

———— FINANCIAL POLICY FORUM ————
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SPECIAL POLICY BRIEF 11

New Data on Derivatives Markets from BIS and OCC

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The following is a Special Policy Brief on recent data released by the Bank for International Settlements (BIS) and the U.S. Office of Comptroller of the Currency (OCC). The former contains figures for the global derivatives markets, while the latter focuses on derivatives usage by U.S. commercial banks. Both contain data through the third quarter of 2003.

Information from these data releases has been, in part, entered into spreadsheets available on the Derivatives Study Center website:

<http://www.financialpolicy.org/dscdata.htm>

BANK for INTERNATIONAL SETTLEMENTS

The BIS reports that the outstanding amount (also known as open interest) of futures on organized exchanges declined in the third quarter of 2003 by 2.9%, while that for options increased by 6.7%. Trading volume, however, declined sharply for both futures (-4.7%) and options (-19.7%). The quarterly decreases were most likely explained by the extraordinary growth in the second quarter of 2003 (see Special Policy Briefs 9 and 10 at www.financialpolicy.org/dscbriefs.htm). Measured on a year-to-date (YTD) basis, both outstanding amounts and volume show strong growth. On the YTD basis, outstanding futures are up 31.2% and options are up 92.7%, while trading volume in futures and options rose 29.4% and 26.5%, respectively.

There are some important regional variations within this global data. Open interest and trading volume in futures decreased sharply in North America, while in Europe, there was an increase in open interest and a smaller decrease in trading volume. In options, there was a small decrease in open interest and a 29.7% fall in trading volume in North America. In Europe, open interest in options rose 18.5%, although trading volume fell.

The BIS has not yet updated their figures on the global OTC market in derivatives since the Financial Policy Forum analyzed those figures in Special Policy Brief 10 (<http://www.financialpolicy.org/fpfspb10.htm>)

The quarterly report by BIS measures the use of derivatives by reporting derivatives dealers worldwide, and reporting dealers include primarily international banks and what are called broker-dealers in the U.S. It does not include firms such as the former Enron and former Long Term Capital Management hedge fund even though they acted as market makers in the past. Thus, any similar non-bank financial institution such as GE Capital or General Motors Mortgage Corporation would not be included in the BIS data. However, if a reporting dealer had trades with any of these non-bank type of firms, then those derivatives would be included.

The BIS data is available on an Excel spreadsheet at the FPF website:
<http://www.financialpolicy.org/dscbisglobal.xls>

The original BIS data is available at:
<http://www.bis.org/publ/regpubl.htm>

U.S. OFFICE of COMPTROLLER of the CURRENCY

The quarterly report by the OCC measures the use of derivatives by insured commercial banks in the U.S. It shows that banks' derivatives holdings grew by only 1.9% from the previous quarter. This is small compared to the average rate of growth of 4.6% since the beginning of 1998. One possible explanation is that the data is not seasonally adjusted. If the third quarter of 2003 is compared to the third quarter in 2002, then the growth rate is 26% – a rate that compares favorably to the average annual growth rate of 18% since 1998.

Another insight comes from decomposing the data by instrument: forwards/futures, swaps, options and credit derivatives. This breakdown shows both a sharp drop in the use of forwards/futures and a small drop in options. This possibly is due to a 2.5% quarterly decline in banks' use of foreign exchange derivatives – a remarkable fact given the large movement in the U.S. dollar's value – which are often structured as forward contracts. On the other hand, there was a sharp quarterly increase in swaps (+8.2%) and credit derivatives (+8.4%). That brought the annual growth in the use of swaps up to 39% and that for credit derivatives to 51.7%. Since the OCC began reporting on credit derivatives in 1997, their use by banks has risen from \$55 billion at the end of 1997 to \$869 billion by the third quarter of 2003.

One of the most useful features of the OCC report is its focus on the credit exposure to U.S. banks from their derivatives holdings. This declined a bit both for the largest seven banks where most of the holdings are concentrated and overall for the 572 banks that report using derivatives. Credit exposure as a percentage of risk based capital was 238.2% (down from 240.4%) for the top seven banks and 5.6% for the average of all 572 banks. Amongst the top seven banks, JPMorgan Chase stands out because its credit

exposure as a percent of risk based capital is 783%. Bank of America's figure is 237%, Citibank is 241% and HSBC is 220%.¹

Exchange traded positions are frequently marked to market so that the credit exposure comes from OTC derivatives. There, credit exposure would be significantly higher if not for the netting provisions such as those in master trading agreements. If not for netting, which reduces exposure by 83.6%, credit exposure would be 5.1 times higher.

The amount of gross credit exposure, i.e. that before netting, is substantial by any measure. The gross positive fair value of derivatives at JPMorgan Chase is \$683.5 billion – this measures the current market value of positions that are in the money and ignores those that are losing money – compared to \$638 billion in declared total assets. The gross fair value of those that are losing money total \$669 billion, leading to a net positive fair value of \$14.5 billion. This suggests that they have booked a good deal of profit in their derivatives dealings and that they depend a great deal on the legal enforceability of the netting agreements.

Although JPMorgan Chase is in a class by itself – holding more than 50% of all derivatives used by U.S. banks – other top banks are also major derivatives dealers. Bank of America, the second largest derivatives dealer amongst U.S. banks, has derivatives with gross fair value of \$256.5 billion – compared to total reported assets of \$624.7 billion. The net fair value of their derivatives, which subtracts for losing positions, shows a positive \$7.8 billion.

The OCC data is available on an Excel spreadsheet at the FPF website:

<http://www.financialpolicy.org/dscoccbanks.xls>

The original OCC data is available at:

<http://www.occ.treas.gov/deriv/deriv.htm>

¹) Note that these figures are for the banks and not for the holding corporation.