SPECIAL POLICY BRIEF 25

NEW DERIVATIVES DATA:
GLOBAL DERIVATIVES MARKET NEAR $300 TRILLION
— U.S. TRADING PROFITS HIT ALL TIME HIGH

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This Special Policy Brief marks the five year anniversary of the Derivatives Study Center.

This Brief discusses new data from the Bank for International Settlements (BIS) and the U.S. Treasury Department’s Office of Comptroller of the Currency (OCC).

NEW DATA FROM THE BIS

The BIS reports that the outstanding amount of OTC derivatives in global financial markets reached $248 trillion by the end of 2004. That represents a 26% increase for 2004 and follows a 39% increase in 2003. Growth in global OTC derivatives markets has averaged 31.6% since 1990. (Note that there is a break in the series in 1998, and that one trillion is equal to one thousand billion.)

The BIS had already reported that the outstanding amount of exchange-traded derivatives (i.e. futures and options) reached $46.6 trillion at year’s end. Together with the amount of OTC derivatives, this put the total amount of derivatives outstanding in global markets at $295 trillion. By point of comparison, the U.S. gross domestic product was $12 trillion at the end of 2004, and the amount of outstanding U.S. Treasury securities totaled $4.17 trillion.
There are other ways to measure the size of derivatives markets. The “amount outstanding” measures the dollar value of the notional principal of all outstanding contracts. While this is the most consistent measure across the markets, it is not the best measure of credit risk, nor is it the best measure of speculation or hedging since it does not reflect the extent to which contracts might offset one another.

A better way to measure the credit risk created by derivatives trading is to measure their gross fair market value and the net credit exposure of the financial entities involved in the market. The BIS reports that the gross market value of OTC derivatives was $9.1 trillion at the end of 2004. This is the sum of all the derivatives that are “in the money” and out of the money options that have a “time value.”

The net credit exposure on those contracts was $2.08 trillion. The net credit exposure is substantially smaller than the amount outstanding and the gross market value due to netting. The benefits of netting depend though on the success of legally enforceable netting arrangements. This measure of credit exposure also depends on the current level of prices, interest rates, exchange rates and other underlying items in the market. Were those prices or rates to change substantially, the credit exposures of derivatives counterparties might also change substantially. (See comments below on recent OCC data on credit exposures.)

The market value of exchange traded futures is zero because they are marked-to-market daily, and the gross market value of exchange traded option is not considered as important because the credit exposures on those contracts are netted and the remaining exposure is rated AAA due to their being backed by a clearing house.

**NEW DATA FROM THE OCC**

The U.S. Treasury Department’s Office of Comptroller of the Currency (OCC) recently released data on derivatives use by US commercial banks for the first quarter of 2005. Although it is not a complete picture of the US market, it amounts to a large share of the US and global market for derivatives.

The data shows a few noteworthy developments. First, the credit exposure to the top US banks from their activities as dealers in OTC derivatives shows a substantial increase since the third quarter of 2003 and a smaller increase over the average for the late 1990s. Today their credit exposure as a percentage of their risk based capital is over 300% while that for JP Morgan alone is over 601%.
One explanation for this rise in credit exposure is that they have been making a killing in derivatives trading and the inability to liquidate these gains leaves them with booked, but yet to be realized, gains. The same report shows that trading profits from derivatives and “cash” instruments rose from $2.2 billion in the fourth quarter of 2004 to a record high $4.44 billion in the first quarter of 2005. This quarterly gain of over 100% is the second largest on record, and is second only the quarter following the rescue of Long Term Capital Management at the end of 1998. The trading gains were in both interest rate and foreign exchange derivatives and cash instruments.

One more item of note pertains to some significant changes in the average maturity – also called tenor – of OTC interest rate derivatives. The chart below shows that long-term interest rate derivatives have grown substantially as a share of that market, that short-term derivatives have shrunken considerably, and that intermediate-term derivatives have grown slightly from 38% to 44% of the market.
Miscellaneous notes on the data

- The OCC’s figures above for overall amounts of outstanding derivatives do not include spot foreign exchange transactions and in some instances also do not include credit derivatives.
- The OCC’s data on trading revenue combines trading in derivatives with “cash” instruments such as foreign currency, bonds and other securities.

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