

**Fact Sheet  
Derivatives Data -  
First Quarter 1996  
Call Report**

**General**

The notional amount of derivatives in commercial bank portfolios increased by \$987 billion in the first quarter to \$17.85 trillion. (This figure excludes spot foreign exchange contracts, which increased by \$258 billion to \$563 billion). During the first quarter, the notional amount of interest rate contracts rose by \$725 billion, to \$11.82 trillion. Foreign exchange contracts increased by \$262 billion, to \$5.65 trillion, while commodity and equity contracts remained virtually unchanged at \$378 billion. The number of commercial banks holding derivatives decreased by 9 in the first quarter to 549. [See Tables 1, 2, and 3, Graphs 1 and Graph 3.]

Approximately 66 percent of the notional amount of derivative positions was comprised of interest rate contracts with an additional 32 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. [See Table 3 and Graph 3.]

Off-balance sheet derivatives continue to be concentrated in the largest banks. Nine commercial banks account for 94 percent of the total notional amount of derivatives in the banking system, with 97 percent accounted for by the top 25 banks (these figures include spot foreign exchange). [See Table 3 and Graph 4 for concentrations excluding spot foreign exchange.]

Over-the-counter (OTC) and exchange-traded contracts comprised 87 percent and 13 percent, respectively, of the notional holdings as of first quarter, which is virtually the same as fourth quarter 1995. [See Table 3.] OTC contracts tend to be more popular with banks and bank customers because of their flexibility; they are easily tailored to meet risk management needs. However, OTC contracts tend to be less liquid than exchange-traded contracts, which are standardized and fungible.

The notional values of short-term (i.e., with remaining maturities of less than one year) contracts are up \$490 billion from the fourth quarter, to \$8.76 trillion. Medium-term (i.e., with remaining maturities of one to five years) contracts increased by \$340 billion, to \$3.93 trillion, and long-term (i.e., with maturities of five or more years) contracts increased by \$111 billion, to \$987 billion. [See Tables 10, 11 and 12, Graphs 7, 8 and 9.]

**Risk**

Notional amounts are helpful in measuring the level and trends of derivatives

activity. However, these amounts are a misleading indicator of risk exposure. Beginning in the first quarter of 1995, the Call Report provided data that improve disclosure and understanding of the relative riskiness of bank activities involving derivatives. Some of the data provide immediate information (e.g., fair values and credit risk positions) while other data will be more useful over time in evaluating trends (e.g., revenue and contractual maturity data).

In addition to the Call Report changes, the risk-based capital guidelines were amended as of the fourth quarter of 1995 to (1) revise and expand the set of conversion factors used to calculate the potential future credit exposure of derivative contracts, and

(2) Recognize the effect that qualifying bilateral netting arrangements will have on the potential future credit exposure for derivative contracts. Contracts with the longest maturities (i.e., over five years) are now subject to new, higher conversion factors. New conversion factors were also established that specifically apply to derivative contracts related to equities, precious metals, and other commodity contracts. The credit exposure calculations in Table 4 reflect those new factors. However, that table does not reflect the effects of bilateral netting on potential future credit exposures. Under the new 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 does not reveal the method chosen by the bank to report the impact of netting on future credit exposure, the total credit exposures reported here represent upper bounds. If a bank has a legally valid bilateral netting arrangement, potential future credit exposure could be decreased.

The first quarter saw a \$7 billion decrease in total credit exposure from off-balance sheet contracts to \$222 billion. Relative to risk-based capital, total credit exposures for the top nine banks averaged 233.7 percent of capital in the first quarter, compared to 250.3 percent at the end of the fourth quarter.

This decrease in exposure is largely the result of the recognition of continuing benefits from bilateral netting.

Credit exposure would have been significantly higher without the benefit of bilateral agreements. The extent of the benefit can be seen by comparing the gross positive replacement cost from Table 6 to the bilaterally-netted current exposures shown on Table 4. [See Table 4, Graph 5a and Graph 5b.]

Non-performing contracts remained at nominal levels. For all banks, the book value of contracts past due 30 days or more aggregated only \$13 million, or .0001 percent of total current exposure from all derivatives contracts. These figures reflect both the current healthy economic environment and the relatively high credit quality of counterparties and end-users with whom banks

currently engage in derivatives transactions.

As of the first quarter 1996, credit losses on off-balance sheet derivatives were reported by banks in the Call Report. This number represents the year-to-date charge-offs incurred on off-balance sheet contracts. Banks with derivative contracts reported \$2.03 million in credit losses from derivatives.

The Call Report data reflect the significant differences in customer bases and business strategies among the banks. The preponderance of trading activities, including both customer transactions and proprietary positions, is confined to the very largest banks. Smaller banks tend to limit their use of derivatives to risk management transactions. The banks with the 25 largest derivatives portfolios hold 94.2 percent of the contracts for trading purposes, primarily customer service transactions, while the remaining 5.8 percent are held for their own risk management needs. The trading contracts of these banks represent 91.7 percent of all notional values in the commercial banking system. Banks below the top 25, which use derivatives primarily for risk management transactions, hold 73.5 percent of their contracts for purposes other than trading. [See Table 5]

The gross negative and gross positive fair values of derivatives portfolios show that banks are maintaining relatively balanced books; 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, the nine largest banks have \$198 billion in positive fair values and \$198 billion in negative fair values. These figures represent a 9.6 percent decline from fourth quarter levels. Note that while gross fair value data are very useful in depicting more meaningful market risk data, 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 effects of positions in portfolios of affiliates, and may result in double counting bank and non-bank affiliate positions.

End-user positions, or derivatives held for risk management purposes, have aggregate gross positive fair values of \$10.1 billion, while the gross negative fair value of these contracts aggregated to \$9.4 billion. Readers must be cautioned, however, that these results are only useful in the context of a more complete analysis of each bank's asset/liability structure and management process. [See Table 6.]

## **Revenues**

The Call Report data include revenue information regarding cash and derivative trading activities. The data also show the impact on net interest income and non-interest income from non-trading activities. Note that the revenue data reported in Table 7 and Graph 6 reflect figures for the first quarter alone, and are not annualized.

Relative to the fourth quarter of 1995, the first quarter of 1996 resulted in an increase in trading revenues from cash and derivatives activities of \$413 million, or 26.4 percent, totaling \$2.0 billion in the first quarter, with the top nine banks accounting for 86 percent of that amount. In the first quarter, revenues from interest rate contracts rose \$280 million, to \$1.2 billion, while revenues from foreign exchange contracts increased \$37 million, to \$628 million. Revenue from other trading contracts, including equities and commodities contracts, rose \$96 million, generating \$191 million in revenues; with virtually all of that amount was in the top nine banks.[See Table 7, Graph6]

Derivatives held for purposes other than trading did not have a significant impact on either net interest income or non-interest income in the first quarter. Non-traded derivatives contributed \$499 million, or .67 percent to the \$75 billion in gross revenues of banks with derivative contracts in the first quarter. These figures reflect a decline of \$10 million from the fourth quarter (fourth quarter contributed \$509 million to gross revenues). 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.

### **High-Risk Mortgage Securities and Structured Notes**

The number of banks reporting either structured notes or high-risk mortgage securities were largely confined to banks with total assets less than \$1 billion. The first quarter aggregated numbers indicate that book values exceeded market values (fair values) by \$17 million for high risk mortgage securities, a \$71 million dollar deterioration from the fourth quarter. Book values exceeded market values by \$185 million for structured notes, a \$39 million dollar deterioration from the fourth quarter. This overall depreciation from fourth to first quarter stems from the rise in interest rates in the first quarter. For all banks with high-risk mortgage securities, the average book value of holdings relative to total assets for the first quarter of 1996 remained at 1.38 percent, compared to the fourth quarter of 1995. Average depreciation to capital increased slightly, to 50 percent, from .33 percent in the fourth quarter.

For banks with structured notes, the book value of holdings to total assets averaged 2.5 percent, compared to 2.8 percent in the fourth quarter, while average depreciation to capital increased slightly, to .54 percent, from .52 percent in the fourth quarter. The number of banks reporting high-risk mortgage securities decreased by 27, to 541, in the first quarter. The number of banks reporting structured notes on their books decreased in the first quarter by 233, to 4,041. [See Table 8 and Table 9, Graphs 10 and 11.]