Risk profile of on- and off-balance-sheet items

For the year ended 31 December 2001, total assets and off-balance-sheet items (Figure 14) grew by 76.4 per cent (2000: 14.3 per cent), whereas total risk-weighted assets and off-balance-sheet items decreased by 2.8 per cent (2000: 15.9 per cent). The marked increase in off-balance sheet items in 2001 compared to 2000 was due mainly to amendments to the Regulations relating to Banks. In terms thereof, banks were required to report on central securities-depository participation, which, however, did not affect the average risk weighting of assets.

The composition of off-balance-sheet-items had the effect of increasing the average risk weighting of total assets, which amounted to 65.8 per cent for December 2001 (2000: 73.7 per cent), to an average combined risk weighting of 56.7 per cent (2000: 71 per cent) for assets and off-balance-sheet items. The latter accounted for approximately 42.9 per cent (December 2000: 11 per cent) of the combined total of assets and off-balance-sheet items at the end of December 2001. The risk-weighted percentages of assets and off-balance-sheet items and of the combined total of assets and off-balance-sheet items are graphically illustrated in Figure 14.

3.3 PROFITABILITY

An evaluation of the profitability of banks involves an assessment of the quality of income and the long-term sustainability of the activities that generate the income. For this reason, the analyses focus on the following aspects:

▲ Quality of earnings (riskiness of earnings).
▲ Balance in the various sources of income (such as, a good spread of income sources).
▲ Nature of income (such as, the intermediation function, advisory services or trading activities).
▲ Integrity of the information (whether the income statement is consistent with the balance sheet).

and specific provisions covered about 75.9 per cent of overdues. The remainder of the overdues was covered by the value of the security held by banks.

Quality of assets

About 78.3 per cent of the banking sector’s assets (December 2000: 84.4 per cent) earned a reasonable margin, 5.9 per cent (December 2000: 5.3 per cent) earned a small margin, and the remaining 15.8 per cent (December 2000: 10.3 per cent), including infrastructure, earned no margin (see Figure 37).

3.7 CURRENCY RISK

For the period under review, the aggregated net open foreign-currency position after hedging remained within the limit of 10 per cent of net qualifying capital and reserves. The aggregated net effective open foreign-currency position of individual banks, expressed as a percentage of net qualifying capital and reserves, amounted to 0.2 per cent in January 2001 and, by the end of December 2001, had remained unchanged at 0.2 per cent. The aggregated net effective open foreign-currency position of the total banking sector is displayed in Figure 38.
FIGURE 14: RISK PROFILE OF ON- AND OFF-BALANCE-SHEET ITEMS

- Profitability of assets and effectiveness of activities versus cost control and cost optimisation.
- Balance between the effort expended on activities and the income generated therefrom.
- Structural changes in profitability during the year.

FIGURE 15: COMPOSITION OF THE INCOME STATEMENT

- Operating expenses
- Interest margin
- Transaction-based fee income
- Knowledge-based fee income
- Investment income

Large exposures granted increased by R664.4 million to a level of R1,4 billion in January 2001 (representing 1874.8 per cent of net qualifying capital and reserves), compared to R690 million (representing 962.8 per cent of net qualifying capital and reserves) in December 2000. Overdues in respect of large exposures decreased from R437.7 million in December 2000 to R381.2 million in January 2001. By the end of December 2001, overdues in respect of large exposure decreased to a level of R216.7 million.
As can be seen in Figure 15, the intermediation function again constituted the main source of income for banks. The intermediation function consists of interest margin (an average of 3,3 per cent of total assets for the year, as opposed to 2,9 per cent in 2000) and transaction-based fee income (an average 1,8 per cent of total assets for the year, as opposed to 1,9 per cent in 2000). As can be observed from Figure 15, the income derived from the intermediation function (R46,7 billion) was generally just sufficient to cover the sum of operating expenses and provisions (R45,2 billion). It is thus clear that the generation of additional income (that is, from investments in Government stock and Treasury bonds, as well as knowledge-based fee income derived from trading activities, and agency type and advisory activities) remains critical to ensure the continued profitability of banks. Fee income and investment and trading income earned during the year were on average equivalent to 2,1 per cent and 1,0 per cent, respectively, of total assets (as opposed to 2,2 per cent and 1,6 per cent, respectively, during 2000).

Interest income increased by about 12,4 per cent for the year, which was 9,2 percentage points higher than the increase of 3,2 per cent in interest expense. The net result thereof was that the interest margin grew by 37,4 per cent (2000: 7,8 per cent). Interest derived from mortgage bonds and overdrafts and loans constituted 33,2 per cent and 30,1 per cent, respectively, of total interest income (as opposed to 35 per cent and 32,5 per cent, respectively, during 2000).

The main component of interest expense was interest on demand deposits and fixed and notice deposits. Interest paid in respect of demand deposits constituted 33,9 per cent (2000: 36,1 per cent) of the total interest expense, whereas interest paid on fixed and notice deposits constituted 28,9 per cent (2000: 25,7 per cent) of the total interest expense for the year.

**FIGURE 16: INTEREST MARGIN**

Figure 16 graphically displays the interest margin of the banking sector for the period from January 1999 to December 2001, whereas Figure 17 represents the percentage-point change in the components of the interest margin for the aforementioned period. As can clearly be seen from Figure 16, the interest margin for the year was on average higher

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**FIGURE 34: ADEQUACY OF PROVISIONS**

Specific provisions made at the end of December 2001, by loan type and expressed as a percentage of overdue amounts, were as follows:

- **Mortgages** - 27,4 per cent (21,9 per cent on 31 December 2000).
- **Instalment sales** - 54,1 per cent (49,4 per cent on 31 December 2000).
- **Other loans and advances** - 56,0 per cent (63,9 per cent on 31 December 2000).

Figure 35 graphically displays the relationship of specific provisions to total gross overdues for the past three years. On average, about 45,1 per cent of overdues were covered by specific provisioning during 2001 (2000: 43,7 per cent). Internationally, it is generally accepted that specific provisioning should cover at least 40 per cent of non-performing loans, which indicates the slightly more conservative stance of South African banks in this regard.

**Large exposures**

As from January 2001, the amended Regulations relating to Banks require large exposures granted not to exceed 800 per cent of capital and reserves, in line with the guidelines of the European Economic Community. In terms of these guidelines, those large exposures granted that exceed 15 per cent of capital and reserves should not exceed, in total, 800 per cent of capital and reserves, and no single exposure should exceed 25 per cent of an institution’s capital base. It should be borne in mind, however, that this refers only to large exposures to private-sector non-bank borrowers and that the total of the large exposures analysed in this Annual Report includes, amongst others, exposures to Government and interbank settlements.

The position of large exposures granted and utilised during the period from March 1999 to December 2001 is illustrated graphically in Figure 36. A dotted line separates the large exposures in terms of the old Regulations from those in terms of the amended Regulations, which require banks to report only the maximum amount (instead of the month-end balance) of the large exposures granted.
Figure 33 graphically displays an analysis of overdue accounts for the period from March 1999 to December 2001. The gross amount overdue in respect of other loans and advances increased from R14 billion in January 2001 to R14.5 billion in December 2001. Overdues in respect of other loans and advances still constituted the biggest portion of amounts overdue and, by the end of December 2001, exceeded mortgage accounts overdue by R5.8 billion. Mortgage accounts overdue decreased from R11.2 billion in December 2000 to R9.4 billion in January 2001. From January 2001 to December 2001, the mortgage accounts overdue decreased to R8.8 billion, whereas instalment accounts overdue fluctuated between R2.9 billion and R3.1 billion.

**FIGURE 33: ANALYSIS OF OVERDUE ACCOUNTS**

Provisioning policy for bad and doubtful loans and advances

The implementation of the amended Regulations relating to Banks made it possible to determine the exact amount of specific provisions made and the value of the security held against loans classified as non-performing. The Bank Supervision Department, therefore, decided to take into account only the specific provisions and security relating to loans classified as “doubtful” and “loss” when determining the adequacy of banks’ provisioning.

According to Figure 34, provisioning by banks remained adequate throughout the year under review. By the end of December 2001, specific provisions covered about 46 per cent (the same percentage as in December 2000) of all overdues. In January 2001, general provisioning increased noticeably, to a level of R11.5 billion (December 2000: R5.2 billion), that is, about 44 per cent of overdues. At the end of December 2001, about 22 per cent of overdues were covered by security.

The operating expenses of the total banking sector increased by 15.1 per cent (2000: 10.2 per cent) in 2001, mainly as a result of an increase of 13.8 per cent in total staff expenses, which accounted for about 55.0 per cent of total operating expenses. The increase in total staff expenses, however, was not due to an increase in the number of people employed. This is confirmed by Figure 18, which graphically displays the percentage change (measured over a 12-month period) in total staff expenses, the number of people employed and the number of branches for the past three years. For the year 2001, employment in the banking sector decreased by 0.2 per cent, whereas the number of branches increased by 14.1 per cent compared to the year before.

Growth in operating expenses was also boosted by an increase in administrative expenses. Compared to the previous year, administrative expenses increased by 18.4 per cent and accounted for 47.6 per cent of total operating expenses.

Growth in total income of 11.3 per cent could not offset the increase in operating expenses (15.1 per cent), resulting in lower efficiency in the banking sector (see Figure 19) during the year under review.
The efficiency of the banking sector can be determined by expressing operating expenses as a percentage of total income. Currently, the international benchmark for efficiency is 60 per cent. In other words, banks that have an efficiency ratio of above 60 per cent are regarded as less efficient.

Expressed as a percentage of total loans and advances (see Figure 32), gross amounts overdue decreased from 4.3 per cent in December 2000 to 3.9 per cent in January 2001, mainly because of the implementation of the amended definition of overdues in January 2001. By the end of December 2001, the gross amount overdue (as a percentage of total loans and advances) amounted to 3.2 per cent. From January 2001 to December 2001, mortgage loans overdue (as a percentage of total mortgage loans and advances) decreased from 4.2 per cent to 3.5 per cent, instalment sales overdue (as a percentage of total instalment sales) decreased from 3.5 per cent to 3 per cent, and other loans and advances overdue (as a percentage of total other loans and advances) decreased from 3.8 per cent to 3.1 per cent.
3.6 CREDIT RISK

Analysis of overdue amounts

Figure 30 graphically displays the level of total overdues for the banking sector for the period from March 1999 to December 2000 (in terms of the old Regulations relating to Banks) and from January to December 2001 (in terms of the amended Regulations relating to Banks). Owing to amendments to the definition and classification of overdue accounts in the amended Regulations relating to Banks, the gross overdues of the total banking sector decreased by R2.5 billion to a level of R26.3 billion in January 2001 (December 2000: R28.8 billion). Also, in terms of the old Regulations relating to Banks, banks had to submit credit-risk data on a quarterly basis, but on a monthly basis in terms of the amended Regulations.

**FIGURE 30: TOTAL BANKING-SECTOR OVERDUES**

In terms of the amended Regulations relating to Banks, which became effective on 1 January 2001, banks also had to classify all loans and advances according to the quality of the assets. Only those loans classified as “doubtful” and “loss” were regarded as “overdue” for purposes of this Annual Report. The impact of the amendment to the definition of overdue accounts can also be seen clearly in Figure 30. A dotted line separates the overdues in terms of the old Regulations from the overdues in terms of the amended Regulations. Because of the amended definition of overdue, comparisons over time should be made with caution.

During the year under review, gross overdues fluctuated between R25 billion and R26.3 billion. The net decrease in gross overdues of the total banking sector since January 2001 amounted to R192.4 million.

The ratio of net overdues (that is, gross overdues less specific provisions) to net qualifying capital and reserves is used internationally to benchmark the extent of amounts overdue in a banking sector. Figure 31 displays this ratio for the past three years. Net overdues as a percentage of net qualifying capital and reserves amounted to 21 per cent in January 2001 (December 2000: 21.7 per cent). By the end of December 2001, this ratio had improved to 17.3 per cent, which was well within the international benchmark of 25 per cent.

During the year under review, the average efficiency ratios fluctuated from one month to another, the average efficiency ratios of different banks would fluctuate accordingly.

Figure 19 reflects the efficiency of the South African banking sector for the past three years. The high volatility in efficiency for the year 2001 was due mainly to the implementation of Accounting Standard AC 133 by some banks in January 2001. In terms of the disclosure requirements of AC 133, banks are required, in respect of financial-year periods commencing on or after 1 January 2001, to reflect the net mark-to-market adjustments of investments (fair-value accounting) in their financial statements, as opposed to the equity accounting (book value or purchase price) done previously.

The Accounting Practice Board, however, had reconsidered the implementation date of AC 133 and announced that AC 133 would become effective for financial years commencing on or after 1 July 2002. The objective of the delayed implementation was to enable companies to improve their business practices and systems and to complete the necessary training. Some banks, however, had already implemented AC 133 and reported data in accordance with the requirements of AC 133 for 2001. For the year as a whole, efficiency, at 64.2 per cent, was lower on average (smoothed over a 12-month period) than in the previous year (2000: 62.5 per cent).

The actual values of, and the percentage growth in, the determinants of efficiency are graphically displayed in Figure 20.

**FIGURE 20: DETERMINANTS OF EFFICIENCY**
The banking sector achieved a before-tax return equivalent to approximately 1.0 per cent of total assets (2000: 1.5 per cent). An after-tax return equivalent to approximately 0.7 per cent of total assets (2000: 1.1 per cent) was reported for 2001, whereas an after-tax return equivalent to approximately 9.2 per cent was reported on net qualifying capital and reserves (2000: 12.0 per cent).
Short-term wholesale deposits (0-31 days) represented 37.2 per cent of total funding in December 2001, as opposed to 43.0 per cent for December 2000 (Figure 26). As already mentioned, the sharp decline in short-term wholesale deposits from December 2000 to January 2001 can mainly be attributed to some banks not being able to report some information in terms of the amended Regulations relating to Banks. Wholesale deposits shorter than seven days and wholesale deposits between eight and 31 days are shown only from January 2001 onwards, owing to the requirements of the amended Regulations relating to Banks. As at the end of December 2001, wholesale deposits shorter than seven days and wholesale deposits between eight and 31 days represented 26.4 per cent and 10.7 per cent, respectively, of total funding.

**FIGURE 27: COMPOSITION OF WHOLESALE DEPOSITS ACCORDING TO MATURITY**

Figure 27 displays the composition (measured over a period of 12 months) of wholesale deposits according to maturity for the year under review. Wholesale deposits with a maturity shorter than seven days and wholesale deposits with a maturity greater than 91 days constituted the biggest portion of wholesale deposits in December 2001, namely, 30 per cent and 43 per cent, respectively. Wholesale deposits with a maturity of 32 to 60 days constituted only a small portion of total wholesale deposits, namely, 7 per cent, followed by deposits with a maturity of eight to 31 days (14 per cent of total wholesale deposits).

### 3.5 MARKET RISK

Turnover in derivatives again fluctuated widely during the year, from approximately R364.5 billion in January 2001, to R81.4 billion in August 2001 and to R80.3 billion in December 2001 (see Figure 28). In terms of the amended Regulations relating to Banks, banks were also required to report on forward contracts. By the end of December 2001, forward contracts amounted to R1 500 billion.

The trends (calculated on the basis of a 12-month moving average) in return on equity (ROE) and return on assets (ROA) for the past three years are graphically displayed in Figure 22. After a marked deterioration in both the ROA and the ROE during the period from September 1999 until June 2000, both the ROA and the ROE improved noticeably until January 2001. This improvement was due mainly to a higher net income after tax resulting from slower growth in operating expenses. From January 2001, however, a marked deterioration in both ROA and ROE, however, can clearly be detected from Figure 22. This deterioration was due mainly to losses in the investment portfolio reported by some banks in terms of AC 133.

**FIGURE 23: PRODUCTIVITY**

Figure 23 graphically displays the productivity of the banking sector for the past three years, measured by comparing the expenditure on employees with the amount of income generated. During the year under review, the total income generated per employee was on average equivalent to R38 200, as opposed to R34 300 in 2000. Staff expenses per employee, on the other hand, were on average R11 900 in 2001, as opposed to R10 400 during 2000. Also reflected in Figure 23 is the average (smoothed over 12 months) net income generated per employee. The net income generated per employee increased from R23 900 to R26 300, indicating that the productivity of employees in the banking sector improved during the year under review.

### 3.4 LIQUIDITY RISK

An evaluation of liquidity-risk management involves an assessment of the level of compliance with the statutory liquid-asset requirements, an analysis of the short-term liquidity mismatch in terms of its size (in relation to total funding) and its trend, an assessment of the sources of liquid funds available for funding such mismatches and a consideration of the volatility of funding sources available. Mismatches may develop in various future time bands, because the management has taken a specific view of future interest-rate movements. Therefore, the relationship between interest-rate risk management and liquidity-risk management also has to be borne in mind.