

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM  
DIVISION OF RESEARCH AND STATISTICS

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**Date:** April 7, 2004

**To:** Michael Gibson

**From:** James O'Brien and Matthew Chesnes

**Subject:** Recent Trends in Bank Derivatives

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In this memo, we use the recently finalized December 2003 call report data to provide an update on trends in banks' use of derivatives.<sup>1</sup> While notional amounts of bank derivatives have grown exponentially since at least 1985, the number of banks holding derivatives has been small with a declining trend until 2002. At least in part, this trend reflects the decline in the number of banking institutions. However, the number of users increased by almost two-thirds over the past two years despite a further decline in the number of banks. The large increase comes from banks that do not trade derivatives. Banks that have not previously used derivatives have experienced the largest growth rate.

#### 1. Recent Trends in Bank Derivatives

The historical frequency of bank derivatives use and notional amounts since 1985 are presented in Table 1 and Figure 1. As can readily be seen in Figure 1, notional amounts of derivatives have grown exponentially since 1985. In contrast, the number of users declined sharply in the latter part of the 1980s and then modestly until 2002. In 2002, banks with derivatives increased to 347 from 279 in 2001, almost a 25 percent increase. In 2003, bank derivatives users further increased by almost a third to 459.

In Figures 2a and 2b, patterns of derivatives amounts and users since 1995 are shown for banks that trade derivatives versus those that do not trade derivatives. Most of the notional amount of derivatives is held by banks that also engage in trading (amounts shown in Figure 2a include both trading and non-trading positions). However, as shown in Figure 2b, most users of derivatives are non-trading banks. All of the increase in the number of users in 2002 and most of the increase in 2003 came from banks that do not trade derivatives.

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<sup>1</sup> For a detailed historical examination of bank derivatives holdings, see our staff memorandum "Derivatives Information Provided on Bank Call Reports," May 23, 2003.

In Figures 3a and 3b, patterns of derivatives users and notional amounts are shown for OTC and exchange traded derivatives held by banks since 1995. As shown in Figure 3a, in terms of dollar magnitudes, most of the growth is in OTC derivatives. As shown in Figure 3b, the increase in the number of users of derivatives over the past two years has come from users of OTC contracts, with little change in users of exchange-traded contracts.

Patterns of notional amounts and number of users of credit derivatives since 1997 are presented in Figure 4. As with other derivatives categories, notional amounts have grown substantially. Over the past two years alone, notional amounts have more than doubled, reaching \$1 trillion at the end of 2003. The number of banks with credit derivatives also has grown since 1997. However, the number of users is still quite small and growth in users has been modest. This continues to be the case over the past two years—from 26 users in 2001 to 30 users in 2003. While users of derivatives who do not trade have also increased, their numbers are very small—from 4 in 2001 to 8 in 2002.

## 2. Previous Versus New Users

By using historical call report data, we can determine the importance of previous versus new users of derivatives in explaining recent trends in the number of banks using derivatives. For this purpose, three categories of derivatives users are defined. Continuing users are banks reporting derivatives in both the current and previous year. New users are defined as banks reporting derivatives currently but not in any previous year going back to 1985. The remaining category of derivatives users comprise banks who report derivatives use currently and have reported derivatives in the past, but not in the previous year, i.e., non-repeat or occasional users. Note that an increase in new or occasional users in one year raises the potential number of continuing users in the following year. Also our findings are limited because only December call reports are used, not reports for each quarter.

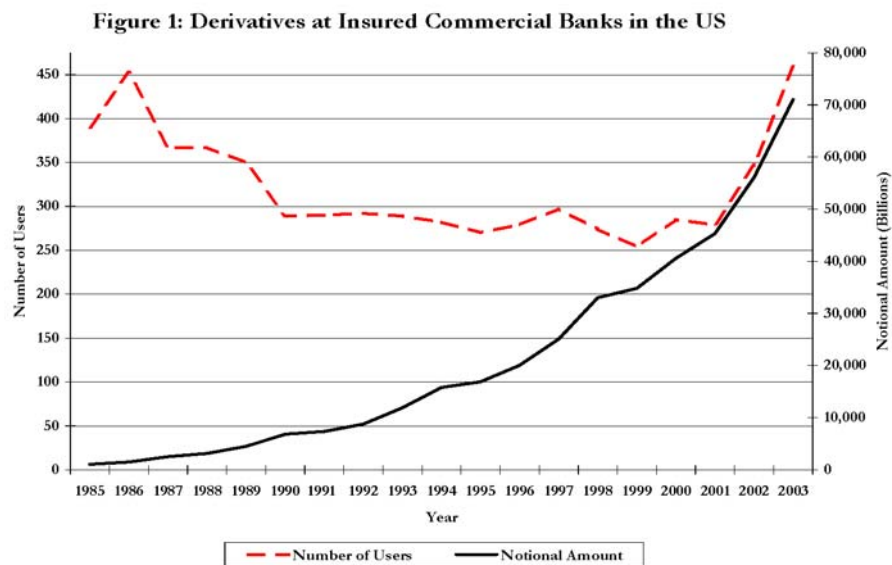
First, the numbers of users in all three categories have increased over the past 2 years. Continuing users accounted for a little more than half of the increase in the number of users since 2001 and new users accounted for more than 40 percent of the increase. In Figure 5, the percentages of users in the three categories from 1990 to the present are plotted. Until 1999, continuous users fluctuated between 74 and 87 percent of total users but the percentage has since declined to 67 percent. This relative decline is explained by

the increasing percentage of new users. As shown in Figure 5, the percentage of new users ranged between 9 and 17 percent between 1990 and 1999. Since then, the percentage has been growing and, at the end of 2003, it was at 27 percent. The third category, occasional users, is relatively small and has shown no consistent trend since 1990.

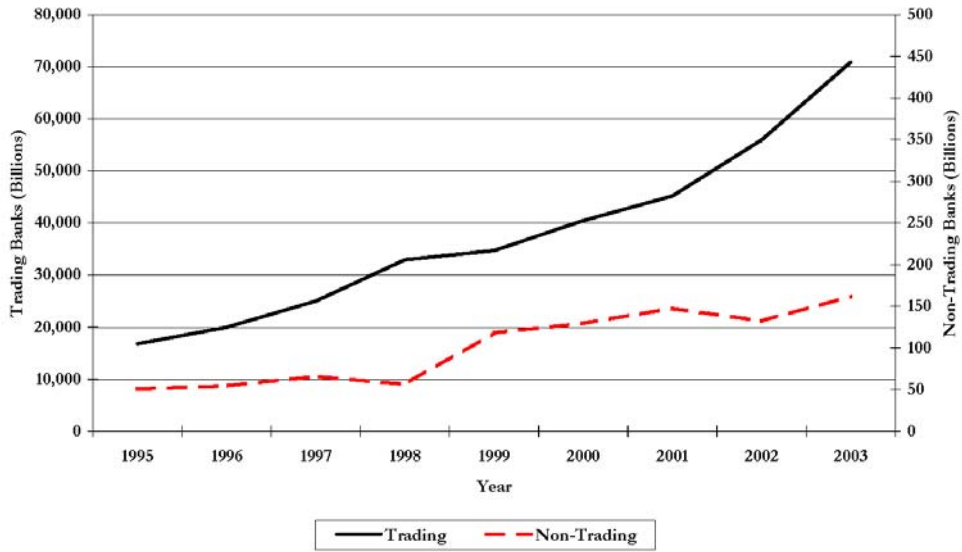
Table 1: Derivatives at Insured Commercial Banking Institutions in the U.S.

Year <sup>1</sup>	Number of Banking Institutions <sup>2</sup>	Derivatives Notional Amount (billions)	Institutions with Derivatives	
			number	percent
2003	6,456	71,072	459	7.1
2002	6,531	56,070	347	5.3
2001	6,614	45,319	279	4.2
2000	6,710	40,565	285	4.2
1999	6,769	34,804	254	3.8
1998	6,885	33,002	274	4.0
1997	7,167	25,064	297	4.1
1996	7,362	20,034	279	3.8
1995	7,623	16,860	270	3.5
1994	7,953	15,772	282	3.5
1993	8,386	11,878	289	3.4
1992	8,799	8,765	292	3.3
1991	9,094	7,339	290	3.2
1990	9,317	6,806	289	3.1
1989	9,544	4,473	350	3.7
1988	9,798	3,120	367	3.7
1987	10,177	2,497	367	3.6
1986	10,563	1,477	453	4.3
1985	11,057	1,035	390	3.5

1. Values as of December 31. 2. Banking institutions consolidates all banks that belong to a bank holding company into a single unit.



**Figure 2a: Notional Amounts of Derivatives at Trading and Non-Trading Banks**



**Figure 2b: Users of Derivatives at Trading and Non-Trading Banks**

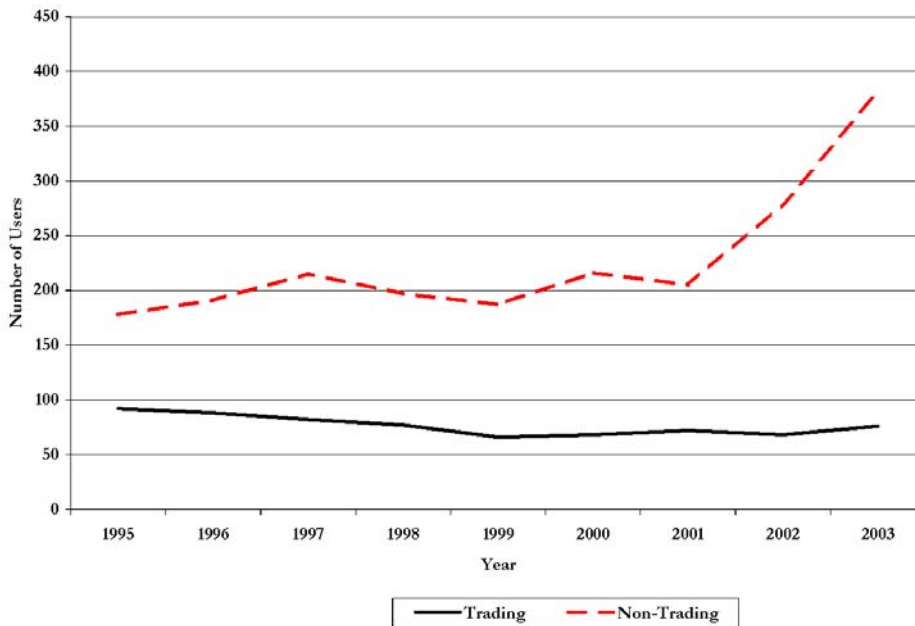


Figure 3a: OTC and Exchange Traded Derivatives: Notional Amounts

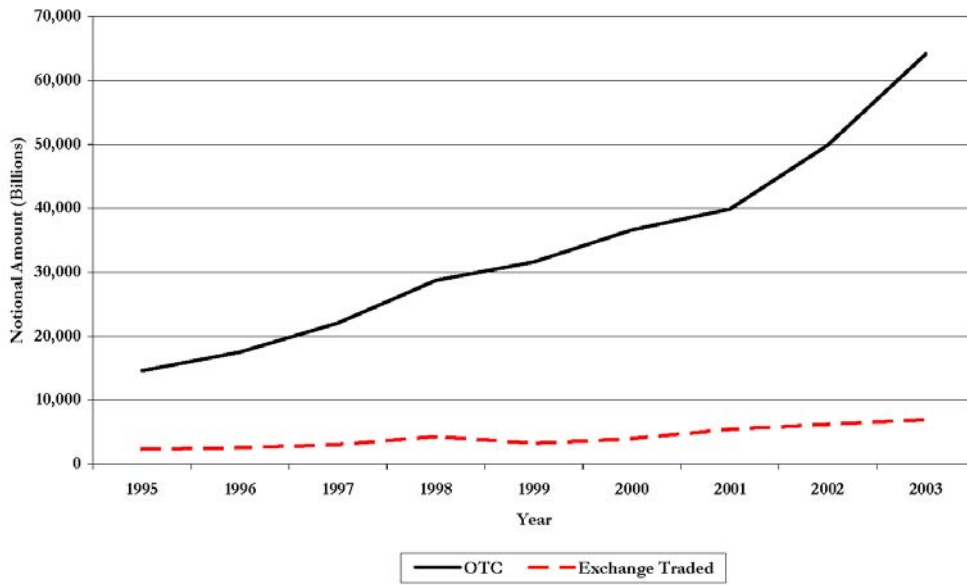


Figure 3b: OTC and Exchange Traded Derivatives: Users

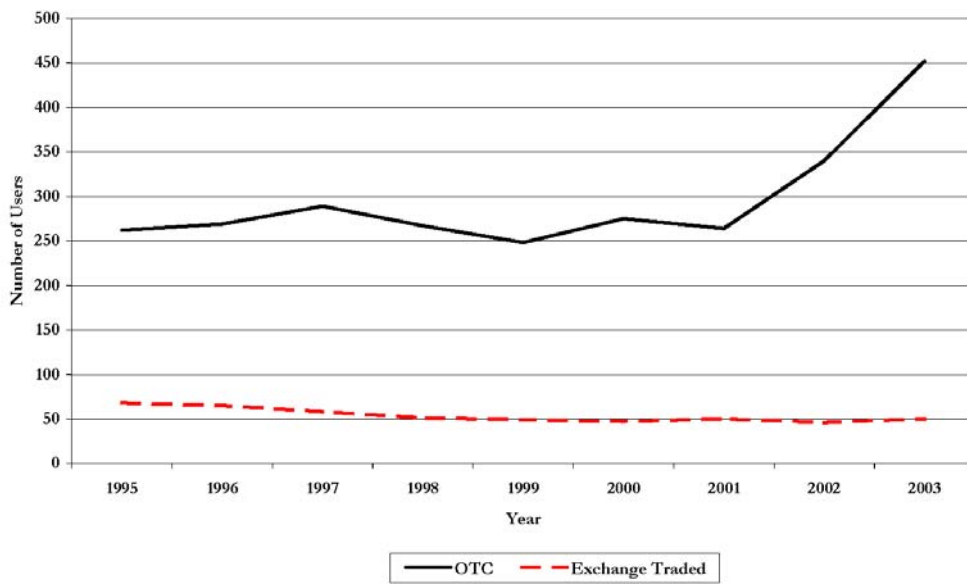


Figure 4: Credit Derivatives

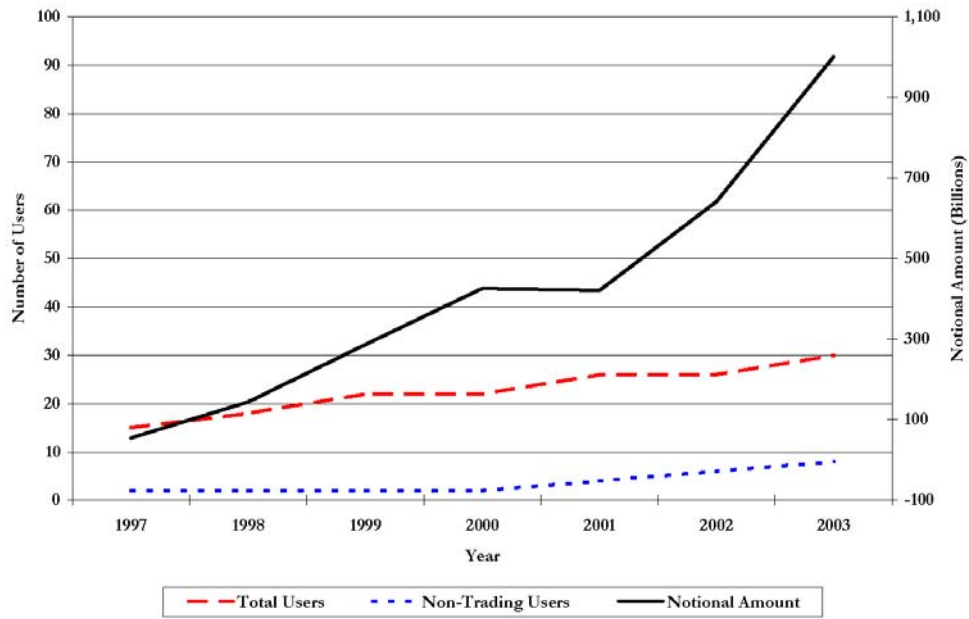


Figure 5: Previous Versus New Users of Derivatives

