

Quarterly Derivatives Fact Sheet -- Fourth Quarter 1997

GENERAL

The notional amount of derivatives in insured commercial bank portfolios increased by \$35 billion (less than one percent) in the fourth quarter, to \$25.1 trillion. During the fourth quarter, the notional amount of interest rate contracts fell by \$185 billion, to \$17.1 trillion. Foreign exchange contracts increased by \$162 billion, to \$7.4 trillion. This figure excludes spot foreign exchange contracts, which decreased by \$334 billion to \$317 billion. Commodity and equity contracts rose by \$42 billion, to \$494 billion. Credit derivatives rose by \$16 billion, and now total \$55 billion. The number of commercial banks holding derivatives decreased by 16, to 459.

Approximately 68 percent of the notional amount of derivative positions was comprised of interest rate contracts with an additional 30 percent represented by foreign exchange contracts. Commodity and equity contracts accounted for only 2 percent of the total notional amount. The composition of contract types remains relatively unchanged since 1994.

Holdings of off-balance sheet derivatives continue to be concentrated in the largest banks. Eight commercial banks account for 95 percent of the total notional amount of derivatives in the banking system, with 99 percent held by the top 25 banks.

Over-the-counter (OTC) and exchange-traded contracts comprised 88 percent and 12 percent, respectively, of the notional holdings as of fourth quarter of 1997, which has remained virtually the same since the fourth quarter of 1996. OTC contracts tend to be more popular with banks and bank customers because they can be tailored to meet firm-specific risk management needs. However, OTC contracts tend to be less liquid than exchange-traded contracts, which are standardized and fungible.

The notional amounts of short-term contracts (i.e., with remaining maturities of less than one year) fell by \$75 billion from the third quarter of 1997, to \$10.7 trillion. Contracts with remaining maturities of one to five years increased by \$110 billion, to \$5.8 trillion, and long-term (i.e., with maturities of five or more years) contracts increased by \$314 billion, to \$2.2 trillion.

RISK

Notional amounts are helpful in measuring the level and trends of derivatives activity. However, these amounts may be a misleading indicator of risk exposure. Data such as fair values and credit risk exposures are more useful for analyzing point-in-time risk exposure, while data such as trading revenues and contractual maturities provide more meaningful information on trends in risk exposure.

Credit exposures are reflected in Table 4. However, Table 4 does not reflect the full effects of bilateral netting on potential future credit exposures (i.e., the add-on component). Under the current risk-based capital guidelines, banks have the option of either calculating their netted potential future credit exposure on a counterparty basis or approximating their netted potential future credit exposure on an aggregate basis. The method chosen must be used consistently and is subject to examiner review.

There was a \$40 billion increase in the fourth quarter in total credit exposure from off-balance sheet contracts to \$356 billion. Relative to risk-based capital, total credit exposures for the top eight banks increased to 290.4 percent of aggregated risk based capital in the fourth quarter from 265.9 percent in the third quarter. The increase in the dollar amount of total credit exposure appears to be largely due to changes in market rates, as well as the overall level of activity in the fourth quarter. Credit exposure would have been significantly higher without the benefit of bilateral netting agreements. The extent of the benefit can be seen by comparing gross positive fair values from Table 6 to the bilaterally-netted current exposures shown on Table 4.

Past due derivative contracts remained at nominal levels. For all banks, the book value of contracts past due 30 days or more aggregated only \$28 million, or .008 percent of total credit exposure from derivatives contracts. Note, Call Report data regarding non-accrual assets are not broken out to show the amount attributable to derivative contracts. During 1997 banks charged off \$120 million due to credit losses from off-balance sheet derivatives. Banks' relatively small loss figures reflect both the current healthy economic environment and the generally high credit quality of counterparties and end-users with whom banks presently engage in derivatives transactions, as well as the increased use of collateral.

The Call Report data reflect the significant differences in business strategies among the banks. The preponderance of trading activities, including both customer transactions and proprietary positions, is confined to the very largest banks. The banks with the 25 largest derivatives portfolios hold 95 percent of the contracts for trading purposes, primarily customer service transactions, while the remaining 5 percent are held for their own risk management needs. The trading contracts of these banks represent 94 percent of all notional values in the commercial banking system. Smaller banks tend to limit their use of derivatives to risk management purposes. Banks below the top 25 hold 75 percent of their contracts for purposes other than trading.

The gross positive and gross negative fair values of derivatives portfolios are relatively balanced; that is, the value of positions in which the bank has a gain is not significantly different from the value of those positions with a loss. In fact, for derivative contracts held for trading purposes, the eight largest banks have \$360 billion in gross positive fair values and \$360 billion in gross negative fair values. Note that while gross fair value data is more useful than notional amounts in depicting more meaningful market risk exposure, users must be cautioned that these figures do not include the results of cash positions in trading portfolios. Similarly, the data are reported on a legal entity basis and consequently do not reflect the effects of positions in portfolios of affiliates.

End-user positions, or derivatives held for risk management purposes, have aggregate gross positive fair values of \$11.3 billion, while the gross negative fair value of these contracts aggregated to \$8.0 billion. Readers should recognize that these figures are only useful in the context of a more complete analysis of each bank's asset/liability structure and management process. For example, these figures do not reflect the impact of off-setting positions on the balance sheet.

The notional amount of credit derivatives reported by insured commercial banks increased by 41 percent from third quarter levels, or \$15.9 billion, and now total \$54.7 billion. Notional amounts for the thirteen commercially insured institutions that sold credit protection (i.e., assumed credit risk) to other parties was \$14.3 billion, a decrease of \$450 million from the third quarter of 1997. The notional amount for the nine commercial banks reporting credit derivatives that bought credit protection (i.e., hedged credit risk) from other parties was \$40.4 billion, a \$16.3 billion increase from third quarter.

REVENUES

The Call Report data include revenue information regarding trading activities involving cash instruments *and* off-balance sheet derivative instruments. The data also show the impact on net interest income and non-interest income from derivatives used in non-trading activities. Note that the revenue data reported in Table 7.

Relative to the third quarter of 1997, commercial banks reporting derivatives contracts in the fourth quarter of 1997 show an aggregate decrease in trading revenues from cash instruments and derivatives activities of \$1.2 billion, or 52 percent. The revenue figures reported for trading activities in the fourth quarter indicate that the banks with derivatives realized approximately \$1.2 billion in revenue from cash instruments and off-balance sheet derivatives, with the top eight banks accounting for 59 percent of these trading revenues. In the fourth quarter, revenues from interest rate positions decreased by \$639 million, generating \$534 million, while revenues from foreign exchange positions increased by \$211 million, to \$1.3 billion. Banks reported trading losses of \$625 million from trading activities involving equity, commodity and other (i.e. emerging market debt) positions in the fourth quarter.

Derivatives held for purposes other than trading did not have a significant impact on either net interest income or non-interest income in the fourth quarter. Non-traded derivatives contributed \$78 million, or .09 percent to the gross revenues of banks with derivative contracts in the fourth quarter. These figures reflect an increase of \$106 million from the third quarter. These results are only useful in the context of a more complete analysis of each bank's asset/liability structure and management process.

HIGH-RISK MORTGAGE SECURITIES AND STRUCTURED NOTES

The number of banks reporting either structured notes or high-risk mortgage securities remain largely confined to banks with total assets less than \$10 billion. The number of

banks reporting high-risk mortgage securities decreased by 18 to 412, in the fourth quarter. The fourth quarter aggregated numbers indicate that fair values exceeded book values by \$11 million for high risk mortgage securities, a \$19 million dollar improvement from the third quarter, stemming from the decrease in market interest rates in the fourth quarter. The average book value of holdings for these banks relative to total assets for the fourth quarter of 1997 remained virtually the same at .3 percent. Average appreciation to risk-based capital remained at .01 percent.

The number of banks reporting structured notes on their books decreased in the fourth quarter by 164, to 2,784. Book values exceeded fair values by \$44 million for structured notes, an \$11 million dollar improvement from the third quarter, due to the decrease in interest rates over the fourth quarter. For banks with structured notes, the average book value of holdings relative to total assets remained virtually unchanged at .6 percent. The average amount of depreciation to risk-based capital remained at .03 percent.