed by the growth in net interest income resulting from the expansion in average interest-earning assets and the rise in net interest margin. Net fee and commission income grew slightly. The decrease in net trading gain in the first half of 2017, resulting from the net loss in foreign exchange swap contracts, partially offset the above-mentioned growth. Operating expenses rose to

support the Group's long-term business expansion. The net charge of loan impairment allowances dropped yearon-year, due to the net reversal of individually assessed impairment allowances following loan repayments by customers. Moreover, a higher net gain from fair value adjustments on investment properties was recorded. Profit attributable to the equity holders from discontinued operations amounted to HK\$2,589 million which included the gain on the disposal of Chiyu of HK\$2,504 million, representing a drop of HK\$28,499 million that included the gain on the disposal of NCB of HK\$29,956 million last year. Compared with the second half of 2016, profit attributable to the equity holders from the Group's continuing operations increased by HK\$2,174 million, or 17.5%. Net operating income before impairment allowances rose by HK\$1,913 million, or 8.9%, mainly attributable to the increase in net interest income from the rise in net interest margin and the growth in average interest-earning assets. Net fee and commission income also increased. All of the increases were partially offset by the decline in net trading gain. Operating expenses fell, while net charge of loan impairment allowances increased owing to the growth in advances to customers. Net gain from fair value adjustments on investment properties was higher.

### **INCOME STATEMENT ANALYSIS**

The following income statement analysis is based on the Group's continuing operations, and the comparative information has been restated accordingly.

| HK\$'m, except percentages                             | Half-year ended<br>30 June 2017 | (Restated)<br>Half-year ended<br>31 December 2016 | (Restated)<br>Half-year ended<br>30 June 2016 |
|--|---------------------------------|---|---|
| Interest income<br>Interest expense                    | 23,180<br>(6,301)               | 18,490<br>(4,932)                                 | 17,652<br>(5,680)                             |
| Net interest income                                    | 16,879                          | 13,558  | 11,972  |
| Average interest-earning assets<br>Net interest spread | 2,102,935<br>1.50%              | 1,989,492<br>1.24%                                | 1,868,730<br>1.18%                            |
| Net interest margin*                                   | 1.62%                           | 1.35%   | 1.28%   |

### Net Interest Income and Net Interest Margin

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

Compared with the first half of 2016, the Group's net interest income increased by HK\$4,907 million, or 41.0%. The increase was driven by the growth in average interestearning assets and the widening of net interest margin.

Average interest-earning assets expanded by HK\$234,205 million, or 12.5% year-on-year. The increase in the average balance of deposits from customers led to an increase in the average balances of advances to customers, debt securities investments and balances and placements with banks.

Net interest margin was 1.62%, up 34 basis points. The Group continued to be proactive in managing its assets and liabilities, with increased average balance of higher-yielding assets, such as advances to customers and debt securities investments. The loan and deposit spread widened as a result of the enhancement in the average yield of advances to customers while deposit costs remained stable under cautious management in deposit pricing. In addition, the Group captured opportunities from the interbank market to improve the average yield of balances and placements with banks.

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

|  | Half-year ended<br>30 June 2017           |                              | (Restated)<br>Half-year ended<br>31 December 2016 |                              | (Restated)<br>Half-year ended<br>30 June 2016 |                              |
|--|---|------------------------------|---|------------------------------|---|------------------------------|
| ASSETS   | Average<br>balance<br>HK\$'m              | Average<br>yield<br>%        | Average<br>balance<br>HK\$'m                      | Average<br>yield<br>%        | Average<br>balance<br>HK\$'m                  | Average<br>yield<br>%        |
| Balances and placements with banks<br>and other financial institutions<br>Debt securities investments<br>Advances to customers<br>Other interest-earning assets              | 418,341<br>643,673<br>1,023,604<br>17,317 | 2.46<br>1.88<br>2.36<br>1.22 | 323,580<br>674,855<br>968,974<br>22,083           | 1.28<br>1.60<br>2.22<br>0.93 | 334,016<br>592,317<br>920,578<br>21,819       | 1.46<br>1.64<br>2.24<br>0.84 |
| Total interest-earning assets<br>Non interest-earning assets <sup>1</sup><br>Total assets  | 2,102,935<br>339,380<br>2,442,315         | 2.22<br>-<br>1.91            | 1,989,492<br>336,429<br>2,325,921                 | 1.84<br>-<br>1.58            | 1,868,730<br>565,551<br>2,434,281             | 1.89<br>-<br>1.45            |
| LIABILITIES  | Average<br>balance<br>HK\$'m              | Average<br>rate<br>%         | Average<br>balance<br>HK\$'m                      | Average<br>rate<br>%         | Average<br>balance<br>HK\$'m                  | Average<br>rate<br>%         |
| Deposits and balances from banks and<br>other financial institutions<br>Current, savings and time deposits<br>Subordinated liabilities<br>Other interest-bearing liabilities | 225,788<br>1,471,264<br>18,885<br>37,342  | 0.87<br>0.64<br>4.63<br>1.11 | 208,743<br>1,376,555<br>19,339<br>35,830          | 0.75<br>0.51<br>3.38<br>1.42 | 250,117<br>1,298,811<br>19,533<br>36,003      | 0.78<br>0.64<br>2.72<br>1.60 |
| Total interest-bearing liabilities<br>Shareholders' funds <sup>2</sup> and other<br>non interest-bearing deposits<br>and liabilities <sup>1</sup>                            | 1,753,279<br>689,036                      | 0.72                         | 1,640,467<br>685,454                              | 0.60                         | 1,604,464<br>829,817                          | 0.71                         |
| Total liabilities  | 2,442,315                                 | 0.52                         | 2,325,921   | 0.42                         | 2,434,281                                     | 0.47                         |

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 2016, net interest income increased by HK\$3,321 million, or 24.5%, due to the growth in average interest-earning assets and rise in net interest margin. Average interest-earning assets grew by HK\$113,443 million, or 5.7%, which was supported by the increase in the average balance of deposits from customers. Net interest margin was up 27 basis points,

which was mainly attributable to the increase in the average balance of advances to customers. Also, the rise in market interest rates led to improvement in the average yield of advances to customers, debt securities investments as well as balances and placements with banks, but this was partially offset by the increase in deposit costs.

| HK\$'m                        | Half-year ended<br>30 June 2017 | (Restated)<br>Half-year ended<br>31 December 2016 | (Restated)<br>Half-year ended<br>30 June 2016 |
|-------------------------------|---------------------------------|---|---|
| Loan commissions              | 2,051                           | 1,309   | 2,191   |
| Credit card business          | 1,536                           | 1,840   | 1,863   |
| Securities brokerage          | 1,053                           | 1,102   | 852   |
| Insurance                     | 628                             | 788   | 842   |
| Funds distribution            | 440                             | 376   | 359   |
| Bills commissions             | 344                             | 324   | 338   |
| Payment services              | 293                             | 304   | 291   |
| Trust and custody services    | 254                             | 245   | 225   |
| Currency exchange             | 195                             | 170   | 167   |
| Safe deposit box              | 147                             | 134   | 143   |
| Others                        | 561                             | 503   | 442   |
| Fee and commission income     | 7,502                           | 7,095   | 7,713   |
| Fee and commission expense    | (1,840)                         | (2,139)   | (2,098)                                       |
| Net fee and commission income | 5,662                           | 4,956   | 5,615   |

### Net Fee and Commission Income

In the first half of 2017, net fee and commission income amounted to HK\$5,662 million, up 0.8% year-on-year. The Group captured opportunities arising from improved investment sentiment in the market and focused on providing enriched products and promotional campaigns to mid- to high-end and cross-border customers through various channels. As a result, commission income from securities brokerage and funds distribution grew 23.6% and 22.6% year-on-year respectively. The Group also leveraged its diversified business platforms to record healthy growth in a number of areas. Income from currency exchange rose by 16.8%, driven by the higher turnover of banknotes business in Hong Kong and Southeast Asia. With improved market sentiment, there was a year-on-year growth of 12.9% in income from trust and custody services. Fee and commission income from bills commissions, safe deposit box and payment services

also recorded growth. However, commission income from the credit card business dropped 17.6% year-on-year as the Group's merchant acquiring business was affected by the decline in cardholder spending from Mainland visitors to Hong Kong. In addition, commission income from insurance and loans also dropped. The decrease in fee and commission expense was mainly due to lower credit card related expenses.

Compared with the second half of 2016, net fee and commission income increased by HK\$706 million, or 14.2%. The increase mainly resulted from the growth in fee and commission income from loans, funds distribution, currency exchange, bills, safe deposit box and trust and custody services. Income from credit cards and the insurance business fell. Fee and commission expense decreased, mainly due to lower credit card related expenses.

### Net Trading Gain

| HK\$'m  | Half-year ended<br>30 June 2017 | (Restated)<br>Half-year ended<br>31 December 2016 | (Restated)<br>Half-year ended<br>30 June 2016 |
|---|---------------------------------|---|---|
| Foreign exchange and foreign exchange products<br>Interest rate instruments and items under | 27                              | 1,946   | 1,707   |
| fair value hedge  | 415                             | 333   | 534   |
| Commodities   | 107                             | (31)  | 63  |
| Equity and credit derivative instruments  | 90                              | 56  | 32  |
| Net trading gain  | 639                             | 2,304   | 2,336   |

Net trading gain decreased by HK\$1,697 million or 72.6% year-on-year, to HK\$639 million. Net trading gain from foreign exchange and foreign exchange products decreased by HK\$1,680 million, mainly attributable to the net loss from foreign currency swap contracts\* in the first half of 2017, as compared with the net gain recorded in the same period of 2016. This was, however, partially offset by the higher net gain from foreign exchange transactions. Net trading gain from interest rate instruments and items under fair value hedge decreased by HK\$119 million, primarily due to the mark-to-market changes of certain debt securities investments caused by interest rate movements. The increase in net trading

gain from commodities was due to the increased gain in bullion transactions. Net trading gain from equity and credit derivative instruments increased, which included an increase in income from equity-linked products.

Compared with the second half of 2016, net trading gain decreased by HK\$1,665 million, or 72.3%. The decrease was mainly attributable to the net loss from foreign currency swap contracts\*, comparing to the net gain recorded in the second half of 2016, although this was partially offset by the net gain in foreign exchange and bullion transactions.

\* 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 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.

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

|   |                 | (Restated)       | (Restated)      |
|---|-----------------|------------------|-----------------|
|   | Half-year ended | Half-year ended  | Half-year ended |
| HK\$'m  | 30 June 2017    | 31 December 2016 | 30 June 2016    |
| Net gain/(loss) on financial instruments designated |                 |                  |                 |
| at fair value through profit or loss                | 1,188           | (933)            | 1,034           |

Net gain on financial instruments designated at fair value through profit or loss increased by HK\$154 million, or 14.9%. This was mainly driven by the increase in net gain from the equity securities investments of BOC Life, partially offset by the lower mark-to-market gain 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, were also attributable to the movement of market interest rates.

The Group recorded a net gain on financial instruments designated at FVTPL in the first half of 2017, as opposed to a net loss recorded in the second half of 2016. The change was mainly attributable to mark-to-market changes of the debt securities investment of BOC Life caused by market interest rate movements.

### **Operating Expenses**

| HK\$'m   | Half-year ended<br>30 June 2017 | (Restated)<br>Half-year ended<br>31 December 2016 | (Restated)<br>Half-year ended<br>30 June 2016 |
|--|---------------------------------|---|---|
| Staff costs<br>Premises and equipment expenses | 3,621                           | 3,692   | 3,170   |
| (excluding depreciation)                       | 811                             | 836   | 735   |
| Depreciation on owned fixed assets             | 923                             | 899   | 898   |
| Other operating expenses                       | 750                             | 1,143   | 998   |
| Total operating expenses                       | 6,105                           | 6,570   | 5,801   |

|  | At 30 June<br>2017 | (Restated)<br>At 31 December<br>2016 | (Restated)<br>At 30 June<br>2016 |
|--|--------------------|--------------------------------------|----------------------------------|
| Staff headcount measured in full-time equivalents* | 12,473             | 12,410                               | 12,220                           |

\* The comparative information of staff headcounts measured in full-time equivalents at 30 June 2016 and 31 December 2016 has been restated to enable analysis on a comparable basis.

Total operating expenses increased by HK\$304 million, or 5.2% year-on-year, as a result of the Group's ongoing investment in its service capabilities, business systems and platforms to support long-term business growth. The Group remained focused on disciplined cost control and the cost to income ratio stayed low at 26.17%, with cost efficiency at a relatively good level in the industry.

Staff costs increased by 14.2%, mainly due to annual salary increment, increased headcount, and the increase in performance-related remuneration.

Premises and equipment expenses were up 10.3%, reflecting higher related expenses associated with

enhancements in business systems and platforms, and an increase in rental costs.

Depreciation on owned fixed assets rose by 2.8%, largely due to a larger depreciation charge on IT infrastructure.

Other operating expenses dropped by 24.8%, mainly due to lower business tax and the reversal of certain expenses.

Compared with the second half of 2016, operating expenses decreased by HK\$465 million, or 7.1%. The decrease was due to lower staff costs, advertising and marketing expenses, and the reversal of certain expenses in the first half of 2017.

| HK\$'m  | Half-year ended<br>30 June 2017 | (Restated)<br>Half-year ended<br>31 December 2016 | (Restated)<br>Half-year ended<br>30 June 2016 |
|---|---------------------------------|---|---|
| Net reversal/(charge) of allowances before recoveries |                                 |   |   |
| <ul> <li>individually assessed</li> </ul>             | 137                             | 138   | (213)   |
| <ul> <li>– collectively assessed</li> </ul>           | (527)                           | (291)   | (368)   |
| Recoveries  | 41                              | 88  | 49  |
| Net charge of loan impairment allowances              | (349)                           | (65)  | (532)   |

### Net Charge of Loan Impairment Allowances

The net charge of loan impairment allowances was HK\$349 million, a decrease of HK\$183 million or 34.4%, from the same period of 2016. In the first half of 2017, there was a net reversal of individually assessed impairment allowances, mainly due to loan repayments by certain corporate customers. There was a net charge of impairment allowances in the same period of last year. Net charge of collectively assessed impairment allowances to customers.

Total loan impairment allowances as a percentage of gross advances to customers was 0.31% as at 30 June 2017, down slightly from 0.33% at the end of 2016.

Compared with the second half of 2016, net charge of loan impairment allowances increased by HK\$284 million, mainly due to a higher net charge of collectively assessed impairment allowances as a result of the growth in advances to customers.

### **BALANCE SHEET ANALYSIS**

The comparative figures as of 31 December 2016 have been restated to conform with the current period's presentation.

### Asset Composition

|   |           | At 30 June 2017 | At 31     | (Restated)<br>December 2016 |
|---|-----------|-----------------|-----------|-----------------------------|
| HK\$'m, except percentages                                      | Amount    | % of total      | Amount    | % of total                  |
| Cash and balances with banks and other financial institutions   | 399,830   | 15.2            | 232,546   | 9.9                         |
| Placements with banks and other financial institutions maturing |           |                 |           |                             |
| between one and twelve months<br>Hong Kong SAR Government       | 81,856    | 3.1             | 70,392    | 3.0                         |
| certificates of indebtedness                                    | 135,800   | 5.1             | 123,390   | 5.3                         |
| Securities investments <sup>1</sup>                             | 630,473   | 23.9            | 654,557   | 28.0                        |
| Advances and other accounts                                     | 1,135,330 | 43.0            | 996,754   | 42.7                        |
| Fixed assets and investment properties                          | 66,110    | 2.5             | 64,017    | 2.7                         |
| Other assets <sup>2</sup>                                       | 190,565   | 7.2             | 141,808   | 6.1                         |
| Assets held for sale  | -         | 0.0             | 53,293    | 2.3                         |
| Total assets  | 2,639,964 | 100.0           | 2,336,757 | 100.0                       |

1. Securities investments comprise investment in securities, trading securities and securities designated at fair value through profit or loss.

2. Interests in associates and a joint venture, deferred tax assets, derivative financial instruments and other debt instruments designated at fair value through profit or loss are included in other assets.

As at 30 June 2017, total assets of the Group amounted to HK\$2,639,964 million, an increase of HK\$303,207 million, or 13.0%, from the end of 2016. The Group continued to enhance its management of assets and liabilities to ensure its sustainable business development.

Key changes in the Group's total assets include the following:

- Cash and balances with banks and other financial institutions increased by HK\$167,284 million, or 71.9%, mainly due to the increase in balances with banks and central banks.
- Advances and other accounts rose by HK\$138,576 million, or 13.9%, with the growth in advances to customers by HK\$126,146 million, or 12.9%.
- Other assets increased by HK\$48,757 million, or 34.4%, mainly due to the increase in other debt instruments designated at fair value through profit or loss, partially offset by the decrease in derivative financial instruments.
- Assets held for sale dropped to zero as the Group completed the disposal of Chiyu.

|                                      | A1        | : 30 June 2017 | At 31 [ | (Restated)<br>December 2016 |
|--------------------------------------|-----------|----------------|---------|-----------------------------|
| HK\$'m, except percentages           | Amount    | % of total     | Amount  | % of total                  |
| Loans for use in Hong Kong           | 731,303   | 66.2           | 664,030 | 67.9                        |
| Industrial, commercial and financial | 427,436   | 38.7           | 375,506 | 38.4                        |
| Individuals                          | 303,867   | 27.5           | 288,524 | 29.5                        |
| Trade finance                        | 77,199    | 7.0            | 72,182  | 7.4                         |
| Loans for use outside Hong Kong      | 295,471   | 26.8           | 241,615 | 24.7                        |
| Total advances to customers          | 1,103,973 | 100.0          | 977,827 | 100.0                       |

### Advances to Customers

In the first half of 2017, the Group continued to capture opportunities arising from national strategies and growth opportunities in the ASEAN region. During this period, it strengthened its collaboration with the BOC Group to provide a comprehensive range of financial services to Mainland enterprises going global as well as leading corporates in the ASEAN region. The Group also developed the local market in Hong Kong with a focus on family-owned businesses, trade associations, and second- and third-tier listed companies. Additionally, it enhanced its services in the SME, residential mortgage and other retail loan businesses. To achieve quality growth, the Group adhered to a prudent credit strategy and maintained benign asset quality. Advances to customers grew by HK\$126,146 million, or 12.9%, to HK\$1,103,973 million in the first half of 2017.

Loans for use in Hong Kong grew by HK\$67,273 million or 10.1%.

- Lending to the industrial, commercial and financial sectors increased by HK\$51,930 million or 13.8%, representing broad-based growth in various industry sectors including property development, manufacturing, transport and transport equipment, information technology, wholesale and retail trade as well as financial concerns.
- Lending to individuals increased by HK\$15,343 million or 5.3%. Residential mortgage loans (excluding those under the Government-sponsored home purchasing schemes) grew by 3.9% while other individual loans increased by 13.5%.

Trade finance rose by HK\$5,017 million or 7.0%, while loans for use outside Hong Kong grew by HK\$53,856 million or 22.3%.

### Loan Quality

| HK\$'m, except percentages  | At 30 June<br>2017 | (Restated)<br>At 31 December<br>2016 |
|---|--------------------|--------------------------------------|
| Advances to customers   | 1,103,973          | 977,827                              |
| Classified or impaired loan ratio   | 0.19%              | 0.22%                                |
| Total impairment allowances   | 3,447              | 3,268                                |
| Total impairment allowances as a percentage of advances to customers                          | 0.31%              | 0.33%                                |
| Residential mortgage loans <sup>1</sup> – delinquency and rescheduled loan ratio <sup>2</sup> | 0.01%              | 0.02%                                |
| Card advances – delinquency ratio <sup>2</sup>  | 0.20%              | 0.24%                                |

|   | Half-year ended<br>30 June 2017 | Half-year ended<br>30 June 2016 |
|---|---------------------------------|---------------------------------|
| Card advances – charge-off ratio <sup>3</sup> | 1.70%                           | 1.48%                           |

1. Residential mortgage loans exclude those under the Home Ownership Scheme and other government-sponsored home purchasing schemes.

2. The delinquency ratio is measured by the ratio of the total amount of overdue advances (more than three months) to total outstanding advances.

3. The charge-off ratio is measured by the ratio of total write-offs made during the period to average card receivables during the period.

The Group maintained benign asset quality during the period. The classified or impaired loan ratio was 0.19% as at 30 June 2017. Classified or impaired advances to customers decreased by HK\$119 million, or 5.5%, to HK\$2,050 million.

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% at the end of June 2017. The charge-off ratio of card advances was 1.70%.

### **Deposits from Customers\***

|                                      | At 30 June 2017 |            | At 31 [   | (Restated)<br>December 2016 |
|--------------------------------------|-----------------|------------|-----------|-----------------------------|
| HK\$'m, except percentages           | Amount          | % of total | Amount    | % of total                  |
| Demand deposits and current accounts | 191,513         | 11.6       | 173,934   | 11.5                        |
| Savings deposits                     | 845,593         | 51.1       | 796,805   | 52.7                        |
| Time, call and notice deposits       | 613,024         | 37.1       | 538,142   | 35.6                        |
|                                      | 1,650,130       | 99.8       | 1,508,881 | 99.8                        |
| Structured deposits                  | 3,072           | 0.2        | 3,425     | 0.2                         |
| Deposits from customers              | 1,653,202       | 100.0      | 1,512,306 | 100.0                       |

\* Including structured deposits

The Group implemented a number of deposit strategic initiatives in the first half of 2017. These included the development of payroll account services, expansion of central bank and supranational clients, and the development of receiving bank business for IPOs, cash management, settlement and custody business to acquire deposits from customers. As at 30 June 2017, total deposits from customers amounted to HK\$1,653,202 million, up HK\$140,896 million, or 9.3%, from the end of last year. Demand deposits and current accounts grew by 10.1%, saving deposits increased by 6.1%, and time, call and notice deposits were up 13.9%.

### Capital and Reserves Attributable to the Equity Holders of the Company

| HK\$'m   | At 30 June<br>2017 | (Restated)<br>At 31 December<br>2016 |
|--|--------------------|--------------------------------------|
| Share capital  | 52,864             | 52,864                               |
| Premises revaluation reserve   | 35,972             | 35,608                               |
| Reserve for fair value changes of available-for-sale securities        | 1,002              | (592)                                |
| Regulatory reserve   | 10,109             | 9,227                                |
| Translation reserve  | (629)              | (935)                                |
| Merger reserve   | -                  | 2,384                                |
| Retained earnings  | 138,137            | 128,271                              |
| Reserves   | 184,591            | 173,963                              |
| Capital and reserves attributable to the equity holders of the Company | 237,455            | 226,827                              |

Capital and reserves attributable to the equity holders of the Company amounted to HK\$237,455 million as at 30 June 2017, an increase of HK\$10,628 million, or 4.7%, from the end of 2016. Retained earnings rose by 7.7%, mainly reflecting the profit for the first half of 2017 after the appropriation of the final dividend for 2016. The premises revaluation reserve increased by 1.0%, which was attributable to the increase in property prices in the first half of 2017. This was partially offset by the corresponding amount released to retained earnings upon disposal of discontinued operations. Reserve for fair value changes of available-for-sale securities turned from a deficit into a surplus, mainly reflecting market interest rate movements. The regulatory reserve rose by 9.6%, as the growth in advances to customers was partly offset by the corresponding regulatory reserve released to retained earnings upon the disposal of discontinued operations. Merger reserve was arising on the Group's application of the merger accounting method in relation to its combination with BOC Thailand.

| HK\$'m, except percentages            | At 30 June<br>2017 | At 31 December<br>2016 |
|---------------------------------------|--------------------|------------------------|
| Consolidated capital after deductions |                    |                        |
| Common Equity Tier 1 capital          | 166,259            | 158,828                |
| Additional Tier 1 capital             | -                  | 458                    |
| Tier 1 capital                        | 166,259            | 159,286                |
| Tier 2 capital                        | 38,594             | 41,926                 |
| Total capital                         | 204,853            | 201,212                |
| Total risk-weighted assets            | 941,605            | 900,288                |
| Common Equity Tier 1 capital ratio    | 17.66%             | 17.64%                 |
| Tier 1 capital ratio                  | 17.66%             | 17.69%                 |
| Total capital ratio                   | 21.76%             | 22.35%                 |

### Capital Ratio and Liquidity Coverage Ratio

|   | 2017    | 2016    |
|---|---------|---------|
| Average value of liquidity coverage ratio |         |         |
| First quarter                             | 121.41% | 112.92% |
| Second quarter                            | 123.88% | 109.70% |

The capital ratios, which are computed on a consolidated basis for regulatory purposes comprise the positions of BOCHK and certain subsidiaries specified by the HKMA in accordance with the Banking (Capital) Rules.

The Group's capital level was further enhanced by the gain from the disposal of Chiyu. During the course of formulating its internal capital management targets, the Group took into consideration not only the additional regulatory requirements but also its strategic initiatives and short- and long-term capital requirement, with the support of capital replenishment solutions, to ensure the long-term stability of its capital level. The Group also continued to refine its measures for monitoring changes in the risk-weights of its assets. At the same time, the Group made use of stringent and forward-looking stress testing to assess the demand and supply of capital under different stress scenarios, examined management targets for capital adequacy and formulated a capital adjustment solution to ensure the Group's ability to comply with the capital requirement under stress conditions.

At 30 June 2017, both the CET1 capital ratio and Tier 1 capital ratio was 17.66%, up 0.02 and down 0.03 percentage point respectively from the end of 2016. Profits net of dividends for the first half of 2017 drove up CET1 capital and Tier 1 capital by 4.7% and 4.4% respectively. Total RWAs were up 4.6%, driven by the increase in credit RWAs due to the growth in advances to customers in the first half of 2017, partially offset by the reduction in RWAs following the disposal of Chiyu. The total capital ratio of the Group was 21.76%.

The average value of the liquidity coverage ratio ("LCR") is calculated based on the arithmetic mean of the LCR as at the end of each working day in the quarter and the calculation methodology and instructions set out in the HKMA return of liquidity position. The LCR is computed on a consolidated basis, which comprises the positions of BOCHK and certain subsidiaries specified by the HKMA in accordance with the Banking (Liquidity) Rules.

The average value of LCR in the first and second quarter of 2017 was 121.41% and 123.88% respectively, which was higher than the regulatory minimum.

### **BUSINESS REVIEW**

**Business Segment Performance** 

Profit/(Loss) before Taxation by Business Segments

|                              |                 |              | (Restated)                   |            |
|------------------------------|-----------------|--------------|------------------------------|------------|
|                              | Half-year ended | 30 June 2017 | Half-year ended 30 June 2016 |            |
| HK\$'m, except percentages   | Amount          | % of total   | Amount                       | % of total |
| FROM CONTINUING OPERATIONS   |                 |              |                              |            |
| Personal Banking             | 4,071           | 22.9         | 3,612                        | 25.2       |
| Corporate Banking            | 7,289           | 41.0         | 6,382                        | 44.5       |
| Treasury                     | 4,709           | 26.5         | 3,926                        | 27.4       |
| Insurance                    | 683             | 3.8          | 611                          | 4.2        |
| Others                       | 1,033           | 5.8          | (182)                        | (1.3)      |
| Total profit before taxation | 17,785          | 100.0        | 14,349                       | 100.0      |

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

### **PERSONAL BANKING**

#### **Financial Results**

Personal Banking's profit before taxation was HK\$4,071 million in the first half of 2017, an increase of HK\$459 million, or 12.7%, year-on-year. The increase in net interest income and net fee and commission income was partially offset by the increase in operating expenses.

Net interest income increased by 15.8%. This was mainly driven by the improvement in the deposit spread along with the increase in the average balance of deposits and loans. Net fee and commission income increased by 8.0% as the Group took advantage of improvements in market sentiment and achieved satisfactory performance in the securities brokerage and funds distribution business with encouraging year-on-year growth in related commission income. Fee income from payment services also grew healthily. Operating expenses rose by 15.1%, mainly due to the increase in staff costs, rental and business-related expenses.

#### **Business operation**

# Deepening in the branch transformation project and introducing a new concept service model

In the first half of 2017, the Group deepened its branch transformation project and leveraged its branch network – the most extensive in Hong Kong – to transform from its retail-focused service coverage to a more comprehensive service model that better serves personal and corporate customers. The branch transformation project helped the Group penetrate the mid- to high-end customers segment as well as SMEs for more two-way business referrals, enhancing the efficacy of the omni-channel banking service. During the period, operational efficiency was increased across all business areas, resulting in satisfactory growth in deposits from customers, and the number and related asset values of mid- to high-end customers. The Group remained customer-centric, continued to refine its business workflows and service model, and set up new concept service centres to enhance the overall customer experience.

# Expansion in cross-border business and implementation of key projects in ASEAN

The Group implemented a joint mechanism and crossborder business strategy to provide better and more professional services to enhance its image as the first choice for cross-border customers. During the period, the Group collaborated further with BOC entities by providing regular staff training and arranging visits. It also optimised procedures for the attestation of cross-border account opening applications and launched a series of promotional campaigns that succeeded in acquiring more cross-border customers. Additionally, the Group improved its overall service capabilities by optimising its cross-border financial services centres with relationship managers dedicated to the cross-border business. Having made good progress in the expansion of its ASEAN business, the Group refined the organisational structure and management model of its ASEAN entities and provided professional support in products and services to achieve steady progress in various key business projects. In recognition of its performance in the cross-border banking business, BOCHK won the Cross-border Financial Services Award from Sing Tao Daily.

# Expansion of mid- to high-end customer segment with enhanced service levels

During the review period, the Group focused on deepening customer relationships and expanded the mid- to high-end customer segment through multiple channels. Additionally, the Group refined customer segment management, continued to enhance its highnet-worth customer model, enriched its product offering and launched a series of online and offline promotions under the theme of BOCHK's centenary celebration. These initiatives led to satisfactory growth in the total number of Wealth Management and Enrich Banking customers as well as their assets under management ("AUM"). The Group also stepped up cross-selling activities with products that meet customer needs.

The Group further optimised its Private Banking team to enhance service levels. It also upgraded its open product platform, launched customised products and optimised services tailored to clients' needs. With the goal of becoming the Offshore Private Banking Centre of BOC Group and the first choice in Private Banking for cross-border high-net-worth clients, a new business referral scheme was introduced during the period. This was implemented via collaboration with all units within the Group and BOC's Mainland and overseas entities. The Group also organised a number of customer activities to expand its customer base in Hong Kong, the Mainland and Southeast Asian markets. As a result, the total number of Private Banking clients and their AUM grew satisfactorily from the end of last year.

# Improvements in the residential mortgage business and other retail loan services

The local residential property market was relatively buoyant in the first half of 2017 with the rise in property prices and transactions. As competition in the residential mortgage market was intense during the period, the Group adopted a flexible sales strategy, optimised the sales team and streamlined the credit assessment approval process to maintain its leading market position. At the same time, the Group reinforced its market position among high-end and cross-border clients and continued to develop its mortgage service in the luxury property market. In addition, the Group continued to refine its personal lending business and enhanced a range of secured lending products that improved its competitiveness. In recognition of its residential mortgage service, BOCHK won the Mortgage Services Award from *Sing Tao Daily* for the eighth consecutive year and the Hong Kong Leaders' Choice Brand Award in Excellent Brand of Mortgage – Banking from Metro Finance and Metro Finance Digital.

# Capturing market trends to expand income from investment products

The Group took advantage of improvements in market sentiment to increase transaction volumes in its securities brokerage business. Among the measures taken was the provision of exclusive stock analysis data and information to targeted mid- to high-end and cross-border customers with the aim of enhancing the customer experience. In addition, the Group continued to launch a range of marketing campaigns aimed at enhancing clients securities brokerage trading. By promoting family securities accounts in social media and the launch of a Smart Investment Contest, the Group reinforced its reputation as a leader in FinTech development. In the funds distribution business, the Group continued to expand its funds business among mid- to high-end customers. During the period, the Group acquired more customers through the introduction of private placements and provision of a wider variety of funds, which were supported by multi-channel promotions and customer activities. In addition, it optimised the funds transaction process to improve the customer experience. With improved market sentiment, the Group was able to achieve satisfactory performance in the securities brokerage and funds distribution business with encouraging year-on-year growth in related commission income.

In the bancassurance business, the Group provided a wide range of products to meet customers' needs at different life stages. During the period, the Group launched a series of customer-centric offers to reach a larger number of customers. It also launched valued-added services for cross-border customers to enhance two-way information and sales in Hong Kong. Additionally, the Group assisted its ASEAN entities to expand their bancassurance business.

# Innovation in credit card business to consolidate its competitive edge

In the first half of 2017, retail consumption in Hong Kong remained stagnant and traditional credit card business continued to come under pressure. These trends, coupled with the development of technological innovations such as mobile payments and the arrival of Store Value Facility licensees as new competitors in the market, created more challenges. Under this market situation, the Group's credit card business continued its innovative development and actively furthered its business expansion. Following the launch of Apple Pay with VISA and MasterCard last year, the Group pioneered the launch of Apple Pay with UnionPay credit card and debit card customers and also launched Samsung Pay with VISA and MasterCard to create differentiated competitive edges. At the same time, it co-operated with WeChat Pay Hong Kong and Alipay Hong Kong to expand these payment scenarios and further popularise mobile payment services. With the ongoing progress of the branch transformation project, the Group focused on expanding its customer base by strengthening credit card sales at the branch network level and enhancing cross-selling activities to acquire and activate customers at the same time. During the review period, the Group maintained its leadership in the UnionPay merchant acquiring and card issuing business in Hong Kong.

### **CORPORATE BANKING**

#### **Financial Results**

Corporate Banking's profit before taxation was HK\$7,289 million, a growth of HK\$907 million, or 14.2%, year-on-year. The growth was mainly driven by the increase in net interest income.

Net interest income increased by 16.0%, with the positive impact from the increase in the average balance of loans and deposits, coupled with the improvement in the deposit spread. Operating expenses were up 8.3%, owing to the increase in staff costs. Net charge of impairment allowances decreased by 60.2% as there was a net reversal of individually assessed loan impairment allowances following loan repayments by customers. There was a net charge of impairment allowances in the same period of last year.

#### **Business operation**

## Opportunities from national strategies, expansion in ASEAN and the cross-border business

The Group captured the opportunities arising out of major national strategic initiatives and expanded its business along the Belt and Road and in the ASEAN region by focusing on mainstream customers, projects, businesses and products. With strengthened collaboration among BOC's branches and a focus on product and service innovation, the Group provided enterprises going global with financing solutions to support their development along the Belt and Road. At the same time, the Group made a concerted effort to acquire major projects in the region and promoted diversified business cooperation with leading local enterprises, which further increased its market influence in the ASEAN region. By capitalising on its competitive edge in marketing, products and services and through coordination with BOC entities in ASEAN, the Group successfully acquired a number of key clients. Moreover, it launched its first cooperative project with the Multilateral Investment Guarantee Agency, a member of the World Bank Group, to develop the telecommunications business and economic development in Myanmar.

Capitalising on its business leadership in the Mainland and Hong Kong, and collaboration with BOC's Mainland and overseas entities, the Group completed a number of crossborder financing and major bilateral financing projects in support of enterprises' overseas expansion and business restructuring. In other initiatives during the period, the Group developed its business in the seven FTZs of the Mainland of China and took advantage of opportunities arising from other related reforms. In the Guangdong-Hong Kong-Macau Bay Area, the Group cooperated with BOC branches to complete a number of business firsts in cross-border financing and cash pooling projects. Acting as BOC's Asia-Pacific Syndicated Loan Centre, the Group successfully arranged a number of significant syndicated loans and remained the top mandated arranger in the Hong Kong & Macau syndicated loan market in the first half of 2017. In recognition of its performance in the cross-border business, BOCHK received the Outstanding Corporate/Commercial Banking – Cross-border All-round Services award from Metro Finance and Hong Kong Ta Kung Wen Wei Media Group.

# Promoting local commercial businesses with enlarging customer base

In the first half of 2017, the Group continued to expand its customer base among family-owned businesses, trade associations and second- and third-tier listed companies in the local market, cooperating with these enterprises to establish a convenient and effective financial service platform and help to improve their overall market competitiveness. Capitalising on the competitive edge from its branch network, the Group reinforced its service capabilities for local SME customers. BOCHK won the Best SME's Partner Gold Award 2017 from the Hong Kong General Chamber of Small and Medium Business in recognition of its acquisition of the Best SME's Partner Award for ten years in a row.

#### Broader coverage in the institutional businesses

In the first half of 2017, the Group continued to collaborate and connect with overseas central banks, sovereign wealth funds and international financial institutions. In Hong Kong, the Group expanded its business relationships with government and public sector entities, further increasing its business coverage. Moreover, it served as the receiving bank for a number of major IPOs in Hong Kong, which consolidated its leading position in the market.

#### Product innovation in transaction banking

The Group achieved satisfactory growth across various business areas by capturing business opportunities in the local market, FTZs and Southeast Asia as well as providing continuous product innovation and feature enhancements. It leveraged the synergy created by leading products and acquired deposits from customers by offering competitive cash management products while pushing forward with the breakthrough in the regionalisation and globalisation of its cash pooling business. Working closely with BOC entities in the Mainland, it communicated regularly with government departments in the FTZs, stayed up-to-date on related policies and completed a number of crossborder cash pooling projects. The Group also enriched its traditional trade and cash management products, refined its business systems including scenario-based applications of products, and collaborated with ASEAN entities to further expand its transaction banking business. In addition, the Group completed the first application using blockchain technology for trade finance in Hong Kong, which will help to authenticate transactions, expedite the financing process and increase efficiency. In recognition of its outstanding transaction banking services, BOCHK received the Achievement Award for Best Trade Finance Bank in Hong Kong from *The Asian Banker*. A trade finance project in Thailand undertaken by BOCHK was also named the Best Corporate Trade Finance Deal in Thailand. In addition to these accolades, BOCHK was named Hong Kong Domestic Cash Management Bank of the Year for the fourth consecutive year by *Asian Banking and Finance*.

#### Product diversification in custody services

In the first half of 2017, the active market contributed to a material increase in investment activities from the insurance and pension segments as well as satisfactory growth in assets under custody. Its diversified business platform enabled the Group to acquire a larger range of clients including those in mandates accounts and private fund services. In anticipation of the launch of Bond Connect, the Group actively made preparation with the aim of providing a one-stop service covering custody, currency exchange, bond dealing, cash accounts and cross-border remittance, all of which created new growth drivers for business development. The Group also closely collaborated with its ASEAN entities to explore new opportunities in cross-border business. At the end of June 2017, excluding the RMB fiduciary accounts, total assets under the Group's custody were valued at HK\$1.021.5 billion.

#### Proactive measures to contain risk

In the first half of 2017, the Group continued to adhere to a prudent credit strategy. In view of the uncertain economic environment, the Group carried out close credit monitoring on a more frequent and proactive basis. This included increasing the analysis of industries and clients that could be negatively affected by market volatility. More stringent pre-lending and post-lending monitoring measures were also adopted to allow for timely identification of negative credit situations. With regard to the Belt and Road Initiative, the Group actively

expanded its business development and enhanced the related credit risk and compliance controls. Additionally, the Group remained alert to risks in the Mainland market and strictly controlled its credit exposure to Mainland customers in segments under threat of overcapacity. For certain industries, risk management was increased and a trigger point established to review and monitor the concentration risk of Mainland exposures. What's more, the Group conducted regular stress tests to analyse the effects of changes in the economic environment and completed the corresponding preparation work. As regards Mainland enterprises going global and the acquisition of BOC's assets in ASEAN, the Group acted in accordance with its prudent risk management principles. It also guided its overseas entities on the management structure, internal control, regulations and compliance issues pertaining to credit risk, to ensure more efficient and sound risk control measures are in place governing the Group's business development in new markets.

#### TREASURY

#### **Financial Results**

Treasury's profit before taxation was HK\$4,709 million, an increase of HK\$783 million, or 19.9%, from the same period last year. The growth was driven by the increase in net interest income, which was partially offset by the net trading loss recorded in the first half of 2017.

Net interest income surged by 177.9% as the Group captured opportunities from the rise in market interest rates to improve the average yield on debt securities investments and balances and placements with banks. Treasury recorded a net trading loss in the first half of 2017, caused by the net loss from foreign currency swap contracts. Meanwhile, a net trading gain was recorded in the first half of 2016.

#### **Business Operations**

#### Improved competitiveness in the treasury business

The Group remained alert to changes in the market and responded to any challenges from changes in crossborder policies. Through the professional services and innovative products it offers, the Group was able to meet customers' needs throughout the review period. To enhance its market competitiveness, the Group launched a series of structured products. In the banknotes business, the Group acquired new financial institution clients in Southeast Asia, further consolidating its strategic goal of becoming a regional bank. The Group was the first bank in Hong Kong to include Brunei dollar and South African rand for withdrawal and deposit, which led to the total number of listed currencies for currency exchange at retail counters to 24, further reinforcing the Group's market leadership in local retail notes exchange. In recognition of its performance in the treasury business, BOCHK received the Hong Kong Domestic Foreign Exchange Bank of the Year award by *Asian Banking and Finance*. BOCHK also received the Outstanding Treasury Business – Dim Sum Bond Market Maker at the RMB Business Outstanding Awards organised by Metro Finance and Hong Kong Ta Kung Wen Wei Media Group.

#### Promoting business development in ASEAN

The Group capitalised on its competitive advantage in funding by meeting the funding needs of ASEAN entities for their business development. During the period, it successfully expanded its institutional and RMB banknotes businesses for ASEAN entities and collaborated with them to explore and market new clients to further develop the treasury business of these entities.

#### Further enhancement in RMB clearing business

Following the launch of Bond Connect in early July 2017, BOCHK has been acting as the sole account-opening bank for the Hong Kong Central Moneymarkets Unit to provide cross-border fund settlement services for institutions in both Hong Kong and the Mainland, while providing comprehensive services for institutions relating to Bond Connect. With a stable growth in the clearing business conducted through the Cross-border Interbank Payment System, the Group further enhanced its competitive advantage in the global RMB clearing business.

#### A proactive but risk aware investment strategy

The Group continued to be prudent in managing its banking book investments. It monitored changes in the market and sought investment opportunities to enhance returns. During the review period, the Group proactively adjusted its investment portfolio in response to changes in market interest rates and enhanced its returns from the use of funding.

#### **INSURANCE**

#### **Financial Results**

Profit before taxation in the Group's Insurance segment was HK\$683 million in the first half of 2017, up 11.8%, year-on-year. The growth was mainly attributable to the improved performance of its equity securities investments which recorded a net gain in the first half of 2017 versus a net loss in the same period of 2016. Net insurance premium income rose by 52.4% as the Group continued to adjust its product mix in expanding its regular premium business to ensure a stable stream of renewal premium income for continuous growth.

#### **Business Operations**

# Product and service innovation, distribution channel expansion

In the first half of 2017, the Group continued to capitalise on its diversified distribution channels to develop innovative new products and value-added services. which further enhanced its market competitiveness. New products included the MaxiGrowth ULife Insurance Plan for customers who want flexibility in financial planning and whole life protection, Target 5 Years Plus Insurance Plan for customers with insurance and savings needs, and Enhanced Hospital and Surgical Ride to supplement additional benefits. Other new products included the BestCare-Pro Critical Illness Plan and SmartUp Wholelife Insurance Plan. The Group used innovative technology to improve the customer experience with the launch of the first online hospital cash claims platform in Hong Kong, namely, Easy Claims for real-time approval and being the first to introduce Electronic Bill Presentment and Payment service for premium payment and the use of Apple Pay and Android Pay. During the period, the Group enhanced its cross-selling activities with a strong focus to high-net-worth and commercial customers through further collaboration within the Group. To increase sales volume from non-banking sources, the Group continued to diversify its distribution channels, including tied agency channel, brokerage, telemarketing and e-Channel. Furthermore, the new concept Customer Service Centres in Central and Tsim Sha Tsui opened in the second guarter to provide a one-stop life insurance and diversified financial services to visitors to Hong Kong and high-end customers.

#### Leadership in RMB insurance products

In the first half of 2017, the Group continued to provide the broadest range of RMB insurance products in the market and maintained its leading position in the Hong Kong RMB insurance market. In recognition of its outstanding performance, BOC Life was awarded Cross Border Insurance Service – Excellence and Brand of the Year – Excellence awards in the 2017 Financial Institution Awards by *Bloomberg Businessweek*. In the RMB Business Outstanding Awards organised by Metro Finance and Hong Kong Ta Kung Wen Wei Media Group, BOC Life won the Outstanding Insurance Business – Customer Service Award (Hong Kong China) and Outstanding Insurance Business – Universal Life Award (Hong Kong China). It also received the 2016 Market Leadership Award – Market Leadership in Integrated Insurance from the Hong Kong Institute of Marketing.

### **EIGHT KEY BUSINESS PLATFORMS**

In pursuit of business diversification, the Group enhanced its eight key business platforms with satisfactory performance. Business related to credit cards, private banking, cash management, custody and life insurance are discussed under the Personal Banking, Corporate Banking and Insurance segments respectively. Asset management, trust and securities and futures are discussed below.

#### A wider range of asset management products

BOCHK Asset Management Limited ("BOCHK AM") enriched its product range in the first half of 2017 as part of its ongoing business development. The AUM of funds under management at the end of June 2017 grew over 42% from the end of last year. New business opportunities were explored through collaboration with BOC and participation in the Group's ASEAN expansion. Sales of the northbound fund in the Mainland, the BOCHK All Weather China High Yield Bond Fund, were satisfactory, with strong growth in the related AUM since the end of last year. As part of its commitment to product development, BOCHK AM launched a new public fund, the BOCHK All Weather Asia (ex-Japan) Equity Fund, and a private fund, BOCHK Fixed Maturity Bond Fund, which was tailored to clients' needs and reflected BOCHK AM's flexibility in product design. Following the launch of Bond Connect, BOCHK AM and BOC Shanghai Head Office successfully completed the first buy order on a Chinese government bond and a corporate bond under Bond Connect. It also completed the first CNY spot trade with BOCHK under Bond Connect. BOCHK AM has been granted the QFII qualification by the China Securities and Regulatory Commission, which will further broaden its

investment channels in the Mainland market. BOCHK AM is positioned as the Private Banking Product Centre and Overseas Asset Management Centre of the BOC Group, with a mechanism to assist its cross-border business development.

#### Development of the trustee services business

The Group provides trustee, provident fund, retirement fund and unit trust administration services through its subsidiary company, BOCI-Prudential Trustee Limited ("BOCI-Prudential Trustee"). During the period, BOCI-Prudential Trustee stepped up business referrals, cross-selling activities and new business development by establishing an effective incentive scheme, making functional enhancements to its systems and collaborating with various units of the Group. The Hotline Referral Service continued to enhance the customer experience in enguiries and achieved encouraging results in converting service calls into MPF account consolidation opportunities and creating MPF transfer-in of assets. Moreover, BOCI-Prudential Trustee successfully secured the role of trustee for the Staff MPF scheme of a non-government organisation. It also won the bid to provide MPF services for a large printing house and a major communication service provider in Hong Kong. In recognition of its performance in trustee services, BOCI-Prudential Trustee was awarded Leaders' Choice Brand – Finance and Excellent Brand of MPF Online Platform in The Hong Kong Leaders' Choice Brand Award 2017 organised by Metro Finance and Metro Finance Digital. The My Choice of MPF Scheme also received a number of awards in the Thomson Reuters Lipper Fund Awards 2017.

# Expansion of securities and futures brokerage services

The Group engages in the provision of brokerage services for futures and options trading through its subsidiary company, Po Sang Securities and Futures Limited ("Po Sang Securities and Futures"). During the period, Po Sang Securities and Futures continued to carry out its market-oriented business strategy and broaden its product range, which included the introduction of Bloomberg DMA (Direct Market Access) stock trading and trading services for RMB Currency Options Contracts and 5-year China Ministry of Finance Treasury Bond Futures, to satisfy customers' needs. Operating with a new securities trading platform, Po Sang Securities and Futures introduced securities trading services for retail customers and launched a series of promotional campaigns. In addition, it is in the process of introducing a number of new services, including the set-up of an Account Executive team, the expansion of its branch network, the development of a futures business and distribution of fixed income products, in order to achieve a more flexible and competitive operating strategy.

### Disposal of Chiyu Banking Corporation Limited

On 22 December 2016, the Group entered into a Sale and Purchase Agreement with Xiamen International Investment Limited ("XIL") and the Committee of Jimei Schools ("CB") and jointly made an announcement with BOC in relation to the Group's disposal of a total of 2,114,773 ordinary shares of Chiyu (representing approximately 70.49%) of the total issued shares of Chiyu (the "Disposal") by BOCHK.

The Disposal was completed on 27 March 2017 (the "Completion Date") in accordance with the terms and conditions of the Sale and Purchase Agreement. Upon completion, Chiyu ceased to be a subsidiary of both BOC and the Group. BOCHK, Chiyu and XIL entered into a Transitional Services Agreement on 22 December 2016, which took effect from the Completion Date, pursuant to which BOCHK provides certain transitional support, information technology and other assistance to Chiyu at service charges mutually agreed for a term of four years from the Completion Date (with an option for Chiyu to extend this term for two consecutive periods of one year each) to facilitate the transition.

For further information on the Disposal, please refer to the joint announcements made by BOC and the Group on 22 December 2016 and 24 March 2017.

The operating results of Chiyu, which are reported as discontinued operations, for the period up to the date of the disposal and the first half of 2016 and the gain on disposal of Chiyu are as follows:

| HK\$'m                                      | Half-year ended<br>30 June 2017 | Half-year ended<br>30 June 2016 |
|---|---------------------------------|---------------------------------|
| Profit of discontinued operations           | 85                              | 171                             |
| Gain on disposal of discontinued operations | 2,504                           | -                               |

# ASEAN strategy: orderly progress in asset integration

In the first half of 2017, the Group's asset integration in the ASEAN region was conducted in an orderly manner. On 9 January 2017, the Group completed the share acquisition of BOC Thailand, which is the Group's third entity in the ASEAN region following BOC Malaysia and BOCHK Brunei Branch.

On 28 February 2017, BOCHK entered into Asset Purchase Agreements with BOC in relation to the acquisition of the Indonesia Business and the Cambodia Business, respectively. The completion of the acquisition of the Indonesia Business took place on 10 July. Upon completion, the Head Office of Bank of China Limited, Jakarta Branch (and its eight sub-branches) changed from BOC to BOCHK. All the assets and liabilities arising in connection with the Indonesia Business have been transferred to and assumed by BOCHK in accordance with the Asset Purchase Agreement. For further information on the acquisition, please refer to the announcements made by the Group on 28 February and 6 July 2017.

In the first half of 2017, the Group's ASEAN entities achieved satisfactory growth. With the strategic goal of becoming the mainstream bank in local areas of the region, the Group was committed to pushing forward with the upgrade and transformation of the businesses of its ASEAN entities by developing local mainstream projects and businesses as well as accelerating the development of products and distribution channels. The Group also leveraged its international competitive edge, accelerated its cross-border products offerings and built up its brand image to expand its influence in the cross-border markets. At the same time, various business segments capitalised on the synergies within the Group, reinforced regional co-operation and effectively enhanced its financial service capabilities to customers. With respect to the development of distribution channels, the Group advanced its strategy for mobile and an intelligent distribution channel for its ASEAN entities to improve the local customer experience. At the end of June 2017, the total amount of deposits from customers and advances to customers of BOC Malaysia, BOC Thailand and BOCHK Brunei Branch increased by 34.8% and 17.6% respectively from the end of last year.

BOCHK will further enhance the management system and mechanism of its ASEAN entities and accelerate full integration to raise the Group's regional capabilities and service. Additionally, the Group will capitalise on Hong Kong's strong governance and advanced regulations from its status as an international financial centre to strengthen the risk management and compliance control of its ASEAN entities for their healthy and sustainable business development.

### **Technology and Operations**

The Group continued to strengthen its information technology and business operation infrastructure to support its business growth and improve its operational efficiency. In the first half of 2017, the Group stepped up its efforts in innovation to promote the real-life application of FinTech and Online-to-Offline ("O2O") integration, and improve the competitiveness and productivity of e-Finance. Development of the blockchain technology application for property valuation made good progress with the majority of valuation cases of the Group being conducted with this technology. The Group also successfully completed the first application using blockchain technology for trade finance in Hong Kong, paving the way for broader innovative ideas and application examples of FinTech in the industry. Other FinTech applications launched in the first half of the year included the use of Big Data, which enhances customer insight analysis for more effective marketing, and fingerprint authentication for mobile

banking logins. The Group also became one of the first banks in Hong Kong to bring Apple Pay to UnionPay debit card cardholders, allowing BOC Card customers to enjoy fast, convenient and secure payments at UnionPay QuickPass terminals in the Mainland of China and Hong Kong with Apple Pay. As a result of these initiatives, the total number of customers using e-channels including Internet and Mobile Banking services in the review period continued to rise, together with the total number of related transactions year-on-year.

As part of its commitment to driving innovation and enhancing its competitiveness in e-Finance, the Group signed a strategic cooperation agreement with China Mobile International and China Mobile Hong Kong. The partnership enabled all parties to develop diversified service platforms, create a core customer base, accelerate regional development and jointly develop the Southeast Asian business. In addition, the Group strived to strengthen its strategic cooperation with some of the largest Internet companies in order to expand its crossborder business and improve overall competitiveness.

As regards to its information technology ("IT") infrastructure, the Group has been working towards the global integration of the information systems of the BOC Group as part of BOC Group's global IT strategic deployment. The relocation of the disaster recovery centre was completed during the review period to improve the operational efficiency and stability of the application systems during disaster recovery, which laid a solid foundation for the Group's long-term sustainable development. In line with the Group's development in the ASEAN region, regional IT governance and processes on overseas entities have been established. The Group also enhanced the operations of ASEAN entities through lowering operating costs, improving operational efficiency and minimising operational risk to achieve more effective management of its ASEAN entities.

For technology risk prevention and control, the Group has adopted international standards and industry best practices, while continuously improving its technology risk management. To combat more frequent and complex cyber-attacks, the Group strengthened its preventive measures and detection capabilities in cybersecurity, while raising staff awareness on cyber security of the need to maintain a high level of vigilance. The Group also implemented the Cyber Resilience Assessment Framework introduced by the HKMA. The Inherent Risk Assessment was completed in May while the Maturity Assessment will be completed by the end of September as planned.

In recognition of its effort to develop blockchain technology and its application in the local banking and finance industry, BOCHK won the Hong Kong ICT Awards 2017: Best FinTech (Emerging Solutions/Payment Innovation) Gold Award. Its finger vein authentication function also won the Best Smart Hong Kong Certificate of Merit in the same award. In its 12th Retail Banking Awards by Asian Banking and Finance, BOCHK received the Mobile Banking Initiative of the Year – Hong Kong for the third consecutive year, the Digital Banking Initiative of the Year - Hong Kong for the second consecutive year, and the Online Securities Platform of the Year - Hong Kong, reflecting BOCHK's outstanding performance in e-banking services. As a commendation to BOCHK's IT governance, it was awarded the Gold Medal in the IT Governance Achievement Award in Private Sector presented by ISACA China Hong Kong Chapter.

### 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 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 offbalance 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 quidelines. 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, guality 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. In evaluating impairment of asset backed securities ("ABS") and mortgage backed securities ("MBS"), the Group continues to use a significant decline in market price and credit deterioration of the underlying assets to be the key indicators of impairment. The Group also considers other objective evidence of impairment, taking into account the impact of liquidity on market prices and the movement in loss coverage ratios of individual ABS and MBS held by the Group.

#### 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 consistent 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 subsidiaries' business requirements and risk tolerance levels. In line with the requirements set in the Group policy, the management of subsidiaries may, subject to prior consent by BOCHK, 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 revenues 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 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 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 offbalance 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 fail to provide sufficient funds to grow assets or pay due obligations, and need

to bear an unacceptable loss. 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 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 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 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"), 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; delinguency ratio and rollover rate of customer loans; and haircut of interbank placement and marketable securities. As at 30 June 2017, 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 nonfinancial 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 2017, the Group is required to maintain a LCR not less than 80%.

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 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 groupwide 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 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 financial crime 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 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 is the underwriting of longterm 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. 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 policies 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. Screening processes, such as the review of health condition and family medical history, are also included in BOC Life's underwriting procedures. The reinsurance arrangement helps transfer 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. It maintains records of the payment history for significant contract holders, with whom it conducts regular business.

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. It might induce customers to surrender their insurance policies/ contracts. A decrease in interest rates may result in an increase in insurance liability and an inability to adequately match guarantees or lower returns leading to customer dissatisfaction. 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 without incurring unacceptable loss. 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.

In order to enhance its credit risk management, BOC Life has strengthened its communication with the Group while closely monitoring and updating internal controls to ensure consistency with the Group's credit risk management and investment strategy.

### Equity price risk management

Equity price risk refers to the risk of loss due to volatility of market price in equity securities and equity funds. 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**

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.