



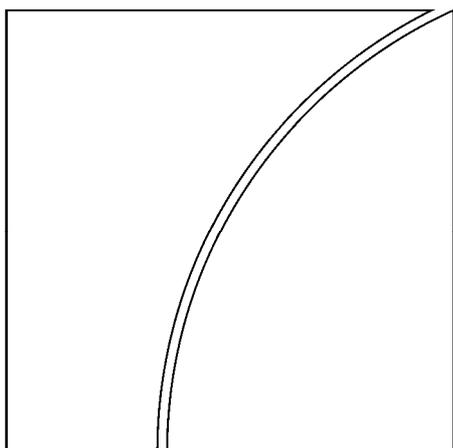
BANK FOR INTERNATIONAL SETTLEMENTS

Triennial and semiannual surveys

Positions in global
over-the-counter (OTC)
derivatives markets at
end-June 2010

Monetary and Economic Department

November 2010



Queries concerning this release should be addressed to the authors listed below:

Section I: Karsten von Kleist tel +41 61 280 8416 e-mail: karsten.von-kleist@bis.org

Section II: Carlos Mallo tel +41 61 280 8445 e-mail: carlos.mallo@bis.org

Sections III and IV:

Serge Grouchko tel +41 61 280 8445 e-mail: serge.grouchko@bis.org

Carlos Mallo tel +41 61 280 8256 e-mail: carlos.mallo@bis.org

Bank for International Settlements
Monetary and Economic Department
CH-4002 Basel, Switzerland

Fax: +41 61 280 9100 and +41 61 280 8100

This publication is available on the BIS website only (www.bis.org).

© Bank for International Settlements 2010. All rights reserved. Brief excerpts may be reproduced or translated provided the source is cited.

Contents

I.	Results of the triennial and semiannual surveys	1
1.	The triennial survey versus the semiannual survey	1
2.	Developments in the OTC derivatives market since 2007	2
3.	Developments in the first half of 2010	4
II.	Statistical notes	8
1.	Coverage	8
2.	Definitions	9
2.1	Types of data collected	9
2.2	Instrument types	10
2.3	Specific definitions for credit default swaps	10
3.	Data availability	10
4.	Next publication dates	10
III.	Statistical table – Triennial Survey	11
IV.	Other statistical tables – Semiannual Survey	14

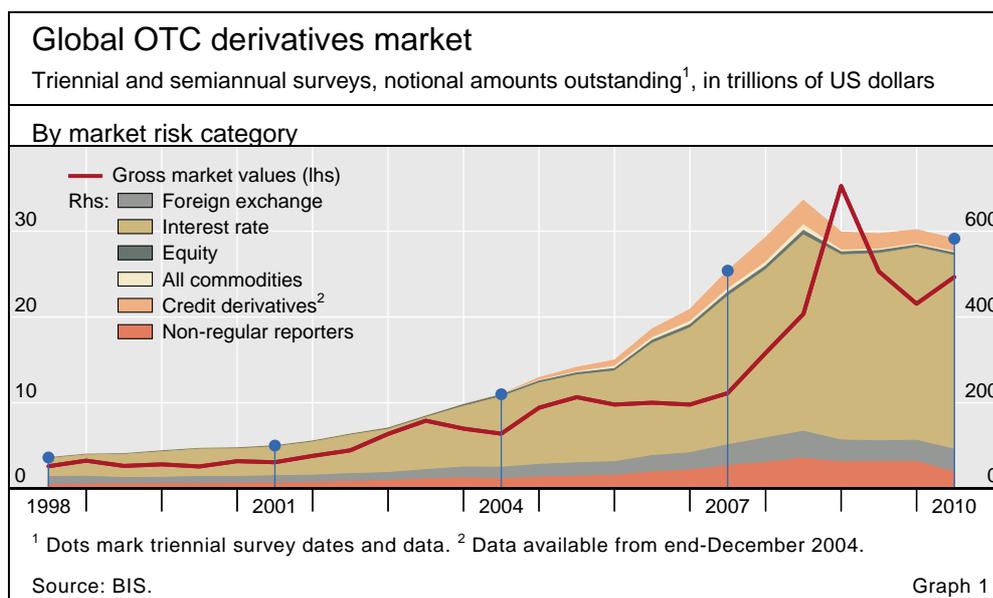
I. Results of the triennial and semiannual surveys

Today the BIS releases the latest statistics on positions in the global over-the-counter (OTC) derivatives market. These comprise the results of the second part¹ of the Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity as well as the regular semiannual OTC derivatives statistics at end-June 2010.²

1. Overview: the triennial and semiannual surveys

The second part of the Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity and the regular semiannual survey of positions in the global OTC derivatives market share the same format. Both surveys cover the notional amounts outstanding and gross market values of foreign exchange, interest rate, equity, commodity and credit derivatives traded in OTC markets, and both refer to the worldwide consolidated positions of reporting dealers.

The triennial survey is more comprehensive, however, covering more than 400 market participants (head offices) in a total of 47 jurisdictions. It thus serves as benchmark for the semiannual survey, which is based on data from 59 major dealers in the G10 countries and Switzerland. Moreover, the triennial survey contains information on instruments not covered by the semiannual survey, in particular credit derivatives other than credit default swaps (CDS³), other FX and interest rate products and derivatives on other underlying market risk categories.



Graph 1 combines the triennial end-June survey data (blue dots on vertical lines) with the more frequent semiannual survey data. The data from the non-regular reporters, ie the reporting centres that participate only every three years (36 in 2010), and the data from

¹ A review of the first part of the survey on turnover on the global foreign exchange markets has been published on September 1 and is available at <http://www.bis.org/publ/rpfx10.pdf>

² For a discussion of the methodology of the two surveys, see Section II.

³ Due to recent enhancements there is a more detailed breakdown for CDS (rating, counterparties, sector, maturity) in the semiannual survey than previously and also than in the triennial survey.

smaller non-regular reporters in the G10 countries and Switzerland, are shown as “non-regular reporters”. Their contribution to total semiannual amounts outstanding between the major survey dates is extrapolated based on their contribution to the most recent triennial survey total, as measured every three years.

The “non-regular reporters” contributed about 7% to the global OTC derivatives market in terms of notional amounts outstanding in June 2010. This is quite a marked decline from their 12% share in the 2007 survey and is caused mainly by two factors: first, a number of non-regular reporters moved to regular reporting status, due to mergers and changes in ownership, and second, other non-regular reporters dropped out of the reporting due to reduced business volume.

2. 2010 triennial survey: developments in the OTC derivatives market since 2007⁴

The 2007 and 2010 BIS surveys bracket a three-year period of extreme growth in OTC derivatives (as shown by comparison with the semiannual survey data in Graph 1) that peaked in the first half of 2008, and a subsequent reduction in positions. The decline in the amounts outstanding of derivatives on all types of risks (Graph 1, right-hand scale) since the end of 2008 could be due in part to trade compression. Sharp asset price movements following the bankruptcy of Lehman Brothers in September 2008 resulted in a sharp rise in *gross market values* (Graph 1, left-hand scale) in the second half of 2008. Gross market values declined quite rapidly again thereafter as asset prices moved closer to their pre-crisis values, but increased again in the first half of 2010 as markets went through another bout of turbulence.

Despite the crisis-related declines, positions in the OTC derivatives market went up in the three years since the last survey. Notional amounts outstanding of such instruments reached \$583 trillion at end-June 2010, 15% higher than the level recorded in the 2007 survey (Table A). This corresponds to an annualised compounded rate of growth of only 5%, however, compared to 32% annually in the period 2004–07, and it is also clearly below the roughly 20% average annual rate of increase between 1995, when positions in OTC derivatives were first surveyed by the BIS, and 2007.

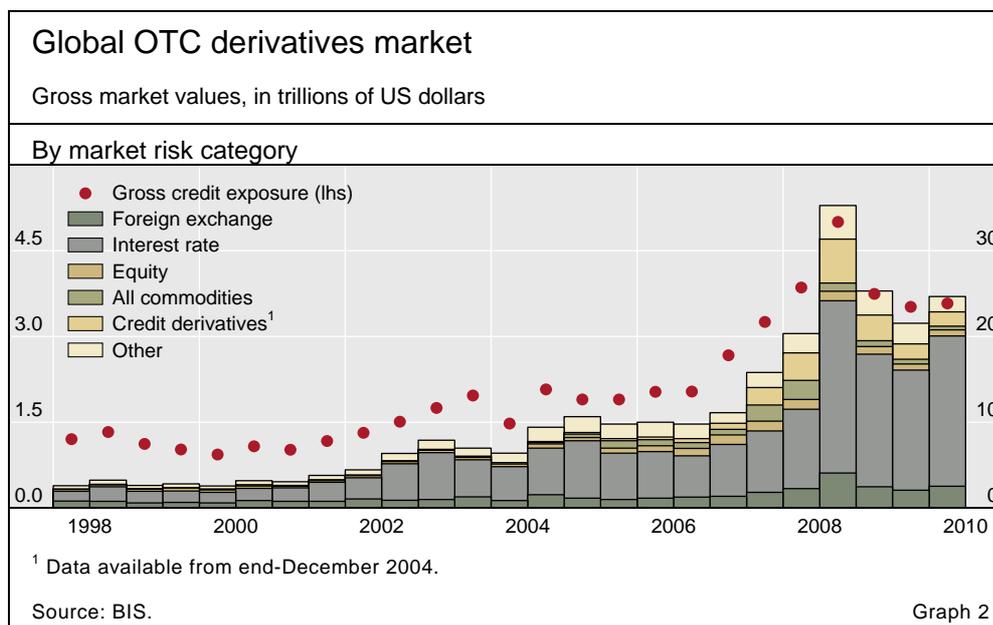
Notional amounts outstanding provide useful information on the structure of the OTC derivatives market but should not be interpreted as a measure of the counterparty risk of these positions. While no single comprehensive measure of this risk exists, a useful concept is the cost of replacing all open contracts at the prevailing market prices, ie their gross market value. This measure increased by 120% during the last three years to \$25 trillion at end-June 2010 (Graph 1, left-hand scale), despite the marked downturn from the peak reached during the height of the crisis. This compares to growth of 74% during the previous (2004–07) reporting period, to \$11 trillion.

Counterparty risk is reduced by bilateral netting and collateral arrangements. While comprehensive data on the collateral held against positions in OTC derivatives are not available,⁵ the semiannual survey does ask reporting dealers to state their gross credit exposures after taking into account enforceable netting arrangements (see Table A). For the major dealers reporting semiannually, this figure increased by 34% to \$3.6 trillion (15% of the gross market value of outstanding positions in 2010), compared with \$2.7 trillion, or 24% of gross market values in 2007 (Graph 2). Reasons for the smaller growth in gross credit

⁴ Growth rates in this section refer to changes over three years unless otherwise noted.

⁵ Information on collateral is collected by the International Swaps and Derivatives Association (ISDA) in its Margin survey. The reported decline in collateral in circulation appears consistent with the decline in gross credit exposure during the first half of 2009 in the BIS survey (Graph 2).

exposures than in gross market values include the increased use of central counterparties (CCPs, see Graph 5) and wider use of legally enforceable netting clauses in standard contract documentation.



Positions in *credit derivatives* declined by 39% to \$31 trillion at end-June 2010 (Table A), although they remain far above the less than \$5 trillion reported in the 2004 survey. CDS continue to be by far the dominant instrument in this category, accounting for 99% (2007: 88%) of positions in credit derivatives. In contrast to the decline in amounts outstanding, market values of credit derivatives rose by 88% to \$1.7 trillion over the three-year survey period to 2010.

Interest rate risk remains by far the largest type of risk traded on the OTC derivatives market in terms of both notional amounts and gross market values. Open positions in interest rate contracts totalled \$478 trillion in mid-2010, 25% higher than three years before. This compares to an increase of more than 100% between 2004 and 2007. Gross market values of interest rate contracts went up by 175% to \$19 trillion, thus far outstripping growth in notional amounts outstanding. OTC interest rate derivatives accounted for 82% of total notional amounts of OTC instruments included in the 2010 survey and 75% of total gross market values, compared with 75% and 61% respectively three years earlier. Single currency interest rate swaps remained the dominant instrument within the rates segment, accounting for more than three quarters of total notional amounts falling into this category. Options made up 11% of the market (down from 15%). Forward rate agreements saw their share rise from 7% to 13% in June 2010.

Positions of OTC *foreign exchange* derivatives increased to \$63 trillion (Table A). At 9%, growth in this segment was much slower than in the 2004–07 period (83%). This contrasts with a near-doubling of gross market values. The share of foreign exchange contracts in the overall OTC derivatives market remained at 11% of total notional amounts outstanding, unchanged from three years previously.

The decline in stock prices during the crisis resulted in much smaller positions in the *equity* segment of the OTC derivatives market. Notional amounts outstanding of equity-linked contracts fell by 28% to \$7 trillion, whereas gross market values dropped by 23% (forwards and swaps) and 37% (options).

The survey shows very large declines in the volume of outstanding *commodity* derivatives, whose notional amounts outstanding dropped by 60% to \$3 trillion during the three-year

survey period to June 2010. This overall change hides a steep increase in positions to \$13 trillion at end-June 2008 and a subsequent decline.

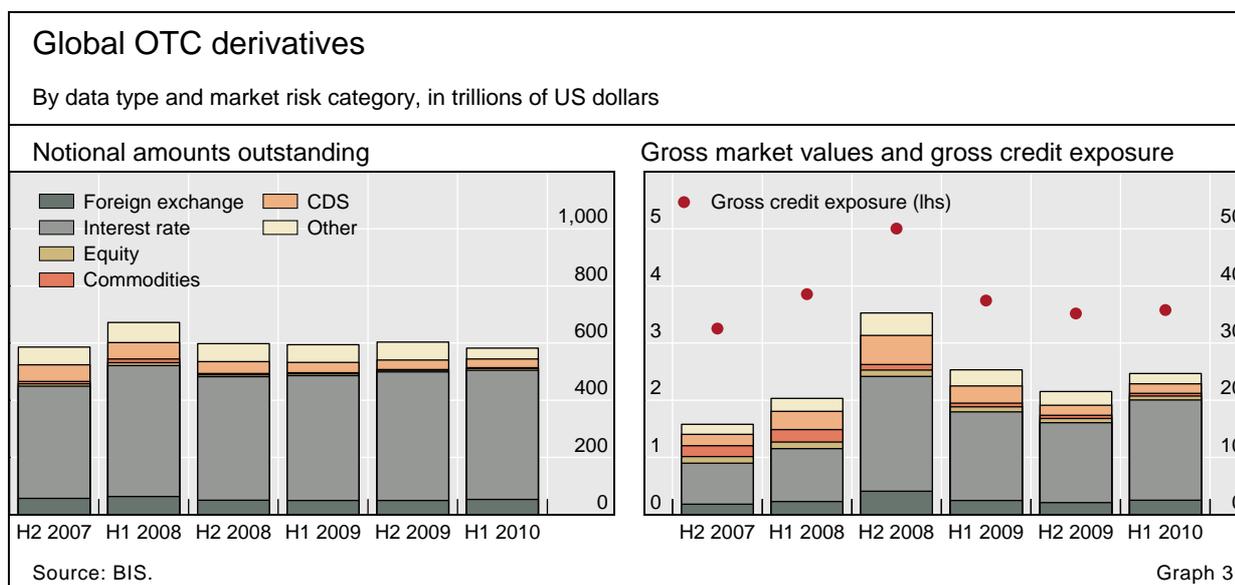
The triennial survey also serves as a benchmark against which the coverage of the semiannual data can be assessed. It turns out that the reporting dealers of the semiannual survey account for 93% of total positions in that market, reflecting the fact that OTC derivatives are generally executed between a large bank or securities house and a customer or between two large banks.⁶ The coverage of the semiannual survey is highest in the CDS and interest rate segments (97% and 95% respectively), but lower in the equity, commodity and foreign exchange segments, where the regular reporters account for 91%, 87% and 84% of total positions.

Detailed tables on the amounts outstanding part of the triennial survey, including non-FX OTC derivatives, are available at <http://www.bis.org/statistics/derstats.htm>

3. June 2010 semiannual survey

3.1 Developments in the OTC derivatives markets in the first half of 2010⁷

Amounts outstanding of *all types* of OTC derivatives fell by 4% to \$583 trillion at end-June 2010 (Table 1 in annex), following the 2% increase in the second half of 2009. The decline occurred against the backdrop of deteriorating market sentiment related to the European sovereign debt crisis. Much of the decline was an immediate consequence of the depreciation of European currencies against the US dollar, the currency in which the data are reported. During the period under review, the euro depreciated by 17% against the US dollar, sterling by 8% and the Swiss franc by 5%.



In contrast to the decline in notional amounts outstanding of OTC contracts, gross market values for existing OTC contracts rose by 15% to \$25 trillion at end-June on the back of sharp asset price movements. Gross credit exposures, after netting agreements, which had

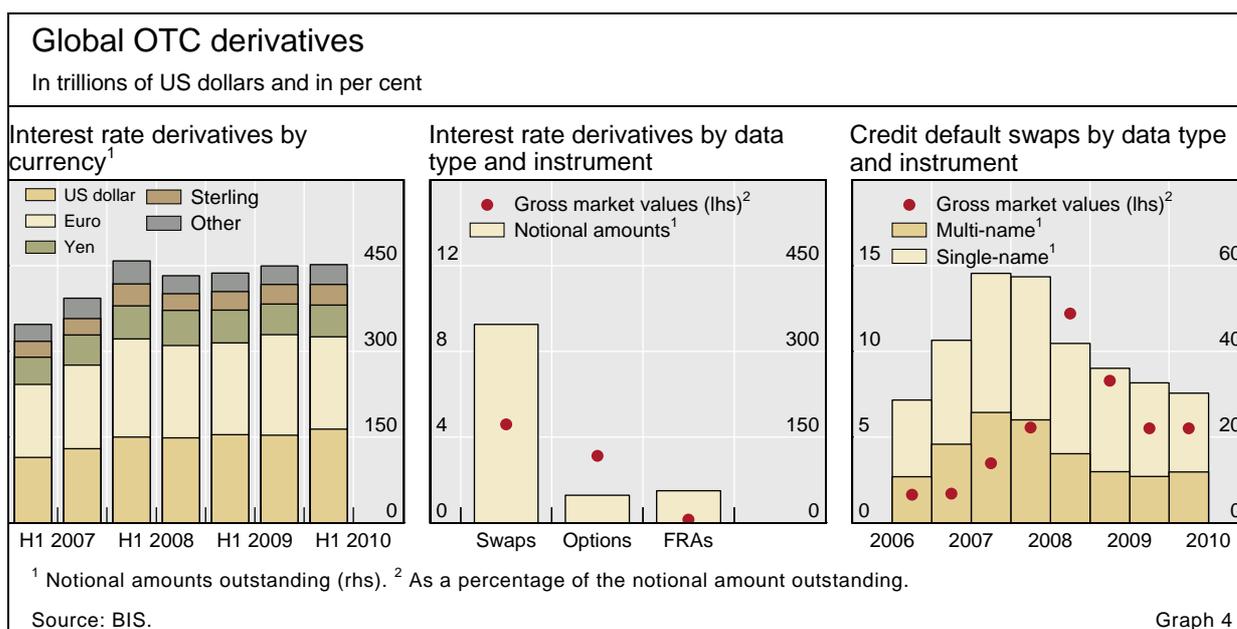
⁶ Some contracts are entered into between institutions that do not report to the triennial survey. Market participants suggest that such positions are likely to be extremely small relative to those covered in the survey.

⁷ This section is based on the subset of regular semiannual reporters. Growth rates in this section refer to changes over six months.

dropped slightly in the half-year up to end-2009 (–6%) increased by 2% to \$3.6 trillion. Overall, nominal growth in amounts outstanding was subdued or negative in all risk categories, with a 7% drop in credit derivatives leading in percentage terms.

Positions in *foreign exchange* contracts increased by 8% in the first half of 2010 to \$53 trillion at end-June. Notional amounts outstanding of US dollar-denominated contracts went up by 11%. Changes in the size of positions of other currencies are more difficult to interpret, but there are reasons to believe that strong underlying growth was offset by valuation effects due to exchange rate depreciation. For example, notional amounts outstanding of contracts on the euro fell by 2% overall, much less than the change in the exchange rate. Positions on the Swiss franc contracts went up by 23%, despite the fall of that currency against the US dollar. The market value of outstanding contracts on most currencies rose by around 20% (100% and 28% for the Swiss franc and Canadian dollar respectively), while market values for sterling were essentially unchanged.

Notional amounts outstanding of OTC *interest rate* derivatives remained stable at \$452 trillion in the first half of 2010, after increasing by 3% in the previous six months (Table 3). Positions between reporting dealer fell by 5%, while business with non-financial customers grew by 6%, mainly in short maturities. Again, exchange rate effects tended to depress the amounts outstanding, with notional amounts outstanding of euro-denominated interest rate derivatives declining by 8%. Market values, in contrast, were buoyant, rising by 25% in aggregate in the half-year up to June 2010, with the value of contracts on US dollar interest rates increasing by 42%. Market values on euro, yen and “other” currency contracts each rose by 16%, not adjusted for exchange rate effects.



Notional amounts outstanding of *credit default swaps* (CDS) declined for the fifth consecutive period (Graph 4, right-hand panel), largely due to terminations of existing contracts.⁸ The structure of the market continued to change. Positions in the generally more liquid multi-name contracts increased by 10%, while those in single-name contracts continued to decline (–16%). That said, at \$18 trillion the latter still account for substantially more than half the market total. Gross market values for single-name contracts dropped by 20%, while those for multi-name contracts rose by 21%.

⁸ According to TriOptima, demand for terminations remained strong (\$7 trillion up to end-October 2010, after \$15 trillion in 2009) despite increased routing of trades to clearing houses.

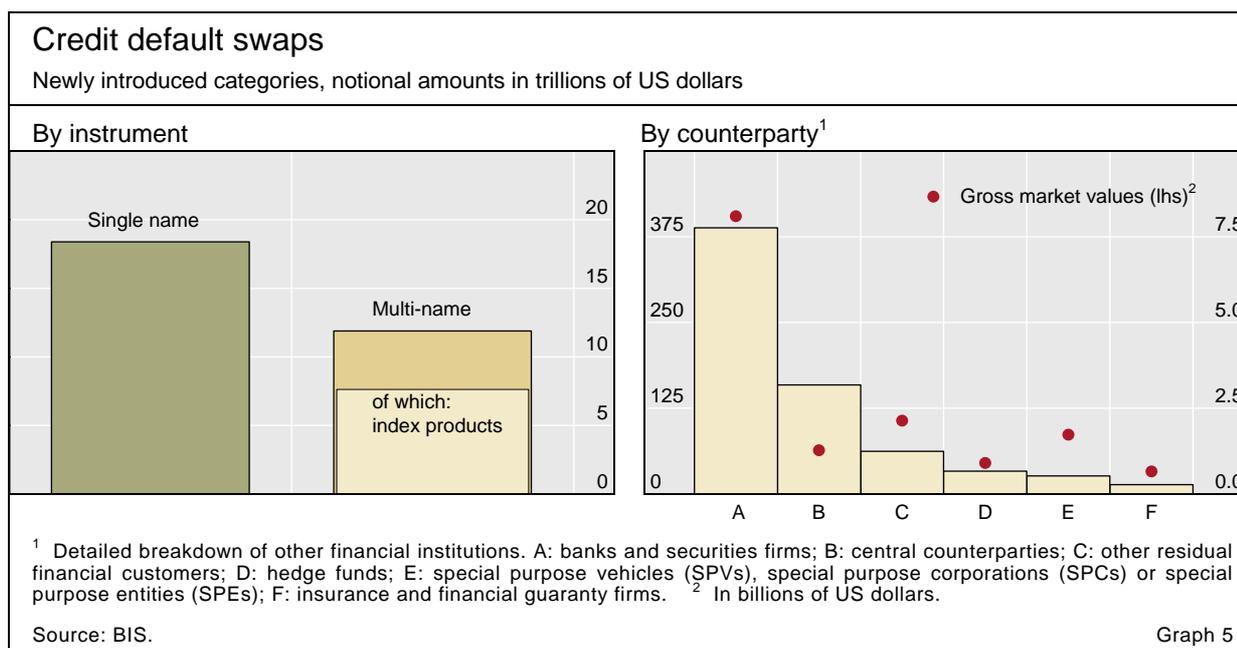
Positions in *equity* contracts increased moderately (5%) in the first half of 2010 to \$6.3 trillion. Market values were unchanged in aggregate; however, those for forwards and swaps increased by 7%, while those for options declined by 3%.

Concentration in the OTC derivatives market trended upwards slightly in most product categories during the first half of 2010. Herfindahl indices calculated on the basis of the responses from individual dealers indicate that concentration in the foreign exchange segment was almost unchanged at a low level. In the interest rate segment, Herfindahl indices grew slightly in a range of instruments, with an increase for options on Swedish krona rates making this the most concentrated interest rate instrument. It took over this distinction from options on Canadian interest rates, where concentration continued to decline from the peak previously reached in June 2008.

In the equity segment, the most concentrated sector, Herfindahl indices for contracts on Latin American stocks increased even further. Concentration indices are much lower for derivative instruments on Japanese, other Asian, European and US equities. Concentration in contracts on Asian equities in particular is now noticeably below the levels reached in 2005.

3.2 Additional data on counterparty breakdown of CDS positions

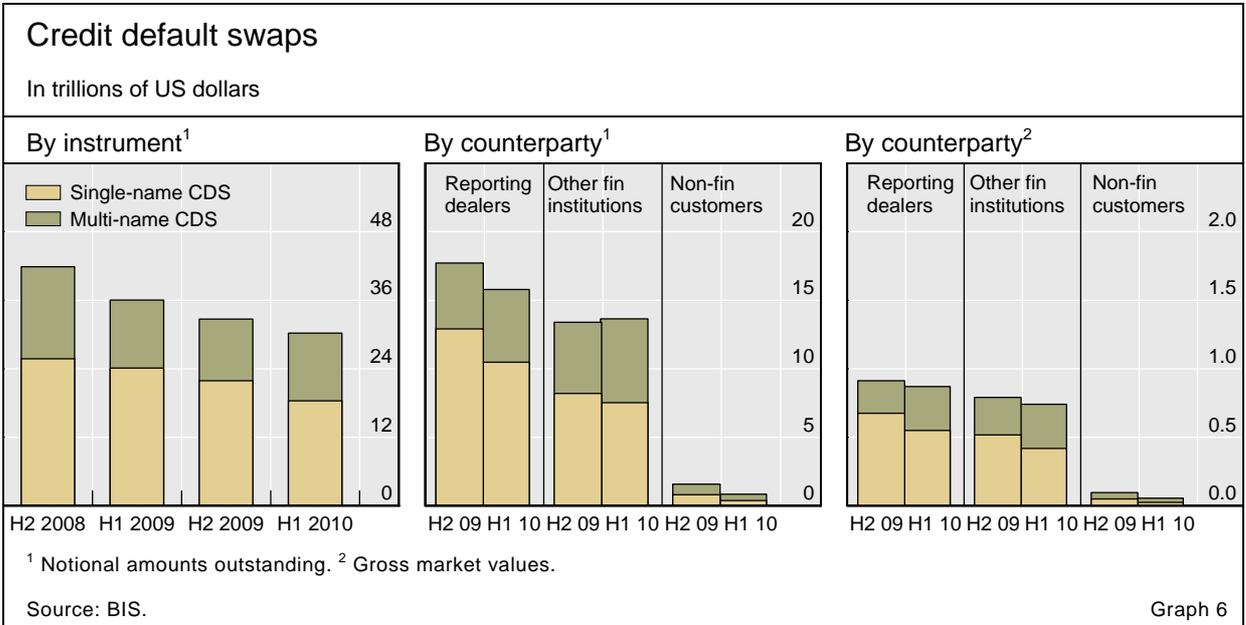
The latest seminannual survey introduces additional information on the importance of central counterparties (CCPs) in the CDS market (Tables 4 and 5). At end-June 2010, about 11% of CDS positions were vis-à-vis a CCP.⁹ This relatively low share reflects the large amount of non-standard CDS contracts covered in the BIS survey, which are not easily traded with CCPs. In terms of market value, contracts with CCPs account for only 4% of the total value



of CDS. The discrepancy between their shares of notional amounts and market values could reflect the fact that CDS indices, which are popular products cleared by CCPs, are often less volatile than other CDS, such as single-name CDS, because of the diversification benefits of the former. Approximately twice as many multi-name as single-name contracts are traded with CCPs.

⁹ These figures will be discussed in more detail in a special feature of the forthcoming December 2010 BIS Quarterly Review.

The CDS counterparty breakdown for contracts with other financial institutions has also been expanded. In particular, special purpose vehicles (SPVs) and hedge funds are singled out for the first time. In the past, this breakdown had been used only by a subset of reporters in the past, so that data for these sub-categories in June 2010 are not directly comparable with those of previous periods. In the current period, CDS contracts with hedge funds and SPVs account for about 5% and 4% respectively of total notional amounts outstanding with other financial institutions.



Graph 6

II. Statistical notes

1. Coverage

This statistical release shows the results of the second part of the Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity together with those of the semiannual OTC derivatives market statistics, both at end-June 2010. While the semiannual survey (Tables 1 to 5) relies on data provided by major dealers in the G10 countries, the triennial survey (Table A) expands coverage to market participants in 47 countries and jurisdictions worldwide. As a consequence, the triennial survey provides a benchmark for the regular semiannual survey of positions in the global OTC derivatives market. Between the triennial surveys at end-June 2007 and 2010, the results of the semiannual surveys were adjusted upwards to reflect this difference. This adjustment relates only to the grand total and is included as a residual “unallocated” category in Table 1.¹⁰

Both surveys cover the worldwide consolidated positions of reporting dealers (notional amounts outstanding and gross market values) of foreign exchange, interest rate, equity, commodity and credit derivatives traded in OTC markets. However, while the triennial survey collects data on the broader category of credit derivatives, incorporating CDS as an “of which” item,¹¹ the semiannual survey is restricted to the collection of CDS data.

The collection of specific data on CDS as reported by G10 countries in the context of the semiannual OTC statistics began as of end-December 2004, in response to a request by the Committee on the Global Financial System (CGFS). These statistics include notional amounts outstanding and gross market values for single- and multi-name instruments (Tables 4 and 5). As of December 2005, additional information by counterparty, sector and rating has been made available.

From end-June 2004, the BIS also started releasing statistics on concentration measures in the context of the semiannual OTC derivatives statistics (Table 6). G10 central banks provided the BIS with data, back to June 1998, including concentration measures for foreign exchange, interest rate and equity-linked derivatives.

As of end-June 2010 more granular information is collected and published on CDS counterparties, ie Central Counterparties, Special Purpose Vehicles and Hedge Funds, and index products as a subset of multi-name CDS instruments are also shown separately.

All published figures are adjusted for double-counting resulting from positions between reporting institutions. While notional amounts outstanding are adjusted by halving positions vis-à-vis other reporting dealers, gross market values are adjusted by adding the total gross positive market value of contracts to the gross negative market value of contracts with non-reporting counterparties only.

All data are reported to the BIS in US dollars, with positions in other currencies being converted into US dollars at the exchange rate prevailing at the end of each reporting period.

¹⁰ The various risk categories reported in Tables 1 to 5 are not adjusted.

¹¹ Data on CDS were first collected in the context of the triennial survey in 2007.

2. Definitions

2.1 Types of data collected

Notional amounts outstanding: Nominal or notional amounts outstanding are defined as the gross nominal or notional value of all deals concluded and not yet settled on the reporting date. For contracts with *variable nominal or notional principal amounts*, the basis for reporting is the nominal or notional principal amounts at the time of reporting.

Nominal or notional amounts outstanding provide a measure of market size and a reference from which contractual payments are determined in derivatives markets. However, 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. Gross market values provide a more accurate measure of the scale of financial risk transfer taking place in derivatives markets.

Gross positive and negative market values: Gross market values are defined as the sums of the absolute values of all open contracts with either positive or negative replacement values evaluated at market prices prevailing on the reporting date. Thus, the gross positive market value of a dealer's outstanding contracts is the sum of the replacement values of all contracts that are in a current gain position to the reporter at current market prices (and therefore, if they were settled immediately, would represent claims on counterparties). The gross negative market value is the sum of the values of all contracts that have a negative value on the reporting date (ie those that are in a current loss position and therefore, if they were settled immediately, would represent liabilities of the dealer to its counterparties).

The term "gross" is used to indicate that contracts with positive and negative replacement values with the same counterparty are not netted. Nor are the sums of positive and negative contract values within a market risk category such as foreign exchange contracts, interest rate contracts, equities and commodities set off against one another.

As stated above, gross market values supply information about the potential scale of market risk in derivatives transactions. Furthermore, gross market value at current market prices provides a measure of economic significance that is readily comparable across markets and products.

Current credit exposure and liabilities: Current credit exposure represents the gross value of contracts that have a positive market value after taking account of legally enforceable bilateral netting agreements. Liabilities arising from OTC derivatives contracts represent the gross value of contracts that have a negative market value taking account of legally enforceable bilateral netting agreements.

Herfindahl index: The Herfindahl index represents a measure of market concentration and is defined as the sum of the squares of the market shares of each individual institution. It ranges from 0 to 10,000. The more concentrated the market, the higher the measure becomes. If the market is fully concentrated (only one institution), the measure will have the (maximum) value of 10,000.

2.2 Instrument types

Forward contracts: Forward contracts represent agreements for delayed delivery of financial instruments or commodities in which the buyer agrees to purchase and the seller agrees to deliver, at a specified future date, a specified instrument or commodity at a specified price or yield. Forward contracts are generally not traded on organised exchanges and their contractual terms are not standardised. The reporting exercise also includes transactions where only the difference between the contracted forward outright rate and the prevailing spot rate is settled at maturity, such as non-deliverable forwards (ie forwards which do not require physical delivery of a non-convertible currency) and other contracts for differences.

Swaps: Swaps are transactions in which two parties agree to exchange payment streams based on a specified notional amount for a specified period. Forward-starting swap contracts are reported as swaps.

Options: Option contracts convey either the right or the obligation, depending upon whether the reporting institution is the purchaser or the writer, respectively, to buy or sell a financial instrument or commodity at a specified price up to a specified future date.

2.3 Specific definitions for credit default swaps

Single-name CDS: A credit derivative where the reference entity is a single name.

Multi-name CDS: A contract where the reference entity is more than one name as in portfolio or basket credit default swaps or credit default swap indices. A basket credit default swap is a CDS where the credit event is the default of some combination of the credits in a specified basket of credits.

3. Data availability

Detailed tables on OTC derivatives and concentration measures from end-June 1998 are available, with their main breakdowns, on the BIS website at:
www.bis.org/statistics/derstats.htm.

4. Next publication dates

The next semiannual OTC derivatives statistics as at end-December 2010 are expected to be released no later than 31 May 2011.

III. Statistical table

Global results of the Triennial Survey of Foreign Exchange and Derivatives Market Activity at end-June 2010

Table A
Global OTC derivatives market¹
Amounts outstanding, in billions of US dollars

	Notional amounts outstanding		Gross market value	
	end-June 2007	end-June 2010	end-June 2007	end-June 2010
GRAND TOTAL	507,907	582,655	11,118	24,673
A. Foreign exchange contracts	57,604	62,933	1,613	3,158
Outright forwards and forex swaps	29,775	31,935	668	1,330
Currency swaps	14,130	18,890	666	1,372
Options	13,662	12,107	279	456
Other	37	1		
B. Interest rate contracts²	381,357	478,093	6,730	18,508
FRAs	25,607	60,028	145	204
Swaps	299,155	367,541	5,818	16,703
Options	56,587	50,519	767	1,600
Other	7	5		
C. Equity-linked contracts	9,518	6,868	1,212	796
Forwards and swaps	2,668	1,854	262	202
Options	6,850	5,013	950	595
D. Commodity contracts³	8,255	3,273	656	492
Gold	1,051	669	56	52
Other	7,204	2,604	600	439
Forwards and swaps	3,481	1,686		
Options	3,724	918		
E. Credit derivatives	51,095	31,416	906	1,708
Forwards and swaps	49,974	31,331		
CDS	45,179	31,057	768	1,694
Single-name instruments	25,104	18,806	430	1,012
Multi-name instruments	20,075	12,251	338	682
Index products		7,614		
Options	1,121	85		
F. Other derivatives	78	72	1	12
Forwards and swaps	73	38		
Options	6	34		
GROSS CREDIT EXPOSURE⁴			2,672	3,578
<i>Memo: Exchange-traded contracts⁵</i>	95,099	75,461		

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 nonreporting counterparties. ² Single currency contracts only. ³ Adjustments for double-counting partly estimated. ⁴ Gross market values after taking into account legally enforceable bilateral netting agreements. ⁵ Sources: FOW TRADEdata; Futures Industry Association; various futures and options exchanges.

IV. Other statistical tables

OTC derivatives market activity in the first half of 2010

Table 1
Global OTC derivatives market¹
Amounts outstanding, in billions of US dollars

	Notional amounts outstanding				Gross market value			
	H2 2008	H1 2009	H2 2009	H1 2010	H2 2008	H1 2009	H2 2009	H1 2010
GRAND TOTAL	598,147	594,495	603,900	582,655	35,281	25,314	21,542	24,673
A. Foreign exchange contracts	50,042	48,732	49,181	53,125	4,084	2,470	2,070	2,524
Outright forwards and forex swaps	24,494	23,105	23,129	25,625	1,830	870	683	925
Currency swaps	14,941	15,072	16,509	16,347	1,633	1,211	1,043	1,187
Options	10,608	10,555	9,543	11,153	621	389	344	411
<i>Memo: Exchange-traded contracts²</i>	<i>254</i>	<i>257</i>	<i>328</i>	<i>386</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>
B. Interest rate contracts³	432,657	437,228	449,875	451,831	20,087	15,478	14,020	17,533
FRAs	41,561	46,812	51,779	56,242	165	130	80	81
Swaps	341,128	341,903	349,288	347,508	18,158	13,934	12,576	15,951
Options	49,968	48,513	48,808	48,081	1,764	1,414	1,364	1,501
<i>Memo: Exchange-traded contracts²</i>	<i>52,711</i>	<i>57,733</i>	<i>67,056</i>	<i>69,551</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>
C. Equity-linked contracts	6,471	6,584	5,937	6,260	1,112	879	708	706
Forwards and swaps	1,627	1,678	1,652	1,754	335	225	176	189
Options	4,844	4,906	4,285	4,506	777	654	532	518
<i>Memo: Exchange-traded contracts²</i>	<i>4,780</i>	<i>5,305</i>	<i>5,772</i>	<i>5,524</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>
D. Commodity contracts⁴	4,427	3,619	2,944	2,852	955	682	545	457
Gold	395	425	423	417	65	43	48	44
Other	4,032	3,194	2,521	2,434	890	638	497	413
Forwards and swaps	2,471	1,715	1,675	1,551	...	...	...	...
Options	1,561	1,479	846	883	...	...	...	...
E. Credit default swaps⁵	41,883	36,046	32,693	30,261	5,116	2,987	1,801	1,666
Single-name instruments	25,740	24,112	21,917	18,379	3,263	1,953	1,243	993
Multi-name instruments	16,143	11,934	10,776	11,882	1,854	1,034	559	673
Index products	...	...	...	7,614	...	...	...	...
F. Unallocated⁶	62,667	62,285	63,270	38,327	3,927	2,817	2,398	1,788
GROSS CREDIT EXPOSURE⁷	...	...	...	...	5,005	3,744	3,521	3,578
<i>Memo: Exchange-traded contracts^{2,8}</i>	<i>57,744</i>	<i>63,295</i>	<i>73,157</i>	<i>75,461</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</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 Sources: FOW TRADEdata; Futures Industry Association; various futures and options exchanges. ³ Single currency contracts only. ⁴ Adjustments for double-counting partly estimated. ⁵ See Tables 4 and 5. ⁶ Includes foreign exchange, interest rate, equity, commodity and credit derivatives of non-reporting institutions, based on the latest Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity, in 2007. ⁷ Gross market values after taking into account legally enforceable bilateral netting agreements. Excludes CDS contracts for all countries except the United States. ⁸ Excludes commodity contracts.

Table 2

Global OTC foreign exchange derivatives market^{1, 2}

Amounts outstanding, in billions of US dollars

	Notional amounts outstanding				Gross market values			
	H2 2008	H1 2009	H2 2009	H1 2010	H2 2008	H1 2009	H2 2009	H1 2010
Total contracts	50,042	48,732	49,181	53,125	4,084	2,470	2,070	2,524
With reporting dealers	19,665	18,849	18,896	19,920	1,520	892	732	898
With other financial institutions	21,300	21,441	21,445	23,475	1,768	1,066	888	1,084
With non-financial customers	9,077	8,442	8,840	9,731	796	512	449	541
Up to 1 year ³	32,711	30,264	30,614	33,633	...	...	...	...
Between 1 and 5 years ³	9,557	9,694	9,712	10,737	...	...	...	...
Over 5 years ³	7,774	8,775	8,855	8,755	...	...	...	...
US dollar	42,451	40,735	40,921	45,338	3,252	1,961	1,662	2,025
Euro	21,146	20,653	20,364	19,993	1,630	1,032	864	1,121
Yen	12,327	11,436	11,238	11,843	960	531	539	657
Sterling	5,606	6,213	5,929	6,592	753	435	282	287
Swiss franc	3,252	3,072	3,106	3,825	206	103	98	197
Canadian dollar	1,697	1,735	1,858	2,228	130	95	78	100
Swedish krona	1,262	1,255	1,309	1,370	91	54	39	43
Other	12,343	12,366	13,637	15,059	1,145	729	578	617
<i>Memo: Exchange-traded contracts⁴</i>	<i>254</i>	<i>257</i>	<i>328</i>	<i>386</i>	<i>...</i>	<i>...</i>	<i>...</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 2 to Table 1.

Table 3

Global OTC interest rate derivatives market¹

Amounts outstanding, in billions of US dollars

	Notional amounts outstanding				Gross market values			
	H2 2008	H1 2009	H2 2009	H1 2010	H2 2008	H1 2009	H2 2009	H1 2010
Total contracts	432,657	437,228	449,875	451,831	20,087	15,478	14,020	17,533
With reporting dealers	165,741	148,152	138,580	132,128	7,099	4,759	3,970	4,548
With other financial institutions	228,003	250,097	275,688	282,027	11,849	9,928	9,313	12,068
With non-financial customers	38,914	38,979	35,607	37,677	1,138	790	736	917
Up to 1 year ²	155,581	159,145	180,007	196,040	...	...	...	...
Between 1 and 5 years ²	127,511	128,319	134,312	129,488	...	...	...	...
Over 5 years ²	149,565	149,765	135,556	126,303	...	...	...	...
US dollar	148,661	154,174	153,373	164,119	11,092	6,473	5,347	7,573
Euro	161,445	160,668	175,790	161,515	5,643	6,255	6,073	7,043
Yen	61,588	57,452	53,855	55,395	927	800	843	980
Sterling	29,204	32,591	34,257	36,219	1,365	1,117	1,038	1,146
Swiss franc	5,088	4,713	4,807	4,650	120	121	128	138
Canadian dollar	2,704	3,227	3,427	4,411	186	141	102	102
Swedish krona	5,082	5,294	4,696	4,461	130	118	99	98
Other	18,885	19,108	19,669	21,061	624	453	389	451
<i>Memo: Exchange-traded contracts³</i>	<i>52,711</i>	<i>57,733</i>	<i>67,056</i>	<i>69,551</i>	...	...	...	...

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

Table 4

Credit default swap market¹

Amounts outstanding, in billions of US dollars

	Notional amounts outstanding									Gross market values		
	H1 2009			H2 2009			H1 2010			H1 2009	H2 2009	H1 2010
	Bought	Sold	Total	Bought	Sold	Total	Bought	Sold	Total			
Total contracts	27,995	27,235	36,046	25,512	24,898	32,693	23,247	22,789	30,261	2,987	1,801	1,666
With reporting dealers	19,237	19,131	19,184	17,702	17,732	17,717	15,776	15,773	15,774	1,476	912	870
With other financial institutions	7,942	7,405	15,347	6,987	6,413	13,400	7,017	6,626	13,643	1,332	792	740
Banks and securities firms	5,618	5,455	11,073	5,115	4,834	9,950	3,937	3,827	7,764	858	496	405
Central counterparties	...	...	...	...	...	...	1,589	1,589	3,178	...	...	64
Insurance firms	268	118	386	235	96	331	205	68	273	49	45	33
SPVs, SPCs and SPEs ²	75	37	112	91	68	159	321	201	522	33	29	87
Hedge funds ²	67	59	126	64	38	101	261	400	661	16	7	45
Other financial customers	1,913	1,736	3,649	1,483	1,376	2,859	704	541	1,245	376	216	107
With non-financial customers	816	699	1,516	823	753	1,575	454	390	844	179	97	56
Up to 1 year	3,024	2,917	3,839	2,755	2,683	3,432	2,610	2,600	3,344	...	...	...
Between 1 and 5 years	17,950	17,685	23,200	16,558	16,340	21,308	15,848	15,710	20,739	...	...	...
Over 5 years	7,022	6,632	9,007	6,199	5,874	7,952	4,789	4,478	6,179	...	...	...
Single-name credit default swaps ³	19,057	18,604	24,112	17,599	17,219	21,917	14,487	14,366	18,379	1,953	1,243	993
Multi-name credit default swaps	8,938	8,631	11,934	7,913	7,679	10,776	8,760	8,422	11,882	1,034	559	673
Index products	...	...	...	...	...	...	5,824	5,522	7,614	...	...	...

¹ Data on total CDS and gross market values are shown on a net basis. Data on CDS bought and sold are shown on a gross basis, ie not adjusted for inter-dealer double-counting. ² Up to H2 2009, based on the data reported by 4 countries. From H1 2010, based on the data reported by 9 countries. ³ See Table 5.

Table 5

Credit default swap market¹
Single-name instruments

Amounts outstanding, in billions of US dollars

	Notional amounts outstanding									Gross market values		
	H1 2009			H2 2009			H1 2010			H1 2009	H2 2009	H1 2010
	Bought	Sold	Total	Bought	Sold	Total	Bought	Sold	Total			
Total contracts	19,057	18,604	24,112	17,599	17,219	21,917	14,487	14,366	18,379	1,953	1,243	993
With reporting dealers	13,623	13,476	13,549	12,936	12,864	12,900	10,476	10,471	10,473	997	676	549
With other financial institutions	4,966	4,748	9,713	4,245	3,962	8,207	3,804	3,719	7,523	851	516	419
Banks and securities firms	3,649	3,475	7,124	3,277	3,032	6,309	2,564	2,422	4,986	555	328	261
Central counterparties	...	...	...	...	...	...	585	571	1,156	...	...	26
Insurance firms	143	97	240	144	74	218	82	49	131	33	39	19
SPVs, SPCs and SPEs ²	16	31	47	27	61	88	84	92	176	7	6	33
Hedge funds ²	56	35	91	50	21	71	162	263	425	13	4	27
Other financial customers	1,102	1,110	2,211	747	774	1,521	327	323	650	242	139	54
With non-financial customers	469	381	850	418	392	810	207	176	383	106	51	24
Up to 1 year	2,056	2,014	2,601	1,999	1,909	2,421	1,836	1,821	2,334	...	...	...
Between 1 and 5 years	12,522	12,343	15,868	11,594	11,416	14,465	9,892	9,854	12,482	...	...	...
Over 5 years	4,479	4,248	5,644	4,005	3,894	5,031	2,758	2,691	3,564	...	...	...
Sovereigns	1,325	1,314	1,761	1,496	1,497	1,943	1,869	1,844	2,392	...	...	...
Non-sovereigns	17,733	17,290	22,351	16,103	15,721	19,974	12,618	12,523	15,987	...	...	...
Investment grade (AAA–BBB)	12,585	12,400	16,082	12,018	11,767	14,949	10,046	9,951	12,813	...	...	...
BB and below	3,986	3,975	5,152	3,500	3,510	4,521	3,272	3,289	4,079	...	...	...
Non-rated	2,486	2,229	2,878	2,081	1,942	2,446	1,169	1,126	1,487	...	...	...

¹ Data on total CDS and gross market values are shown on a net basis. Data on CDS bought and sold are shown on a gross basis, ie not adjusted for inter-dealer double-counting. ² Up to H2 2009, based on the data reported by 4 countries. From H1 2010, based on the data reported by 9 countries.

Table 6a

Herfindahl indices for all OTC interest rate derivatives contracts

	Canadian dollar			Swiss franc			Euro			Sterling			Japanese yen			Swedish krona			US dollar		
	FRAs ¹	IRS ²	Opts. ³	FRAs ¹	IRS ²	Opts. ³	FRAs ¹	IRS ²	Opts. ³	FRAs ¹	IRS ²	Opts. ³	FRAs ¹	IRS ²	Opts. ³	FRAs ¹	IRS ²	Opts. ³	FRAs ¹	IRS ²	Opts. ³
Jun 1998	824	681	999	1,053	504	953	...	...	...	713	419	723	779	440	500	1,160	539	975	521	393	869
Dec 1998	810	647	962	1,133	542	1,077	...	...	...	828	406	628	860	440	436	965	542	899	617	415	901
Jun 1999	923	737	1,438	1,085	678	937	834	572	525	856	433	828	942	484	949	870	549	824	655	495	847
Dec 1999	1,373	800	1,340	1,317	643	1,154	937	522	578	641	444	686	932	528	596	914	601	987	710	490	734
Jun 2000	1,418	856	1,458	1,421	655	1,432	851	511	530	614	429	677	1,014	545	715	936	586	1,036	755	500	782
Dec 2000	1,452	876	1,791	1,274	688	2,439	1,107	500	565	728	448	662	1,109	585	791	957	640	1,076	879	528	819
Jun 2001	1,347	874	1,621	1,264	678	1,239	936	486	559	693	438	648	1,937	613	708	1,125	592	989	888	529	764
Dec 2001	1,812	1,044	1,702	1,252	788	1,228	740	524	584	638	476	727	1,758	706	1,217	1,002	608	1,081	1,145	730	1,143
Jun 2002	1,556	1,044	1,682	1,234	824	1,461	556	478	561	605	489	648	1,763	779	1,202	944	532	1,149	907	666	1,044
Dec 2002	1,818	1,047	2,112	1,218	846	1,693	571	492	546	610	515	615	1,942	790	1,624	886	569	1,224	1,042	682	1,038
Jun 2003	1,530	1,041	2,161	1,264	896	1,684	539	481	608	607	544	643	1,972	806	1,223	839	561	1,174	901	701	961
Dec 2003	1,522	1,039	2,226	1,269	852	1,616	639	478	591	1,095	565	666	1,647	744	1,065	947	570	1,230	786	672	877
Jun 2004	1,965	1,048	2,313	1,169	797	1,796	670	473	675	930	594	747	1,308	728	978	965	583	1,137	725	626	847
Dec 2004	1,855	1,051	2,830	1,278	851	1,583	611	472	668	933	574	1,480	1,898	699	776	892	587	1,084	641	667	760
Jun 2005	1,659	1,000	2,955	1,158	936	1,508	631	479	567	855	614	1,288	2,565	664	781	811	564	1,077	652	650	756
Dec 2005	1,649	1,017	3,052	1,630	1,015	1,584	667	484	539	1,210	661	905	3,025	635	793	767	571	1,259	690	691	762
Jun 2006	1,670	1,018	2,703	1,698	1,080	1,398	690	503	534	1,083	707	958	3,280	613	824	847	586	1,431	788	678	816
Dec 2006	1,499	1,020	2,952	1,919	1,149	1,205	783	561	569	1,024	692	916	3,468	620	768	1,068	594	1,638	917	679	830
Jun 2007	1,164	987	2,978	2,043	1,150	1,045	812	623	604	1,120	736	806	2,569	675	799	1,096	628	1,945	850	686	865
Dec 2007	1,122	985	2,962	2,032	1,162	948	709	596	596	1,066	765	777	2,302	673	745	1,242	660	2,337	967	698	982
Jun 2008	1,405	976	3,314	1,712	1,336	899	648	562	594	1,055	830	824	1,981	660	938	1,152	677	1,904	881	729	1,020
Dec 2008	1,119	1,032	2,939	1,760	1,344	947	734	764	639	1,613	1,334	867	2,517	875	851	1,143	818	1,301	1,004	896	1,034
Jun 2009	1,240	1,245	2,544	1,672	1,351	852	581	657	607	1,194	921	950	2,164	777	865	1,055	751	1,540	996	949	936
Dec 2009	1,149	1,145	2,739	1,889	1,401	816	622	641	638	1,138	929	1,022	1,810	709	857	939	773	2,452	1,075	936	912
Jun 2010	1,323	1,038	2,097	1,925	1,465	926	621	620	624	1,038	979	1,256	1,409	639	873	924	809	2,623	975	916	866

¹ Forward rate agreements. ² Interest rate swaps. ³ Interest rate options.

Table 6b
**Herfindahl indices for all OTC foreign
exchange derivatives contracts**

	Forwards, forex swaps and currency swaps	Options
Jun 1998	302	519
Dec 1998	333	504
Jun 1999	372	525
Dec 1999	413	544
Jun 2000	423	507
Dec 2000	423	528
Jun 2001	416	546
Dec 2001	471	564
Jun 2002	427	518
Dec 2002	434	503
Jun 2003	438	498
Dec 2003	429	605
Jun 2004	442	560
Dec 2004	448	611
Jun 2005	440	591
Dec 2005	464	624
Jun 2006	475	606
Dec 2006	481	567
Jun 2007	486	558
Dec 2007	497	570
Jun 2008	496	636
Dec 2008	515	641
Jun 2009	556	640
Dec 2009	570	628
Jun 2010	565	654

Table 6c

Herfindahl indices for all OTC equity-linked derivatives contracts

	Europe		Japan		Latin America		Other Asia		United States	
	Forwards and swaps	Options	Forwards and swaps	Options	Forwards and swaps	Options	Forwards and swaps	Options	Forwards and swaps	Options
Jun 1998	909	627	2,655	1,074	5,484	3,545	1,232	1,447	1,086	1,362
Dec 1998	869	659	2,837	970	2,849	4,307	1,313	1,271	1,111	759
Jun 1999	715	639	2,170	1,462	3,071	6,169	3,506	1,388	1,215	1,042
Dec 1999	787	613	3,416	1,102	9,274	4,330	3,606	2,341	1,895	1,275
Jun 2000	618	657	2,501	1,018	6,881	6,776	5,119	1,586	1,088	749
Dec 2000	750	779	2,043	1,386	5,015	6,703	1,663	1,600	1,132	759
Jun 2001	693	891	1,461	860	5,163	4,353	1,631	1,188	1,048	663
Dec 2001	733	880	2,005	841	6,063	8,084	5,294	1,447	1,070	751
Jun 2002	770	952	1,822	1,072	7,546	7,585	6,086	1,550	1,174	890
Dec 2002	762	791	1,946	1,132	7,281	4,807	1,677	1,675	1,037	665
Jun 2003	768	985	1,854	2,322	8,839	9,332	3,197	1,894	964	793
Dec 2003	698	1,013	3,106	1,718	3,808	6,432	2,233	5,464	1,040	1,031
Jun 2004	611	1,195	1,984	2,553	3,732	6,304	2,010	5,435	855	836
Dec 2004	635	710	1,779	1,185	5,694	4,485	1,339	1,739	843	943
Jun 2005	597	661	2,064	898	6,953	4,427	1,355	1,177	722	725
Dec 2005	650	614	2,347	3,973	7,039	5,790	1,334	5,566	947	787
Jun 2006	613	690	1,408	3,409	6,704	3,918	1,294	5,537	946	1,385
Dec 2006	687	775	1,278	3,158	7,199	3,902	1,066	5,615	1,487	751
Jun 2007	782	716	1,168	2,333	7,876	3,735	1,343	1,098	1,057	802
Dec 2007	732	668	1,423	1,310	7,420	4,414	1,350	2,881	803	755
Jun 2008	707	706	1,044	989	5,979	6,290	1,180	1,249	847	741
Dec 2008	690	860	1,150	1,191	4,563	4,934	967	871	720	909
Jun 2009	921	981	981	1,512	4,687	6,181	949	1,105	773	1,145
Dec 2009	808	931	802	1,098	3,319	4,043	1,077	1,026	763	1,490
Jun 2010	850	1,122	693	1,010	3,900	6,468	1,219	1,135	877	1,410

Table 6d

Herfindahl indices for OTC interest rate derivatives contracts between reporters¹

	Canadian dollar			Swiss franc			Euro			Sterling			Japanese yen			Swedish krona			US dollar		
	FRAs ²	IRS ³	Opts. ⁴	FRAs ²	IRS ³	Opts. ⁴	FRAs ²	IRS ³	Opts. ⁴	FRAs ²	IRS ³	Opts. ⁴	FRAs ²	IRS ³	Opts. ⁴	FRAs ²	IRS ³	Opts. ⁴	FRAs ²	IRS ³	Opts. ⁴
Jun 1998	972	740	1,193	1,231	551	1,110	...	...	...	673	414	866	832	494	489	1,021	610	816	653	454	722
Dec 1998	983	671	1,041	1,194	530	1,458	...	...	...	862	400	678	869	460	521	897	591	876	631	421	896
Jun 1999	1,008	772	1,436	1,176	776	1,044	744	595	591	982	408	1,145	894	501	546	819	563	786	692	537	873
Dec 1999	1,707	834	1,341	1,480	701	1,371	961	549	583	736	456	928	973	568	795	862	617	859	757	508	822
Jun 2000	1,594	876	1,212	1,505	724	1,495	956	543	584	666	427	886	1,073	600	822	964	607	969	932	533	858
Dec 2000	1,876	910	1,622	1,256	708	1,186	1,071	530	619	788	468	795	1,386	629	876	939	662	900	894	562	931
Jun 2001	1,365	818	1,558	1,211	705	1,350	954	506	618	769	458	826	2,319	691	803	1,279	601	857	934	577	832
Dec 2001	2,266	1,008	1,474	1,270	822	1,041	727	571	642	697	490	828	2,194	801	1,381	979	623	898	1,046	784	1,111
Jun 2002	1,992	949	1,720	1,262	854	1,220	540	503	636	647	497	786	2,095	866	1,665	962	530	1,143	1,070	719	1,239
Dec 2002	2,325	893	2,426	1,594	890	1,441	547	505	558	648	550	685	2,316	895	1,749	938	570	1,148	1,440	757	1,144
Jun 2003	2,000	974	2,695	1,606	835	1,487	555	474	600	576	522	670	2,379	935	1,423	970	569	1,101	1,142	757	991
Dec 2003	1,814	1,018	2,811	1,475	833	1,347	540	478	575	746	547	661	1,803	894	1,383	1,211	602	1,232	978	751	899
Jun 2004	2,118	1,008	2,722	1,348	800	1,691	506	474	605	1,012	723	721	1,463	843	1,158	1,125	651	1,111	791	678	820
Dec 2004	2,218	1,045	3,135	1,401	815	1,634	576	470	649	939	691	845	2,291	792	855	996	664	1,098	625	716	770
Jun 2005	1,815	938	2,333	1,244	932	1,223	661	483	556	977	695	842	3,163	749	871	902	641	1,036	604	682	783
Dec 2005	1,979	978	2,659	1,710	1,043	1,214	679	496	547	1,180	751	870	3,447	706	903	769	650	1,265	703	729	807
Jun 2006	1,698	996	2,686	1,813	1,169	1,296	707	515	557	1,090	756	908	3,841	661	881	771	658	1,830	782	695	979
Dec 2006	1,687	1,007	2,738	2,321	1,229	1,034	819	514	577	1,024	702	890	3,662	646	842	892	654	1,350	884	683	880
Jun 2007	1,246	952	2,342	2,086	1,217	901	701	512	616	936	729	801	2,354	705	972	918	676	1,504	825	672	889
Dec 2007	1,088	945	2,578	2,183	1,176	935	637	542	669	1,003	799	832	2,853	731	814	1,131	744	2,278	916	694	767
Jun 2008	1,315	978	2,641	1,868	1,470	844	642	566	665	1,177	944	813	2,279	748	1,063	1,193	785	1,721	952	764	925
Dec 2008	1,126	1,050	2,851	1,998	1,420	929	654	703	720	1,738	1,646	857	2,411	726	993	1,151	941	1,280	1,069	917	1,076
Jun 2009	1,256	1,109	3,202	2,026	1,483	1,097	608	590	670	1,396	1,131	929	2,359	678	947	1,142	974	1,193	1,041	811	998
Dec 2009	1,088	1,076	2,508	2,199	1,518	1,022	630	523	690	1,149	1,040	1,045	1,810	594	946	1,070	1,074	1,316	1,098	775	993
Jun 2010	1,488	1,051	2,451	2,189	1,681	1,045	660	524	699	1,310	859	1,184	1,417	559	1,056	1,075	1,200	1,545	1,043	723	987

¹ Reporters (reporting dealers) are defined as those institutions whose head office is located in the G10 countries and which participate in the semiannual OTC derivatives market statistics; in addition, reporting dealers include all branches and subsidiaries of these entities worldwide; reporting dealers will mainly be commercial and investment banks and securities houses, including their branches and subsidiaries and other entities which are active dealers. ² Forward rate agreements. ³ Interest rate swaps. ⁴ Interest rate options.

Table 6e
**Herfindahl indices for OTC foreign exchange
derivatives contracts between reporters¹**

Period	Forwards, forex swaps and currency swaps	Options
Jun 1998	323	527
Dec 1998	342	517
Jun 1999	385	539
Dec 1999	425	543
Jun 2000	437	550
Dec 2000	430	558
Jun 2001	411	496
Dec 2001	464	614
Jun 2002	444	526
Dec 2002	452	512
Jun 2003	478	538
Dec 2003	463	518
Jun 2004	499	683
Dec 2004	491	700
Jun 2005	493	635
Dec 2005	534	705
Jun 2006	532	656
Dec 2006	523	603
Jun 2007	516	588
Dec 2007	544	634
Jun 2008	557	761
Dec 2008	575	711
Jun 2009	647	767
Dec 2009	650	740
Jun 2010	603	678

¹ Reporters (reporting dealers) are defined as those institutions whose head office is located in the G10 countries and which participate in the semiannual OTC derivatives market statistics; in addition, reporting dealers include all branches and subsidiaries of these entities worldwide; reporting dealers will mainly be commercial and investment banks and securities houses, including their branches and subsidiaries and other entities which are active dealers.

Table 6f

Herfindahl indices for OTC equity-linked derivatives contracts between reporters¹

	Europe		Japan		Latin America		Other Asia		United States	
	Forwards and swaps	Options								
Jun 1998	1,539	796	4,147	1,042	8,578	2,815	2,964	2,477	1,648	906
Dec 1998	1,192	582	4,424	1,081	4,350	2,127	2,370	2,001	1,154	1,347
Jun 1999	851	725	4,756	1,403	6,230	3,206	6,146	2,386	1,157	1,448
Dec 1999	883	750	2,539	1,316	8,613	6,936	6,097	5,268	1,049	1,796
Jun 2000	694	943	3,614	1,288	4,116	7,398	7,915	2,502	850	975
Dec 2000	938	874	5,209	1,758	5,115	3,433	3,550	1,604	1,136	1,020
Jun 2001	948	834	2,844	908	10,000	3,613	4,962	2,152	2,424	753
Dec 2001	859	912	2,541	924	10,000	4,273	9,879	2,120	1,315	783
Jun 2002	840	737	3,220	1,137	6,242	4,772	9,740	3,290	2,542	765
Dec 2002	753	728	2,435	968	4,863	8,724	5,494	3,678	1,632	951
Jun 2003	639	655	2,225	2,433	5,556	3,090	7,022	3,520	708	1,555
Dec 2003	705	676	2,789	1,698	6,932	7,515	5,918	3,166	889	668
Jun 2004	582	697	1,275	1,127	3,851	5,133	3,675	2,526	800	774
Dec 2004	669	714	2,395	1,116	3,284	4,587	2,467	874	931	762
Jun 2005	618	748	2,068	838	3,387	5,707	2,482	1,000	870	803
Dec 2005	757	779	1,836	5,063	5,729	9,957	2,062	995	787	851
Jun 2006	568	829	1,600	3,606	7,743	1,784	1,924	873	629	1,316
Dec 2006	705	873	1,699	2,216	5,273	3,253	1,189	931	1,118	915
Jun 2007	862	760	1,495	1,218	6,676	3,744	1,819	982	679	882
Dec 2007	1,068	751	1,904	1,147	7,056	2,948	2,114	991	879	765
Jun 2008	796	832	1,335	989	5,350	5,032	1,909	1,159	825	796
Dec 2008	838	1,104	1,414	897	9,565	4,112	1,678	1,270	1,053	941
Jun 2009	1,093	1,074	1,323	1,104	5,296	4,184	1,807	1,439	1,143	1,130
Jun 2009	1,093	1,074	1,323	1,104	5,296	4,184	1,807	1,439	1,143	1,130
Dec 2009	935	987	973	940	9,590	6,205	1,506	1,228	1,170	1,162
Jun 2010	949	1,252	737	819	9,685	6,196	1,808	1,408	1,220	1,255

¹ Reporters (reporting dealers) are defined as those institutions whose head office is located in the G10 countries and which participate in the semiannual OTC derivatives market statistics; in addition, reporting dealers include all branches and subsidiaries of these entities worldwide; reporting dealers will mainly be commercial and investment banks and securities houses, including their branches and subsidiaries and other entities which are active dealers.

Table 6g

Herfindahl indices for OTC interest rate derivatives contracts between reporters¹ and non-reporters

	Canadian dollar			Swiss franc			Euro			Sterling			Japanese yen			Swedish krona			US dollar		
	FRAs ²	IRS ³	Opts. ⁴	FRAs ²	IRS ³	Opts. ⁴	FRAs ²	IRS ³	Opts. ⁴	FRAs ²	IRS ³	Opts. ⁴	FRAs ²	IRS ³	Opts. ⁴	FRAs ²	IRS ³	Opts. ⁴	FRAs ²	IRS ³	Opts. ⁴
Jun 1998	828	826	1,072	862	820	909	...	...	...	859	561	739	1,033	518	660	1,703	717	1,570	666	512	1,483
Dec 1998	885	786	1,047	1,959	711	731	...	...	...	1,234	521	663	1,709	501	466	1,371	649	1,121	750	501	987
Jun 1999	1,026	885	1,500	1,055	696	936	1,415	645	567	1,372	599	704	3,035	578	2,701	1,272	710	1,100	939	526	980
Dec 1999	1,613	982	1,589	1,063	763	928	999	597	973	754	503	634	3,055	592	688	1,535	799	1,398	883	558	756
Jun 2000	1,567	1,050	1,963	1,961	741	1,361	1,294	557	615	735	541	689	3,153	571	729	1,340	760	1,260	805	545	815
Dec 2000	1,412	1,050	2,065	1,638	725	4,531	1,449	513	541	884	503	717	2,502	632	759	1,341	784	1,444	1,338	574	814
Jun 2001	2,114	1,167	1,917	1,639	703	1,147	1,032	515	543	683	489	704	3,915	575	656	2,073	716	1,209	1,395	538	792
Dec 2001	2,003	1,495	2,111	2,171	951	2,146	1,040	540	578	797	562	766	4,132	625	1,009	1,771	771	1,379	1,978	731	1,275
Jun 2002	1,681	1,568	1,996	2,250	1,082	2,061	831	529	499	773	599	772	4,983	717	946	1,849	751	1,221	1,089	694	1,058
Dec 2002	1,991	1,631	2,451	2,079	1,099	2,254	931	559	607	879	604	719	3,782	739	1,402	1,690	717	1,339	1,319	683	1,018
Jun 2003	1,681	1,374	2,174	1,933	1,261	2,354	814	563	707	1,247	669	797	2,431	767	911	916	707	1,330	1,265	725	1,030
Dec 2003	2,079	1,366	2,269	1,990	1,035	2,140	1,209	551	684	2,928	685	781	2,105	762	802	879	638	1,327	859	674	915
Jun 2004	2,092	1,423	2,448	2,049	1,026	1,929	1,295	565	861	881	546	946	1,692	807	1,008	980	662	1,322	813	661	937
Dec 2004	1,635	1,305	2,817	1,376	1,075	1,682	847	541	835	1,210	549	2,755	1,304	757	1,087	917	840	1,159	871	683	793
Jun 2005	1,978	1,235	3,559	1,490	1,074	1,943	859	545	716	1,158	602	2,907	1,503	775	670	1,097	572	1,187	923	702	770
Dec 2005	1,448	1,220	3,339	1,907	1,125	2,054	891	556	632	1,693	687	1,127	1,409	775	732	1,174	611	1,531	928	747	751
Jun 2006	2,003	1,177	2,763	1,744	1,086	1,847	959	570	583	1,741	757	1,285	1,581	736	901	1,459	660	2,240	1,001	757	718
Dec 2006	1,656	1,158	3,167	3,516	1,185	1,644	1,032	685	698	1,449	773	1,144	2,406	734	901	2,006	708	2,065	1,404	765	863
Jun 2007	1,144	1,159	3,563	2,011	1,208	1,598	1,467	851	697	2,149	823	951	4,351	785	1,103	1,737	829	2,426	1,132	794	940
Dec 2007	1,811	1,158	3,137	1,737	1,248	1,498	1,759	779	798	2,995	904	1,409	1,893	822	1,716	1,852	857	2,531	1,289	844	1,745
Jun 2008	1,783	1,097	3,661	1,329	1,282	1,709	1,849	683	888	2,896	965	1,731	1,837	820	3,196	1,801	946	2,344	1,232	891	1,944
Dec 2008	1,554	1,707	3,428	1,605	1,355	1,487	1,110	703	868	3,056	983	1,862	3,690	999	1,964	1,593	841	1,584	1,566	940	2,253
Jun 2009	1,590	1,601	3,013	2,138	1,274	1,393	1,502	799	988	2,611	952	1,858	2,786	1,084	1,507	1,812	1,009	1,960	1,300	1,208	2,092
Dec 2009	2,333	1,343	3,572	1,413	1,342	1,210	1,521	781	1,086	3,239	944	1,919	2,913	1,037	1,351	2,300	878	3,486	1,750	1,130	1,983
Jun 2010	1,791	1,188	3,611	2,059	1,397	1,108	1,049	748	938	1,975	1,148	1,744	3,051	937	1,039	1,707	875	3,453	1,334	1,112	1,551

¹ Reporters (reporting dealers) are defined as those institutions whose head office is located in the G10 countries and which participate in the semiannual OTC derivatives market statistics; in addition, reporting dealers include all branches and subsidiaries of these entities worldwide; reporting dealers will mainly be commercial and investment banks and securities houses, including their branches and subsidiaries and other entities which are active dealers. ² Forward rate agreements. ³ Interest rate swaps. ⁴ Interest rate options.

Table 6h
Herfindahl indices for OTC foreign exchange derivatives contracts between reporters¹ and non-reporters

Period	Forwards, forex swaps and currency swaps	Options
Jun 1998	330	691
Dec 1998	357	640
Jun 1999	401	596
Dec 1999	432	646
Jun 2000	438	566
Dec 2000	444	576
Jun 2001	453	646
Dec 2001	516	675
Jun 2002	469	638
Dec 2002	468	603
Jun 2003	460	592
Dec 2003	443	995
Jun 2004	445	670
Dec 2004	476	656
Jun 2005	454	672
Dec 2005	461	645
Jun 2006	475	659
Dec 2006	484	635
Jun 2007	492	632
Dec 2007	533	673
Jun 2008	531	744
Dec 2008	563	691
Jun 2009	630	769
Dec 2009	627	811
Jun 2010	689	942

¹ Reporters (reporting dealers) are defined as those institutions whose head office is located in the G10 countries and which participate in the semiannual OTC derivatives market statistics; in addition, reporting dealers include all branches and subsidiaries of these entities worldwide; reporting dealers will mainly be commercial and investment banks and securities houses, including their branches and subsidiaries and other entities which are active dealers.

Table 6i

Herfindahl indices for OTC equity derivatives contracts between reporters¹ and non-reporters

	Europe		Japan		Latin America		Other Asia		United States	
	Forwards and swaps	Options	Forwards and swaps	Options	Forwards and swaps	Options	Forwards and swaps	Options	Forwards and swaps	Options
Jun 1998	1,158	995	2,508	1,236	5,291	3,715	1,468	812	1,227	1,700
Dec 1998	1,187	1,254	2,691	912	2,883	4,570	1,487	1,357	1,260	941
Jun 1999	802	892	1,877	2,028	3,093	7,075	3,134	1,680	1,304	1,450
Dec 1999	900	945	4,186	1,909	9,277	4,538	2,677	1,527	2,277	1,774
Jun 2000	706	743	2,616	1,822	6,919	7,794	3,734	1,346	1,290	884
Dec 2000	841	1,312	2,359	918	5,051	6,875	1,645	1,702	1,228	1,023
Jun 2001	733	1,962	1,924	1,412	5,524	4,945	1,848	1,146	1,321	851
Dec 2001	831	1,541	2,494	1,108	6,324	8,829	1,676	1,352	1,288	955
Jun 2002	824	2,235	2,059	1,096	7,932	8,324	2,256	1,059	1,390	1,212
Dec 2002	947	1,327	2,458	2,110	7,526	9,561	2,088	2,443	1,229	812
Jun 2003	984	1,788	2,910	2,132	8,863	9,622	1,273	2,454	1,265	809
Dec 2003	857	1,863	5,520	1,988	4,353	7,604	1,485	6,074	1,419	1,457
Jun 2004	879	2,227	3,114	4,446	3,839	6,678	1,536	6,013	1,276	1,063
Dec 2004	767	852	2,165	1,810	6,352	4,534	1,282	2,275	1,242	1,282
Jun 2005	837	794	2,330	1,583	7,270	4,623	1,313	1,616	929	852
Dec 2005	767	814	3,014	2,080	7,122	5,481	1,431	6,399	1,187	962
Jun 2006	803	721	1,942	3,099	6,857	3,971	1,240	7,619	1,234	1,612
Dec 2006	748	1,140	1,645	4,896	7,330	3,953	1,189	7,309	1,709	896
Jun 2007	822	1,073	1,582	4,599	8,167	3,842	1,549	1,513	1,415	924
Dec 2007	603	965	1,316	2,197	7,603	4,486	1,483	5,165	1,028	861
Jun 2008	949	918	1,217	1,786	6,809	6,527	1,207	1,841	1,014	836
Dec 2008	729	1,066	1,038	2,688	4,747	5,063	1,091	1,262	825	1,053
Jun 2009	872	1,325	1,304	2,984	5,335	6,404	962	1,254	848	1,571
Dec 2009	805	1,447	1,051	2,115	3,754	4,178	1,209	1,233	862	2,361
Jun 2010	910	1,333	993	2,515	5,009	6,478	1,329	1,224	1,142	2,019

¹ Reporters (reporting dealers) are defined as those institutions whose head office is located in the G10 countries and which participate in the semiannual OTC derivatives market statistics; in addition, reporting dealers include all branches and subsidiaries of these entities worldwide; reporting dealers will mainly be commercial and investment banks and securities houses, including their branches and subsidiaries and other entities which are active dealers.