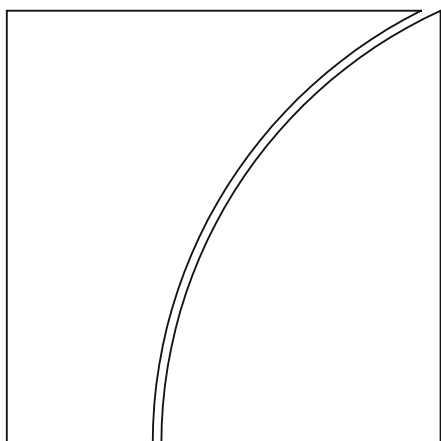




BANK FOR INTERNATIONAL SETTLEMENTS



Triennial Central Bank Survey

OTC derivatives
positions at
end-June 2016

Monetary and Economic Department

November 2016

BIS Triennial Central Bank Survey 2016
Monetary and Economic Department

Queries concerning this release may be directed to statistics@bis.org.

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2016 Triennial Central Bank Survey

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Derivatives positions at end-June 2016

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Conventions used in the tables

0 = Value close to zero.

... = Reported to be nil, not reported, not shown for reasons of confidentiality, not meaningful or not applicable.

Owing to rounding and incomplete reporting of various breakdowns, the component items do not always sum to the total for the category in question.

"Gross" refers to data for which no adjustment has been made for estimated double-counting; "net-gross" refers to data for which adjustments have been made for estimated local double-counting; and "net-net", or "net", refers to data adjusted for both local and cross-border double-counting.

Global OTC derivatives market¹

In billions of US dollars

	Notional amounts outstanding			Gross market value		
	end-June 2010	end-June 2013	end-June 2016	end-June 2010	end-June 2013	end-June 2016
GRAND TOTAL	582,683	696,120	544,052	24,695	20,234	20,701
A. Foreign exchange contracts	62,961	80,917	85,710	3,179	2,613	3,558
Forwards and swaps	31,934	39,495	46,889	1,335	1,082	1,698
Currency swaps	18,903	26,292	25,855	1,386	1,169	1,550
Options	12,123	15,074	12,907	458	362	310
Other	1	56	60	...	...	...
B. Interest rate contracts²	478,093	580,599	437,739	18,508	15,763	16,005
Forward rate agreements	60,028	89,992	74,727	204	276	381
Interest rate swaps	367,541	439,838	327,445	16,703	14,135	14,226
Options	50,519	50,191	35,427	1,600	1,352	1,397
Other	5	579	140	...	...	...
C. Equity-linked contracts	6,868	6,963	6,761	796	706	522
Forwards and swaps	1,854	2,350	2,592	202	209	175
Options	5,013	4,614	4,169	595	498	347
D. Commodity contracts³	3,273	2,717	1,761	493	391	260
Gold	669	610	500	54	83	47
Other	2,604	2,108	1,261	439	309	212
Forwards and swaps	1,686	1,394	936	...	...	...
Options	918	714	325	...	...	...
E. Credit derivatives	31,416	24,845	11,991	1,708	732	351
Forwards and swaps	31,331	24,497	11,881	...	...	...
CDS	31,057	24,469	11,861	1,694	728	346
Single-name instruments	18,920	13,211	6,681	1,012	432	219
Multi-name instruments	12,136	11,258	5,180	681	296	127
Index products	7,500	10,163	4,836	...	...	...
Options	85	348	110	...	...	...
F. Other derivatives	72	78	89	12	29	6
Forwards and swaps	38	63	75	...	...	...
Options	34	15	14	...	...	...
GROSS CREDIT EXPOSURE⁴	...	...	...	3,581	3,784	3,692
<i>Memo: Exchange-traded contracts⁵</i>	<i>69,898</i>	<i>62,503</i>	<i>67,700</i>	<i>...</i>	<i>...</i>	<i>...</i>

¹ All figures are adjusted for double-counting of trades between dealers. 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 Open interest of foreign exchange and interest rate futures and options traded worldwide. Sources: Euromoney TRADEDATA, Futures Industry Association; The Options Clearing Corporation; BIS derivatives statistics.

Table 1

Notional amounts outstanding of OTC foreign exchange derivatives by instrument, counterparty and currency at end-June 2016¹

All currencies

In millions of US dollars

	TOT	CAD	CHF	EUR	GBP
Forwards and swaps	46,888,830	2,024,155	2,286,891	14,016,012	5,872,822
with reporting dealers	15,678,845	565,454	700,131	4,326,720	1,758,681
with other financial institutions	24,457,241	1,023,988	1,333,562	6,803,838	3,114,191
central counterparties	1,169,933	68	910	3,966	468
with non-financial customers	6,752,749	434,714	253,198	2,885,454	999,950
Currency swaps	25,854,918	1,047,045	1,160,875	9,021,482	3,306,076
with reporting dealers	13,626,589	555,439	575,535	4,143,620	1,627,304
with other financial institutions	9,200,652	327,082	453,410	3,434,193	1,146,180
central counterparties	144,578	53	268	1,574	633
with non-financial customers	3,027,677	164,524	131,929	1,443,666	532,590
Options sold	9,477,248	324,285	361,977	2,590,487	986,089
with reporting dealers	5,921,625	211,033	259,133	1,701,006	632,937
with other financial institutions	2,876,601	90,992	89,121	655,385	277,136
central counterparties	3,328	3	388	473	196
with non-financial customers	679,024	22,261	13,723	234,094	76,017
Options bought	9,327,425	316,778	358,523	2,514,363	982,037
with reporting dealers	5,874,072	197,181	261,572	1,688,955	636,723
with other financial institutions	2,661,235	89,689	79,800	574,407	269,544
central counterparties	3,749	2	311	498	214
with non-financial customers	792,117	29,906	17,152	251,002	75,772
Total options	12,906,831	436,963	460,154	3,409,877	1,333,302
Other products	59,793	...	...	...	...
Total contracts	85,710,373	3,508,163	3,907,921	26,447,371	10,512,199

For footnotes, see facing page.

Table 2

Notional amounts outstanding of OTC foreign exchange derivatives by instrument, counterparty and currency at end-June 2016¹

All currencies

In millions of US dollars

JPY	SEK	USD	OTH ²	
7,163,291	1,147,224	40,999,863	20,267,403	Forwards and swaps
2,990,669	289,449	14,729,692	5,996,892	with reporting dealers
3,341,234	508,229	21,232,732	11,556,708	with other financial institutions
578	25	1,168,738	1,165,112	central counterparties
831,386	349,544	5,037,442	2,713,812	with non-financial customers
5,515,038	460,574	22,784,393	8,414,353	Currency swaps
3,631,931	162,949	12,609,514	3,946,885	with reporting dealers
1,474,644	226,948	7,763,352	3,575,496	with other financial institutions
1,612	...	141,130	143,887	central counterparties
408,464	70,678	2,411,530	891,973	with non-financial customers
2,153,390	105,892	8,256,036	4,176,340	Options sold
1,532,718	56,999	5,104,272	2,345,153	with reporting dealers
529,956	34,312	2,538,317	1,537,983	with other financial institutions
598	...	2,895	2,103	central counterparties
90,718	14,582	613,446	293,207	with non-financial customers
2,095,728	117,935	8,432,983	3,836,503	Options bought
1,513,118	63,049	5,309,853	2,077,694	with reporting dealers
466,908	41,212	2,405,272	1,395,638	with other financial institutions
792	2	3,325	2,355	central counterparties
115,702	13,676	717,860	363,164	with non-financial customers
2,726,205	163,811	11,481,963	5,801,387	Total options
...	...	...	119,586	Other products
15,404,534	1,771,609	75,266,219	34,602,729	Total contracts

¹ Data adjusted for inter-dealer double-counting. While data on total options are shown on a net basis, separate data on options sold and options bought are recorded on a gross basis, ie not adjusted for inter-dealer double-counting. Due to incomplete counterparty breakdown, components do not always add to totals. ² Calculated as the difference between the total and the sum of the listed components.

Table 2 (cont)

Notional amounts outstanding of OTC single currency interest rate derivatives by instrument, counterparty and currency at end-June 2016¹

All currencies

In millions of US dollars

	TOT	CAD	CHF	EUR	GBP
Forward rate agreements	74,726,874	8,899	729,053	20,322,629	8,959,420
with reporting dealers	2,020,586	1,117	7,038	111,249	73,705
with other financial institutions	72,054,762	657	720,993	20,185,389	8,881,520
central counterparties	68,046,376	150	705,667	20,083,852	8,849,717
with non-financial customers	651,527	7,124	1,023	25,990	4,195
Swaps	327,445,230	8,962,182	3,233,868	89,989,037	34,406,991
with reporting dealers	27,633,154	422,756	251,016	7,497,477	1,911,277
with other financial institutions	290,030,310	8,241,773	2,917,949	79,068,611	31,818,685
central counterparties	261,415,001	7,718,961	2,476,724	69,827,237	29,370,772
with non-financial customers	9,781,768	297,653	64,904	3,422,948	677,029
Options sold	28,598,587	26,282	34,209	11,911,149	1,872,091
with reporting dealers	20,721,812	11,921	21,570	9,596,997	1,290,312
with other financial institutions	6,648,382	9,988	11,140	1,951,878	523,352
central counterparties	35,908	...	101	3,831	15,238
with non-financial customers	1,228,392	4,373	1,500	362,276	58,428
Options bought	27,591,641	23,968	30,473	11,790,400	2,129,760
with reporting dealers	20,804,851	12,164	21,757	9,529,501	1,425,558
with other financial institutions	6,096,640	8,533	5,896	1,925,317	672,006
central counterparties	17,643	...	338	3,212	10,022
with non-financial customers	690,150	3,271	2,818	335,583	32,198
Total options	35,426,904	38,209	43,021	14,138,309	2,643,923
Other products	140,000	...	...	...	...
Total contracts	437,739,008	9,009,291	4,005,941	124,449,975	46,010,334

For footnotes, see facing page.

Table 3

Notional amounts outstanding of OTC single currency interest rate derivatives by instrument, counterparty and currency at end-June 2016¹

All currencies

In millions of US dollars

JPY	SEK	USD	OTH ²	
17,160	1,959,633	38,679,433	4,050,648	Forward rate agreements
370	204,574	609,258	1,013,276	with reporting dealers
13,568	1,699,718	37,641,232	2,911,685	with other financial institutions
10,025	1,517,760	35,227,195	1,652,010	central counterparties
3,223	55,341	428,941	125,690	with non-financial customers
47,108,252	3,724,125	98,283,801	41,736,975	Swaps
3,339,438	329,322	7,692,406	6,189,462	with reporting dealers
42,599,345	3,234,846	87,994,238	34,154,863	with other financial institutions
40,733,699	2,833,485	81,377,968	27,076,153	central counterparties
1,169,470	159,956	2,597,156	1,392,651	with non-financial customers
2,324,784	62,876	11,644,417	722,777	Options sold
1,842,663	27,843	7,508,050	422,456	with reporting dealers
430,090	27,259	3,442,177	252,499	with other financial institutions
106	...	16,195	437	central counterparties
52,030	7,773	694,191	47,820	with non-financial customers
2,266,296	65,311	10,716,015	569,418	Options bought
1,843,242	33,201	7,600,402	339,025	with reporting dealers
373,020	26,933	2,876,027	208,907	with other financial institutions
3,374	...	266	431	central counterparties
50,033	5,177	239,586	21,484	with non-financial customers
2,748,134	97,667	14,806,214	911,428	Total options
...	...	...	140,000	Other products
49,873,546	5,781,424	151,769,447	46,839,051	Total contracts

¹ Data adjusted for inter-dealer double-counting. While data on total options are shown on a net basis, separate data on options sold and options bought are recorded on a gross basis, ie not adjusted for inter-dealer double-counting. ² Calculated as the difference between the total and the sum of the listed components.

Table 3 (cont)

Notional amounts outstanding of OTC equity-linked derivatives by instrument and counterparty at end-June 2016¹

In millions of US dollars

	Total	US	Japanese	European	Latin American	Other Asian	Other
Forwards and swaps	2,592,353	882,431	121,312	1,028,194	94,540	153,101	312,787
with reporting dealers	574,542	176,722	27,631	310,019	2,666	11,878	45,635
with other financial institutions	1,767,918	614,016	72,463	653,415	90,377	120,435	217,212
central counterparties	21,203	6,150	8	13,802	231	39	972
with non-financial customers	249,897	91,695	21,217	64,763	1,496	20,787	49,939
Options sold	3,496,341	1,721,316	148,168	1,132,597	39,749	128,786	325,724
with reporting dealers	2,007,966	939,873	93,386	711,718	1,037	68,008	193,943
with other financial institutions	1,321,626	710,254	51,414	368,759	34,772	53,065	103,365
central counterparties	5,594	2,587	...	2,494	30	87	396
with non-financial customers	166,747	71,189	3,369	52,122	3,941	7,713	28,414
Options bought	2,511,506	1,215,971	135,552	738,423	21,294	144,838	255,427
with reporting dealers	1,670,163	769,435	99,649	560,636	2,168	83,600	154,675
with other financial institutions	699,820	375,412	31,638	141,504	17,347	55,403	78,516
central counterparties	18,456	15,700	1	1,475	2	87	1,190
with non-financial customers	141,521	71,124	4,266	36,284	1,780	5,834	22,233
Total options	4,168,788	2,082,639	187,208	1,234,850	59,445	197,827	406,848
Total contracts	6,761,138	2,965,063	308,516	2,263,041	153,979	350,925	719,629

¹ While data on total options are shown on a net basis, separate data on options sold and options bought are recorded on a gross basis, ie not adjusted for inter-dealer double-counting.

Table 4

Notional amounts outstanding of OTC commodity, credit and other derivatives by instrument and counterparty at end-June 2016¹

In millions of US dollars

	Total commodities	Gold	Precious metals (other than gold)	Other commodities	Credit derivatives	Other derivatives
Forwards and swaps	1,287,213	351,298	48,560	887,355	11,880,991	75,137
with reporting dealers	...	...	...	...	5,115,954	22,166
with other financial institutions	...	...	...	...	6,597,675	27,486
central counterparties	...	...	...	...	4,391,422	3,164
with non-financial customers	...	...	...	...	167,364	25,486
Options sold	293,112	89,801	13,286	190,025	51,482	9,084
with reporting dealers	...	...	...	...	30,750	6,748
with other financial institutions	...	...	...	...	20,576	1,791
central counterparties	...	...	...	...	3,168	...
with non-financial customers	...	...	...	...	158	544
Options bought	286,796	92,623	13,068	181,105	96,863	9,594
with reporting dealers	...	...	...	...	46,673	2,573
with other financial institutions	...	...	...	...	49,587	6,527
central counterparties	...	...	...	...	5,218	...
with non-financial customers	...	...	...	...	604	493
TOTAL options	474,069	149,130	21,547	303,392	109,636	14,018
TOTAL contracts	1,761,303	500,452	70,103	1,190,748	11,990,624	89,153

¹ Data adjusted for inter-dealer double-counting. While data on total options are shown on a net basis, separate data on options sold and options bought are recorded on a gross basis, ie not adjusted for inter-dealer double-counting. Due to incomplete counterparty breakdown, components do not always add to totals.

Table 5

Notional amounts outstanding of OTC credit default swaps by instrument, counterparty and sector at end-June 2016¹

In millions of US dollars

	Total ²	Sovereigns			Non-sovereigns		
		Total	Bought	Sold	Total	Bought	Sold
Total contracts	11,860,916	1,899,434	1,521,293	1,488,734	9,961,482	7,170,316	6,803,751
Single-name instruments	6,681,071	1,862,435	1,490,666	1,461,979	4,818,631	3,679,538	3,599,008
with reporting dealers	3,550,146	1,090,219	1,090,339	1,090,091	2,459,923	2,450,926	2,468,913
with other financial institutions	3,065,985	751,895	386,817	365,077	2,314,085	1,198,930	1,115,155
central counterparties	1,962,903	434,074	217,626	216,448	1,528,827	766,481	762,346
banks and security firms	412,852	146,684	91,394	55,290	266,169	172,548	93,621
insurance firms	68,122	26,585	10,498	16,087	41,538	31,305	10,233
SPVs, SPCs and SPEs	69,901	9,815	6,449	3,366	60,081	46,029	14,052
hedge funds	291,963	67,808	24,055	43,753	224,155	71,344	152,812
others	260,243	66,929	36,795	30,134	193,316	111,223	82,092
with non-financial customers	64,939	20,321	13,509	6,812	44,620	29,681	14,939
Multi-name instruments	5,179,845	36,999	30,627	26,755	5,142,852	3,490,778	3,204,743
with reporting dealers	1,573,069	20,389	19,198	21,574	1,552,680	1,579,940	1,525,410
with other financial institutions	3,508,861	15,894	10,985	4,909	3,492,969	1,861,238	1,631,730
central counterparties	2,428,520	4,276	1,263	3,013	2,424,245	1,251,275	1,172,969
banks and security firms	255,867	7,046	6,317	729	248,821	131,916	116,904
insurance firms	107,912	59	32	27	107,853	62,247	45,606
SPVs, SPCs and SPEs	82,940	846	846	–	82,095	54,057	28,038
hedge funds	256,740	1,381	595	786	255,359	139,177	116,182
others	376,882	2,286	1,932	354	374,596	222,566	152,030
with non-financial customers	97,917	716	444	272	97,202	49,599	47,603

¹ Data on total CDSs are shown on a net basis. Data on CDSs bought and sold are shown on a gross basis, ie not adjusted for inter-dealer double-counting. ² Due to incomplete reporting, sectors do not always add to totals.

Table 6

Gross market values of OTC foreign exchange derivatives by instrument, counterparty and currency at end-June 2016¹

All currencies

In millions of US dollars

	TOT	CAD	CHF	EUR	GBP
Positive market values					
Forwards and FX swaps	1,131,997	29,755	29,824	225,772	209,077
with reporting dealers	563,126	12,916	12,953	101,605	98,271
with other financial institutions	416,272	10,227	13,389	73,574	77,905
central counterparties	32,666	53	97	1,268	703
with non-financial customers	152,604	6,614	3,481	50,596	32,902
Currency swaps	1,107,670	43,653	34,907	282,195	176,955
with reporting dealers	711,634	24,767	19,809	152,978	110,291
with other financial institutions	280,194	10,223	12,004	76,369	40,945
central counterparties	1,906	5	8	173	8
with non-financial customers	115,845	8,662	3,091	52,848	25,721
Options bought	228,768	5,094	14,469	56,406	25,309
with reporting dealers	145,670	2,277	11,837	35,997	14,938
with other financial institutions	57,268	1,105	1,923	12,435	6,894
central counterparties	105	1	13	13	6
with non-financial customers	25,830	1,711	710	7,974	3,475
Total contracts	2,468,432	78,504	79,200	564,374	411,341
Negative market values					
Forwards and FX swaps	1,154,284	41,155	29,807	255,678	274,692
with reporting dealers	588,758	19,091	14,297	113,277	122,772
with other financial institutions	424,174	12,146	12,044	89,132	114,501
central counterparties	39,176	28	238	1,146	1,443
with non-financial customers	141,356	9,919	3,466	53,270	37,418
Currency swaps	1,162,045	47,567	55,117	349,010	231,807
with reporting dealers	719,665	23,074	19,383	164,925	142,139
with other financial institutions	300,161	11,543	22,270	123,082	63,059
central counterparties	1,629	1	1	11	14
with non-financial customers	142,225	12,950	13,464	61,002	26,609
Options sold	227,139	4,004	14,726	58,741	27,050
with reporting dealers	145,654	2,376	11,006	37,668	16,239
with other financial institutions	58,963	1,062	2,991	13,985	6,801
central counterparties	89	0	21	15	6
with non-financial customers	22,520	567	729	7,088	4,011
Total contracts	2,543,462	92,725	99,653	663,426	533,549

For footnotes, see facing page.

Table 7

Gross market values of OTC foreign exchange derivatives by instrument, counterparty and currency at end-June 2016¹

All currencies

In millions of US dollars

JPY	SEK	USD	OTH ²	
Positive market values				
333,992	16,950	1,013,796	404,827	Forwards and FX swaps
196,314	6,835	526,422	170,936	with reporting dealers
109,228	5,684	367,908	174,630	with other financial institutions
1,991	7	32,801	28,413	central counterparties
28,452	4,432	119,464	59,267	with non-financial customers
330,836	11,581	987,554	347,657	Currency swaps
249,580	6,178	647,064	212,602	with reporting dealers
60,317	3,316	253,309	103,905	with other financial institutions
20	0	1,796	1,803	central counterparties
20,941	2,088	87,186	31,153	with non-financial customers
79,224	1,005	202,081	73,948	Options bought
56,604	547	130,376	38,765	with reporting dealers
15,776	236	50,120	26,046	with other financial institutions
5	2	96	74	central counterparties
6,845	223	21,586	9,134	with non-financial customers
744,054	29,539	2,203,432	826,422	Total contracts
Negative market values				
245,777	16,925	1,028,526	416,009	Forwards and FX swaps
152,854	7,236	558,066	189,923	with reporting dealers
69,800	6,180	366,886	177,659	with other financial institutions
1,188	5	39,371	34,934	central counterparties
23,123	3,508	103,581	48,429	with non-financial customers
257,517	13,806	986,897	382,369	Currency swaps
201,271	6,929	651,924	229,685	with reporting dealers
40,088	4,838	220,376	115,066	with other financial institutions
35	0	1,653	1,543	central counterparties
16,158	2,037	114,601	37,628	with non-financial customers
77,024	1,283	197,610	73,840	Options sold
59,809	818	124,610	38,783	with reporting dealers
13,149	230	53,953	25,756	with other financial institutions
4	0	81	50	central counterparties
4,063	235	19,048	9,300	with non-financial customers
580,316	32,013	2,213,029	872,213	Total contracts

¹ Counterparty breakdown partially estimated. ² Calculated as the difference between the total and the sum of the listed components.

Table 7 (cont)

Gross market values of OTC single currency interest rate derivatives by instrument counterparty and currency at end-June 2016¹

All currencies

In millions of US dollars

	TOT	CAD	CHF	EUR	GBP
Positive market values					
Forward rate agreements	210,942	249	361	29,944	21,653
with reporting dealers	26,031	13	51	5,628	824
with other financial institutions	170,866	62	305	23,214	20,723
central counterparties	153,350	51	274	20,532	20,476
with non-financial customers	14,047	173	6	1,102	106
Swaps	8,582,477	133,839	85,276	3,521,952	1,316,489
with reporting dealers	2,637,312	31,316	24,603	1,064,826	351,982
with other financial institutions	5,418,064	85,762	55,020	2,198,587	888,433
central counterparties	4,099,740	72,478	38,036	1,606,744	603,298
with non-financial customers	527,104	16,760	5,653	258,538	76,073
Options bought	1,205,140	493	4,051	706,555	133,409
with reporting dealers	1,009,862	335	2,827	605,057	100,574
with other financial institutions	163,759	57	648	84,502	26,584
central counterparties	694	0	4	70	495
with non-financial customers	31,517	101	575	16,992	6,251
Total contracts	9,998,559	134,580	89,687	4,258,449	1,471,552
Negative market values					
Forward rate agreements	197,426	214	403	28,217	21,602
with reporting dealers	27,164	51	61	5,094	805
with other financial institutions	165,309	55	338	22,014	20,701
central counterparties	145,666	45	306	17,711	20,450
with non-financial customers	4,954	108	5	1,109	95
Swaps	8,216,512	122,682	80,607	3,382,526	1,255,601
with reporting dealers	2,572,674	30,645	23,993	1,030,102	341,309
with other financial institutions	5,346,407	86,210	54,920	2,193,826	879,714
central counterparties	3,992,343	72,030	37,915	1,589,815	592,956
with non-financial customers	297,430	5,828	1,694	158,595	34,580
Options sold	1,196,416	517	5,288	694,865	119,709
with reporting dealers	1,004,113	287	3,042	603,527	94,925
with other financial institutions	174,509	182	2,114	82,642	23,781
central counterparties	947	0	34	147	755
with non-financial customers	17,796	48	132	8,694	1,002
Total contracts	9,610,352	123,413	86,298	4,105,607	1,396,912

For footnotes, see facing page.

Table 8

Gross market values of OTC single currency interest rate derivatives by instrument counterparty and currency at end-June 2016¹

All currencies

In millions of US dollars

JPY	SEK	USD	OTH ²	
Positive market values				
159	4,627	136,526	17,423	Forward rate agreements
22	1,219	13,055	5,220	with reporting dealers
137	3,310	111,407	11,708	with other financial institutions
128	2,821	100,690	8,377	central counterparties
0	98	12,063	498	with non-financial customers
800,808	84,463	2,110,831	528,819	Swaps
215,152	16,525	741,589	191,319	with reporting dealers
559,819	59,251	1,270,737	300,455	with other financial institutions
460,859	49,134	1,050,336	218,856	central counterparties
25,837	8,686	98,503	37,054	with non-financial customers
66,048	1,885	281,607	11,093	Options bought
60,017	1,027	233,014	7,010	with reporting dealers
5,525	607	42,767	3,069	with other financial institutions
110	0	14	1	central counterparties
505	251	5,824	1,017	with non-financial customers
867,015	90,974	2,528,961	557,342	Total contracts
Negative market values				
145	4,110	127,201	15,534	Forward rate agreements
22	1,089	15,222	4,822	with reporting dealers
123	2,932	108,854	10,293	with other financial institutions
115	2,484	96,839	7,717	central counterparties
0	90	3,125	422	with non-financial customers
786,140	79,590	2,007,485	501,882	Swaps
217,716	17,945	724,915	186,048	with reporting dealers
553,719	59,370	1,225,201	293,447	with other financial institutions
454,571	48,576	978,931	217,550	central counterparties
14,706	2,277	57,368	22,382	with non-financial customers
70,059	1,596	292,170	12,214	Options sold
60,737	873	233,317	7,405	with reporting dealers
8,589	615	52,801	3,785	with other financial institutions
0	0	4	6	central counterparties
734	108	6,051	1,026	with non-financial customers
856,344	85,296	2,426,856	529,626	Total contracts

¹ Counterparty breakdown partially estimated. ² Calculated as the difference between the total and the sum of the listed components.

Table 8 (cont)

Gross market values of OTC equity-linked derivatives by instrument and counterparty at end-June 2016¹

In millions of US dollars

	Total	US	Japanese	European ²	Latin American	Other Asian	Other
Positive market values							
Forwards and swaps	99,467	32,444	6,842	42,331	2,976	4,625	10,249
with reporting dealers	33,813	10,341	3,619	16,687	370	598	2,198
with other financial institutions	52,708	18,841	1,702	19,757	2,269	3,229	6,909
central counterparties	218	72	0	133	4	0	8
with non-financial customers	12,943	3,262	1,521	5,886	336	797	1,140
Options bought	231,271	111,029	18,459	57,776	854	5,445	37,707
with reporting dealers	143,056	74,783	15,186	36,565	85	3,102	13,334
with other financial institutions	65,417	27,456	2,774	11,737	562	1,751	21,138
central counterparties	1,096	1,048	0	41	...	6	0
with non-financial customers	22,797	8,791	498	9,475	206	593	3,234
Total contracts	330,740	143,472	25,301	100,109	3,830	10,070	47,957
Negative market values							
Forwards and swaps	111,020	34,531	8,146	46,255	4,177	5,583	12,327
with reporting dealers	35,422	9,438	3,604	20,231	53	540	1,555
with other financial institutions	62,738	21,923	3,729	20,998	3,927	3,875	8,288
central counterparties	218	69	0	130	1	0	17
with non-financial customers	12,863	3,170	813	5,029	197	1,168	2,485
Options sold	262,938	122,516	22,400	64,490	1,971	8,801	42,762
with reporting dealers	147,227	74,917	15,303	40,627	62	3,088	13,230
with other financial institutions	92,623	34,176	6,658	19,606	1,351	5,297	25,535
central counterparties	47	14	0	26	1	6	0
with non-financial customers	23,088	13,422	439	4,257	559	415	3,997
Total contracts	373,960	157,046	30,546	110,746	6,147	14,385	55,091

¹ Country breakdown partially estimated. ² Excluding eastern Europe.

Table 9

Gross market values of OTC commodity, credit and other derivatives at end-June 2016¹

All currencies

In millions of US dollars

	Total commodities	Gold	Precious metals (other than gold)	Other commodities	Credit derivatives	Credit default swaps	Other derivatives
Positive market values							
Total contracts	159,038	33,747	4,281	121,011	257,063	252,717	4,426
Negative market values							
Total contracts	137,731	20,367	3,304	114,060	252,936	248,524	3,645

¹ No breakdown by instrument and counterparty.

Table 10

Notional amounts outstanding of OTC foreign exchange derivatives by instrument, counterparty and remaining maturity at end-June 2016¹

In millions of US dollars

	Total	One year or less	Over 1 year and up to 5 years	Over 5 years
Forwards and swaps	72,743,748	57,264,597	10,868,194	4,610,969
with reporting dealers	29,305,434	22,059,799	4,996,371	2,249,264
with other financial institutions	33,657,893	28,279,056	3,890,110	1,488,734
central counterparties	1,314,511	1,254,886	59,004	621
with non-financial customers	9,780,426	6,925,747	1,981,715	872,972
Options sold	9,477,248	7,835,612	1,318,315	323,337
with reporting dealers	5,921,625	4,792,073	878,744	250,819
with other financial institutions	2,876,601	2,499,739	313,197	63,672
central counterparties	3,328	2,566	761	...
with non-financial customers	679,024	543,804	126,377	8,845
Options bought	9,327,425	7,761,961	1,265,531	299,938
with reporting dealers	5,874,072	4,784,349	838,429	251,299
with other financial institutions	2,661,235	2,361,158	264,562	35,518
central counterparties	3,749	2,945	804	...
with non-financial customers	792,117	616,457	162,541	13,121
Total options	12,906,831	10,809,368	1,725,265	372,221
Other products	59,793	...	...	...
Total contracts	85,710,373	68,073,957	12,593,456	4,983,183
Total contracts including gold	86,210,825	...	...	...

¹ Data adjusted for inter-dealer double-counting. While data on total options are shown on a net basis, separate data on options sold and options bought are recorded on a gross basis, ie not adjusted for inter-dealer double-counting. Due to incomplete maturity breakdown, components do not always add to totals.

Table 11

Notional amounts outstanding of OTC single currency interest rate derivatives by instrument, counterparty and remaining maturity at end-June 2016¹

In millions of US dollars

	Total	One year or less	Over 1 year and up to 5 years	Over 5 years
Forwards and swaps	402,172,104	184,531,650	124,862,390	92,778,033
with reporting dealers	29,653,740	8,808,122	11,925,557	8,920,061
with other financial institutions	362,085,071	173,415,006	108,493,472	80,176,561
central counterparties	329,461,377	163,179,613	96,838,197	69,443,558
with non-financial customers	10,433,295	2,308,521	4,443,363	3,681,411
Options sold	28,598,587	8,841,431	12,398,132	7,359,026
with reporting dealers	20,721,812	6,052,242	8,938,789	5,730,780
with other financial institutions	6,648,382	2,468,395	2,770,228	1,409,761
central counterparties	35,908	20,103	5,494	10,311
with non-financial customers	1,228,392	320,794	689,115	218,480
Options bought	27,591,641	8,177,672	11,922,041	7,491,923
with reporting dealers	20,804,851	5,949,131	8,896,507	5,959,211
with other financial institutions	6,096,640	2,034,995	2,725,260	1,336,383
central counterparties	17,643	3,369	4,722	9,551
with non-financial customers	690,150	193,546	300,272	196,329
Total options	35,426,904	11,018,423	15,402,532	9,005,960
Other products	140,000	...	...	...
Total contracts	437,739,008	195,550,070	140,264,914	101,783,985

¹ Data adjusted for inter-dealer double-counting. While data on total options are shown on a net basis, separate data on options sold and options bought are recorded on a gross basis, ie not adjusted for inter-dealer double-counting. Due to incomplete maturity breakdown, components do not always add to totals.

Table 12

Notional amounts outstanding of OTC equity-linked derivatives by instrument, counterparty and remaining maturity at end-June 2016¹

In millions of US dollars

	Total	One year or less	Over 1 year and up to 5 years	Over 5 years
Forwards and swaps	2,592,353	1,685,986	743,504	162,879
with reporting dealers	574,542	398,261	148,911	27,377
with other financial institutions	1,767,918	1,113,758	525,719	128,446
central counterparties	21,203	21,105	79	19
with non-financial customers	249,897	173,973	68,874	7,056
Options sold	3,496,341	2,152,549	1,186,907	156,881
with reporting dealers	2,007,966	1,193,622	746,096	68,251
with other financial institutions	1,321,626	867,356	380,379	73,892
central counterparties	5,594	2,530	3,001	70
with non-financial customers	166,747	91,571	60,433	14,736
Options bought	2,511,506	1,565,140	835,107	111,258
with reporting dealers	1,670,163	1,022,638	586,952	60,573
with other financial institutions	699,820	468,548	195,278	35,996
central counterparties	18,456	17,078	1,371	15
with non-financial customers	141,521	73,959	52,875	14,690
Total options	4,168,788	2,609,565	1,355,495	203,732
Total contracts	6,761,138	4,295,547	2,098,994	366,607

¹ Data adjusted for inter-dealer double-counting. While data on total options are shown on a net basis, separate data on options sold and options bought are recorded on a gross basis, ie not adjusted for inter-dealer double-counting. Due to incomplete maturity breakdown, components do not always add to totals.

Table 13

Amounts outstanding of OTC foreign exchange derivatives by instrument and counterparty at end-June 2010, 2013 and 2016¹

In millions of US dollars

	End-June 2010		End-June 2013		End-June 2016	
	Notional amounts outstanding	Gross market values	Notional amounts outstanding	Gross market values	Notional amounts outstanding	Gross market values
Forwards and FX swaps	31,934,023	1,334,842	39,494,725	1,082,126	46,888,830	1,697,523
with reporting dealers	10,179,081	453,914	13,303,917	398,071	15,678,845	563,126
with other financial institutions	15,071,374	588,265	18,951,147	482,418	24,457,241	840,446
central counterparties	...	...	...	...	1,169,933	71,842
with non-financial customers	6,683,577	292,661	7,239,665	201,645	6,752,749	293,960
Total including gold	32,318,819	...	39,848,767	...	47,240,123	...
Currency swaps	18,902,948	1,386,101	26,292,010	1,168,829	25,854,918	1,550,051
with reporting dealers	7,926,759	452,943	13,117,706	480,306	13,626,589	711,634
with other financial institutions	8,606,171	657,498	10,373,360	476,131	9,200,652	580,355
central counterparties	...	...	...	...	144,578	3,535
with non-financial customers	2,370,026	275,655	2,800,949	212,397	3,027,677	258,070
Options sold	8,550,825	324,477	11,029,686	270,972	9,477,248	227,139
with reporting dealers	4,812,183	203,533	6,844,463	173,815	5,921,625	145,654
with other financial institutions	2,393,720	79,165	3,033,408	63,527	2,876,601	58,963
central counterparties	...	...	...	...	3,328	89
with non-financial customers	1,344,931	41,779	1,151,819	33,633	679,024	22,520
Total including gold	8,722,756	...	11,183,973	...	9,567,049	...
Options bought	8,414,623	337,013	10,850,132	264,443	9,327,425	228,768
with reporting dealers	4,872,794	201,672	6,766,306	175,923	5,874,072	145,670
with other financial institutions	2,235,918	75,436	2,863,703	57,679	2,661,235	57,268
central counterparties	...	...	...	...	3,749	105
with non-financial customers	1,305,923	59,900	1,220,123	30,844	792,117	25,830
Total including gold	8,590,471	...	11,008,605	...	9,420,048	...
Total options	12,122,959	457,959	15,074,442	361,601	12,906,831	310,253
Other products	1,075	...	55,634	...	59,793	...
Total contracts	62,961,005	3,178,902	80,916,811	2,612,556	85,710,373	3,557,827
Total contracts including gold	63,630,136	3,234,373	81,526,531	2,695,149	86,210,825	3,605,169

¹ Data adjusted for inter-dealer double-counting. While data on total options are shown on a net basis, separate data on options sold and options bought are recorded on a gross basis, ie not adjusted for inter-dealer double-counting. The counterparty breakdown for gross market values was estimated.

Table 14

Amounts outstanding of OTC single currency interest rate derivatives by instrument and counterparty at end-June 2010, 2013 and 2016¹

In millions of US dollars

	End-June 2010		End-June 2013		End-June 2016	
	Notional amounts outstanding	Gross market values	Notional amounts outstanding	Gross market values	Notional amounts outstanding	Gross market values
Forwards rate agreements	60,028,187	204,371	89,991,956	276,287	74,726,874	381,205
with reporting dealers	32,078,754	99,517	8,286,354	49,772	2,020,586	26,031
with other financial institutions	25,459,541	92,838	77,806,622	207,828	72,054,762	336,175
central counterparties	...	...	...	...	68,046,376	299,016
with non-financial customers	2,489,894	12,008	3,898,979	18,686	651,527	19,002
Swaps	367,540,842	16,702,969	439,837,635	14,135,115	327,445,230	14,226,315
with reporting dealers	87,819,277	4,078,315	70,176,665	3,669,710	27,633,154	2,637,312
with other financial institutions	245,143,520	11,694,269	340,028,245	9,648,582	290,030,310	10,764,470
central counterparties	...	...	...	...	261,415,001	8,092,083
with non-financial customers	34,578,052	930,380	29,632,725	816,822	9,781,768	824,534
Options sold	37,381,952	1,155,169	40,484,829	1,122,673	28,598,587	1,196,416
with reporting dealers	22,742,085	765,898	29,433,565	897,857	20,721,812	1,004,113
with other financial institutions	12,196,632	340,079	9,630,670	202,038	6,648,382	174,509
central counterparties	...	...	...	...	35,908	947
with non-financial customers	2,443,233	49,192	1,420,592	22,778	1,228,392	17,796
Options bought	36,136,239	1,211,019	39,423,100	1,126,998	27,591,641	1,205,140
with reporting dealers	23,256,734	795,679	30,000,298	899,250	20,804,851	1,009,862
with other financial institutions	11,220,791	359,014	8,223,395	191,393	6,096,640	163,759
central counterparties	...	...	...	...	17,643	694
with non-financial customers	1,658,715	56,325	1,199,406	36,355	690,150	31,517
Total options	50,518,783	1,600,282	50,191,006	1,351,815	35,426,904	1,397,444
Other products	4,997	...	578,859	...	140,000	...
Total contracts	478,092,809	18,507,622	580,599,456	15,763,217	437,739,008	16,004,964

¹ Data adjusted for inter-dealer double-counting. While data on total options are shown on a net basis, separate data on options sold and options bought are recorded on a gross basis, ie not adjusted for inter-dealer double-counting. The counterparty breakdown for gross market values was estimated

Table 15

Amounts outstanding of OTC equity-linked derivatives by instrument and counterparty at end-June 2010, 2013 and 2016¹

In millions of US dollars

	End-June 2010		End-June 2013		End-June 2016	
	Notional amounts outstanding	Gross market values	Notional amounts outstanding	Gross market values	Notional amounts outstanding	Gross market values
Forwards and swaps	1,854,246	201,559	2,349,622	208,529	2,592,353	175,065
with reporting dealers	497,391	40,424	725,419	42,685	574,542	33,813
with other financial institutions	978,915	114,707	1,320,480	133,032	1,767,918	115,446
central counterparties	...	...	...	...	21,203	436
with non-financial customers	377,940	46,430	303,723	32,810	249,897	25,806
Options sold	3,902,067	481,942	3,557,468	402,341	3,496,341	262,938
with reporting dealers	1,778,688	283,549	1,704,982	242,552	2,007,966	147,227
with other financial institutions	1,792,307	137,189	1,511,413	114,658	1,321,626	92,623
central counterparties	...	...	...	...	5,594	47
with other financial institutions	331,071	61,203	341,073	45,132	166,747	23,088
Options bought	2,930,439	396,311	2,692,357	338,018	2,511,506	231,271
with reporting dealers	1,859,762	250,544	1,567,613	202,449	1,670,163	143,056
with other financial institutions	809,465	106,332	894,584	98,179	699,820	65,417
central counterparties	...	...	...	...	18,456	1,096
with reporting dealers	261,211	39,436	230,161	37,390	141,521	22,797
Total options	5,013,284	594,704	4,613,533	497,807	4,168,788	346,982
Total contracts	6,867,530	796,263	6,963,155	706,336	6,761,142	522,047

¹ Data adjusted for inter-dealer double-counting. While data on total options are shown on a net basis, separate data on options sold and options bought are recorded on a gross basis, ie not adjusted for inter-dealer double-counting. The counterparty breakdown for gross market values was estimated

Table 16