

Press release

2 June 1999

The global OTC derivatives market at end-December 1998

The BIS is releasing today for end-December 1998 the second set of semiannual statistics on positions in the global over-the-counter (OTC) derivatives market under the new regular reporting framework. The statistics include the *notional amounts* and *gross market values* outstanding of the *worldwide consolidated* OTC derivatives exposure of major banks and dealers in the G10 countries.¹ They cover the four main categories of market risk: foreign exchange, interest rate, equity and commodity.²

After adjustment for double-counting resulting from positions between reporting institutions, the total estimated *notional amount* of outstanding OTC contracts stood at \$80 trillion at end-December 1998, an 11% increase over the revised \$72 trillion reported for end-June 1998. This expansion led to a rise in the market share of OTC derivative instruments relative to those traded on exchanges (from 84% to 86% – see Table 1).³

A strong increase in interest rate and equity-linked contracts (18% and 17% respectively) more than offset the decline in foreign exchange and commodity contracts (by 4% and 8% respectively). Interest rate instruments thus remained by far the largest component of the OTC market (72%), followed by foreign exchange products (26%) and those based on equities and commodities (with 2% and 0.6% respectively).

Much of the expansion in business over the review period can be attributed to the financial turbulence that followed the Russian debt moratorium and the near-collapse of LTCM. This was particularly true in the *interest rate segment*, where the widespread unwinding of leveraged positions led to an upsurge in interest rate swaps. The increase in interest rate contracts was particularly pronounced in the Deutsche mark (42%), yen (36%) and Swiss franc (25%) segments. While this reflected the ongoing

¹ The notional amount, which is generally used as a reference to calculate cash flows under individual contracts, provides a comparison of market size between related cash and derivatives markets. Gross market value is defined as the sum (in absolute terms) of the positive market value of all reporters' contracts and the negative market value of their contracts with non-reporters (as a proxy for the positive market value of non-reporters' positions). It measures the replacement cost of all outstanding contracts had they been settled on 31 December 1998.

² It should be noted that the development of sophisticated trading strategies, the expansion of cross-market linkages and regulatory arbitrage have made it more difficult to interpret the evolution of individual market risk categories.

³ The closing-out or modification of existing OTC positions generally results in the creation of new counterparty relationships, whereas most exchange-traded positions can be unwound through opposite contracts and are in most instances reversed before contract expiry. It should also be noted that non-financial contracts and options on single equities are excluded from the BIS data on exchange-traded activity.

development of derivatives markets outside North America, in the case of the mark it may have been related to the growing benchmark role of German instruments. The financial turbulence of the second half of 1998 also appears to have had an impact on the sectoral distribution of activity, with a notable concentration of interest rate business within the group of reporting dealers (rising from 43% to 49%).

In the area of *equity contracts*, the sharp drop of equity markets prompted investors to seek protection, leading to a significant increase in related options. There was, however, a marked contrast between the various regions, with positions held on European and Japanese equities rising strongly and those on North American stocks dropping sharply. While European business appears to have benefited from the growing popularity of retail-targeted investment products, Japanese activity probably received support from the liberalisation and legal clarification of OTC trading. The drop in US and emerging market transactions seems to have been related to the cutback in leveraged transactions, since much of the reduction was in business with non-reporting financial institutions.

In contrast, the sharp swings seen in the major currency pairs in the second half of 1998 do not seem to have been associated with a higher volume of open positions in *currency instruments*. Indeed, while currency contracts were stable overall, there was a major drop in the options segment. The reduced demand for such products has been attributed to a number of factors, including the withdrawal of leveraged investors in the wake of the Russian moratorium and the near-collapse of LTCM, the stability of European cross rates and a reluctance of investors to deal in emerging market currencies. Moreover, the sudden weakness of the dollar was associated with a substantial increase in market volatility, which made intermediaries reluctant to take positions and pushed up hedging costs for customers (as seen in the reduced stock of contracts held by non-financial customers).

The various market segments continued to demonstrate a number of idiosyncracies. Thus, while there was a rise in the average maturity of interest rate contracts (with 36% maturing within one year compared with 41% at end-June – see Table 3), the share of short-term currency-related contracts increased further (from 87% to 88%). Furthermore, the dollar was the counterpart to 88% of foreign exchange transactions, but only to 28% of interest-rate-related positions.

There was a 25% increase in estimated *gross market values* in the second half of 1998, to \$3.2 trillion. However, taking into consideration the increase in the overall stock of transactions, the rise in market values was less significant, from 3.6% to 4% of reported notional amounts. It should be stressed that such values exaggerate actual credit exposure, since they exclude netting and other risk reducing arrangements. Allowing for netting, the increase in the derivatives-related credit exposure of reporting institutions was much smaller, rising by \$0.1 trillion to \$1.3 trillion (or to 12% of on-balance sheet international banking assets). The ratio of gross market values to notional amounts varied considerably across individual market segments, ranging from less than 1% for FRAs to 30% for equity-linked forwards and swaps.

This press release is available on the BIS website at <http://www.bis.org>.

Table 1
The global over-the-counter (OTC) derivatives markets¹

Amounts outstanding in billions of US dollars

	End-June 1998		End-December 1998	
	Notional amounts	Gross market values	Notional amounts	Gross market values
A. Foreign exchange contracts	18,719	799	18,011	786
Outright forwards and forex swaps	12,149	476	12,063	491
Currency swaps	1,947	208	2,253	200
Options	4,623	115	3,695	96
B. Interest rate contracts²	42,368	1,160	50,015	1,675
FRAs	5,147	33	5,756	15
Swaps	29,363	1,018	36,262	1,509
Options	7,858	108	7,997	152
C. Equity-linked contracts	1,274	190	1,488	236
Forwards and swaps	154	20	146	44
Options	1,120	170	1,342	192
D. Commodity contracts³	451	38	415	43
Gold	193	10	182	13
Other	258	28	233	30
Forwards and swaps	153	..	137	..
Options	106	..	97	..
E. Other⁴	9,331	393	10,371	490
GRAND TOTAL	72,143	2,580	80,300	3,230
GROSS CREDIT EXPOSURE⁵		1,203		1,329
<i>Memorandum items:</i>				
<i>Exchange-traded contracts⁶</i>	14,256		13,549	

¹ All figures are adjusted for double-counting. Notional amounts outstanding have been adjusted by halving positions vis-à-vis other reporting dealers. Gross market values have been calculated as the sum of the total gross positive market value of contracts and the absolute value of the gross negative market value of contracts with non-reporting counterparties. ² Single-currency contracts only. ³ Adjustments for double-counting estimated. ⁴ For end-June 1998: Positions reported by non-regular reporting institutions in the context of the triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity at end-June 1998; for end-December 1998: Estimated positions of non-regular reporting institutions. ⁵ Gross market values after taking into account legally enforceable bilateral netting agreements. ⁶ Sources: Futures Industry Association; various futures and options exchanges.

Table 2
The global OTC foreign exchange derivatives markets^{1,2}

Amounts outstanding in billions of US dollars

	End-June 1998		End-December 1998	
	Notional amounts	Gross market values	Notional amounts	Gross market values
Total contracts	18,719	799	18,011	786
with other reporting dealers	7,406	314	7,284	336
with other financial institutions	7,048	299	7,440	297
with non-financial customers	4,264	186	3,288	153
up to one year ³	16,292	..	15,795	..
between one and five years ³	1,832	..	1,624	..
over five years ³	595	..	592	..
US dollar	16,167	747	15,810	698
Deutsche mark	4,685	109	4,505	115
Japanese yen	5,579	351	5,319	370
Pound sterling	2,391	55	2,612	62
French franc	1,418	36	1,241	40
Swiss franc	1,104	35	937	30
Italian lira	1,051	24	822	35
Other	5,043	241	4,777	222
<i>Memorandum item:</i>				
<i>Exchange-traded contracts⁴</i>	<i>103</i>	<i>..</i>	<i>57</i>	<i>..</i>

¹ See footnote 1 to Table 1. ² Counting both currency sides of every foreign exchange transaction means that the currency breakdown sums to 200% of the aggregate. ³ Residual maturity. ⁴ See footnote 6 to Table 1.

Table 3
The global OTC interest rate derivatives markets¹

Amounts outstanding in billions of US dollars

	End-June 1998		End-December 1998	
	Notional amounts	Gross market values	Notional amounts	Gross market values
Total contracts	42,368	1,160	50,015	1,675
with other reporting dealers	18,244	463	24,442	748
with other financial institutions	18,694	515	19,790	683
with non-financial customers	5,430	182	5,783	244
up to one year ²	17,423	..	18,185	..
between one and five years ²	16,805	..	21,410	..
over five years ²	8,141	..	10,420	..
US dollar	13,214	311	13,762	370
Deutsche mark	6,483	191	9,222	362
Japanese yen	7,164	194	9,763	212
Pound sterling	3,288	58	3,911	130
French franc	3,196	106	3,576	177
Swiss franc	1,055	19	1,320	31
Italian lira	2,082	116	2,130	169
Other	5,887	164	6,331	224
<i>Memorandum item:</i>				
<i>Exchange-traded contracts³</i>	<i>13,107</i>	<i>..</i>	<i>12,305</i>	<i>..</i>

¹ See footnote 1 to Table 1. ² Residual maturity. ³ See footnote 6 to Table 1.