

# UNAUDITED SUPPLEMENTARY FINANCIAL INFORMATION

## 1. Capital adequacy

	2002	2001
Capital adequacy ratio	<b>13.99%</b>	14.38%
Adjusted capital adequacy ratio	<b>14.39%</b>	14.57%

The capital adequacy ratio is computed on the consolidated basis which comprises the positions of BOCHK and certain subsidiaries specified by the HKMA for its regulatory purposes and in accordance with the Third Schedule of the Banking Ordinance.

The adjusted capital adequacy ratio taking into account market risk exposure as at the balance sheet date is computed in accordance with the guideline on “Maintenance of Adequate Capital Against Market Risks” under the Supervisory Policy Manual issued by the HKMA and on the same basis as for the unadjusted capital adequacy ratio.

## 2. Components of capital base after deductions

The consolidated capital base after deductions used in the calculation of the above capital adequacy ratios as at 31 December 2002 and 31 December 2001 and reported to the HKMA is analysed as follows:

	2002 HK\$'m	2001 HK\$'m
Core capital:		
Paid up ordinary share capital	<b>43,043</b>	43,043
Reserves	<b>8,087</b>	9,481
Profit and loss account	<b>2,360</b>	(850)
Minority interests	<b>867</b>	910
	<b>54,357</b>	52,584
Supplementary capital:		
General provisions for doubtful debts	<b>5,200</b>	4,943
Total capital base before deductions	<b>59,557</b>	57,527
Deductions:		
Shareholdings in subsidiaries or holding company	<b>(482)</b>	(375)
Exposures to connected companies	<b>(918)</b>	(347)
Equity investments of 20% or more in non-subsidiary companies	<b>(171)</b>	(256)
Investments in the capital of other banks or other financial institutions	<b>(1)</b>	(1)
	<b>(1,572)</b>	(979)
Total capital base after deductions	<b>57,985</b>	56,548

### 3. Liquidity ratio

	2002	2001
Average liquidity ratio	<b>41.17%</b>	39.88%

The average liquidity ratio for the year ended 31 December 2002 is calculated as the simple average of each calendar month's average liquidity ratio of BOCHK for the year.

The average liquidity ratio for 2001 is calculated as the simple average of each calendar month's average liquidity ratio of BOCHK for the 3 months from 1 October 2001 (the date of the Restructuring and Merger) to 31 December 2001.

The liquidity ratio is computed on the solo basis (the Hong Kong offices only) and is in accordance with the Fourth Schedule of the Banking Ordinance.

Prior to the Restructuring and Merger, the liquidity ratio of each of the predecessor entities was managed on an individual basis.

#### 4. Currency concentrations

The following is a summary of the major foreign currency exposures arising from trading, non-trading and structural positions. The net option position is calculated based on the worst-case approach set out in the prudential return “Foreign Currency Position” issued by the HKMA.

	2002						
	Equivalent in millions of HK\$						
	US Dollars	Euro Dollars	Canadian Dollars	Australian Dollars	New Zealand Dollars	Others	Total
Spot assets	168,003	16,688	5,002	23,525	11,809	28,198	253,225
Spot liabilities	(135,565)	(10,753)	(6,352)	(27,799)	(15,226)	(20,381)	(216,076)
Forward purchases	102,549	7,025	1,964	8,798	5,381	32,696	158,413
Forward sales	(138,688)	(13,279)	(610)	(4,541)	(1,884)	(40,412)	(199,414)
Net options position	(444)	41	101	192	100	13	3
Net long/(short) position	(4,145)	(278)	105	175	180	114	(3,849)

	2001						
	Equivalent in millions of HK\$						
	US Dollars	Euro Dollars	Canadian Dollars	Australian Dollars	New Zealand Dollars	Others	Total
Spot assets	197,497	13,689	6,269	28,316	14,167	21,579	281,517
Spot liabilities	(134,348)	(11,303)	(6,095)	(27,380)	(14,550)	(21,513)	(215,189)
Forward purchases	70,500	8,894	127	1,623	1,211	19,769	102,124
Forward sales	(124,606)	(11,313)	(301)	(2,538)	(794)	(19,616)	(159,168)
Net options position	4,277	75	(53)	135	43	7	4,484
Net long/(short) position	13,320	42	(53)	156	77	226	13,768

There were no significant net structural positions for the Group as at 31 December 2002 and 31 December 2001.

## 5. Segmental information

### (a) Sectoral analysis of gross advances to customers

The information concerning gross advances to customers has been analysed into loans used inside or outside Hong Kong by industry sectors of the borrowers as follows:

	2002 HK\$'m	2001 HK\$'m
Loans for use in Hong Kong		
Industrial, commercial and financial		
— Property development	26,591	28,300
— Property investment	50,992	47,758
— Financial concerns	8,891	7,314
— Stockbrokers	82	108
— Wholesale and retail trade	23,781	24,091
— Manufacturing	12,834	11,477
— Transport and transport equipment	11,192	8,778
— Others	40,440	51,054
Individuals		
— Loans for the purchase of flats in Home Ownership Scheme, Private Sector Participation Scheme and Tenants Purchase Scheme	19,956	20,273
— Loans for purchase of other residential properties	85,853	82,513
— Credit card advances	3,554	3,019
— Others	8,469	9,735
Total loans for use in Hong Kong	292,635	294,420
Trade finance	8,873	10,566
Loans for use outside Hong Kong	19,526	18,052
Gross advances to customers	321,034	323,038

## 5. Segmental information (continued)

### (b) Geographical analysis of gross advances to customers, overdue advances and non-performing loans

The following geographical analysis of gross advances to customers, advances overdue for over three months and NPLs is based on the location of the counterparties, after taking into account of the transfer of risk in respect of such advances where appropriate.

#### (i) Gross advances to customers

	<b>2002</b> HK\$m	2001 HK\$m
Hong Kong	304,924	310,953
Mainland China	4,456	7,753
Others	11,654	4,332
	<b>321,034</b>	323,038

#### (ii) Advances overdue for over three months

	<b>2002</b> HK\$m	2001 HK\$m
Hong Kong	17,060	21,713
Mainland China	1,402	3,465
Others	163	120
	<b>18,625</b>	25,298

#### (iii) Non-performing loans

	<b>2002</b> HK\$m	2001 HK\$m
Hong Kong	23,653	30,043
Mainland China	1,755	5,130
Others	251	339
	<b>25,659</b>	35,512

## 6. Cross-border claims

The information on cross-border claims discloses exposures to foreign counterparties on which the ultimate risk lies, and is derived according to the location of the counterparties after taking into account any transfer of risk. In general, such transfer of risk takes place if the claims are guaranteed by a party in a country which is different from that of the counterparty or if the claims are on an overseas branch of a bank whose head office is located in another country. Only regions constituting 10% or more of the aggregate cross-border claims are analysed by geographical areas and disclosed as follows:

	<b>Banks and other financial institutions HK\$'m</b>	<b>Public sector entities HK\$'m</b>	<b>Others HK\$'m</b>	<b>Total HK\$'m</b>
At 31 December 2002				
Asia, other than Hong Kong				
— Mainland China	36,489	2,665	5,426	44,580
— Others	44,078	6,015	4,160	54,253
	<b>80,567</b>	<b>8,680</b>	<b>9,586</b>	<b>98,833</b>
North America				
— United States	8,133	10,594	15,703	34,430
— Others	12,158	2,647	14	14,819
	<b>20,291</b>	<b>13,241</b>	<b>15,717</b>	<b>49,249</b>
Western Europe				
— Germany	36,172	–	10,743	46,915
— Others	109,843	1,451	12,511	123,805
	<b>146,015</b>	<b>1,451</b>	<b>23,254</b>	<b>170,720</b>
Total	<b>246,873</b>	<b>23,372</b>	<b>48,557</b>	<b>318,802</b>

**6. Cross-border claims (continued)**

	Banks and other financial institutions HK\$m	Public sector entities HK\$m	Others HK\$m	Total HK\$m
At 31 December 2001				
Asia, other than Hong Kong				
– Mainland China	86,190	2,616	8,346	97,152
– Others	47,615	13,155	1,991	62,761
	133,805	15,771	10,337	159,913
North America				
– United States	17,086	16,955	8,678	42,719
– Others	17,217	1,571	47	18,835
	34,303	18,526	8,725	61,554
Western Europe				
– Germany	34,533	7	2,645	37,185
– Others	108,764	3,165	1,289	113,218
	143,297	3,172	3,934	150,403
Total	311,405	37,469	22,996	371,870

## 7. Overdue and rescheduled assets

### (a) Overdue and non-performing loans

	2002		2001	
	Amount HK\$m	% of gross advances to customers %	Amount HK\$m	% of gross advances to customers %
Gross advances to customers which have been overdue for:				
— six months or less but over three months	2,240	0.70%	4,212	1.30%
— one year or less but over six months	3,486	1.08%	5,427	1.68%
— over one year	12,899	4.02%	15,659	4.85%
Advances overdue for over 3 months	18,625	5.80%	25,298	7.83%
Less:				
Amount overdue for over 3 months and on which interest is still being accrued	(550)	(0.17%)	(1,786)	(0.55%)
Add:				
Amount overdue for 3 months or less and on which interest is being placed in suspense or on which interest accrual has ceased				
— included in rescheduled advances	1,436	0.45%	1,315	0.41%
— others	6,148	1.91%	10,685	3.30%
Gross non-performing loans	25,659	7.99%	35,512	10.99%

At 31 December 2002 and 31 December 2001, there were no advances to banks and other financial institutions which were overdue for over three months.

### (b) Other overdue assets

	2002 HK\$m	2001 HK\$m
Overdue for:		
— six months or less but over three months	3	9
— one year or less but over six months	1	5
— over one year	—	4
	4	18

As at 31 December 2002, other overdue assets represented the accrued interest.



## 7. Overdue and rescheduled assets (continued)

### (c) Rescheduled advances to customers

	2002		2001	
	Amount HK\$m	% of gross advances to customers %	Amount HK\$m	% of gross advances to customers %
Rescheduled advances to customers	1,464	0.46%	1,814	0.56%

Advances with a specific repayment date are classified as overdue when the principal or interest is overdue and remains unpaid. Advances repayable by regular instalments are classified as overdue when an instalment payment is overdue and remains unpaid. Advances repayable on demand are classified as overdue either when a demand for repayment has been served on the borrower but repayment has not been made in accordance with the instruction or when the advances have remained continuously outside the approved limit that was advised to the borrower.

Rescheduled advances are those advances that have been restructured or renegotiated because of a deterioration in the financial position of the borrower or of the inability of the borrower to meet the original repayment schedule and for which the revised repayment terms, either of interest or of repayment period, are non-commercial. Rescheduled advances which have been overdue for more than three months under the revised repayment terms are included under overdue advances. Rescheduled advances are stated after deduction of accrued interest that has been charged to customers but accrued to a suspense account and before deduction of specific provisions.

As at 31 December 2002 and 31 December 2001, there were no rescheduled advances to banks and other financial institutions.

## 8. Repossessed assets held

	2002 HK\$m	2001 HK\$m
Repossession assets held	2,097	3,323

Repossession assets are properties or securities in respect of which the Group has acquired access or control (e.g. through court proceedings or voluntary actions by the borrowers concerned) for release in full or in part of the obligations of the borrowers. Upon repossession of the assets, the related loans and advances will continue to be recorded as loans and advances until all collection efforts have been exhausted and the repossessed assets are realised. Specific provisions will be made after taking into account the market value of the repossessed assets which are yet to be disposed. Upon disposal of the repossessed assets, any specific provisions previously made will be utilised to write off the loans and advances.

## 9. 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 (including interest rate 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 increase shareholder value, while maintaining its risk exposures within acceptable limits.

### 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 BOCHK's risk management goals, BOCHK established, in connection with its reorganisation, a more centralised, independent and comprehensive risk management structure that involves the following elements:

- A standardised corporation 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.

BOCHK has developed and implemented comprehensive risk management policies and procedures to identify, measure, monitor and control credit risk, market risk, liquidity risk and operational risk across the organisation. 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 to the RMC the independent risk management report each month.

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 the financial position of the bank relating to interest rate risk and liquidity risk to the ALCO and the RMC on a regular basis.

## 9. Risk management (continued)

### Risk Management Structure (continued)

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 to BOCHK's management 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 operations.

BOCHK's primary goal in credit risk management is to maximise its risk-adjusted rate of return 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 Board of Directors, with the assistance of the RMC, sets the Group's overall risk management strategy and policies, and the Group's overall risk limits and credit authorisation guidelines. The RMC is responsible for reviewing and approving the Group's risk management policies and procedures as well as modifications to these policies and procedures. 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 control 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;
- accurate measurement and full disclosure of credit risk exposure; and
- maintenance of consistent credit policy.

### 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.

## 9. Risk management (continued)

### Credit Risk Management Structure (continued)

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 directly report to the RMC and Audit Committee respectively. All these committees and departments form an independent line of control.

In addition, respective responsibilities, accountabilities 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 significant 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 shareholder's tolerance level.

The Credit Committee has primary responsibility for reviewing and approving loans 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 strategies 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 development units. Multi-level 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.

## 9. Risk management (continued)

### Credit Approval Procedures

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

Low risk credit transactions that fulfill certain requirements relating to credit types, loan purposes, loan amount, guarantee, collateral coverage and security adequacy are 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 include loans exceeding the credit extension limit of the deputy chief executives of the Group's credit initiation units, 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 approval right of the CRO and loan applications which have been vetoed by our CRO and in respect of which an appeal has been lodged with the Credit Committee. Significant loans 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 the 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 well-established policy and procedure to monitor credit risk and limits consistently and continuously by means of robust and just-in-time administrative information systems. An independent dedicated division in RMD conducts thorough and comprehensive monitoring on each obligor and group of obligors to identify and control the individual and overall credit risk in our loan portfolio.

An early alert program for potential problem customers has been established in order to detect early signs of deterioration in credit status of obligors and to trigger closer monitoring to prevent further deterioration. On the other hand, a conservative real property collateral discount policy has been implemented to reflect the current stagnant property market in Hong Kong.

To achieve sustainable reduction of the NPLs and improvement on asset quality, BOCHK has set up internal targets to evaluate the effort and performance in the resolution of criticised loans. RMD provides regular monitoring reports on the progress to senior management for high-level oversight. An incentive scheme has also been developed to provide appreciation and reward to those who have made the most contribution and merit in the progress.

## 9. Risk management (continued)

### 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 set into sub-limits by reference to different risk factors, which are interest rate, foreign exchange, commodity 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.

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 an acceptable level.

VaR is a statistical technique which estimates the potential losses that could occur on risk positions taken due to movements in foreign exchange, interest rates, commodity 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 2002, the VaR for all trading market risk exposure of BOCHK was HK\$3.3 million (2001: HK\$1.6 million), the VaR for all trading interest rate risk exposure was HK\$2.1 million (2001: HK\$1.5 million) and the VaR for all trading foreign exchange risk exposure was HK\$1.1 million (2001: HK\$1.2 million). The average VaR for the year ended 31 December 2002 was HK\$3.3 million.

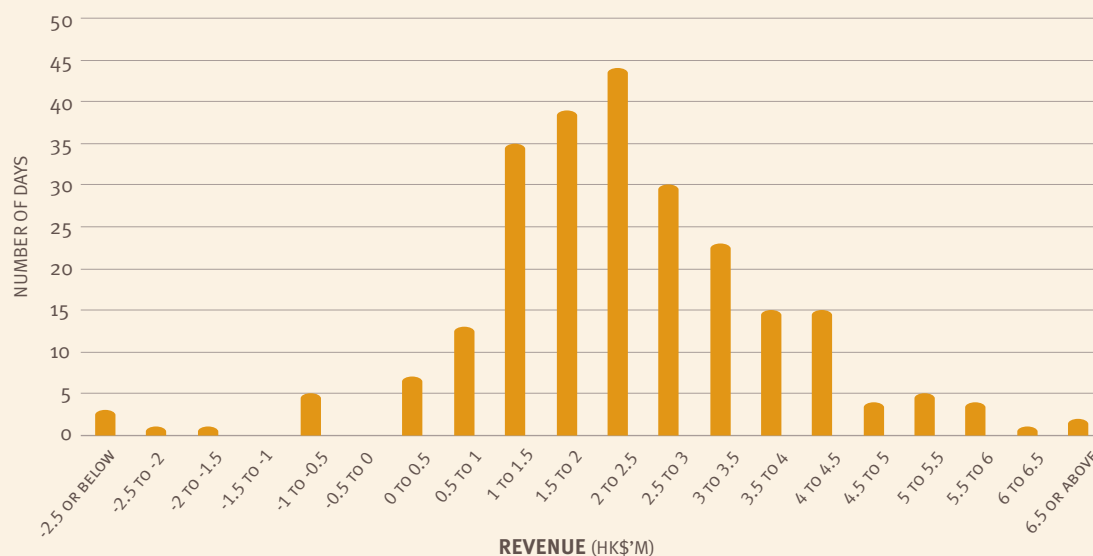
Prior to the Restructuring and Merger, market risk of each of the predecessor entities was managed on an individual basis. As a result, the average, high and low daily VaR from market risk-related trading activities of BOCHK for the year ended 31 December 2001 is not comparable and hence not presented.

For the year ended 31 December 2002, the average daily revenue of BOCHK earned from market risk-related trading activities was HK\$2.3 million (2001: HK\$2.0 million). The standard deviation of these daily trading revenues was HK\$1.5 million (2001: HK\$1.1 million). An analysis on the frequency distribution of daily trading revenues illustrated below shows that ten (2001: three) losses were recorded out of 247 trading days for the year ended 31 December 2002 and the maximum daily loss was HK\$2.8 million (2001: HK\$2.8 million). The most frequent result was a daily trading revenue of between HK\$2 million to HK\$2.5 million (2001: HK\$1.5 million to HK\$2.0 million). The highest daily revenue was HK\$7.0 million (2001: HK\$5.4 million).

## 9. Risk management (continued)

### Market Risk Management (continued)

Daily Distribution of Trading Market Risk Revenues For The Year Ended 31 December 2002



#### 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 risks through its interbank market activities. In particular, BOCHK mitigates exchange rate risks 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 balance sheet consists predominantly of Hong Kong dollar denominated interest rate sensitive assets and liabilities. BOCHK's primary sources of interest rate risk are mismatches in the maturities or re-pricing periods of these assets and liabilities and movements in interest rates. In addition, different pricing bases for different transactions may also lead to interest rate risk for BOCHK's assets and liabilities within the same re-pricing period.

## 9. Risk management (continued)

### Interest Rate Risk Management (continued)

BOCHK's Treasurer is responsible for formulating the policy and developing risk management system to assist BOCHK's ALCO in identifying, measuring, monitoring and controlling interest rate risk. The Treasurer uses gap analysis to measure BOCHK's exposure to interest rate risk. The gap is the difference between the amount of interest-earning assets and interest-bearing liabilities that mature or must be re-priced within a specific time band. Gap analysis provides BOCHK with a static view of the maturity and re-pricing characteristics of its balance sheet positions. The Treasurer measures the gaps by classifying all assets, liabilities and off-balance sheet items for each currency into appropriate time bands according to contracted maturities or anticipated re-pricing time bands. The magnitude of the gaps indicate the extent to which BOCHK is exposed to the risk of potential changes in the margins on new or re-priced assets and liabilities, and are controlled according to the gap limits approved by the Board of Directors. The potential risks associated with these gaps are assessed through simulated interest rate scenarios to testify that the net interest income variations are within the manageable range sanctioned by the Board. The impact of basis risk is gauged by the change in net interest income as a result of uncorrelated movements between the base lending rate and key money market rate. All the results are reported daily.

### 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 for BOCHK to be able, even under adverse market conditions, to meet all its maturing repayment obligations on time and to fund all of its investment 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. BOCHK may also borrow in the short-term interbank markets, although it is typically a net lender of funds. In addition, BOCHK may from time to time raise funds through the sale of investments.

BOCHK uses the majority of funds raised to extend loans, to make investments in 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 by BOCHK's Treasurer 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. The interbank markets generally provide an adequate amount of liquidity, at borrowing rates that are subject to market conditions.



## 9. Risk management (continued)

### Liquidity Risk Management (continued)

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 foreign exchange positions in line with the policies of ALCO, and also provides reporting and analytical services to ALCO with respect to current and planned positions taken for investment, funding and 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;
- 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 Group 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. On consolidated basis, BOCHK's unadjusted CAR and adjusted CAR incorporating market risk decreased slightly from 14.38% and 14.57% as at the end of last year to 13.99% and 14.39% respectively.

### Operational Risk Management

Operational risk 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 control, BOCHK is to maintain adequate documentation of its business processes and operating procedures. It also emphasises on segregation of duties and independent authorisation among all business activities.

Every department is primarily responsible for managing operational risk and establishing procedures within their own business functions. This is monitored by the Operational Risk Division of RMD and Audit Department, which play important roles in periodic review on various business operations.

During the year, BOCHK monitors operational risk losses and periodically collects loss data to meet the requirements of Basle's new capital accord.

Our Business Continuity Plan was further enhanced in the year. Adequate facilities are maintained and tested for the recovery of critical business functions in the event of a disaster. BOCHK also arranges insurance cover to mitigate potential losses in respect of operational risk.

## 10. Connected transactions

In 2002, BOCHK, a wholly owned subsidiary of the Company, and its subsidiaries engaged on a regular basis in the usual course of their business in numerous transactions with BOC and its Associates. As BOC is the Company's ultimate holding company and therefore a connected person of the Company, all such transactions constituted connected transactions subsequent to the listing of the Company on the Stock Exchange for the purposes of the Listing Rules.

The transactions fell into the following three categories:

- (1) de minimis transactions entered into in the usual course of business and under normal commercial terms. Such transactions were exempted from disclosure and shareholder approval by virtue of rule 14.24 of the Listing Rules;
- (2) certain regular banking transactions for which the Stock Exchange has granted a waiver. These transactions were entered into on a continual basis throughout the year unless otherwise noted; and
- (3) three connected transactions which do not fall under (1) or (2) above and which are described in more detail at the end of this section.

### Ongoing Connected Transactions Under Waivers

A brief description of the transactions set out in paragraph (2) is set out below, followed by a table setting out the amounts for each such type of transaction in 2002. Certain of these transactions were subject to annual caps agreed by the Stock Exchange and the Company, and none of these caps was exceeded. All of these transactions were conducted on normal commercial terms unless specified otherwise.

### Derivatives Transactions

These included interest rate and currency interest rate swaps, and currency and bond options entered into with BOC and its Associates.

### Foreign Exchange Transactions

These included inter-bank foreign currency exchange transactions, spot, forward and outright transactions, and exercised currency options entered into with BOC and its Associates.

### Inter-bank Capital Markets Transactions

These included buying and selling debt securities (both those issued by independent third parties and those issued by BOC and its Associates) and equities by the Group from, to and on behalf of BOC and its Associates on issue and in the secondary market, and the Group acting as custodian for BOC and its Associates and BOC acting as custodian for the Group.

## 10. Connected transactions (continued)

### **Bullion Trading**

BOCHK entered into deferred settlement bullion transactions with BOC Macau Branch and Tai Fung Bank, a subsidiary of BOC, and bullion spot transactions with normal settlement with BOC. BOCHK also entered into physically settled bullion transactions with BOC Macau Branch and BOC Singapore Branch on which it provided a rebate on normal commercial terms.

### **Correspondent Banking Fee Sharing Programs**

BOC New York Branch provided remittance services to BOCHK's customers as correspondent bank, and BOC shared the fees paid by BOCHK's customers for such services with BOCHK. BOCHK also cooperated with BOC in relation to issuing letters of credit for Taiwan related business, for which BOCHK received from BOC a fee based on a portion of the overall fees paid by BOC's customers for such facilities.

### **Capital Markets Transactions**

The Group entered into various capital markets transactions with BOC and its Associates, in particular BOCI Capital, an indirect subsidiary of BOC. These transactions included participation in syndicated loans, sub-participation of loans, acquiring and disposing of interests in syndicated loans, subscription and/or issuance of debt securities and tax efficiency financing.

### **Loan Servicing Agreements**

On 6 July 2002, BOCHK and Nanyang entered into loan servicing agreements with BOC Cayman and Zhong Gang, pursuant to which BOCHK and Nanyang agreed to provide, for a fixed fee based on the agreed cost of the services plus a margin, servicing, collection, account opening and reporting services in respect of certain loans sold by BOCHK and Nanyang to BOC Cayman and Zhong Gang in 2002 and 1999, respectively.

### **Provision of Insurance Cover by BOC Insurance**

BOC Insurance and its subsidiaries provided general and life insurance to the Group.

### **Insurance Agency**

The Group provided insurance agency services to BOC Insurance and BOC Life on a commission basis.

### **Securities Brokerage**

BOCI Securities provided securities brokerage services to the Group. The Group paid BOCI Securities commissions for its services and received rebates in return.

### **Credit Card Services**

Pursuant to a Credit Card Cooperation and Services Agreement dated 6 July 2002 between BOC-CC, a subsidiary of BOCHK, and BOC, BOC-CC provided certain services to BOC in relation to its Great Wall International Card (the "International Card"), its Great Wall Renminbi Card (the "Renminbi Card"). BOC-CC shared the fees, profits and losses in relation to the operations of the International Card and the Renminbi Card with BOC as set out in the agreement. This agreement formalised many of the relationships that existed prior to its execution.

## 10. Connected transactions (continued)

### BOC-CC Business in Macau

BOC Macau Branch and Tai Fung Bank promoted BOC-CC's Hong Kong dollar and Macau pataca settled credit cards and provided customer services in return for a share of profits or commission payment. They also provided services for BOC-CC's merchant acquiring business in Macau in return for commission sharing.

### BOC-CC Business in Mainland China

BOC promoted and provided services for BOC-CC's merchant acquiring business in Mainland China in return for commission sharing. BOC provided over-the-counter cash withdrawal services to cardholders of BOC-CC in Mainland China, for which the cardholder was charged a transaction handling fee that was shared between BOC and BOC-CC.

### Credit Card Support Services to BOC Singapore Branch

BOC-CC provided business support services to BOC Singapore Branch in relation to its credit card business, for which BOC-CC was paid on the basis of cost plus a margin of 5%. Pursuant to the Credit Card Cooperation and Services Agreement, these services may be extended on similar terms to such other branches of BOC outside Mainland China.

### Credit Card Training Subsidy

Pursuant to the Credit Card Cooperation and Services Agreement, BOC-CC has agreed to pay BOC a training subsidy of HK\$2 million per annum, or such other amount as may be agreed for the provision of training by BOC to BOC's personnel in its provincial branches throughout Mainland China in support of BOC-CC's business in Mainland China.

### Selling of Funds Products

The Group promoted MPF products for BOCI-Prudential Trustee, and promoted guaranteed fund products for BOCI-Prudential Manager, both indirect subsidiaries of BOC, and as their intermediary sold these products for a commission to its clients.

### Services and Relationship Agreement

On 6 July 2002, the Company and BOCHK entered into a Services and Relationship Agreement with BOC and certain of its subsidiaries. Under this agreement, BOC has agreed to, and agreed to procure that its Associates, enter into all future arrangements with BOCHK on an arm's length basis, on normal commercial terms and at rates no less favourable than those offered to independent third parties, in relation to inter-bank lending, loans, correspondent banking arrangements, treasury transactions, provision of insurance and syndicated loans. BOCHK has agreed to, and agreed to procure that its subsidiaries, enter into all future arrangements on the same basis, save that the rates offered to BOC and its Associates will be no more favourable than those offered to independent third parties. The Services and Relationship Agreement also covers the provision of the services set out below:

### Administrative Services

Administrative support and company secretarial services to BOC (BVI), BOCHKG and Hua Chiao on the basis of cost plus a margin of 5%.

## 10. Connected transactions (continued)

### Audit Services

Audit services for BOC on various branches and subsidiaries of BOC located in the Asia-Pacific region, other than BOC's branches in Mainland China, on the basis of cost plus a margin of 5%.

### Information Technology Services

Information technology services to BOC's branches in Hong Kong, Macau, the Asia-Pacific region and Mainland China, on the basis of cost plus a margin of 5%. Under various information technology services contracts BOCHK provides similar services to BOC's Associates on similar terms. Prior to July 2002, BOCHK charged BOC, its branches and Associates for its information technology services only at cost.

### Training Services

Training services to BOC's employees in Hong Kong on the basis of cost plus a margin of 5%.

### Secondments from BOC

BOC seconded management level and supervisory staff to BOCHK's branches in Mainland China. BOCHK paid salaries directly to the staff concerned and in some cases BOCHK also paid a management fee to BOC.

### BOC Markets Services Agreement

Under the terms of a BOC Markets Services Agreement, dated 6 July 2002, between BOCHK and BOC Markets, BOCHK provides office premises and certain support services to BOC Markets in connection with its operations in Hong Kong. A small number of BOCHK's employees are also seconded to BOC Markets. The provision of office premises is charged at market rent while all other services are provided on the basis of cost plus a margin of 5%.

### Deposits by Directors and their Associates

BOCHK paid preferential interest rate for deposits of over 1 month's duration and up to a maximum of HK\$5 million in total from each of the directors of the Group and their Associates who are employees of the Group on the same terms as those offered to other employees. The preferential interest rate is applicable to all staff of the Group.

## 10. Connected transactions (continued)

Type of Transaction	2002 HK\$m
Derivatives Transactions (volume)	135.84
Foreign Exchange Transactions (volume)	216,494.63
Inter-Bank Capital Markets Transactions	N/A
Bullion Trading (volume)	1,103.07
Correspondent Banking Fee Sharing	8.77
Capital Markets Transactions	N/A
Loan Servicing Agreements	6.90
Provision of Insurance Cover by BOC Insurance	50.73
Insurance Agency Commission Income	149.03
Securities Brokerage Commission Payments, Net of Rebates	82.33
International Card	4.96
Renminbi Card (payment to BOC)	0.27
BOC-CC Business in Macau	7.99
BOC-CC Business in Mainland China — Payments retained by and to BOC	33.12
Credit Card Support Services to BOC overseas branches	1.77
Credit Card Training Subsidy	2.00
Funds Selling Commission Income	102.93
Administrative Services (under the Services and Relationship Agreement and the BOC Markets Services Agreement)	0.88
Audit Services	6.36
Information Technology Services	11.67
Training Services	1.10
Secondments from BOC – Management Fee	0.24
Human Resources Support Services and Secondments to BOC Markets	4.17
Staff Preferential Rate Deposits of Directors	*

N/A: these transactions were diverse and large in number and aggregate data is not available.

\* no director and his/her Associates have preferential rate deposits in excess of HK\$50 million in aggregate.

## 10. Connected transactions (continued)

### Other Connected Transactions

On 26 June 2002, BOCHK sold to BOC Cayman a portfolio of loans with a gross book value of HK\$11,401 million on a non-recourse basis. This transaction would have constituted a connected transaction for the Company had it occurred subsequent to the IPO. The loans were sold for cash proceeds of HK\$8,722 million, equal to their book value, net of provisions for bad and doubtful debts, as of the date of the transfer. This sale resulted in the derecognition of the portfolio under generally accepted accounting principles in Hong Kong.

On 6 July 2002, BOCHK, BOC Investment, an indirect wholly owned subsidiary of BOC, and Kawell, a wholly owned subsidiary of BOC Investment, entered into a sale and purchase agreement pursuant to which BOCHK acquired the whole of the issued share capital of Sin Chiao and Perento and certain shareholder loans owed to Kawell by Sin Chiao and Perento, for a total consideration of HK\$1,014 million. This acquisition would have constituted a connected transaction for the Company had it occurred subsequent to the IPO.

On 2 December 2002, BOCHK entered into a sale and purchase agreement with BOC Insurance, an indirect wholly owned subsidiary of BOC. Pursuant to this agreement, BOCHK agreed to sell the Sin Hua Bank Centre situated at 134-136 Des Voeux Road Central to BOC Insurance for HK\$193 million. Sin Hua Bank Centre was previously an office of Sin Hua Bank Hong Kong Branch, one of the predecessor banks to BOCHK. The purpose of the sale was to enhance the Group's overall return on assets and to dispose of an idle property with a view to reducing the risk exposure in investment properties. The sale is expected to be completed on or before 2 April 2003. Execution of the sale and purchase agreement constituted a connected transaction for the Company under rule 14.25(1) of the Listing Rules. Details of the disposal have been disclosed in an announcement issued by the Company on 2 December 2002.