

## MANAGEMENT'S DISCUSSION AND ANALYSIS

Management's Discussion and Analysis aims at providing meaningful analysis of the business performance and risk management of the Group. The following discussion is based on, and should be read in conjunction with, the accounts and the notes included in this Annual Report.

### Performance Measurement

Despite the demanding business environment in 2003, the Group made solid progress in achieving the financial targets set during IPO.

Financial Indicators	Targets	Performance	Result Highlights
ROE <sup>1</sup> and ROA <sup>2</sup>	Enhance ROE and ROA	<ul style="list-style-type: none"> <li>Profit attributable to shareholders increased by 17.33% to HK\$7,963 million.</li> <li>ROE and ROA increased to 13.62% and 1.08% from 12.52% and 0.94% in 2002.</li> <li>Total shareholder return<sup>3</sup> for 2003 was 91%.</li> </ul>	<ul style="list-style-type: none"> <li><b>ROE: 13.62%</b></li> <li><b>ROA: 1.08%</b></li> <li><b>Total shareholder return: 91%</b></li> </ul>
Dividend payout ratio	<b>60–70%</b>	The proposed final dividend plus interim dividend payout ratio was approximately 68%.	<ul style="list-style-type: none"> <li><b>Dividend payout ratio: 68%</b></li> </ul>
Interest margin and non-interest income <sup>4</sup>	<ul style="list-style-type: none"> <li>Enhance net interest margin</li> <li>Grow non-interest income</li> </ul>	<ul style="list-style-type: none"> <li>Due to the persistently low interest rate environment and keen competition, net interest margin fell to 1.82% from 2.00% in 2002.</li> <li>Non-interest income increased. Ratio of non-interest income to total operating income was 25.38%, up 2.35 percentage points from 2002.</li> <li>Income mix changed: Non-interest income from wealth management and treasury operation increased by 68.09% and 23.22% respectively. Loan commission income decreased by 33.75%.</li> </ul>	<ul style="list-style-type: none"> <li><b>Net interest margin: 1.82%</b></li> <li><b>Non-interest income to total operating income: 25.38%</b></li> </ul>
Cost efficiency	Maintain low cost to income ratio	Operating income decreased by 4.75%, while operating expense decreased by 6.09%. Cost to income ratio was 32.79%, down 0.47 percentage point from 2002.	<ul style="list-style-type: none"> <li><b>Cost to income ratio: 32.79%</b></li> </ul>
Asset quality	Reduce NPL ratio and classified loan ratio <sup>5</sup> to <b>4–6%</b> in medium-term	NPL ratio and classified loan ratio reduced to 5.78% and 5.82% from 7.99% and 7.98% at year-end 2002.	<ul style="list-style-type: none"> <li><b>NPL ratio: 5.78%</b></li> <li><b>Classified loan ratio: 5.82%</b></li> </ul>
Capital strength and liquidity	Maintain prudent capital and liquidity levels	Capital adequacy ratio <sup>6</sup> was 15.11% and liquidity ratio <sup>7</sup> was 37.76%, compared to 13.99% and 41.17% in 2002.	<ul style="list-style-type: none"> <li><b>Capital adequacy ratio: 15.11%</b></li> <li><b>Liquidity ratio: 37.76%</b></li> </ul>

1. ROE represents return on average shareholders' funds and is defined in "Financial Highlights".

2. ROA represents return on average total assets and is defined in "Financial Highlights".

3. Source: Bloomberg. Total shareholder return is defined as return from growth of share price as well as dividend. Dividend is assumed to be reinvested in underlying shares.

4. Non-interest income represents other operating income.

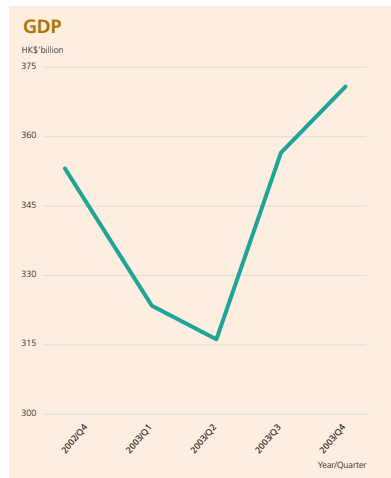
5. Percentage of loans that are classified as substandard, doubtful or loss under the HKMA's loan classification system.

6. Capital adequacy ratio is calculated according to the HKMA's requirements.

7. Calculated by simple average of each calendar month's average liquidity ratio of BOCHK.

### Business Environment

The Hong Kong economy was adversely affected by the SARS in the second quarter of 2003. However, the economy showed clear signs of recovery in the latter half of the year, led by a general improvement in the global economy, the Mainland's continued strong economic growth, the signing of CEPA and introduction of other positive initiatives to enhance economic co-operation between the Mainland and Hong Kong.



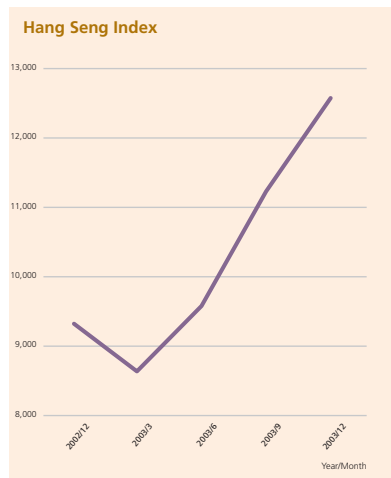
Source: HKSAR Census and Statistics Department



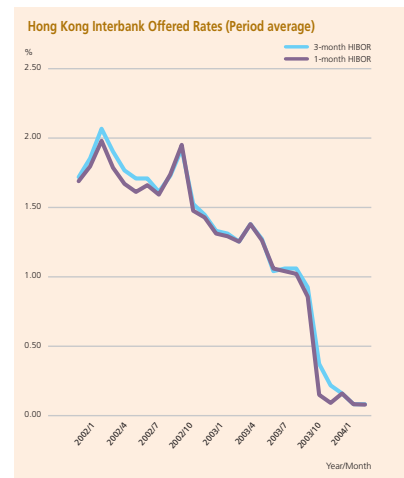
Source: HKSAR Census and Statistics Department

Under CEPA, 18 service industries have been liberalised and 273 types of products made in Hong Kong can be exported to the Mainland free of tariff. The introduction of individual visit scheme by the Mainland led to over 650,000 Mainland residents visiting Hong Kong with an estimated total spending of HK\$3.5 billion by year-end.

The business environment for the banking sector was boosted by the announcement that banks in Hong Kong are allowed to run personal RMB businesses including deposits, exchange, remittance and RMB bank cards.



Source: Bloomberg



Source: Hong Kong Monetary Authority

With these positive developments, statistics pointed to quick and strong recovery in GDP, consumer confidence, employment and new mortgage lending.

In the second half of 2003, the Hong Kong stock market rallied. On the other hand, the Hong Kong Dollar also strengthened vis-à-vis the US Dollar in late September 2003 and drove HIBOR down to the lowest level seen in many years.

These and other factors, including weak credit demand, declining net interest margin, improving asset quality and high liquidity, set the backdrop for the performance of banks operating in Hong Kong.

## Financial Overview

The Group's profit attributable to shareholders amounted to HK\$7,963 million in 2003, up HK\$1,176 million or 17.33% from the previous year. Earnings per share were HK\$0.7532, up HK\$0.1113 or 17.34%. Return on average total assets increased by 0.14 percentage point to 1.08% and return on average shareholders' funds was 13.62%, up 1.10 percentage points against 12.52% in 2002.

	2003	As restated 2002*
Operating profit before provisions (HK\$'m)	<b>11,595</b>	12,089
Operating profit after provisions (HK\$'m)	<b>9,924</b>	9,234
Profit before taxation (HK\$'m)	<b>8,691</b>	8,068
Profit attributable to shareholders (HK\$'m)	<b>7,963</b>	6,787
Earnings per share (HK\$)	<b>0.7532</b>	0.6419
Return on average total assets**	<b>1.08%</b>	0.94%
Return on average shareholders' funds	<b>13.62%</b>	12.52%

\* Certain figures for the year ended 2002 have been restated to reflect the adoption of SSAP 12 (revised) "Income taxes".

\*\* Calculation of average balance of total assets is adjusted by using daily exchange rates.

The major factors affecting our full-year results were:

- A fall in net interest income by 7.66% due to low interest rates and keen competition;
- A reduction in operating expenses by 6.09% due to cost control and merger synergy;
- A decrease in specific provision charge by 13.35% due to improved loan quality;
- The release of general provisions amounting to HK\$957 million;
- Revaluation losses on premises and investment properties totalling HK\$1,111 million; and
- The write-back of tax provision amounting to HK\$732 million.

## Consolidated Financial Review

### Financial performance

#### Total Operating Income

Total operating income, comprising net interest income and other operating income, was HK\$17,253 million, down HK\$861 million or 4.75% from last year. The decline in net interest income was partially offset by an increase in other operating income.

**Net Interest Income and Margin**

HK\$m, except percentage amounts	2003	2002
Interest income	<b>17,759</b>	21,463
Interest expense	<b>(4,885)</b>	(7,521)
Net interest income	<b>12,874</b>	13,942
Average interest-earning assets <sup>#</sup>	<b>706,479</b>	695,978
Net interest spread <sup>#</sup>	<b>1.73%</b>	1.87%
Net interest margin <sup>#</sup>	<b>1.82%</b>	2.00%

<sup>#</sup> Calculations of average balance of interest-earning assets and interest-bearing liabilities are adjusted by using daily exchange rates.

Net interest income was HK\$12,874 million, down HK\$1,068 million or 7.66% from 2002. Average interest-earning assets increased by HK\$10,501 million, or 1.51%, to HK\$706,479 million. Net interest margin fell by 18 basis points, a result of 14 and 4-basis point decline in net interest spread and net free fund contribution respectively.

Yields of major interest-earning assets, including loans, interbank placings and debt securities dropped primarily due to declining interest rates. Cost of funding from customer deposits fell as well but to a lesser extent partly because a large portion of customer deposits was Hong Kong Dollar saving deposits, which already reached a near-zero level of interest rate with not much room for further reduction.

In 2003, average 1-month HIBOR and 3-month HIBOR both fell by 82 basis points to 0.99% and 1.04% respectively when compared with 2002. HIBOR continued to fall particularly in the latter half of the third quarter and early fourth quarter when the Hong Kong Dollar strengthened sharply vis-à-vis the US Dollar. As a result, annualised net interest margin continued to decline from 1.89% for the half-year ended 30 June 2003 to 1.82% for the full year.

**Other Operating Income**

HK\$m, except percentage amounts	2003	2002
Fees and commission income	<b>3,855</b>	3,649
Fees and commission expenses	<b>(858)</b>	(701)
Net fees and commission income	<b>2,997</b>	2,948
Dividend income from investments in securities	<b>45</b>	34
Net loss from other investments in securities	<b>(108)</b>	(61)
Net gain from foreign exchange activities	<b>965</b>	824
Net gain from other dealing activities	<b>42</b>	14
Net rental income from investment properties	<b>161</b>	192
Others	<b>277</b>	221
Other operating income	<b>4,379</b>	4,172
Non-interest income to total operating income ratio	<b>25.38%</b>	23.03%

Other operating income was up HK\$207 million, or 4.96%, to HK\$4,379 million, accounting for 25.38% of total operating income against 23.03% in 2002.

Net fees and commission income was up HK\$49 million, or 1.66%, to HK\$2,997 million. The composition of revenues changed during the year. Income from wealth management business, including income from distribution of life insurance products, commissions on sales of investment funds, retail bonds and securities transactions executed for customers, was up

HK\$431 million, or 68.09%, to HK\$1,064 million due to higher business volumes. This was mainly driven by higher stock turnover and demand for alternative investments under the low interest rate environment. In the first half, there was strong growth in the distribution of life insurance products. Owing to the rally of the stock market in the second half, stock broking commission income increased substantially. Moreover, sales of investment funds and retail bonds continued to grow. Income from levy on low-balance Hong Kong Dollar savings accounts also increased from last year when the levy was first introduced. The above positive factors were partially offset by a decrease in loan commission income due to lower rates and business activities.

Net loss from other investments in securities increased to HK\$108 million mainly due to losses on the disposal of debt securities.

Net gain from foreign exchange activities increased by HK\$141 million, or 17.11%, to HK\$965 million mainly due to higher business volume.

Net rental income from investment properties decreased by HK\$31 million, or 16.15%, to HK\$161 million due to lower property rental values and a reduction in investment property holdings.

#### Operating Expenses

HK\$m, except percentage amounts	2003	2002
Staff costs	3,316	3,578
Premises and equipment expenses (excluding depreciation)	732	803
Depreciation on owned fixed assets	611	632
Other operating expenses	999	1,012
Operating expenses	5,658	6,025
Cost to income ratio	32.79%	33.26%

Operating expenses decreased by HK\$367 million, or 6.09%, to HK\$5,658 million. The cost to income ratio improved by 0.47 percentage point to 32.79%, as a result of disciplined cost control and operational efficiency improvement.

Staff costs fell by HK\$262 million, or 7.32%, to HK\$3,316 million, mainly due to a decrease in average headcount.

Premises and equipment expenses were down HK\$71 million, or 8.84%, to HK\$732 million due to savings from the rationalisation of business operations and a decrease in rental expenses. This was partially offset by an increase in information technology expenses. The increase in information technology expenses in the second half was primarily due to the delay of certain IT projects during the SARS outbreak period.

Other operating expenses include legal and professional expenses, advertising expenses, utility expenses, printing expenses, expenses for security and guard services etc. These expenses were contained as a result of disciplined cost control under deflationary economic conditions. However, this was partially offset by additional professional expenses incurred for carrying out the special review in the interim period.

**Charge for Bad and Doubtful Debts**

HK\$m, except percentage amounts	2003	2002
Specific provisions		
• new provisions	<b>3,834</b>	4,519
• releases	<b>(768)</b>	(582)
• recoveries	<b>(438)</b>	(904)
	<b>2,628</b>	3,033
General provisions	<b>(957)</b>	(178)
Net charge to profit and loss account	<b>1,671</b>	2,855
Average credit cost*	<b>0.83%</b>	0.95%

\* Computed by dividing specific provision charge for the year by average daily balance of loans.

The charge for bad and doubtful debts decreased by HK\$1,184 million, or 41.47%, to HK\$1,671 million due to a reduction in the specific provision charge and the release of general provisions. Average credit cost declined by 0.12 percentage point to 0.83% in 2003.

New specific provision charge decreased by HK\$685 million, or 15.16%, to HK\$3,834 million, reflecting the improvement in credit quality. Specific provision releases increased by HK\$186 million, or 31.96%, to HK\$768 million. Specific provision recoveries for loans previously written off fell by HK\$466 million, or 51.55%, to HK\$438 million, mainly due to strong recovery performance in 2002 when dedicated initiatives were introduced.

Because of the lower overall risk profile of the loan portfolio as evidenced by improved loan quality and lower classified loan formation, HK\$957 million of general provisions was released.

**Property Revaluation**

HK\$m	2003	2002
(Decrease)/increase in property revaluation reserves	<b>(48)</b>	33
Charge to profit and loss account	<b>(1,111)</b>	(977)
Net change in valuation	<b>(1,159)</b>	(944)

To reflect the change in property prices in Hong Kong, two revaluation exercises on the Group's premises and investment properties were conducted separately at 30 June 2003 and at 31 October 2003.

All investment properties were revalued on the basis of their open market values by Chesterton Petty Limited, an independent firm of chartered surveyors, resulting in a charge to the profit and loss account of HK\$370 million. Having regard to the independent professional valuations carried out on the majority of premises by the valuer, the revaluation of premises resulted in a charge to the profit and loss account of HK\$741 million and a decrease in the premises revaluation reserve of HK\$48 million.

**Taxation**

HK\$'m	2003	As restated 2002*
Hong Kong profits tax	576	1,138
Overseas taxation	11	15
Share of taxation attributable to associates	2	1
<b>Taxation</b>	<b>589</b>	<b>1,154</b>

\* Certain figures for the year ended 2002 have been restated to reflect the adoption of SSAP 12 (revised) "Income taxes".

Taxation was down HK\$565 million, or 48.96%, to HK\$589 million, primarily due to the write-back of HK\$732 million of tax provision in prior years, which was no longer required after the finalisation of tax losses arising from our predecessor merging branches and the tax positions of BOCHK with the Inland Revenue Department in 2003. In 2003, the Group adopted SSAP 12 (revised) "Income taxes", which represented a change in accounting policy. The change in accounting policy is set out in Note 3 to the accounts.

**Financial position****Balance Sheet**

HK\$'m, except percentage amounts	at 31 Dec 2003	As restated at 31 Dec 2002*
Cash and short-term funds	134,106	115,075
Placements with banks and other financial institutions maturing between one and twelve months	78,240	80,159
Certificates of deposit held	18,776	17,528
Hong Kong SAR Government certificates of indebtedness	31,460	29,110
Investments in securities**	172,518	158,633
Advances and other accounts	300,094	308,332
Fixed assets	17,582	20,212
Other assets#	9,811	6,487
<b>Total assets</b>	<b>762,587</b>	<b>735,536</b>
Hong Kong SAR currency notes in circulation	31,460	29,110
Deposits and balances of banks and other financial institutions	41,347	29,957
Deposits from customers	600,642	600,977
Certificates of deposit issued	2,432	–
Other accounts and provisions	25,289	17,707
<b>Total liabilities</b>	<b>701,170</b>	<b>677,751</b>
Minority interests	1,156	1,114
Shareholders' funds	60,261	56,671
<b>Total liabilities and capital resources</b>	<b>762,587</b>	<b>735,536</b>
Loan to deposit ratio	51.38%	53.42%

\* Certain figures for 2002 have been restated to reflect the adoption of SSAP 12 (revised) "Income taxes".

\*\* Investments in securities comprise held-to-maturity securities, investment securities and other investments in securities.

# Trade bills and investments in associates are included in other assets.



Total assets were HK\$762,587 million as at 31 December 2003, up HK\$27,051 million or 3.68% from year-end 2002.

Investments in securities rose by HK\$13,885 million, or 8.75%, to HK\$172,518 million. Similar to year-end 2002, approximately 95% of investments in securities will mature within five years and approximately 70% of them were issued by banks and other financial institutions.

Advances to customers were HK\$308,582 million, down HK\$12,452 million or 3.88% from year-end 2002, mainly due to large write-offs and collections totalling HK\$13,968 million. The loan to deposit ratio was 51.38% at 31 December 2003, down 2.04 percentage points from year-end 2002. In terms of industry sectors, loans for use in Hong Kong by the industrial, commercial and financial sectors decreased by HK\$17,143 million or 9.81%. This was partially offset by an increase of HK\$1,558 million or 1.32% in loans for use in Hong Kong by individuals, HK\$978 million or 11.02% in trade finance and HK\$2,155 million or 11.04% in loans for use outside Hong Kong.

The growth in loans for use in Hong Kong by individuals was mainly driven by a 4.83% increase in residential mortgage loans (excluding government-sponsored home purchasing schemes), following the stabilisation of the residential property market. Card advances also increased by 5.68% from year-end 2002 as consumer confidence quickly recovered in the second half. The growth was partially offset by a decrease in loans for use under the government-sponsored home purchasing schemes and other individual loan uses.

The decline in loans for use in Hong Kong by industrial, commercial and financial sectors was mainly caused by large write-offs and collections and weak corporate credit demand. Lending to property development and property investment sectors decreased by HK\$7,667 million, or 9.88%, to HK\$69,916 million and their proportion to total advances reduced from 24.17% at year-end 2002 to 22.66% at 31 December 2003.

Fixed assets amounted to HK\$17,582 million as at 31 December 2003, down HK\$2,630 million or 13.01% from year-end 2002. The decline was mainly attributable to the disposal of premises and investment properties of HK\$1,204 million, deficits on the revaluation of premises and investment properties of HK\$1,159 million and depreciation charges.

Total liabilities increased by HK\$23,419 million, or 3.46%, to HK\$701,170 million from year-end 2002.

Deposits from customers were HK\$600,642 million as at 31 December 2003, down HK\$335 million or 0.06% from year-end 2002. Customers continued to shift funds from time deposits to savings deposits under the low interest rate environment. Savings deposits rose by 32.82% and time, call and notice deposits declined by 19.44%. In the second half, retail certificates of deposit were issued and the outstanding balance amounted to HK\$2,432 million at year-end.



**Asset Quality**

HK\$m, except percentage amounts	at 31 Dec 2003	at 31 Dec 2002
Advances to customers	<b>308,582</b>	321,034
General provisions	<b>(5,406)</b>	(6,363)
Specific provisions	<b>(5,507)</b>	(8,650)
General provisions as a percentage of advances to customers	<b>1.75%</b>	1.98%
Specific provisions as a percentage of advances to customers	<b>1.78%</b>	2.69%
Total provisions as a percentage of advances to customers	<b>3.54%</b>	4.68%
Non-performing loans	<b>17,832</b>	25,659
Specific provisions made in respect of non-performing loans	<b>(5,467)</b>	(8,637)
Specific provisions as a percentage of non-performing loans	<b>30.66%</b>	33.66%
Specific provisions and collateral coverage for classified loans	<b>90.95%</b>	90.08%
Loan loss reserve as a percentage of non-performing loans	<b>61.20%</b>	58.51%
Non-performing loan ratio	<b>5.78%</b>	7.99%
Classified loan ratio	<b>5.82%</b>	7.98%
Residential mortgage loans*		
Delinquency** and rescheduled loan ratio	<b>1.10%</b>	1.75%
Card advances		
Delinquency ratio** #	<b>0.75%</b>	1.26%
Charge-off ratio#	<b>8.86%</b>	12.87%

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

\*\* Delinquency ratio is measured by a ratio of total amount of overdue loans (more than three months) to total outstanding loans.

# Computed according to the HKMA's definition.

The Group achieved significant improvement in asset quality during the year. NPLs amounted to HK\$17,832 million, down HK\$7,827 million or 30.50% from year-end 2002. The NPL ratio and classified loan ratio fell to 5.78% and 5.82% from 7.99% and 7.98% respectively at year-end 2002. The marked improvement in NPL ratio and classified loan ratio were due to effective credit risk controls, write-offs and collections. During the year, approximately HK\$7,759 million of classified loans were recovered through cash collections and collateral disposal whereas HK\$6,209 million of bad debts were written off.

General provisions and specific provisions as a percentage of advances to customers were 1.75% and 1.78%, down 0.23 and 0.91 percentage point respectively. Specific provisions as a percentage of non-performing loans decreased from 33.66% a year ago to 30.66% as at 31 December 2003. The specific provisions and collateral coverage ratio for classified loans was 90.95%, compared to 90.08% at year-end 2002, reflecting the adequacy of provisioning. The loan loss reserve ratio also improved to 61.20% as at 31 December 2003 from 58.51% at year-end 2002.

The quality of the Group's residential mortgage portfolio improved. The combined delinquency and rescheduled loan ratio decreased from 1.75% at year-end 2002 to 1.10% as at 31 December 2003, which was better than the market average of 1.38%.

The quality of the Group's card advances also improved. The delinquency ratio fell from 1.26% at year-end 2002 to 0.75% as at 31 December 2003. The charge-off ratio decreased from 12.87% in 2002 to 8.86% in 2003.

**Capital and Liquidity Ratios**

HK\$m, except percentage amounts	at 31 Dec 2003	at 31 Dec 2002*
Tier 1 capital	<b>56,755</b>	54,357
Tier 2 capital	<b>4,997</b>	5,200
Unconsolidated investments and other deductions	<b>(1,429)</b>	(1,572)
Total capital base after deductions	<b>60,323</b>	57,985
Risk-weighted assets		
On-balance sheet	<b>362,531</b>	369,345
Off-balance sheet	<b>37,249</b>	46,624
Deductions	<b>(622)</b>	(1,572)
Total risk-weighted assets	<b>399,158</b>	414,397
Total risk-weighted assets adjusted for market risk	<b>396,682</b>	402,997
Capital adequacy ratios		
Before adjusting for market risk		
Tier 1	<b>14.22%</b>	13.12%
Total	<b>15.11%</b>	13.99%
After adjusting for market risk		
Tier 1**	<b>14.31%</b>	13.49%
Total**	<b>15.21%</b>	14.39%
Average liquidity ratio#	<b>37.76%</b>	41.17%

\* Prior year comparatives have not been restated on adoption of SSAP 12 (revised) "Income taxes".

\*\* The capital adequacy ratios take into account market risks and are calculated in accordance with the relevant HKMA guidelines.

# Calculated by simple average of each calendar month's average liquidity ratio of BOCHK.

The Group's capital strength remained robust. The consolidated capital adequacy ratio increased from 13.99% as at 31 December 2002 to 15.11% as at 31 December 2003.

The capital base grew by 4.03% with an increase in retained profits. The decrease in risk-weighted assets was primarily attributable to a drop of 1.84% and 20.11% in on-balance sheet risk-weighted assets and off-balance sheet risk-weighted assets respectively. The former was due to a decrease in advances to customers, while the latter was mainly due to a decrease in 100% risk-weighted direct credit substitutes and other commitments with an original maturity of one year and over. In addition, risk-weighted asset deductions, comprising excess general provisions and revaluation reserves, declined mainly due to the release of general provisions.

BOCHK's liquidity position remained strong with an average liquidity ratio of 37.76%, 3.41 percentage points lower than 41.17% for 2002, reflecting the migration of customer deposits to shorter maturities.

## Regulatory Development

### **Basel new capital accord**

The Basel Committee is in the process of developing a New Capital Accord, also known as Basel II, to replace the existing one, which is currently adopted in Hong Kong. Basel II covers a wider range of risks, encourages use of quantitative techniques for risk assessment and promotes greater transparency of risk management information. The HKMA has been closely working with banks in Hong Kong on reaching a practical and appropriate implementation approach. The complexity of Basel II requires significant resources to be invested in risk management data, systems and operations. The Group has been preparing itself for the changes and has designated projects and plans for the new standard.

### Accounting standards development

After the final pronouncement of the revised IAS 32 “Financial Instruments: Disclosure and Presentation” and IAS 39 “Financial Instruments: Recognition and Measurement” by the IASB in December 2003, it is likely that HKSA will adopt these two standards in full so as to maintain the conformity with the IAS. These two accounting standards provide comprehensive guidance on the accounting for financial instruments, which is a complex issue to the banking industry worldwide. The adoption of these new standards may involve different levels of change to the existing systems and processes or even the way banks conduct their business. In view of the complexity, the Group will continue to evaluate the impact and prepare itself for future implementation.

## Business Review

### Commercial banking

The commercial banking segment consists of our retail banking and corporate banking businesses.

HK\$m, except percentage amounts	Second half 2003	First half 2003	Full year 2003	Full year 2002
Net interest income	4,405	4,987	9,392	10,876
Other operating income	1,671	1,445	3,116	3,110
Operating income	6,076	6,432	12,508	13,986
Operating expenses	(2,243)	(2,130)	(4,373)	(4,504)
Operating profit before provisions	3,833	4,302	8,135	9,482
Charge for bad and doubtful debts	(2)	(1,669)	(1,671)	(2,855)
Operating profit after provisions	3,831	2,633	6,464	6,627
Segment assets			310,008	313,429
Segment liabilities			621,211	612,240

Note: For additional segmental information, see Note 40 to the accounts.

#### Segmental financial highlights

- Net interest income decreased by 13.64% due to narrowing spreads, reflecting lower interest rates, keen competition in the retail and corporate lending business and subdued credit demand.
- Other operating income was stable as a result of lower loan commission income and strong growth in wealth management income. Better second-half performance was due to strong growth in commission income from securities broking and stable income from bills and loan commissions.
- Costs were well contained.
- Substantial drop in the charge for bad and doubtful debts was mainly due to a lower new specific provision charge and the release of general provisions. Lower classified loan formation in both the retail and corporate banking loan portfolios helped to improve overall loan quality. Second-half charge was particularly low mainly attributable to a much lower new specific provision charge and larger release of general provisions, reflecting improvement in loan quality and a reviving economic environment.
- Overall, a larger decrease in net interest income reduced the segment's operating profit after provisions.



### **Retail banking**

**A solid year for retail banking business.** Declining interest rates reduced the interest income from retail banking business. This was partially offset by strong performance in wealth management and lower credit cost.

*Wealth management:* The low interest rate environment stimulated demand for alternative investments. To capture these business opportunities, we focused on our strategic priority of expanding the line of wealth management products, including investment funds, retail bonds and life insurance plans. We also actively promoted our option-linked products as an alternate to traditional deposits products. In 2003, securities broking, investment fund and retail bond sales, and life insurance product distribution registered strong growth respectively in business volume.

*Mortgage:* During the year, new mortgage products were launched to meet the sophisticated needs of our customers, including new mortgage insurance programmes, the All-You-Want Mortgage Scheme and the Smart Mortgage Scheme. We maintained a leadership position in mortgage services. Our mortgage balance showed an increase of 4.83% against a 2.41% market decrease. At the same time, the credit quality of mortgage loans improved. The delinquency and rescheduled loan ratio declined to a level below the market average. Furthermore, with stabilising residential property prices, the negative equity ratio dropped to 13% by year-end against the market average of 20%.

*Credit card business:* In April 2003, we successfully migrated to a new operating system, our prime objective being to increase competitiveness by enhancing the delivery of tailor-made and comprehensive value-added services.

In the first half of 2003, the card business was affected by the SARS outbreak and weak consumer confidence. Nevertheless, we were able to benefit from the economic rebound in the second half through continuous marketing efforts. The number of cards issued and cardholder spending grew by 34.60% and 19.81% respectively. Card advances were up 5.68%, outperformed the market average of 4% negative growth. Furthermore, our merchant acquiring business in Hong Kong, Macau and the Mainland China achieved a total growth of 3.27% by transaction value. The credit quality of card advances improved significantly during the year. Our charge-off ratio dropped from 12.87% to 8.86% compared to the industry average of 10.02% as released by the HKMA.

*Channels:* As part of our initiative to reengineer branch distribution, the first phase of our pilot programme was completed and 3 new Personal Financial Service Centres were opened. In the future we will see branches becoming more specialised to include VIP Branches, Personal Financial Service Centres, Investment Centres and 24-hour Automated Banking Centres. In addition, 33 traditional branches were closed in 2003. At year-end 2003, the total number of branches was 304, as compared to 334 at year-end 2002. ATMs are an extension of our branch network and, during the year, we increased the number of ATMs from 435 to 449.

e-Banking is an important channel for the rationalisation of our operations. During the year, we expanded our range of products and services available through electronic distribution channels to include online remittance service, credit card application, guaranteed fund trading service and electronic consolidated statements. We also upgraded our telephone banking and internet banking system to provide 24-hour service capability and customer friendly features.

The SARS outbreak increased customer demand for and acceptance of the delivery of financial services through electronic channels. With more efforts put into the development of the channels, by December 2003 it's Online Banking customers grew by 61% whereas monthly financial transactions through internet grew by 73% from six months ago.

### ***Corporate banking and financial institutions***

**A year of turbulence and consolidation.** 2003 continued to be a difficult year for corporate banking as credit demand remained sluggish and competition was keen. Fees and commission income declined in light of keen competition. However, through strengthened credit risk management, overall corporate loan quality improved significantly. This manifested itself in lower classified loan formation and a significant drop in the classified loan ratio.

During the year, we maintained our position as a leading arranger of Hong Kong/China syndicated loans. We also continued to focus on strengthening trade finance services by setting up a specialised factoring division to provide one-stop service to customers. As part of our efforts to strengthen our SME business, we launched the SMEs Financing Scheme and Corporate Tax Loan targeting SME clients. In trade services, the amount of bills processed increased more than 4% despite the difficult operating environment. Our services will be available through an additional channel with the completion of the internet Corporate Banking System, an internet-based channel scheduled to be launched in 2004 upon approval by the HKMA.

We made encouraging progress in developing business with financial institutions including syndicated lending and private placing and trading of depository certificates issued by those institutions. In November, we also launched the USD Real Time Gross Settlement between Hong Kong and Shenzhen.

Having been appointed by the People's Bank of China as the Clearing Bank for RMB business in Hong Kong, we are committed to providing efficient RMB clearing services to participating banks.

### ***Mainland branches and China-related business***

**New developments explored and opportunities increased.** In 2003, we continued to grow our business in the Mainland. Our 14 Mainland branches now provide more diversified services and products to customers. Early in the year, we rolled out the Automated Fund Transfer service so that Mainland mortgagors can make repayments through any of our branches in Hong Kong. To our corporate customers, we offer foreign currency loans services to allow them to take advantage of the interest rate differential.

In January 2003, we launched BOC Prestige Banking Services jointly with BOC to capitalise on our extensive branch network. This premier one-stop banking service is designed for customers who frequently travel between Hong Kong and the Mainland China.

In September 2003, we signed an agency co-operation agreement, the first in Hong Kong, with China UnionPay, a shareholding financial institution comprising more than 80 financial institutions in the Mainland China. By year-end, we have successfully installed over 4,000 new terminals with merchants in Hong Kong that enable China UnionPay card transactions. In view of the introduction and expansion of the individual visit scheme, this business would contribute to our revenue growth.

We also made good progress in channel development with the launch of iT's Online Banking and Telephone Banking in January 2004. These electronic banking services enable customers from the Mainland China to manage their finances regardless of time and distance.

### Treasury

Our treasury activities include money market, foreign exchange dealing and capital market activities. The following table summarises the performance of our treasury segment.

HK\$m, except percentage amounts	Second half 2003	First half 2003	Full year 2003	Full year 2002
Net interest income	1,707	1,275	2,982	2,375
Other operating income	279	639	918	745
Operating income	1,986	1,914	3,900	3,120
Operating expenses	(80)	(82)	(162)	(174)
Operating profit before provisions	1,906	1,832	3,738	2,946
Charge for bad and doubtful debts	–	–	–	–
Operating profit after provisions	1,906	1,832	3,738	2,946
Segment assets			432,947	400,100
Segment liabilities			77,671	62,431

Note: For additional segmental information, see Note 40 to the accounts.

#### Segmental financial highlights

- Net interest income increased by 25.56% mainly due to a decrease in interest allocated to the commercial banking under a declining interest rate environment. This increase was partially offset by a decrease in interest income from segment interest-earning assets.
- Other operating income increased by 23.22% mainly due to gains from foreign exchange activities but was partially offset by losses incurred on the disposal of debt securities.
- Overall, increases in both net interest income and other operating income raised the segment's operating profit after provisions.

**Surplus funds effectively managed and non-interest income increased.** During the year, against the background of persistently low interest rates and weak credit demand, we actively managed surplus funds for better returns and ensured an increase in non-interest income.

We expanded our business further by offering more treasury products with augmented features to customers. Also, by taking advantage of cross selling opportunities from both retail and corporate customers, our customer base and transaction volume grew strongly. As customer demand for foreign exchange and bullion trading increased under the highly volatile currency and bullion market conditions in 2003, the volumes of foreign exchange margin trading transactions and precious metals margin trading transactions rose by 50% and 280% respectively as compared to 2002.

### ***Corporate development, technology and operations***

*Human resources:* During the year, the Group focused on aligning corporate values with our business needs. We also kept on pursuing the strategy of linking performance to reward by implementing various incentive plans in 2003.

Employee training programmes were introduced to support the delivery of quality banking services. About 1,000 training courses for over 60,000 employees at all levels of staff were offered. These included courses and seminars on compliance, corporate governance, corporate culture, quality service and team building. We also offered a series of “sales and services” training programmes to our front-line staff to enhance their customer relationship skills and to promote quality services. To provide a dynamic and diversified learning channel, we successfully launched the first e-learning management training programme. Moreover, to meet the needs of future business development, we tailor-made some orientation programmes for newly recruited university graduates. The investment in people and human resources is an ongoing strategy.

By year-end, the total number of employees of the Group, including all the subsidiary companies, was 13,188, a reduction of 251 over last year.

*Technology and operations:* As business competition becomes increasingly keen, it is our strategic initiative to enhance our information infrastructure for sustainable business growth. In 2003, an IT Programme Management Office was established as a central point for resource allocation, coordination and monitoring of core projects. Most initiatives for 2003 were successfully completed and major projects are proceeding on schedule.

To increase operational efficiency, we successfully launched the first phase of the Information Processing Centralisation Project. A local document scanning centre, a document warehouse and a data entry centre in Shenzhen were established.

We also joined the Cheque Imaging and Truncation Scheme, which helps strengthen cheque-processing capability and reduce operational risk. Enhancements and new functions of the Remittance System were rolled out to improve the payment efficiency and to provide more service delivery channels to customers. The Credit Workflow Management System was launched and is now being applied in residential mortgage loan application. This functionality will be applied in corporate loan application in the first half of 2004 to enhance our credit workflow and service quality.

### **Credit Ratings**

During the year, the credit ratings of BOCHK were revised by the rating agencies.

On 11 June 2003, Standard & Poor's revised the outlook on BOCHK to negative from stable. As at 31 December 2003, BOCHK's long-term and short-term counterparty credit ratings as assigned by Standard & Poor's were BBB+ and A-2.

On 16 October 2003, Moody's upgraded its long-term foreign currency bank deposit rating on BOCHK to A2 from Baa1, and its short-term foreign currency bank deposit rating on BOCHK to P-1 from P-2. The rating outlook remained stable and the financial strength ratings remained unaffected. As at 31 December 2003, BOCHK's long-term and short-term foreign currency bank deposit ratings as assigned by Moody's were A2 and P-1.

	Long-term	Short-term
Moody's	A2	P-1
Standard & Poor's	BBB+	A-2

These rating agencies review the ratings assigned to BOCHK periodically and may confirm or change these ratings from time to time as a result of their reviews.

## Risk Management

### Overview

Management of risk is fundamental to the business of the Group and is an integral part of its strategy. The principal types of risk inherent in the Group's business include credit risk, market risk (comprising interest rate risk and exchange rate risk), liquidity risk and operational risk. The Group's risk management goal is to maximise its long-term risk-adjusted return on capital, reduce the wide volatility in earnings and enhance shareholder value. To achieve this, BOCHK measures and controls the risks involved in its business activities and ensure that they are within acceptable levels.

### Risk management structure

BOCHK's risk management policies are designed to identify and analyse credit risk, market risk, liquidity risk and operational risk, to set appropriate risk limits, and to continually monitor these risks and limits by means of administrative procedures and information systems. BOCHK continually modifies and enhances its risk management policies and procedures to reflect changes in markets and products.

To achieve risk management goals, BOCHK has established a centralised, independent and comprehensive risk management structure that involves the following elements:

- a standardised corporate governance structure to provide active oversight and participation by the Board of Directors, committees and senior management;
- reporting lines that are independent of BOCHK's SBUs;
- uniform risk management policies, procedures and limits by which BOCHK identifies, measures, monitors and controls inherent risks;
- improved risk measurement, monitoring and management information systems to support business activities and risk management; and
- clearly defined risk management responsibilities and accountability.

The RMC under the Board of Directors is responsible for approving risk management policies and procedures and significant asset and liability management policies proposed by the ALCO.

Each SBU is responsible for implementation of appropriate policies, procedures and controls in relation to risk management. Our CRO oversees and monitors the operations of the RMD and reports directly to the RMC. Our CRO is also responsible for assisting the Chief Executive on the bank-wide credit risk, market risk and operational risk management and submitting the RMC the independent risk management report each month.



Our CFO has oversight responsibilities for the soundness of the Group's capitalisation and earnings. In addition, our CFO, with assistance of the Treasurer, monitors the bank-wide interest rate risk and liquidity risk and reports to the ALCO and the RMC on a regular basis.

The Audit Department of BOCHK reports to the Board and the Audit Committee that risk management policies, procedures and internal controls are in place and are being followed.

BOCHK's principal banking subsidiaries, Nanyang and Chiyu, also face the same types of inherent business risks and they adopt consistent risk management strategies and policies as BOCHK. These subsidiaries execute their risk management strategy independently and report functionally to BOCHK on a regular basis.

### ***Credit risk management***

Credit risk is the risk that a customer or counterparty will be unable or unwilling to meet a commitment that it has entered into with BOCHK. Credit risk arises principally from BOCHK's lending, trade finance and treasury activities.

BOCHK's primary goal in credit risk management is to maximise its risk-adjusted returns while maintaining its credit risk exposure within acceptable parameters. In particular, BOCHK has developed and implemented comprehensive policies and procedures to identify, measure, monitor and control credit risk across the organisation. BOCHK's credit risk management structure seeks to meet its primary goal by:

- establishing an appropriate credit risk environment;
- enforcing prudent procedures for approving credits;
- maintaining an appropriate credit administration, measurement and monitoring process; and
- ensuring adequate independent oversight and controls over credit risk.

Consistent with BOCHK's overall risk management objectives, the key principles that ensure effective implementation of BOCHK's credit risk management strategy are:

- balancing BOCHK's tolerance for risk with the level of expected returns;
- diversifying BOCHK's loan portfolio by geographic regions, industries, products, customers, maturities and currencies;
- maintaining the independence of the credit review process to ensure risk assessment and monitoring are conducted in an objective and comprehensive manner;
- emphasising the importance of cash flow as an essential factor in assessing applicants' repayment ability;
- compliance with legal and regulatory requirements;
- assigning clearly defined credit risk management responsibilities and accountability to each relevant operating unit and people involved in the risk management process;
- avoiding over-reliance on collateral and guarantees;
- ensuring accurate measurement and full disclosure of credit risk exposure; and
- maintenance of consistent credit policy.



"Seminar on Differentiation of RMB Banknotes Features" was organised for customers

### **Credit risk management structure**

BOCHK's Board of Directors, representing the shareholders' overall interests, is responsible for determining its credit risk management strategic objectives and principles. The Board, with the aim of maximising BOCHK's risk-adjusted returns as well as shareholders' wealth, holds ultimate responsibility for BOCHK's overall credit risk management process.

The RMC is a board level committee that has the responsibility of determining and revising BOCHK's credit risk management policies and procedures. BOCHK believes that independence and proper checks-and-balances are of critical importance in effective risk management. To this purpose, in BOCHK's managerial/organisational structure, the RMD and the Audit Department are placed onto the hierarchical position in which they report directly to the RMC and the Audit Committee respectively. All these committees and departments form an independent line of control.

In addition, respective responsibilities, accountability and authorities related to credit risk management are clearly defined throughout BOCHK.

The Chief Executive is responsible for, among other things, implementing the credit risk management strategy and policies approved by the Board. The Chief Executive is also charged with balancing BOCHK's goal of generating a high yield on its assets with the need to maintain risk exposure within the shareholders' tolerance level.

The Credit Committee has primary responsibility for reviewing and approving significant loans, which exceeding the credit extension limit of the deputy chief executives of credit initiation unit, loans exceeding the credit extension limit of the head of the Special Assets Management Department in the course of restructuring classified loans, loans exceeding the veto right of the CRO and applications which have been vetoed by our CRO and in respect of which an appeal has been lodged with the Credit Committee. BOCHK's credit initiation units, such as Corporate Banking, Retail Banking and China Business Head Office, act as the first line of risk control. They are required to conduct business activities within the limits of delegated authority and in accordance with BOCHK's credit risk management strategy, policies and procedures.

The RMD, being structurally independent to credit initiation units, assists the Chief Executive in managing credit risk based on the credit risk management strategy and policies. It also provides independent due diligence relating to identifying, measuring, monitoring and controlling credit risk. To avoid any potential conflicts of interest, the credit review functions are independent of the business units. Multilevel credit approval authorities are set depending mostly on the credit officers' professional experience, skill and responsibilities. All credit approval and review authorities originate from BOCHK's Board of Directors.

The Special Assets Management Department is responsible for the collection of NPLs. Other departments, though not specified above, are also charged with relevant matters in relation to credit risk management.

### ***Credit approval procedures***

BOCHK employs discriminatory approval procedures for high-risk loans, low-risk loans and significant loans.

Low-risk credit transactions that fulfill certain requirements relating to credit types, loan purposes, loan amount, guarantees, collateral coverage and security adequacy processed using low-risk loan approval procedures. Under these procedures, authorised credit officers in credit initiation units may approve this type of credit applications without prior review by the RMD. The corresponding loan review officer in the RMD should conduct independent post-approval reviews of such pre-approved low-risk credit transactions and assess if initial credit decisions have been made in accordance with the established procedures.

For high-risk loans, credit officers in credit initiation units can only accept and review loan applications and make the initial lending decisions. These credit applications are then independently evaluated by review officers in the RMD in the respect of compliance with policies and procedures, adequacy of credit risk assessment, and information sufficiency. The RMD is authorised to exercise the right of veto or concurrence based on the review conclusions.

Significant loans as above-mentioned are reviewed and approved by the Credit Committee.

### ***Credit risk assessment***

The result of credit risk assessments is a critical factor in making credit decisions. BOCHK's credit assessment emphasises a thorough understanding of the purpose and structure of a loan, the borrower's financial status, cash flow position and repayment ability as well as business management. BOCHK also evaluates the industry risk associated with the corporate borrowers. When assessing an individual loan application, BOCHK considers overall credit risk at the portfolio level.

### ***Credit risk monitoring***

BOCHK has a dedicated division, the RMD, to conduct thorough and comprehensive post-disbursement monitoring on each obligor and group of obligors in order to identify and control individual and overall credit risk in the loan portfolio.

An early alert programme for potential problem customers is in place to detect early signs of deterioration in credit status of obligors and to trigger closer monitoring process to prevent further deterioration.

To ensure that adequate efforts are dedicated to resolve NPLs, BOCHK has set up internal targets to evaluate the performance in the resolution of criticised loans. The RMD provides regular monitoring reports on the progress to senior management for high-level oversight.

### **Market risk management**

Market risk is the risk that the movements in interest rates or market prices will result in losses in on- and off-balance sheet positions. BOCHK's market risk arises from customer-related business and from position taking. Market risk trading positions are subject to daily mark-to-market valuation.

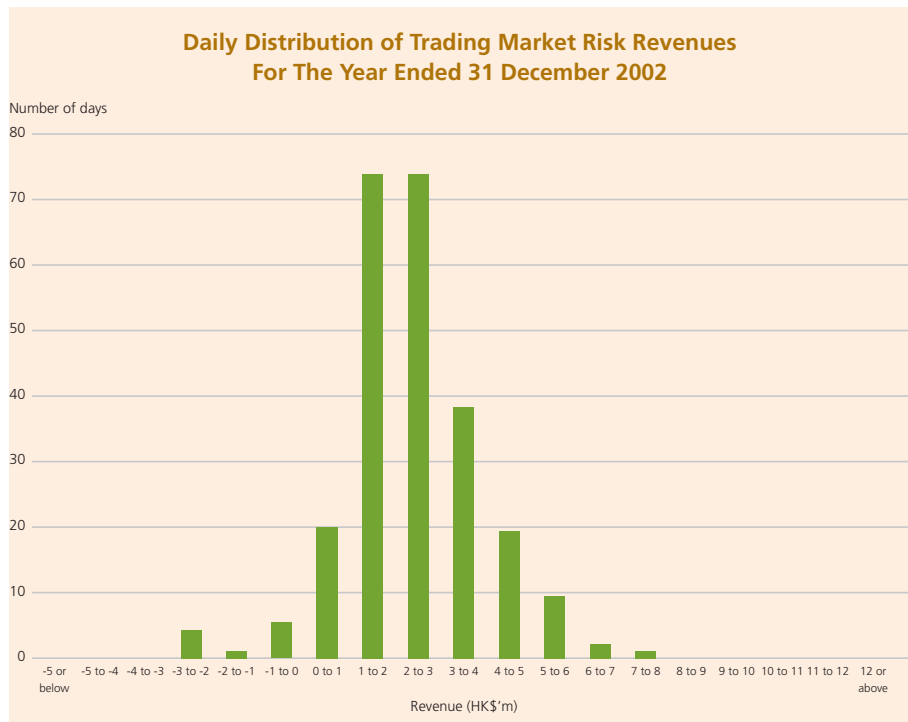
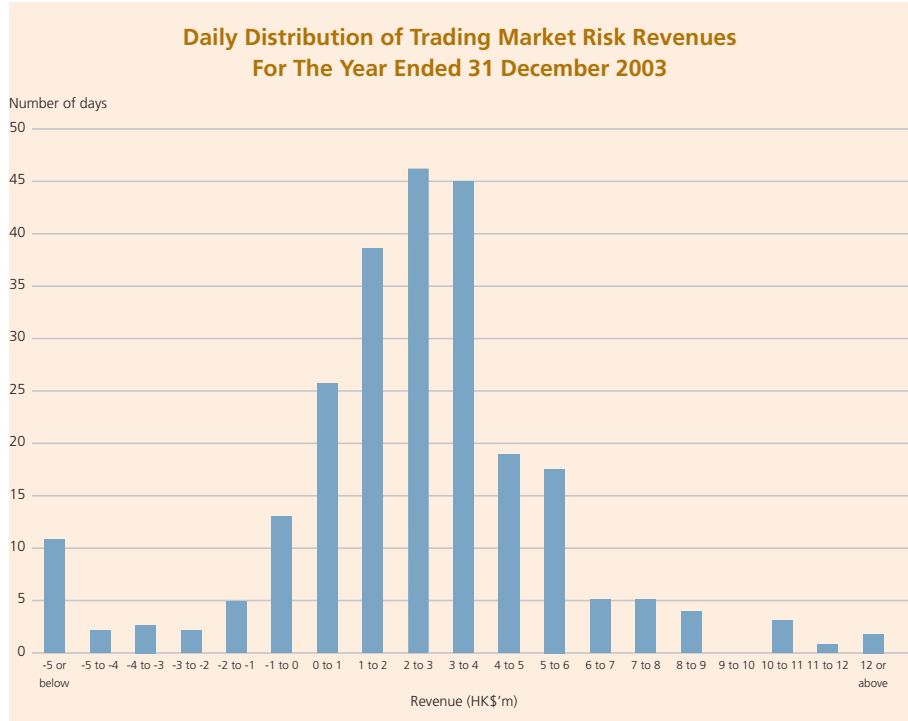
Market risk is managed within risk limits approved by the RMC. The overall risk limits are divided into sub-limits by reference to different risk factors, which are interest rates, foreign exchange rates, commodity prices and equity prices. Considering the different nature of the products involved, limits are set by using a combination of risk measurement techniques, including position limits and sensitivity limits.

Having set up the monitoring limits and supervisory procedures, the Market Risk Division in the RMD is responsible for the daily market risk management. Through the daily risk monitoring process, the Market Risk Division measures risk exposures against approved limits and initiates specific action to ensure that the overall and individual market risks are managed within acceptable levels.

VaR is a statistical technique which estimates the potential losses that could occur on risk positions taken due to movements in interest rates, foreign exchange rates, commodity prices and equity prices over a specified time horizon and to a given level of confidence. The model used by BOCHK to calculate portfolio and individual VaR on a variance/covariance basis, uses historical movements in market rates and prices, a 99% confidence level and a 1-day holding period and generally takes account of correlations between different markets and rates.

At 31 December 2003, the VaR for all trading market risk exposure of BOCHK was HK\$0.8 million (2002: HK\$3.3 million), the VaR for all trading interest rate risk exposure was HK\$0.7 million (2002: HK\$2.1 million) and the VaR for all trading foreign exchange risk exposure was HK\$0.6 million (2002: HK\$1.1 million). For the year ended 31 December 2003, the average VaR was HK\$5.9 million (2002: HK\$3.3 million). The average VaR in 2003 was higher than previous year due to higher market volatility.

For the year ended 31 December 2003, the average daily revenue of BOCHK earned from market risk-related trading activities was HK\$1.9 million (2002: HK\$2.3 million). The standard deviation of these daily trading revenues was HK\$9.0 million (2002: HK\$1.5 million). An analysis on the frequency distribution of daily trading revenues shows that 36 losses (2002: 10 losses) were recorded out of 248 trading days for the year ended 31 December 2003 and the maximum daily loss was HK\$119 million (2002: HK\$2.8 million). The most frequent result was a daily trading revenue of between HK\$2.0 million to HK\$4.0 million (2002: HK\$2.0 million to HK\$2.5 million). The highest daily revenue was HK\$36.3 million (2002: HK\$7.0 million).



### ***Foreign exchange risk management***

BOCHK provides foreign exchange deposit, margin trading and forward transaction services to its customers. BOCHK's trading activities in the foreign currency markets expose it to exchange rate risk. BOCHK manages exchange rate risk through its interbank market activities. In particular, BOCHK mitigates exchange rate risk by establishing position limits and limits on the loss of the whole foreign exchange trading floor. All these limits are approved by the RMC. The RMD is responsible for monitoring foreign exchange exposure and related stop-loss limits on a day-to-day basis as well as controlling BOCHK's credit risk exposure arising from foreign exchange transactions.

### ***Interest rate risk management***

BOCHK's interest rate risk exposures comprise trading and structural exposures. The major types of interest rate risk are: (1) Re-pricing risk: mismatches in the maturities or re-pricing periods of assets and liabilities; (2) Basis risk: different pricing bases for different transactions so that yield on assets and cost of liabilities may change by different amounts within the same re-pricing period.

BOCHK's ALCO maintains oversight of interest rate risk; the RMC sanctions the interest rate risk management policies formulated by the ALCO. The Treasurer, under the supervision of the CFO, carries out approved policies and develops risk management system to identify, measure, monitor, and control interest rate risk.

Gap analysis is the primary tool used to measure BOCHK's exposure to interest rate risk. It provides BOCHK with a static view of the maturity and re-pricing characteristics of its balance sheet positions. The magnitude of the gaps indicates the extent to which BOCHK is exposed to the risk of potential changes in the margins on new or re-priced assets and liabilities. BOCHK uses interest rate derivatives to hedge its interest rate exposures; in most cases, plain vanilla interest rate swap is used.

Sensitivity of earnings to interest rate changes (Earnings at Risk) is assessed through hypothetical interest rate shock of 100 basis points across the yield curve on both sides. Variations in net interest income are controlled within 5% of the budgeted amount for the year. The impact of basis risk is gauged by the projected change in net interest income under scenarios of uncorrelated movements in interest rate indices. Furthermore, BOCHK periodically assesses its potential vulnerability under stressed scenarios that represent exceptional but plausible events, and decide whether to take remedial actions basing on the stress-testing results and the circumstances of each case. The results of analysis are regularly monitored by the CFO.

### ***Liquidity risk management***

Liquidity risk arises in the funding of lending, trading and investment activities and in the management of trading positions. Liquidity risk includes both the risk of unexpected increase in the cost of funding to refinance the BOCHK's asset portfolio at appropriate maturities and the risk of being unable to liquidate a position in a timely manner and/or at a reasonable price.

The goal of liquidity management is to enable BOCHK, even under adverse market conditions, to meet all its maturing repayment obligations on time and to fund all of its asset growth and strategic opportunities.

BOCHK maintains flexibility in meeting its funding requirements by maintaining diverse sources of liquidity. BOCHK funds its operations principally by accepting deposits from retail and corporate depositors. In addition, BOCHK may issue certificates of deposit to secure a long-term financing source or may raise funds through the sale of investments.

BOCHK uses the majority of funds raised to extend loans, to purchase debt securities or to conduct interbank placements. Generally deposits have a shorter average maturity than interbank placements that in turn are of shorter average maturity compared with that of loans or investments.

BOCHK maintains a buffer portfolio of liquid, high quality securities that is managed under the supervision of the CFO and the ALCO. These securities may generally be sold at any time at market prices to meet BOCHK's emergent liquidity needs. BOCHK may also manage its liquidity by borrowing in the interbank markets on a short-term basis, although typically BOCHK is a net lender of funds. The interbank markets generally provide an adequate amount of liquidity, at borrowing rates that are subject to market conditions.

The primary goal of the BOCHK's asset and liability management strategy is to achieve an optimal return while ensuring adequate levels of liquidity and capital within an effective risk control framework and at reasonable cost of funding. BOCHK's ALCO is responsible for establishing these policy directives and works closely with the Treasurer to ensure that BOCHK maintains adequate levels of liquidity and secures the lowest possible cost of funding, while closely planning and monitoring BOCHK's on- and off-balance sheet assets and liabilities with regard to the risk incurred. The Treasurer adjusts, as necessary, BOCHK's liquidity and structural foreign exchange positions in line with the policies of ALCO, and also provides reporting and analytical support to the ALCO with respect to current and planned positions taken for investment, funding and structural foreign exchange management purposes. In particular, BOCHK has implemented various measures to:

- improve its management information system to provide timely information on the movement of its liquid assets and that of its customer deposits on a daily, weekly and monthly basis;
- monitor liquidity ratios in compliance with the HKMA's requirements;
- prepare regular maturity gap analysis to enable management to review and monitor BOCHK's liquidity position on a timely basis;
- conduct scenario analysis to estimate the impact of various risk factors on the liquidity position;
- perform stress testing to assess the ability to sustain extreme but plausible stress situation;
- establish a range of liquidity risk factors for monitoring purposes and a liquidity risk warning index system to detect early signs of any irregularities; and
- create a three-tier response system to effectively deal with any emergencies.

***Capital management***

The major objective of capital management is to maximise the returns to shareholders with the requirement to maintain strong capital adequacy ratio and high credit ratings. We maintain our strong capital adequacy ratio mainly through internal capital generation. We would consider the issuance of capital instruments or the adjustment of capital mix when appropriate to achieve the lowest overall cost of capital. The ALCO, with the assistance of the Treasurer, monitors the adequacy of its capital using the CAR as one of the major measurements, which is subject to the HKMA regulatory requirements. The Group maintained its capital to comply with all the statutory standards for all the periods presented in the report.

***Operational risk management***

Operational risk, one of the major risks exposed to BOCHK, is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. It is BOCHK's objective to manage this risk in line with the best practice of the industry.

In order to achieve effective internal controls, BOCHK maintains adequate documentation of its business processes and operational procedures whereby operational risks are identified and control procedures are set. It also emphasises on segregation of duties and independent authorisation among all business activities.

BOCHK monitors operational risk losses and periodically collects loss data in preparation for Basel New Capital Accord.

Business Continuity Plan is in place. Adequate backup facilities are maintained and duly tested to support business operations in the event of disasters. In the SARS outbreak, our contingency mechanism reacted and operated effectively. The Company also arranges insurance cover to mitigate potential losses in respect of operational risk.