

七、風險管理(續)

乙、流動資金風險管理

流動資金風險乃指本集團未能到期以合理價格完成交易或達到融資需求而對盈利或資金造成之風險。本集團已定下政策及制度以監察各項資產、負債及承擔之流動性，確保本行能應付所有到期債項。如補充財務資料的第一段所披露，本集團之平均流動資金比率遠高於法定最低要求的百分之二十五。

本行有制定流動資金比率、放款與存款比率及其他到期狀況之限額，以確保本集團能應付其資金需求。所有限額由常董會核准。實際風險水平與核定限額之比較和監察，則由資產負債管理委員會執行。

本集團維持審慎水平的可變現流動資產，以應付不能預計及重大的現金需求。亦定時為本集團持有之流動資金水平作出壓力測試。

丙、外匯風險管理

外匯風險乃因匯率波動而對盈利或資金造成之風險。本集團之外匯風險主要包括司庫部之外匯買賣及源自商業銀行業務之貨幣兌換風險，此等風險每日均由司庫部按常董會核准之外匯持倉限額集中管理。

由客戶交易而產生之外匯結餘(包括附設在某些客戶存款內之貨幣期權)，一般會與其他客戶交易或市場交易對銷。用以購買港元資產之外匯資金均會採用掉期或遠期貨幣兌換合約對沖外匯風險。

7 Risk management (continued)

(b) Liquidity risk management

Liquidity risk is the risk to earnings or capital due to failure of the Group to meet its funding requirements or to execute a transaction at a reasonable price. The Group has established policies and systems to monitor the liquidity of its assets, liabilities and commitments and to ensure that the Group maintains an assured capacity to meet all obligations as they fall due. As disclosed in note 1 of this supplementary financial information, the Group's average liquidity ratio for the year was well above the statutory minimum of 25%.

Limits for liquidity ratio, loan to deposit ratio and other maturity positions have been set to ensure that the Group is able to meet its funding requirements. All limits are approved by the Executive Committee. Actual positions are compared with the approved limits and monitored by the Asset and Liability Management Committee.

A prudent level of realisable liquid assets is also maintained by the Group to meet unexpected and material cash requirements. Stress testing on the Group's liquidity position is regularly performed.

(c) Foreign exchange risk management

Foreign exchange risk is the risk to earnings or capital arising from movement of foreign exchange rates. The Group's foreign exchange exposures mainly comprise foreign exchange dealing by the Treasury Department and currency exposures originated by its commercial banking businesses. All exposures are centrally managed by the Treasury Department on a daily basis within the foreign exchange position limits approved by the Executive Committee.

Foreign currency exposures arising from customer transactions, including currency options embedded in certain customer deposits, are normally offset against other customer transactions or transactions with the market. Foreign currency funding used to fund Hong Kong dollar assets is hedged using currency swaps or forward exchange contracts to mitigate the foreign exchange risk.

七、風險管理(續)

丁、利率風險管理

利率風險是指由於利率波動不定而對盈利或資金造成之風險。本集團之利率風險主要因持有資產、負債及資產負債表以外項目之重訂息率有時間差異而引起。本集團已定有政策及制度以監察其較易受利率影響之倉盤及重訂息率淨差距，以確保其在常董會所核定之限額以內，妥善管理。實際持倉額會與核定限額作比較並由風險管理委員會監察。

儘管利率風險管理之主要目的在於限制利率變動對淨利息收入之潛在不利影響，亦可在風險限額內增持利率倉盤以提高收益。

戊、市場風險管理

市場風險是指由於市場利率及價格(例如息率、匯率及股票之價格)之變動所引致資產、負債及承擔上之損失。本集團之市場風險主要源自其外匯持倉及持有作買賣用途之證券及衍生工具。

買賣之財務工具包括債務、股權及其他證券，以及資產負債表以外之財務衍生工具。衍生工具是一項合約，其價值是由合約內指定之一種或多種財務工具或指數而確定。該等工具主要包括外匯、利率及股權之期匯、期貨、掉期及期權合約。

作為資產負債管理程序之一部份，本集團亦有利用財務工具管理市場風險。本集團所用衍生工具主要為利率及外幣匯率有關之合約，大部份為通過櫃台交易之衍生工具。本集團亦有參與在交易所買賣之衍生工具；而本集團之衍生工具持倉盤，大部份是為應客戶需求並作為對沖此等客戶盤及其他買賣持倉盤而持有。

7 Risk management (continued)

(d) Interest rate risk management

Interest rate risk is the risk to earnings or capital arising from movement in interest rates. The Group's interest rate risk mainly arises from the timing differences in the repricing of interest bearing assets, liabilities and off balance sheet positions. The Group has established policies and systems to monitor its interest-sensitive positions and net repricing gap to ensure that they are all properly managed under the limits approved by the Executive Committee. Actual positions are compared with the approved limits and monitored by the Risk Management Committee.

While the primary objective of interest rate risk management is to limit potential adverse effects of interest rate movements on net interest income, interest rate positions may be taken for yield enhancement within the risk limits.

(e) Market risk management

Market risk is the risk of loss in assets, liabilities and commitments arising from the net effect of changes in market rates and prices, such as interest rates, foreign exchange rates and equity prices. The Group's market risk primarily arises from its positions in foreign exchange, securities and derivatives in its trading book.

Financial instruments traded include debt, equity and other securities and certain off balance sheet derivative financial instruments. Derivative instruments are contracts whose value is derived from one or more underlying financial instruments or indices defined in the contract. They mainly include forwards, futures, swaps and options in foreign exchange, interest rate and equity contracts.

Financial instruments are also used to manage the Group's own exposures to market risk as part of its asset and liability management process. The principal derivative instruments used by the Group are interest and foreign exchange rate related contracts, which are primarily over-the-counter derivatives. The Group also participates in exchange traded derivatives. Most of the Group's derivative positions have been entered to meet customer demand and to hedge these and other trading positions.

七、風險管理(續)

戊、市場風險管理(續)

常董會透過制定各項交易限額以管理本集團從不同活動而面對之市場風險。風險乃以合約或名義數值、未償還結餘及止蝕限額之基準衡量及監察。財資部每日均會按市價估值、監察及管理所有與市場風險有關之交易持倉。獨立監察、檢查及確認交易均由另一與財資部分離獨立部門進行，而本集團之稽核部門亦會定時進行審核及檢查，以確保能遵照既定之風險限額進行交易。所有超出限額項目須由有關之管理層及常董會審核及批准。實際持倉由風險管理委員會監察。

本行及旗下數間附屬公司於二〇〇二年內，從與市場有關活動所賺取之每日平均收入(包括與買賣有關之淨利息收入或其他收入)為港幣四十三萬元(二〇〇一年為港幣四十一萬九千元)。該等每日平均收入之標準差為港幣一百三十三萬六千元(二〇〇一年為港幣一百一十六萬八千元)。

7 Risk management (continued)

(e) Market risk management (continued)

The Group's market risk exposures in different activities are managed by way of limits established by the Executive Committee. Exposures are measured and monitored on the basis of contractual or notional amount, outstanding balances and stop-loss limits. All market risk trading positions are subject to daily mark-to-market valuation, monitored and managed by the Treasury Department. Independent monitoring, checking and trade confirmation are undertaken by a separate department independent of the Treasury Department. Regular checking and reviews are also conducted by the Group's internal audit function to ensure compliance with risk limits. All exceptions are reviewed and approved by the appropriate level of management and the Executive Committee. Actual positions are monitored by the Risk Management Committee.

The average daily revenue in 2002 earned from market risk-related activities by the Bank and certain subsidiaries, including trading-related net interest income and other revenue was HK\$430,000 (2001: HK\$419,000). The standard deviation of this daily revenue was HK\$1,336,000 (2001: HK\$1,168,000).

