

Quarterly Derivatives Fact Sheet -- First Quarter 1997

General

The notional amount of derivatives in insured commercial bank portfolios increased by \$1.9 billion in the first quarter to \$21.89 trillion. During the first quarter of 1997, the notional amount of interest rate contracts rose by \$1.1 trillion, to \$14.6 trillion. Foreign exchange contracts increased by \$678 billion, to \$6.9 trillion (this figure excludes spot foreign exchange contracts, which increased by \$205 billion to \$468 billion). Commodity and equity contracts rose by \$20 billion, to \$387 billion. Data on credit derivatives was reported for the first time and totaled \$19 billion. The number of commercial banks holding derivatives increased by 21 in the first quarter to 504. Relative to year-end 1996, the total notional amount of derivative contracts increased by more than nine percent.

Approximately 67 percent of the notional amount of derivative positions was comprised of interest rate contracts with an additional 31 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 1991.

Off-balance sheet derivatives continue to be concentrated in the largest banks. Eight commercial banks account for 94 percent of the total notional amount of derivatives in the banking system, with 98 percent accounted for by the top 25 banks.

Over-the-counter (OTC) and exchange-traded contracts comprised 86 percent and 14 percent, respectively, of the notional holdings as of first quarter, which has remained virtually the same since the first 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 (i.e., with remaining maturities of less than one year) contracts declined \$376 billion from the fourth quarter, of 1996, to \$8.9 trillion. Contracts with remaining maturities of one to five years decreased by \$248 billion, to \$3.9 trillion, and long-term (i.e., with maturities of five or more years) contracts increased by \$89 billion, to \$1.4 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.

Data on credit derivatives was reported in the first quarter 1997 call report. Analysts should be cautioned that data on credit derivatives are being reported for the first time, and could contain reporting errors. The notional amount of all credit derivatives for the eight commercially insured institutions that extended credit protection to other parties was \$6.85 billion. The notional amount for the seven commercial banks reporting credit derivatives that obtained credit protection from other parties was \$12.29 billion. The notional imbalance between aggregate levels of credit derivatives where banks are receivers of protection and banks which provide protection might be explained by the fact that the majority of the banks engaged in credit derivatives are dealer banks, and may be hedging their derivative positions with cash instruments which are on-balance sheet and whose usage is not apparent from this off-balance sheet data. [See tables [1](#) , [3](#).]

Credit exposures are reflected in Table 4. However, that table does not reflect the 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 (so long as the method chosen is used consistently and is subject to examiner review). Since available Call Report information may not reflect the full impact of netting on future credit exposure, the total credit exposures reported here are most likely overstated. If a bank has a legally valid bilateral netting arrangements, potential future credit exposure could be decreased.

The first quarter realized a \$17 billion increase in total credit exposure from off-balance sheet contracts, to \$268 billion. Relative to risk-based capital, total credit exposures for the top eight banks increased slightly, to 241.9 percent of aggregated capital in the first quarter from 236.9 percent in the fourth quarter. The increase in the dollar amount of total credit exposure appears to be largely due to an increase in the volume of derivatives contracts over the first 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.

Non-performing contracts remained at nominal levels. For all banks, the book value of contracts past due 30 days or more aggregated only \$32 million, or .01 percent of total credit exposure from derivatives contracts. As of the first quarter 1997, banks with derivative contracts reported \$2.1 million in credit losses from off-balance sheet derivatives. This number represents the year-to-date charge-offs incurred from off-balance sheet contracts. These 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 94.1 percent of the contracts for trading purposes, primarily customer service transactions, while the remaining 5.9 percent are held for their own risk management needs. The trading contracts of these banks represent 92.4 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 70.9 percent of their contracts for purposes other than trading.

The gross negative and gross positive 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 \$268.6 billion in gross positive fair values and \$269.6 billion in gross negative fair values. Note that while gross fair value data are very useful 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 \$8.9 billion, while the gross negative fair value of these contracts aggregated to \$10.7 billion. Readers must be cautioned, however, 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.

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 \$1 billion. The number of banks reporting high-risk mortgage securities decreased by 15 to 474 in the first quarter. The first quarter aggregated numbers indicate that book values exceeded market values (fair values) by \$76 million for high risk mortgage securities, a \$51 million dollar deterioration from the fourth quarter, stemming from the increase in market interest rates in the first quarter. The average book value of holdings for these banks relative to total assets for the first quarter of 1997 remained at 1.2 percent. Average depreciation to capital was .65 percent, a slight deterioration from fourth quarter levels.

The number of banks reporting structured notes on their books decreased in the first quarter by 162, to 3,295. Book values exceeded market values by \$148 million for structured notes, a \$54 million improvement from the third quarter, due to the decline in interest rates over the fourth quarter. For banks with structured notes, the average book value of holdings to total assets declined slightly to 1.9 percent, compared to 2.0 percent in the fourth quarter, while average depreciation to capital increased to .48 percent, a deterioration from .39 percent in the fourth quarter.

Revenues

The Call Report data include revenue information regarding cash instruments *and* off-balance sheet derivative trading activities. 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 reflect figures for the first quarter alone, and are not annualized.

Relative to the fourth quarter of 1996, commercial banks reporting derivatives contracts in the first quarter of 1997 show an aggregate increase in trading revenues from cash instruments and derivatives activities of \$517 million, or 28 percent. The revenue figures reported for trading activities in the first quarter indicate that the banks with derivatives realized approximately \$2.38 billion in revenue for the first quarter from cash instruments and off-balance sheet derivative, with the top eight banks accounting for 86 percent of these trading revenues. In the first quarter, revenues from interest rate positions increased by \$360 million, generating \$1.35 billion, while revenues from foreign exchange positions declined by \$77 million, to \$690 million. Revenue from other trading positions, including equities and commodities positions, increased by \$234 million, generating \$343 million in revenues, with approximately 95% of that amount in the top eight banks.

Derivatives held for purposes other than trading did not have a significant impact on either net interest income or non-interest income in the third quarter. Non-traded derivatives contributed \$333 million, or .4 percent to the gross revenues of banks with derivative contracts in the first quarter. These figures reflect an increase of \$153 million from the fourth quarter. Readers must be cautioned that these results are only useful in the context of a more complete analysis of each bank's asset/liability structure and management process.