



Press release

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Slowdown of the global OTC derivatives market in the second half of 2000

Data released today by the BIS on positions in the global over-the-counter (OTC) derivatives market show a slowdown of market growth in the second half of 2000.¹ The total estimated *notional amount* of outstanding OTC contracts stood at \$95.2 trillion at end-December 2000, a 1% increase over end-June 2000 and an 8% increase since end-December 1999.² At the same time, *gross market values* rose by 24%.³

In terms of broad market risk categories, the two largest market segments, interest rate and foreign exchange contracts, grew at the slowest pace (1%), while equity-linked and commodity-related contracts expanded rapidly (by 15% and 13% respectively).⁴ Overall, the moderation of activity in OTC derivatives markets brought their rate of expansion more into line with that of exchange-traded derivatives markets (see Table 1).

Three other significant developments are worth highlighting. First, there was an actual decline in the stock of contracts that tend to be of short maturity (particularly outright forwards and forex swaps but also forward rate agreements (FRAs)). Second, interest rate swaps – the largest component of the OTC market – witnessed a particularly pronounced slowdown. Third, the stock of inter-dealer transactions declined in both interest rate and foreign exchange instruments.

Consolidation in the financial industry may possibly have accounted for some of the slowdown in the aggregate numbers, since mergers and acquisitions between reporting entities result in a consolidation of bilateral transactions and, consequently, in a reduction of outstanding contracts. The figures, however, do not reflect the impact of a merger

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 Gross market value is defined as the sum 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 2000.

⁴ Credit derivatives, which according to market sources have recently grown rapidly, are not identified in this survey. Data on such instruments will be collected at the time of the next triennial survey of foreign exchange and derivatives market activity at end-June 2001.

between two large US financial institutions announced in September 2000 because the firms involved continued to publish separate accounts until the end of the reporting period.

Interest rate instruments grow more slowly in the second half of 2000

The interest rate segment expanded by only 1% in the second half of 2000, to \$64.7 trillion. While the stock of FRAs declined by 5% and that of options rose by 1%, the swap market grew by 2%, to \$48.8 trillion. Two other developments also stand out in the area of interest rate instruments. First, contracts with a maturity of up to one year decreased by 7%, while longer-term instruments continued to expand at a healthy pace (about 5%). Second, euro-denominated contracts fell by 7%, while those denominated in US dollars maintained their rapid growth and those in yen grew at a steady pace.⁵

In the specific case of the interest rate swap market, the deceleration in growth was in sharp contrast to the very rapid pace of business seen since the end of 1998. That slowdown resulted essentially from a 5% contraction of euro-denominated swaps. The decline in euro-denominated business was spread across the three types of counterparties, but the most significant drop occurred in the inter-dealer group. Various factors may have accounted for this development. These include financial sector consolidation, reduced issuance of certain types of "domestic" securities (such as Pfandbriefe, which are often hedged with swaps) and belated efforts by banks to clean up their pre-euro legacy currency portfolios. The passage to the euro has allowed market participants to apply netting rules across contracts originally established in legacy currencies. By contrast, the stock of dollar-denominated swaps continued to grow at a sustained rate (10%). Net repayments of US government debt have affected the liquidity of the US government bond market and the effectiveness of traditional hedging vehicles, such as cash market securities or government bond futures, encouraging market participants to switch to more effective hedging instruments, such as interest rate swaps.

Currency instruments also slow down

In the area of currency instruments, the value of contracts outstanding increased by 1%, to \$15.7 trillion, following a fairly strong increase in the previous reporting period. While the stock of outright forward and forex swap contracts fell by 4% and that of currency options declined by 2%, currency swaps expanded by 23%. Instruments involving the US dollar and the euro expanded slightly but this was partly offset by declines in contracts involving the yen. This seems to be consistent with the pattern of implied volatility observed in the second half of 2000, whereby the volatility of the dollar/yen pair dropped sharply, while that of the dollar/euro remained high.

The lower value of outstandings in outright forwards, forex swaps and options may have reflected longer-term influences in the underlying spot market. Although new data on turnover and outstandings in the foreign exchange and derivatives markets will not be published by the BIS before the fourth quarter of 2001, anecdotal evidence suggests that interbank trading of currencies has declined in recent years owing to various factors, including consolidation in the financial sector, the move to electronic broking and the paring-down of leveraged positions in the aftermath of the Asian and Russian financial crises.

The cross-currency swap market represented the main exception to the downward trend observed in foreign exchange instruments. That segment has expanded steadily since the BIS began collecting data on the OTC market. Business is likely to have been fuelled by the large volume of syndicated loans and securities issues, particularly those arranged for telecommunications firms. In contrast, the introduction by the US Financial Accounting Standards Board (FASB) of new rules on derivatives and hedge accounting for all publicly traded US companies with a fiscal year ending on 15 June 2000 does not seem to have

⁵ Valuation effects played a marginal role in the second half of 2000 as the dollar/euro exchange rate was little changed between the two end periods.

had a contractionary effect on the cross-currency swap market.⁶ In fact, the paring-down of positions by some companies in anticipation of the new rules might well have been offset by new business resulting from the replacement of complex hedges with simpler structures.

By contrast, equity-linked contracts expand more strongly

Activity in the equity-linked sector grew strongly, to \$1.9 trillion, with all of the expansion taking place in the equity option segment. The second half of 2000 was a period of renewed uncertainty in global equity markets, with strong downward price pressures, particularly in technology stocks, leading to an upsurge in volatility. Business was most buoyant in options on European equities, such that this segment now accounts for nearly 60% of the stock of equity-linked instruments. Although it may be early to draw firm conclusions about longer-term trends, the increase in European option business in the second half of 2000 may also have been related to deeper underlying factors. One possible explanation may have been the greater popularity in Europe of equity-related investment products, such as stock investment funds, retail-targeted equity index products, convertible bonds and equity warrants.

Commodity instruments see robust growth

Commodity derivatives markets also expanded rapidly, to \$0.7 trillion. The stock of gold contracts, the largest single group in that market segment, contracted substantially (by 16%) as the gold market returned to calm following sharp swings in the previous year. By contrast, the stock of "other" commodity contracts expanded at a record pace (by 38%). Although reporting central banks do not provide the BIS with a finer breakdown of commodity contracts, the upsurge in oil prices between the beginning of 1999 and the end of 2000, when they experienced an abrupt fall, could have accounted for such active business in commodity contracts.

Gross market values rise sharply

Estimated gross market values experienced the most pronounced increase since the BIS began collecting data on the OTC market, rising by 24%, to \$3.2 trillion. Such an expansion was somewhat unusual since the notional amount of outstanding contracts barely increased over the review period. As a result, the ratio of gross market values to notional amounts outstanding rose to 3.3% at end-December 2000 from 2.7% at end-June 2000, reversing a downward trend observed since the second half of 1998. The largest absolute increase was recorded in foreign exchange contracts (by \$271 billion, spread across the major currency pairs), followed by interest rate contracts (by \$196 billion). As a percentage of notional amounts, the gross market value of foreign exchange contracts jumped to 5.4% from 3.7%, while that of interest rate contracts rose to 2.2% from 1.9%. By contrast, the gross market value of equity contracts fell both in absolute terms and in relation to notional values. Allowing for netting, the derivatives-related credit exposure of reporting institutions remained at about one third of gross market values (\$1,080 billion).⁷

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⁶ FASB Statement No 133 requires companies to record derivatives on their balance sheets as assets or liabilities that will be measured at fair value. Companies have to record in the income statement or in other comprehensive income any changes in the value of such instruments designated as hedges that do not closely offset changes in the value of the underlying assets.

⁷ In this context, netting refers to an agreed offsetting of positions or obligations by market participants. Such a technique, which reduces the number of individual positions or obligations, is increasingly used to mitigate counterparty credit risk. Netting may take several forms which have varying degrees of legal enforceability in the event of default of one of the parties.

Table 1

The global over-the-counter (OTC) derivatives market¹

Amounts outstanding in billions of US dollars

	Notional amounts				Gross market values			
	End-Jun 1999	End-Dec 1999	End-Jun 2000	End-Dec 2000	End-Jun 1999	End-Dec 1999	End-Jun 2000	End-Dec 2000
GRAND TOTAL	81,458	88,201	94,008	95,199	2,628	2,813	2,572	3,180
A. Foreign exchange contracts	14,899	14,344	15,494	15,666	582	662	578	849
Outright forwards and forex swaps	9,541	9,593	10,504	10,134	329	352	283	469
Currency swaps	2,350	2,444	2,605	3,194	192	250	239	313
Options	3,009	2,307	2,385	2,338	61	60	55	67
B. Interest rate contracts²	54,072	60,091	64,125	64,668	1,357	1,304	1,230	1,426
FRAs	7,137	6,775	6,771	6,423	12	12	13	12
Swaps	38,372	43,936	47,993	48,768	1,222	1,150	1,072	1,260
Options	8,562	9,380	9,361	9,476	123	141	145	154
C. Equity-linked contracts	1,511	1,809	1,645	1,891	244	359	293	289
Forwards and swaps	198	283	340	335	52	71	62	61
Options	1,313	1,527	1,306	1,555	193	288	231	229
D. Commodity contracts³	441	548	584	662	44	59	80	133
Gold	189	243	261	218	23	23	19	17
Other	252	305	323	445	22	37	61	116
Forwards and swaps	127	163	168	248	...	...	...	...
Options	125	143	155	196	...	...	...	...
E. Other⁴	10,536	11,408	12,159	12,313	400	429	392	483
GROSS CREDIT EXPOSURE⁵					1,119	1,023	937	1,080
<i>Memorandum: Exchange-traded contracts⁶</i>	<i>15,501</i>	<i>13,522</i>	<i>13,918</i>	<i>14,302</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 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 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-Jun 1999	End-Dec 1999	End-Jun 2000	End-Dec 2000	End-Jun 1999	End-Dec 1999	End-Jun 2000	End-Dec 2000
Total contracts	14,899	14,344	15,494	15,666	582	662	578	849
with other reporting dealers	5,464	5,392	5,827	5,729	200	214	168	271
with other financial institutions	6,429	6,102	6,421	6,597	246	281	242	357
with non-financial customers	3,007	2,850	3,246	3,340	136	167	168	222
up to one year ³	12,444	12,140	13,178	12,888	...	...	...	...
between one and five years ³	1,772	1,539	1,623	1,902	...	...	...	...
over five years ³	683	666	693	876	...	...	...	...
US dollar	13,181	12,834	13,961	14,073	519	581	518	771
Euro	4,998	4,667	5,863	5,981	206	239	242	361
Japanese yen	4,641	4,236	4,344	4,254	171	262	157	274
Pound sterling	2,281	2,242	2,479	2,391	63	55	76	82
Swiss franc	823	880	906	848	33	39	34	42
Canadian dollar	636	647	605	623	27	28	22	25
Swedish krona	435	459	451	456	14	16	15	22
Other	2,805	2,723	2,380	2,704	130	104	91	123
<i>Memorandum:</i> <i>Exchange-traded contracts⁴</i>	80	59	51	96	.	.	.	.

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-Jun 1999	End-Dec 1999	End-Jun 2000	End-Dec 2000	End-Jun 1999	End-Dec 1999	End-Jun 2000	End-Dec 2000
Total contracts	54,072	60,091	64,125	64,668	1,357	1,304	1,230	1,426
with other reporting dealers	27,059	30,518	32,208	31,494	634	602	560	638
with other financial institutions	21,149	24,012	25,771	27,048	559	548	518	610
with non-financial customers	5,863	5,562	6,146	6,126	164	154	152	179
up to one year ²	20,287	24,874	25,809	24,107	...	...	...	...
between one and five years ²	21,985	23,179	24,406	25,923	...	...	...	...
over five years ²	11,800	12,038	13,910	14,638	...	...	...	...
US dollar	16,073	16,510	17,606	19,421	337	376	367	486
Euro	17,483	20,692	22,948	21,311	584	492	467	477
Japanese yen	10,207	12,391	12,763	13,107	192	232	207	232
Pound sterling	4,398	4,588	4,741	4,852	103	94	84	113
Swiss franc	1,404	1,414	1,409	1,356	27	19	22	20
Canadian dollar	814	825	846	840	16	15	14	15
Swedish krona	1,122	1,373	1,255	1,136	21	18	17	19
Other	2,570	2,298	2,558	2,644	77	58	52	65
<i>Memorandum:</i> <i>Exchange-traded contracts³</i>	<i>13,807</i>	<i>11,669</i>	<i>12,313</i>	<i>12,626</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.

Table 4

The global OTC interest rate swaps market¹

Amounts outstanding in billions of US dollars

	Notional amounts				Gross market values			
	End-Jun 1999	End-Dec 1999	End-Jun 2000	End-Dec 2000	End-Jun 1999	End-Dec 1999	End-Jun 2000	End-Dec 2000
Total contracts	38,372	43,936	47,993	48,768	1,222	1,150	1,072	1,260
with other reporting dealers	20,080	23,224	24,803	24,447	578	539	494	568
with other financial institutions	14,463	16,849	18,875	20,131	501	477	448	533
with non-financial customers	3,828	3,863	4,315	4,190	143	134	130	159
US dollar	10,201	10,712	11,804	12,991	272	296	299	405
Euro	12,990	15,358	17,475	16,580	543	443	407	423
Japanese yen	8,257	10,460	10,800	11,083	183	222	192	217
Pound sterling	3,214	3,538	3,773	3,963	94	84	76	102
Swiss franc	1,044	1,071	1,097	1,105	26	18	21	19
Canadian dollar	632	663	679	683	14	14	13	14
Swedish krona	496	545	559	555	20	16	16	18
Other	1,538	1,588	1,805	1,808	71	56	48	62

¹ See footnote 1 to Table 1.