



Press release

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Acceleration of OTC derivatives market activity in the first half of 2002

Data released today by the BIS on positions in the global over-the-counter (OTC) derivatives market at the end of June 2002 point to a further acceleration of activity in the first half of the year.¹ The total estimated notional amount of outstanding OTC contracts stood at almost \$128 trillion, a 15% increase over end-December 2001.² This compares with an 11% increase in the previous half-year period. It should be noted, however, that part of this recent acceleration reflected the higher dollar value of contracts denominated in the euro and the yen as those currencies appreciated relative to the US dollar between the two reporting periods. At the same time, gross market values also grew rapidly, with an increase of 18% to \$4.5 trillion.³

Market growth continues to be largely driven by interest rate instruments

Market expansion was largely driven by interest rate instruments, the largest of the broad market risk categories covered by the semiannual BIS survey on OTC derivatives markets, with the notional amount of outstanding contracts rising by 16%. Activity was equally robust in all three main groups of interest rate products, namely forward rate agreements (FRAs), interest rate swaps and interest rate options. By contrast, business in foreign exchange contracts, the second largest broad market risk category, was less buoyant, with outstanding contracts rising by 8%. Currency options were the main exception, with a surge of 39%.

¹ The statistics cover the worldwide consolidated OTC derivatives exposures of major banks and dealers in the G10 countries.

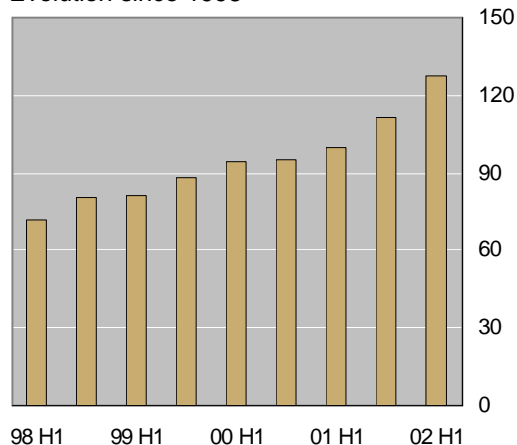
² The notional amount, which is generally used as a reference to calculate cash flows under individual contracts, provides a comparison of market size between related cash and derivatives markets. The numbers are adjusted for double-counting resulting from positions between reporting institutions.

³ The gross market value is defined as the sum of the gross positive market value of all reporters' contracts and the gross negative market value of their contracts with non-reporters (as a proxy for the gross positive market value of non-reporters' positions). It measures the replacement cost of all outstanding contracts had they been closed out on 30 June 2002. The numbers are adjusted for double-counting resulting from positions between reporting institutions.

OTC derivatives contracts

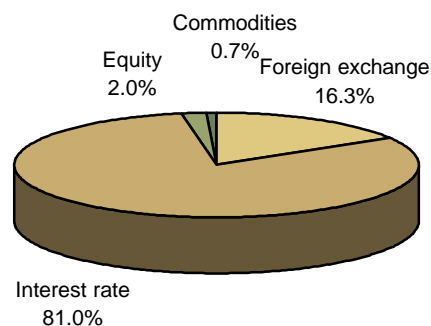
Global amounts outstanding, in trillions of US dollars

Evolution since 1998



Source: BIS.

Product breakdown at end-June 2002



Graph 1

Activity in equity-linked contracts, which had been subdued in recent periods, returned to expansion, with an 18% increase in amounts outstanding. The stock of commodity contracts, the smallest of the broad market risk categories, also returned to growth with a 30% increase in the value of outstanding contracts.⁴

Continued buoyancy of dollar interest rate swaps

Business in interest rate products remained buoyant in the first half of 2002, with a 16% increase in the notional amount of contracts to \$90 trillion (see Tables 1 and 3). This buoyancy was evident in all three major market segments but the most significant increase in absolute terms took place in interest rate swaps. With \$68 trillion in outstanding contracts, interest rate swaps remain by far the largest single group of products in the OTC derivatives market.

The US dollar-denominated interest rate swap market continued to grow at a rapid pace, with outstanding contracts rising by 14% to slightly less than \$22 trillion. Dollar-denominated swaps have grown steadily in recent years on the back of a shift in hedging and trading practices.⁵ A more active use of swaps and swaptions in the hedging of mortgage prepayment risk by mortgage originators and investors was also reported to have boosted business in recent periods.⁶

Activity in the other major interest rate swap markets was much less buoyant. The notional amount of euro-denominated swaps expanded by 18% in US dollar terms (the currency of reference of the BIS semiannual survey) to slightly less than \$25 trillion but much of that increase resulted from a 13% appreciation of the euro relative to the US dollar between end-December 2001 and end-June 2002. A similar currency effect was at play in the

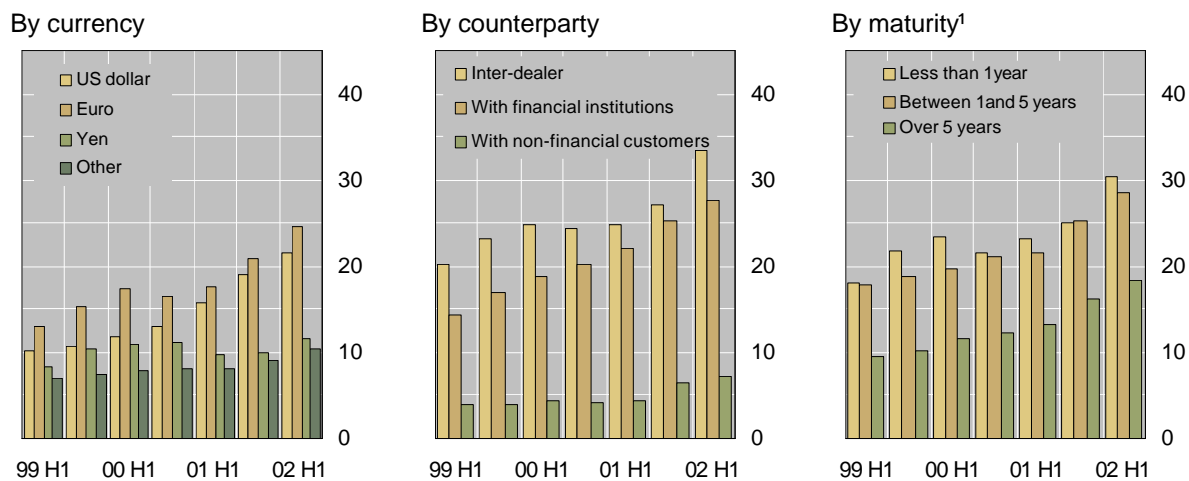
⁴ Credit derivatives, which according to market sources have recently grown rapidly, are not identified separately in the semiannual BIS survey of OTC derivatives market activity.

⁵ The factors underlying this long-term shift have been discussed in earlier BIS press releases on the global OTC derivatives market, including those issued on 16 May 2001 and 20 December 2001.

⁶ Investors in mortgage-backed securities (MBSs) face significant prepayment (or convexity) risks since the holders of the underlying mortgages enjoy certain prepayment privileges such as the ability to refinance their mortgages on more favourable terms when long-term interest rates decline. Such early repayments in turn lead issuers to call MBSs as the underlying pool of mortgages shrinks. In order to protect themselves from a shortening of their portfolios' duration and from a loss of interest income, holders of MBSs can establish a number of hedges, such as entering into receiver swaps or purchasing receiver (or call) swaptions enabling them to receive fixed rate payments on pre-agreed terms if their securities are called.

Interest rate swaps

Notional amounts outstanding, in trillions of US dollars



¹ Includes forward rate agreements, which account for about 12% of the total notional amount outstanding at end-June 2002.

Source: BIS.

Graph 2

market for yen-denominated swaps. The US dollar value of yen swaps rose by 16% to almost \$12 trillion but most of the increase was the result of a 10% appreciation of the yen relative to the dollar over the two reporting periods.

Surge in currency options

The pace of activity in foreign exchange contracts was somewhat lacklustre relative to that in interest rate instruments (see Table 2), with the stock of contracts rising by 8% to \$18 trillion. However, business in currency options was an exception to this overall pattern. The notional value of such contracts rose by 39% to \$3.4 trillion, with activity picking up in most currency sectors. Contracts involving the US dollar expanded by 28%, those involving the euro grew by 66%, while those involving the yen increased by 14%. Market sources attributed the market's buoyancy to a rise in the volatility of major currency pairs (the euro/dollar in particular) in the second quarter of the year.

OTC business accelerates relative to that on exchanges

OTC business accelerated relative to that on exchanges in the first half of 2002. The notional amount of OTC contracts expanded by 15% in the first half of the year, while open positions in exchange-traded contracts grew by only 1%.⁷ In the previous half-year, the stock of OTC contracts had increased by 11%, while that of exchange-traded contracts had increased by 22%.

⁷ It should be noted, however, that activity in the two types of markets cannot be directly compared owing to inherent differences in the characteristics and uses of products. In exchange-traded derivatives markets, the reversal of an initial position leads to a decline in open interest because of the offsetting of contracts through a central counterparty. In OTC derivatives markets, such a reversal involves the writing of new positions, which leads to an increase in notional amounts outstanding.

Rise in gross market values

Estimated gross market values increased by 18% to \$4.5 trillion, following a 24% rise in the second half of 2001.⁸ Much of the increase took place in foreign exchange contracts, reflecting significant movements in the major exchange rates in the first half of 2002 and an upturn in currency volatility in the second quarter.⁹ The overall ratio of gross market values to notional amounts was stable at 3.5% but, in the case of foreign exchange instruments, the ratio rose appreciably to 5.8% from 4.7%.

It should, however, be noted that data on gross market values tend to overstate the actual credit exposures faced by counterparties because they do not take into account the availability of legally enforceable bilateral netting arrangements and other risk reducing measures. After taking into account such netting arrangements, the derivatives-related gross credit exposures of reporting institutions stood at \$1.3 trillion in the most recent half-year.

⁸ While notional amounts provide a reference from which contractual payments are determined in derivatives markets, such amounts are generally not those truly at risk. The amounts at risk in derivatives contracts are a function of the price level and/or volatility of the financial reference index used in the determination of contract payments, the duration and liquidity of contracts and the creditworthiness of counterparties. They are also a function of whether an exchange of notional principal takes place between counterparties. Data on gross market values provide a more accurate measure of the scale of financial risk transfer taking place in derivatives markets.

⁹ A movement in exchange rates leads to an increase in the value of forward-type contracts for some counterparties and a symmetrical loss for others. In the case of option-type contracts, a change in the implied volatility of exchange rates is accompanied by a corresponding change in the value of contracts.

Table 1
The global OTC derivatives market¹
Amounts outstanding in billions of US dollars

	Notional amounts				Gross market values			
	End- Dec 2000	End- Jun 2001	End- Dec 2001	End- Jun 2002	End- Dec 2000	End- Jun 2001	End- Dec 2001	End- Jun 2002
GRAND TOTAL	95,199	99,755	111,115	127,564	3,183	3,045	3,788	4,450
Foreign exchange contracts	15,666	16,910	16,748	18,075	849	773	779	1,052
Outright forwards and forex swaps	10,134	10,582	10,336	10,427	469	395	374	615
Currency swaps	3,194	3,832	3,942	4,220	313	314	335	340
Options	2,338	2,496	2,470	3,427	67	63	70	97
Interest rate contracts²	64,668	67,465	77,513	89,995	1,426	1,573	2,210	2,468
FRAs	6,423	6,537	7,737	9,146	12	15	19	19
Swaps	48,768	51,407	58,897	68,274	1,260	1,404	1,969	2,214
Options	9,476	9,521	10,879	12,575	154	154	222	235
Equity-linked contracts	1,891	1,884	1,881	2,214	289	199	205	243
Forwards and swaps	335	329	320	386	61	49	58	62
Options	1,555	1,556	1,561	1,828	229	150	147	181
Commodity contracts³	662	590	598	777	133	83	75	78
Gold	218	203	231	279	17	21	20	28
Other	445	387	367	498	116	62	55	51
Forwards and swaps	248	229	217	290	...	...	...	...
Options	196	158	150	208	...	...	...	...
Other⁴	12,313	12,906	14,375	16,503	485	417	519	609
Gross credit exposure⁵					1,080	1,019	1,171	1,316
<i>Memorandum item: Exchange-traded contracts⁶</i>	<i>14,270</i>	<i>19,521</i>	<i>23,798</i>	<i>24,085</i>				

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 gross negative market value of contracts with non-reporting counterparties. ² Single currency contracts only. ³ Adjustments for double-counting estimated. ⁴ Estimated positions of non-regular reporting institutions. ⁵ Gross market values after taking into account legally enforceable bilateral netting agreements. ⁶ Sources: FOW TRADEdata; Futures Industry Association; various futures and options exchanges.

Table 2

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

Amounts outstanding in billions of US dollars

	Notional amounts				Gross market values			
	End- Dec 2000	End- Jun 2001	End- Dec 2001	End- Jun 2002	End- Dec 2000	End- Jun 2001	End- Dec 2001	End- Jun 2002
TOTAL CONTRACTS	15,666	16,910	16,748	18,075	849	773	779	1,052
With reporting dealers	5,729	5,907	5,912	6,595	271	229	237	371
With other financial institutions	6,597	7,287	6,755	7,210	357	334	319	421
With non-financial customers	3,340	3,716	4,081	4,270	222	210	224	260
Up to one year ³	12,888	13,012	13,427	14,403	...	...	...	...
Between one and five years ³	1,902	2,833	2,340	2,541	...	...	...	...
Over five years ³	876	1,065	981	1,131	...	...	...	...
US dollar	14,073	15,141	15,410	15,979	771	679	704	948
Euro	5,981	6,425	6,368	7,298	361	322	266	445
Japanese yen	4,254	4,254	4,178	4,461	274	217	313	254
Pound sterling	2,391	2,472	2,315	2,522	82	78	69	112
Swiss franc	848	829	800	861	42	39	28	50
Canadian dollar	623	675	593	746	25	25	25	32
Swedish krona	456	501	551	766	22	31	18	48
Other	2,704	3,523	3,280	3,517	123	155	135	214
<i>Memorandum item: Exchange-traded contracts⁴</i>	96	66	93	78	...	...	...	...

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 market¹
Amounts outstanding in billions of US dollars

	Notional amounts				Gross market values			
	End- Dec 2000	End- Jun 2001	End- Dec 2001	End- Jun 2002	End- Dec 2000	End- Jun 2001	End- Dec 2001	End- Jun 2002
TOTAL CONTRACTS	64,668	67,465	77,513	89,995	1,426	1,573	2,210	2,468
With reporting dealers	31,494	32,319	35,428	43,300	638	703	912	1,081
With other financial institutions	27,048	28,653	32,505	36,310	610	683	945	1,025
With non-financial customers	6,126	6,494	9,580	10,385	179	187	353	362
Up to one year ²	24,107	25,605	27,879	33,688	...	...	...	...
Between one and five years ²	25,923	26,308	30,542	34,458	...	...	...	...
Over five years ²	14,638	15,553	19,092	21,849	...	...	...	...
US dollar	19,421	23,083	27,422	32,178	486	581	952	1,127
Euro	21,311	22,405	26,185	30,671	477	461	677	710
Japanese yen	13,107	11,278	11,799	13,473	232	313	304	327
Pound sterling	4,852	5,178	6,215	6,978	113	99	148	151
Swiss franc	1,356	1,167	1,362	1,591	20	18	21	33
Canadian dollar	840	785	781	859	15	15	29	24
Swedish krona	1,136	997	1,057	1,070	19	15	16	14
Other	2,644	2,573	2,693	3,175	65	72	63	82
<i>Memorandum item: Exchange-traded contracts³</i>	<i>12,642</i>	<i>17,515</i>	<i>21,758</i>	<i>21,892</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>

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