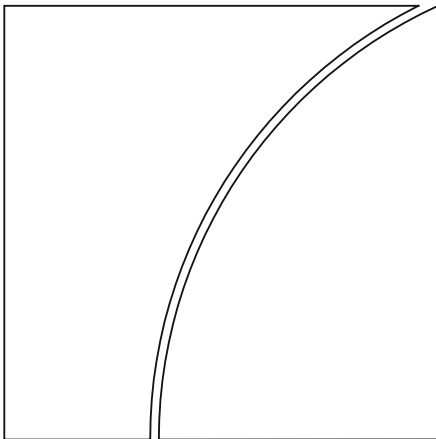




BANK FOR INTERNATIONAL SETTLEMENTS



Triennial Central Bank Survey

Interest rate derivatives market turnover in 2019

Monetary and Economic Department

Tables revised on 8 December 2019

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2019 Triennial Central Bank Survey

Detailed tables

Interest rate derivatives market turnover in April 2019

By instrument, currency, counterparty and country

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By instrument, counterparty and currency

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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.

OTC single currency interest rate derivatives turnover by instrument, currency, counterparty and country in April 2019

Summary table

Daily averages, in millions of US dollars

	All products	Forward rate agreements	Overnight index swaps	Other swaps	Total options	Other products
Total - "net-net" basis¹	6,505,247	1,902,438	2,045,503	2,100,899	450,606	5,801
<i>by currency</i>						
USD	3,274,251	1,263,118	1,102,530	768,726	139,877	...
EUR	1,587,268	387,006	408,414	508,639	283,208	...
GBP	537,800	172,429	196,569	161,792	7,010	...
AUD	400,772	479	248,986	149,187	2,120	...
JPY	213,235	2,373	14,829	186,506	9,526	...
CAD	90,497	498	23,241	65,764	994	...
SEK	60,904	28,972	1,129	29,645	1,158	...
NZD	55,968	32	21,785	33,928	224	...
CNY	33,107	143	361	30,995	1,609	...
NOK	30,506	8,310	1,052	19,617	1,526	...
KRW	26,860	57	293	25,371	1,140	...
CHF	26,055	8,503	4,358	13,061	133	...
ZAR	25,180	8,447	1,801	14,664	268	...
MXN	23,344	20	1,413	21,842	69	...
Other currencies	119,500	22,053	18,742	71,162	1,743	...
<i>by counterparty</i>						
with reporting dealers	1,556,553	364,795	354,033	555,933	281,793	...
local	738,513	168,685	170,535	261,175	138,117	...
cross-border	818,041	196,109	183,497	294,758	143,676	...
with other financial institutions	4,527,101	1,322,606	1,572,571	1,468,487	163,437	...
local	2,316,375	725,640	854,744	676,903	59,089	...
cross-border	2,210,726	596,966	717,827	791,584	104,349	...
with non-financial customers	415,792	215,038	118,900	76,479	5,375	...
local	101,813	52,950	28,675	17,527	2,661	...
cross-border	313,979	162,088	90,224	58,952	2,714	...
Total - "net-gross" basis²	7,324,002	2,098,547	2,229,001	2,395,657	594,282	6,516
<i>by country</i>						
United Kingdom	3,670,238	999,705	1,073,939	1,154,092	442,306	196
United States	2,356,103	864,806	789,473	578,242	119,183	4,399
Hong Kong SAR	435,872	58,215	164,351	209,631	3,006	668
Japan	135,256	759	11,393	118,505	4,579	19
Canada	122,634	32,787	16,208	70,459	3,137	43
France	120,023	36,173	41,742	37,744	4,038	326
Singapore	116,443	18,117	35,493	58,573	3,896	364
Australia	97,099	11,545	47,606	36,092	1,857	...
Germany	56,021	30,340	3,773	21,052	857	...
Switzerland	31,885	3,706	17,282	10,885	11	...
Netherlands	28,231	16,993	991	10,140	106	...
Spain	16,238	0	1,562	14,063	612	...
New Zealand	16,215	592	9,631	5,991	1	...
China	16,024	...	78	13,844	1,749	353
Other countries	105,721	24,808	15,477	56,343	8,945	148

¹ Adjusted for local and cross-border inter-dealer double-counting. See annex for abbreviations. ² Adjusted for local inter-dealer double-counting. This corresponds to the total on a "net-net" basis plus local reporting dealers.

Table 1

OTC single currency interest rate derivatives turnover by instrument, counterparty and currency in April 2019, "net-net" basis¹

Total reported transactions in all currencies

Daily averages, in millions of US dollars

	TOT	AED	ARS	AUD	BGN	BHD	BRL
Forward rate agreements	1,902,438	21	5	479	...	0	63
with reporting dealers	364,795	8	2	148	...	0	12
local	168,685	0	1	3	...	...	5
cross-border	196,109	8	1	145	...	0	7
with other financial institutions	1,322,606	14	2	318	...	...	18
local	725,640	6	...	148	...	...	4
cross-border	596,966	8	2	169	...	...	14
with non-financial customers	215,038	0	...	13	...	...	34
local	52,950	...	...	...	...	...	28
cross-border	162,088	0	...	13	...	...	6
Overnight index swaps	2,045,503	11	...	248,986	...	...	1,386
with reporting dealers	354,033	11	...	55,560	...	...	853
local	170,535	...	...	4,786	...	...	558
cross-border	183,497	11	...	50,774	...	...	295
with other financial institutions	1,572,571	...	...	184,929	...	...	532
local	854,744	...	...	47,340	...	...	197
cross-border	717,827	...	...	137,588	...	...	335
with non-financial customers	118,900	...	...	8,498	...	...	...
local	28,675	...	...	1,254	...	...	...
cross-border	90,224	...	...	7,244	...	...	...
Other swaps	2,100,899	367	16	149,187	0	492	6,579
with reporting dealers	555,933	65	...	40,823	...	321	698
local	261,175	38	...	3,017	...	321	550
cross-border	294,758	27	...	37,806	...	...	148
with other financial institutions	1,468,487	273	16	106,702	...	...	5,755
local	676,903	184	16	23,358	...	...	1,786
cross-border	791,584	89	...	83,344	...	...	3,968
with non-financial customers	76,479	28	0	1,661	0	171	127
local	17,527	24	...	287	0	171	32
cross-border	58,952	5	0	1,374	...	...	95
Total options	450,606	219	...	2,120	...	...	...
with reporting dealers	281,793	43	...	357	...	...	...
local	138,117	2	...	72	...	...	...
cross-border	143,676	41	...	286	...	...	...
with other financial institutions	163,437	136	...	1,715	...	...	...
local	59,089	61	...	585	...	...	...
cross-border	104,349	75	...	1,130	...	...	...
with non-financial customers	5,375	41	...	48	...	...	...
local	2,661	41	...	28	...	...	...
cross-border	2,714	...	...	20	...	...	...
Other products	5,801	...	...	...	...	...	...
Total	6,505,247	619	21	400,772	0	492	8,028

¹ Adjusted for local and cross-border inter-dealer double-counting (ie "net-net" basis). 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. See annex for abbreviations.

Table 2.1

OTC single currency interest rate derivatives turnover by instrument, counterparty and currency in April 2019, "net-net" basis¹

Total reported transactions in all currencies

Daily averages, in millions of US dollars

CAD	CHF	CLP	CNY	COP	CZK	DKK	
498	8,503	78	143	11	6,458	131	Forward rate agreements
156	1,605	32	37	5	749	22	with reporting dealers
66	642	7	3	2	295	14	local
90	964	24	34	3	454	8	cross-border
338	6,756	32	104	5	5,709	107	with other financial institutions
169	5,263	15	50	0	4,916	47	local
169	1,493	17	54	5	794	59	cross-border
3	142	15	1	1	...	2	with non-financial customers
1	87	...	...	...	...	...	local
2	55	15	1	1	...	2	cross-border
23,241	4,358	75	361	361	128	920	Overnight index swaps
8,061	1,539	70	232	223	66	441	with reporting dealers
2,987	739	49	96	21	13	118	local
5,074	800	21	136	202	53	323	cross-border
14,905	2,714	6	129	138	62	479	with other financial institutions
4,133	1,764	5	84	98	34	311	local
10,773	950	1	45	40	28	168	cross-border
275	105	...	...	...	0	0	with non-financial customers
139	0	...	...	...	...	0	local
137	105	...	...	...	0	0	cross-border
65,764	13,061	1,225	30,995	685	5,767	1,671	Other swaps
19,991	2,694	564	9,132	206	2,658	114	with reporting dealers
8,533	1,620	248	3,045	0	629	72	local
11,458	1,074	316	6,087	206	2,029	42	cross-border
44,080	10,007	642	19,730	476	3,081	1,453	with other financial institutions
10,170	7,781	213	10,014	5	2,481	615	local
33,910	2,226	430	9,716	471	600	838	cross-border
1,693	360	18	2,133	3	28	104	with non-financial customers
1,553	115	14	1,883	1	7	99	local
140	244	4	250	2	22	5	cross-border
994	133	113	1,609	...	1	14	Total options
559	70	113	613	...	0	0	with reporting dealers
557	62	12	455	...	0	...	local
2	8	102	158	...	0	0	cross-border
366	35	...	839	...	0	1	with other financial institutions
319	21	...	799	...	...	...	local
47	14	...	40	...	0	1	cross-border
68	28	...	156	...	0	13	with non-financial customers
49	28	...	152	...	...	13	local
19	0	...	4	...	0	...	cross-border
...	...	...	...	...	...	...	Other products
90,497	26,055	1,491	33,107	1,057	12,354	2,736	Total

¹ Adjusted for local and cross-border inter-dealer double-counting (ie "net-net" basis). 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. See annex for abbreviations.

Table 2.2

OTC single currency interest rate derivatives turnover by instrument, counterparty and currency in April 2019, "net-net" basis¹

Total reported transactions in all currencies

Daily averages, in millions of US dollars

	EUR	GBP	HKD	HUF	IDR	ILS	INR
Forward rate agreements	387,006	172,429	1,634	4,523	37	706	59
with reporting dealers	66,406	24,110	61	507	4	118	3
local	32,714	17,574	...	122	0	43	1
cross-border	33,692	6,535	61	385	4	76	2
with other financial institutions	289,552	144,429	1,570	4,016	33	495	52
local	207,352	111,791	972	2,811	4	78	15
cross-border	82,200	32,638	598	1,205	29	417	36
with non-financial customers	31,047	3,889	3	0	0	93	4
local	10,854	3,862	...	...	...	92	...
cross-border	20,193	27	3	0	0	1	4
Overnight index swaps	408,414	196,569	403	103	...	30	12,089
with reporting dealers	73,499	35,394	222	46	...	14	3,647
local	47,588	25,420	104	6	...	8	1,780
cross-border	25,911	9,974	118	39	...	6	1,867
with other financial institutions	314,101	156,667	180	57	...	16	8,191
local	237,920	131,465	120	42	...	13	5,261
cross-border	76,181	25,202	60	15	...	3	2,930
with non-financial customers	20,815	4,509	1	...	...	...	251
local	16,114	4,258	...	...	...	...	239
cross-border	4,701	251	1	...	...	...	12
Other swaps	508,639	161,792	15,772	2,975	114	737	4,380
with reporting dealers	170,873	61,755	6,774	578	93	233	767
local	94,074	35,192	1,905	349	83	132	160
cross-border	76,800	26,563	4,869	228	10	101	607
with other financial institutions	332,301	98,863	8,752	2,372	15	469	3,547
local	225,973	82,514	1,425	1,919	...	118	93
cross-border	106,328	16,349	7,327	453	15	350	3,454
with non-financial customers	5,466	1,174	246	25	7	35	66
local	2,364	579	76	7	6	25	54
cross-border	3,102	595	169	18	1	10	12
Total options	283,208	7,010	68	0	19	92	25
with reporting dealers	249,086	1,394	45	0	12	23	22
local	123,222	714	...	...	1	23	1
cross-border	125,865	680	45	0	11	...	22
with other financial institutions	32,607	5,392	22	0	7	69	0
local	8,537	1,049	12	...	...	42	...
cross-border	24,070	4,343	10	0	7	28	0
with non-financial customers	1,515	224	1	0	0	...	3
local	573	68	0	...	0	...	2
cross-border	942	156	0	0	0	...	1
Other products	...	...	...	...	...	...	...
Total	1,587,268	537,800	17,877	7,601	171	1,565	16,552

¹ Adjusted for local and cross-border inter-dealer double-counting (ie "net-net" basis). 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. See annex for abbreviations.

Table 2.3

OTC single currency interest rate derivatives turnover by instrument, counterparty and currency in April 2019, "net-net" basis¹

Total reported transactions in all currencies

Daily averages, in millions of US dollars

JPY	KRW	MXN	MYR	NOK	NZD	PEN	
2,373	57	20	872	8,310	32	2	Forward rate agreements
47	3	7	93	840	7	1	with reporting dealers
...	1	1	12	442	...	0	local
47	2	7	81	398	7	1	cross-border
2,283	48	11	779	6,186	23	1	with other financial institutions
205	9	2	690	3,133	11	...	local
2,078	39	8	89	3,053	12	1	cross-border
42	5	1	...	1,284	1	0	with non-financial customers
5	...	0	...	206	...	...	local
38	5	1	...	1,078	1	0	cross-border
14,829	293	1,413	17	1,052	21,785	...	Overnight index swaps
7,425	77	959	10	414	8,490	...	with reporting dealers
2,925	35	602	10	174	1,820	...	local
4,499	41	357	...	239	6,669	...	cross-border
7,382	216	441	7	638	10,835	...	with other financial institutions
1,133	39	219	7	514	896	...	local
6,249	177	222	...	124	9,940	...	cross-border
23	...	13	0	1	2,460	...	with non-financial customers
1	...	...	0	...	2	...	local
22	...	13	...	1	2,457	...	cross-border
186,506	25,371	21,842	1,116	19,617	33,928	0	Other swaps
45,814	11,594	5,255	493	12,797	8,951	...	with reporting dealers
26,288	5,500	2,153	89	10,244	1,697	...	local
19,526	6,095	3,102	403	2,553	7,254	...	cross-border
136,579	13,495	16,523	624	5,511	24,518	...	with other financial institutions
42,161	2,590	8,330	64	3,213	4,594	...	local
94,417	10,905	8,193	560	2,298	19,923	...	cross-border
4,113	282	64	...	1,309	460	0	with non-financial customers
3,822	186	37	...	813	259	...	local
292	96	27	...	496	200	0	cross-border
9,526	1,140	69	20	1,526	224	...	Total options
1,967	502	27	1	824	9	...	with reporting dealers
806	96	7	...	205	1	...	local
1,161	406	19	1	619	8	...	cross-border
7,521	630	28	20	694	214	...	with other financial institutions
1,321	92	3	1	285	3	...	local
6,201	538	25	19	409	211	...	cross-border
38	8	14	...	8	1	...	with non-financial customers
26	...	14	...	4	1	...	local
13	8	...	...	4	1	...	cross-border
...	...	...	...	...	...	...	Other products
213,235	26,860	23,344	2,026	30,506	55,968	2	Total

¹ Adjusted for local and cross-border inter-dealer double-counting (ie "net-net" basis). 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. See annex for abbreviations.

Table 2.4

OTC single currency interest rate derivatives turnover by instrument, counterparty and currency in April 2019, "net-net" basis¹

Total reported transactions in all currencies

Daily averages, in millions of US dollars

	PHP	PLN	RON	RUB	SAR	SEK	SGD
Forward rate agreements	29	2,279	2	345	209	28,972	570
with reporting dealers	10	446	...	89	38	3,253	114
local	3	158	...	18	7	1,608	...
cross-border	7	287	...	71	31	1,645	114
with other financial institutions	18	1,793	2	248	171	24,352	456
local	11	1,131	...	2	123	13,484	228
cross-border	8	661	2	246	48	10,868	228
with non-financial customers	0	41	...	8	...	1,367	0
local	...	...	...	6	...	1,294	...
cross-border	0	41	...	1	...	72	0
Overnight index swaps	...	211	5	153	1	1,129	503
with reporting dealers	...	91	2	68	0	390	188
local	...	9	1	23	...	96	44
cross-border	...	82	2	45	0	294	143
with other financial institutions	...	120	3	85	0	737	315
local	...	108	1	35	...	511	235
cross-border	...	12	2	50	0	227	80
with non-financial customers	...	0	...	...	...	2	0
local	...	...	...	...	...	...	...
cross-border	...	0	...	...	...	2	0
Other swaps	9	5,751	5	437	657	29,645	13,296
with reporting dealers	9	2,679	0	98	164	5,171	5,630
local	9	1,417	...	45	47	1,167	1,676
cross-border	0	1,262	0	53	118	4,005	3,954
with other financial institutions	0	3,004	5	338	469	22,072	7,530
local	...	1,981	5	126	51	17,360	1,329
cross-border	0	1,023	...	212	418	4,712	6,201
with non-financial customers	...	68	...	1	24	2,401	135
local	...	14	...	1	19	1,226	66
cross-border	...	54	...	...	4	1,175	70
Total options	2	18	0	229	209	1,158	332
with reporting dealers	1	6	0	8	38	243	15
local	...	0	...	8	4	62	2
cross-border	1	5	0	0	35	181	13
with other financial institutions	1	7	0	0	170	64	312
local	...	0	0	0	69	25	...
cross-border	1	7	0	0	101	39	312
with non-financial customers	...	5	...	221	1	851	4
local	...	5	...	221	1	848	4
cross-border	...	0	...	0	...	3	...
Other products	...	...	...	...	...	...	...
Total	39	8,259	12	1,164	1,076	60,904	14,701

¹ Adjusted for local and cross-border inter-dealer double-counting (ie "net-net" basis). 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. See annex for abbreviations.

Table 2.5

OTC single currency interest rate derivatives turnover by instrument, counterparty and currency in April 2019, "net-net" basis¹

Total reported transactions in all currencies

Daily averages, in millions of US dollars

THB	TRY	TWD	USD	ZAR	OTH	
28	15	1,916	1,263,118	8,447	2,058	Forward rate agreements
...	10	631	262,512	2,373	334	with reporting dealers
...	0	242	112,878	1,560	262	local
...	10	389	149,634	814	72	cross-border
28	5	1,282	824,200	5,452	1,718	with other financial institutions
4	2	1,193	366,362	4,427	977	local
24	3	89	457,838	1,025	742	cross-border
0	0	4	176,407	622	6	with non-financial customers
...	...	...	35,904	602	6	local
0	0	4	140,503	19	...	cross-border
13	161	19	1,102,530	1,801	2,152	Overnight index swaps
5	36	16	154,905	1,061	21	with reporting dealers
2	5	...	79,892	618	4	local
2	31	16	75,013	443	16	cross-border
8	126	3	865,786	687	2,075	with other financial institutions
7	21	...	420,413	621	1,199	local
2	105	3	445,373	67	876	cross-border
...	0	...	81,839	52	56	with non-financial customers
...	...	...	6,668	...	...	local
...	0	...	75,171	52	56	cross-border
6,001	428	2,408	768,726	14,664	273	Other swaps
2,749	424	1,165	131,309	3,264	26	with reporting dealers
629	202	302	57,946	1,787	10	local
2,120	222	864	73,363	1,477	16	cross-border
3,222	3	1,222	583,699	10,896	243	with other financial institutions
250	...	135	216,097	9,896	56	local
2,972	3	1,087	367,602	1,000	187	cross-border
30	1	20	53,717	504	5	with non-financial customers
13	1	18	3,312	439	5	local
17	...	2	50,406	65	...	cross-border
4	6	29	139,877	268	341	Total options
1	0	21	25,276	208	307	with reporting dealers
...	...	3	11,574	192	36	local
1	0	18	13,703	15	270	cross-border
0	6	8	112,518	39	15	with other financial institutions
0	6	4	45,853	2	1	local
...	0	4	66,665	37	14	cross-border
3	0	0	2,083	21	20	with non-financial customers
3	0	0	547	19	16	local
0	...	...	1,536	2	4	cross-border
...	...	...	...	...	...	Other products
6,047	611	4,372	3,274,251	25,180	4,825	Total

Table 2.6

OTC single currency interest rate derivatives turnover by country and currency in April 2019, "net-gross" basis¹

Daily averages, in millions of US dollars

	TOT	AED	ARS	AUD	BGN	BHD	BRL
Argentina	16	...	16	...	...	...	...
Australia	97,099	...	...	66,064	...	...	...
Austria	827	...	...	...	...	...	...
Bahrain	399	...	...	...	...	...	...
Belgium	11,651	...	...	0	...	...	...
Brazil	1,865	...	...	...	...	...	1,692
Bulgaria	0	...	...	...	0	...	...
Canada	122,634	...	...	773	...	...	...
Chile	1,030	...	...	...	...	...	...
China	16,024	...	...	13	...	...	...
Chinese Taipei	840	...	...	1	...	...	...
Colombia	321	...	...	...	...	...	...
Czech Republic	2,272	...	...	...	...	...	...
Denmark	10,474	...	...	...	...	...	...
Finland	3,644	...	...	...	...	...	...
France	120,023	0	...	1,347	...	...	...
Germany	56,021	...	...	...	...	...	...
Greece	172	...	...	...	...	...	...
Hong Kong SAR	435,872	10	...	268,748	...	0	...
Hungary	37	...	...	...	...	...	...
India	4,799	9	...	...	...	...	...
Indonesia	13	...	...	0	...	...	...
Ireland	7,309	...	...	...	...	...	...
Israel	559	...	...	...	...	...	...
Italy	11,463	...	...	27	...	...	...
Japan	135,256	...	...	1,733	...	...	25
Korea	8,524	...	...	3	...	...	...
Latvia	2	...	...	...	...	...	...
Lithuania	1	...	...	...	...	...	...
Luxembourg	485	...	...	...	...	...	...
Malaysia	199	...	...	0	...	...	...
Mexico	1,831	...	...	...	...	...	...
Netherlands	28,231	...	...	426	...	...	...
New Zealand	16,215	...	...	4,272	...	...	...
Norway	6,426	...	...	...	...	...	...
Peru	16	...	...	...	...	...	...
Philippines	265	8	...	...	...	...	...
Poland	2,112	...	...	...	...	...	...
Portugal	170	...	...	...	...	...	...
Romania	15	...	...	...	...	...	...
Russia	598	...	...	...	...	...	...
Saudi Arabia	214	...	...	...	...	...	...
Singapore	116,443	...	...	34,610	...	...	23
Slovakia	18	...	...	0	...	...	...
South Africa	13,930	...	...	...	...	...	...
Spain	16,238	...	...	1	...	...	194
Sweden	9,023	...	...	...	...	...	...
Switzerland	31,885	...	...	2,520	...	...	...
Thailand	1,089	...	...	...	...	...	...
Turkey	105	...	...	...	...	...	...
United Arab Emirates	3,007	273	...	...	...	...	...
United Kingdom	3,670,238	406	6	83,274	...	492	2,635
United States	2,356,103	...	0	25,971	...	...	3,909
Total	7,324,002	705	22	489,783	0	493	8,478

¹ Forward rate agreements, swaps, options and other products. Adjusted for local inter-dealer double-counting (ie "net-gross" basis). Data may differ slightly from national survey data owing to differences in aggregation procedures and rounding. Other products are included within the total but not reflected within the currency breakdown. See annex for abbreviations.

Table 3.1

OTC single currency interest rate derivatives turnover by country and currency in April 2019, "net-gross" basis¹

Daily averages, in millions of US dollars

CAD	CHF	CLP	CNY	COP	CZK	DKK	
...	...	...	...	...	...	...	Argentina
3	0	...	26	...	...	1	Australia
...	4	...	...	...	192	...	Austria
...	...	...	...	...	...	...	Bahrain
0	...	...	5	...	1,747	5	Belgium
...	...	48	...	3	...	...	Brazil
...	...	...	...	...	...	...	Bulgaria
71,250	265	...	71	...	2	...	Canada
...	...	609	...	...	...	...	Chile
...	...	...	15,177	...	...	...	China
...	...	...	4	...	...	...	Chinese Taipei
...	...	...	...	318	...	...	Colombia
...	...	...	...	...	1,835	...	Czech Republic
...	...	...	...	...	...	937	Denmark
...	...	...	...	...	...	73	Finland
29	696	35	63	0	3	0	France
...	144	...	...	...	...	15	Germany
...	...	...	...	...	...	...	Greece
31	8	...	12,710	...	1	7	Hong Kong SAR
...	...	...	...	...	...	...	Hungary
...	...	...	...	...	...	...	India
...	...	...	...	...	...	...	Indonesia
171	61	...	...	...	42	...	Ireland
...	...	...	...	...	...	...	Israel
...	24	...	8	...	1	...	Italy
0	...	...	...	...	...	...	Japan
...	...	...	...	...	...	...	Korea
...	...	...	...	...	...	...	Latvia
...	...	...	...	...	...	...	Lithuania
...	...	...	...	...	...	...	Luxembourg
...	...	...	...	...	...	...	Malaysia
...	...	...	...	...	...	...	Mexico
10	...	14	...	...	68	...	Netherlands
...	...	...	...	...	...	...	New Zealand
...	...	...	...	...	...	...	Norway
...	...	...	...	...	...	...	Peru
...	1	...	...	...	...	...	Philippines
...	6	...	...	...	431	...	Poland
0	...	...	...	...	...	...	Portugal
...	...	...	...	...	...	14	Romania
...	...	...	...	...	...	...	Russia
...	...	...	...	...	...	...	Saudi Arabia
3	0	215	5,818	...	22	...	Singapore
...	...	...	...	...	...	...	Slovakia
...	...	...	...	...	...	5	South Africa
...	11	65	55	816	...	1	Spain
...	...	...	...	...	...	1	Sweden
165	6,418	...	...	...	...	...	Switzerland
...	...	...	...	...	...	...	Thailand
...	...	...	...	...	...	...	Turkey
...	...	...	26	...	...	...	United Arab Emirates
12,171	19,978	418	4,351	100	9,931	2,036	United Kingdom
23,288	1,285	550	1,209	229	615	17	United States
107,121	28,901	1,954	39,522	1,467	14,890	3,110	Total

¹ Forward rate agreements, swaps, options and other products. Adjusted for local inter-dealer double-counting (ie "net-gross" basis). Data may differ slightly from national survey data owing to differences in aggregation procedures and rounding. Other products are included within the total but not reflected within the currency breakdown. See annex for abbreviations.

Table 3.2

OTC single currency interest rate derivatives turnover by country and currency in April 2019, "net-gross" basis¹

Daily averages, in millions of US dollars

	EUR	GBP	HKD	HUF	IDR	ILS	INR
Argentina	...	...	...	...	...	...	...
Australia	363	80	62	...	2	...	5
Austria	481	0	...	79	...	...	...
Bahrain	...	0	...	...	...	...	...
Belgium	8,702	307	...	21	...	...	...
Brazil	...	...	...	...	...	...	...
Bulgaria	0	...	...	...	...	...	...
Canada	220	1,321	...	...	...	...	...
Chile	...	...	...	...	...	...	...
China	3	11	3	...	...	...	...
Chinese Taipei	1	...	3	...	...	...	...
Colombia	...	...	...	...	...	...	...
Czech Republic	408	...	...	1	...	...	...
Denmark	6,407	...	...	...	...	...	...
Finland	3,233	...	...	...	...	...	...
France	87,434	4,278	228	3	...	...	...
Germany	31,817	8,067	21	72	...	...	...
Greece	118	1	...	...	...	...	...
Hong Kong SAR	5,080	726	14,462	0	30	...	2,272
Hungary	9	...	...	28	...	...	...
India	17	0	...	...	...	...	4,144
Indonesia	1	0	...	...	2	...	...
Ireland	6,424	319	...	...	...	...	...
Israel	...	...	...	...	...	559	...
Italy	9,956	41	30	13	...	...	...
Japan	227	27	18	...	...	...	...
Korea	213	...	...	...	...	...	...
Latvia	2	...	...	...	...	...	...
Lithuania	1	...	...	...	...	...	...
Luxembourg	394	4	...	...	...	...	...
Malaysia	...	...	...	...	...	...	...
Mexico	1	...	...	...	...	...	...
Netherlands	19,290	191	...	...	...	...	...
New Zealand	...	...	...	...	...	...	...
Norway	795	25	...	...	...	...	...
Peru	...	...	...	...	...	...	...
Philippines	15	22	...	...	...	...	...
Poland	27	...	...	408	...	...	...
Portugal	147	1	...	...	...	...	...
Romania	1	...	...	...	...	...	...
Russia	15	...	...	...	...	...	...
Saudi Arabia	...	0	...	...	...	...	...
Singapore	553	323	3,555	220	34	...	5,445
Slovakia	18	...	...	...	...	...	...
South Africa	101	18	...	...	...	...	...
Spain	9,199	168	...	...	...	...	...
Sweden	126	38	...	...	...	...	...
Switzerland	3,767	2,146	64	...	...	...	...
Thailand	0	...	...	...	...	...	...
Turkey	22	...	...	...	...	...	...
United Arab Emirates	74	71	...	...	...	...	...
United Kingdom	1,584,448	532,795	2,717	6,315	128	929	6,880
United States	69,426	30,571	1,809	1,096	1	260	302
Total	1,849,535	581,551	22,971	8,254	196	1,748	19,049

¹ Forward rate agreements, swaps, options and other products. Adjusted for local inter-dealer double-counting (ie "net-gross" basis). Data may differ slightly from national survey data owing to differences in aggregation procedures and rounding. Other products are included within the total but not reflected within the currency breakdown. See annex for abbreviations.

Table 3.3

OTC single currency interest rate derivatives turnover by country and currency in April 2019, "net-gross" basis¹

Daily averages, in millions of US dollars

JPY	KRW	MXN	MYR	NOK	NZD	PEN	
...	Argentina
27	0	...	1	807	14,223	...	Australia
...	0	...	...	Austria
...	Bahrain
9	3	1	...	Belgium
...	Brazil
...	Bulgaria
5	19	...	52	...	Canada
...	Chile
1	China
...	Chinese Taipei
...	Colombia
...	Czech Republic
...	224	...	...	Denmark
...	6	...	...	Finland
1,350	63	49	...	2,519	8	...	France
19	14	...	...	107	...	...	Germany
...	Greece
6,592	6,207	...	688	23	20,986	...	Hong Kong SAR
...	Hungary
1	India
...	Indonesia
...	Ireland
...	Israel
8	1	...	Italy
119,148	...	48	...	...	47	...	Japan
...	7,571	...	...	...	0	...	Korea
...	Latvia
...	Lithuania
...	Luxembourg
...	82	...	...	...	Malaysia
...	...	1,584	...	...	...	...	Mexico
1	...	11	...	1	15	...	Netherlands
...	11,334	...	New Zealand
...	5,487	...	...	Norway
...	Peru
...	Philippines
...	Poland
...	Portugal
...	Romania
...	Russia
...	Saudi Arabia
4,869	8,262	140	364	4	7,285	...	Singapore
...	Slovakia
...	South Africa
...	0	4,580	...	...	...	...	Spain
...	29	...	...	Sweden
215	177	...	Switzerland
3	Thailand
...	Turkey
...	United Arab Emirates
95,984	9,330	4,373	1,178	24,347	11,987	4	United Kingdom
10,235	1,957	16,044	179	757	3,790	0	United States
238,468	33,405	26,828	2,511	34,315	69,907	4	Total

¹ Forward rate agreements, swaps, options and other products. Adjusted for local inter-dealer double-counting (ie "net-gross" basis). Data may differ slightly from national survey data owing to differences in aggregation procedures and rounding. Other products are included within the total but not reflected within the currency breakdown. See annex for abbreviations.

Table 3.4

OTC single currency interest rate derivatives turnover by country and currency in April 2019, "net-gross" basis¹

Daily averages, in millions of US dollars

	PHP	PLN	RON	RUB	SAR	SEK	SGD
Argentina
Australia	0	0	...	...	...	0	159
Austria	...	35	0	7	...	...	...
Bahrain	349	...	...
Belgium	...	0	...	...	...	5	...
Brazil	1	...	...	...
Bulgaria
Canada	1	...
Chile
China
Chinese Taipei	1
Colombia
Czech Republic
Denmark	2,622	...
Finland	3	...
France	...	303	0	3	1	4,436	31
Germany	...	2	...	...	...	235	...
Greece
Hong Kong SAR	1	3,943
Hungary
India
Indonesia	0
Ireland	...	2	...	...	...	27	...
Israel
Italy	...	1	...	...	...	...	...
Japan
Korea	1	...	...	...
Latvia
Lithuania
Luxembourg
Malaysia
Mexico
Netherlands	...	33	...	74	...	2	...
New Zealand
Norway	...	4	...	...	...	34	...
Peru
Philippines	9	...	...	...	...	...	...
Poland	...	1,229	...	...	...	...	...
Portugal
Romania
Russia	461	...	...	...
Saudi Arabia	66	...	...
Singapore	3	3	...	2	9	19	10,278
Slovakia
South Africa
Spain	...	19	...	...	...	1	...
Sweden	8,797	...
Switzerland	6	...	220	43
Thailand
Turkey
United Arab Emirates	22	219	...	...
United Kingdom	35	7,873	8	255	603	40,762	3,006
United States	...	391	5	502	13	9,864	1,464
Total	47	9,896	14	1,333	1,259	67,028	18,925

¹ Forward rate agreements, swaps, options and other products. Adjusted for local inter-dealer double-counting (ie "net-gross" basis). Data may differ slightly from national survey data owing to differences in aggregation procedures and rounding. Other products are included within the total but not reflected within the currency breakdown. See annex for abbreviations.

Table 3.5

OTC single currency interest rate derivatives turnover by country and currency in April 2019, "net-gross" basis¹

Daily averages, in millions of US dollars

THB	TRY	TWD	USD	ZAR	OTH	
...	Argentina
0	...	4	15,270	...	...	Australia
...	27	0	1	Austria
...	50	...	...	Bahrain
...	846	...	0	Belgium
...	117	...	...	Brazil
...	Bulgaria
...	48,518	94	...	Canada
...	420	...	...	Chile
...	464	...	...	China
...	...	596	228	3	0	Chinese Taipei
...	3	...	...	Colombia
...	...	1	29	...	...	Czech Republic
...	224	...	...	Denmark
...	330	...	...	Finland
...	0	33	16,702	47	36	France
...	15,510	...	...	Germany
...	53	...	...	Greece
2,507	...	1,244	88,926	...	...	Hong Kong SAR
...	Hungary
...	627	...	...	India
...	10	...	...	Indonesia
...	264	...	...	Ireland
...	Israel
...	0	...	1,353	...	...	Italy
...	13,958	2	5	Japan
...	...	5	731	...	...	Korea
...	Latvia
...	Lithuania
...	83	...	5	Luxembourg
...	36	...	...	Malaysia
...	246	...	...	Mexico
...	8,095	...	...	Netherlands
...	610	...	...	New Zealand
...	80	...	...	Norway
...	16	...	...	Peru
...	210	...	...	Philippines
...	12	...	...	Poland
...	22	...	...	Portugal
...	Romania
...	123	...	...	Russia
...	148	...	...	Saudi Arabia
2,754	5	656	30,057	2	548	Singapore
...	Slovakia
...	...	7	650	12,562	587	South Africa
...	1,127	...	...	Spain
...	...	10	21	...	...	Sweden
...	16,144	...	0	Switzerland
871	214	...	...	Thailand
...	61	...	22	...	...	Turkey
15	...	0	2,260	12	34	United Arab Emirates
1,211	808	2,544	1,177,374	14,374	3,975	United Kingdom
812	...	560	2,143,753	832	10	United States
8,171	874	5,659	3,585,965	27,929	5,200	Total

¹ Forward rate agreements, swaps, options and other products. Adjusted for local inter-dealer double-counting (ie "net-gross" basis). Data may differ slightly from national survey data owing to differences in aggregation procedures and rounding. Other products are included within the total but not reflected within the currency breakdown. See annex for abbreviations.

Table 3.6

OTC single currency interest rate derivatives turnover by country and counterparty in April 2019¹

Daily averages, in millions of US dollars

	Gross turnover ²	Net turnover ³				
		Total	With reporting local dealers	With reporting dealers abroad	With other financial institutions	With non-financial customers
Argentina	16	16	...	...	16	...
Australia	100,895	97,099	3,796	13,388	79,259	656
Austria	831	827	4	668	142	14
Bahrain	399	399	...	68	330	...
Belgium	13,380	11,651	1,729	7,480	1,536	907
Brazil	1,865	1,861	0	110	1,698	53
Bulgaria	0	0	...	0	...	0
Canada	136,053	122,591	13,414	59,174	48,503	1,500
Chile	1,231	1,030	201	790	29	9
China	18,679	15,671	2,596	2,277	8,793	2,005
Chinese Taipei	1,089	836	249	414	145	28
Colombia	324	321	2	285	33	1
Czech Republic	2,275	2,272	3	2,146	113	10
Denmark	10,538	10,414	64	1,743	8,411	196
Finland	4,798	3,644	1,154	541	1,883	66
France	136,446	119,697	16,379	60,921	39,247	3,150
Germany	59,113	56,021	3,092	16,241	34,357	2,332
Greece	172	172	0	151	1	20
Hong Kong SAR	439,047	435,204	3,170	237,280	194,485	269
Hungary	37	37	...	37	...	...
India	6,245	4,799	1,447	667	2,239	446
Indonesia	16	13	4	3	1	5
Ireland	7,317	7,309	8	35	7,259	7
Israel	588	559	29	...	415	114
Italy	11,604	11,463	140	5,300	5,902	121
Japan	162,503	135,237	27,243	30,529	74,836	2,628
Korea	10,383	8,524	1,858	5,055	1,501	110
Latvia	2	2	...	1	...	1
Lithuania	1	1	...	0	...	0
Luxembourg	489	485	4	455	10	17
Malaysia	299	118	60	12	46	0
Mexico	1,903	1,831	71	655	896	210
Netherlands	29,022	28,231	791	12,819	14,458	163
New Zealand	17,472	16,215	1,257	5,605	7,145	2,208
Norway	6,641	6,426	215	489	4,231	1,491
Peru	16	16	...	16	0	0
Philippines	274	265	9	237	3	15
Poland	2,406	2,112	294	1,461	331	26
Portugal	181	170	11	153	4	1
Romania	15	15	...	7	...	7
Russia	661	598	63	137	137	262
Saudi Arabia	216	214	2	86	54	71
Singapore	119,988	116,079	3,534	62,858	48,010	1,677
Slovakia	19	18	0	17	...	1
South Africa	16,908	13,930	2,978	2,480	7,427	1,045
Spain	16,431	16,238	193	5,166	10,673	205
Sweden	9,392	9,023	369	4,149	1,797	2,707
Switzerland	33,958	31,885	2,074	22,669	4,969	2,173
Thailand	1,582	1,089	493	360	216	20
Turkey	106	105	0	95	3	8
United Arab Emirates	3,059	3,007	52	1,994	842	118
United Kingdom	4,228,293	3,670,042	558,024	766,877	2,308,493	36,649
United States	2,447,710	2,351,704	91,436	301,979	1,606,222	352,067
Total	8,062,885	7,317,487	738,513	1,636,082	4,527,101	415,792

¹ Forward rate agreements, swaps, options and other products. Data may differ slightly from national survey data owing to differences in aggregation procedures and rounding. ² Not adjusted for inter-dealer double-counting (ie "gross-gross" basis). ³ Adjusted for local inter-dealer double-counting (ie "net-gross" basis). Excludes other products.

Table 4

OTC single currency interest rate derivatives turnover by country and counterparty in April 2019¹

Forward rate agreements

Daily averages, in millions of US dollars

	Total	Reporting dealers		Other financial institutions		Non-financial customers	
		Local	Cross-border	Local	Cross-border	Local	Cross-border
Argentina	...	...	...	...	...	...	...
Australia	11,545	46	3,272	...	8,145	...	82
Austria	151	...	137	...	13	...	...
Bahrain	2	...	2	...	...	...	...
Belgium	4,261	21	3,786	...	451	...	3
Brazil	61	...	...	3	23	31	4
Bulgaria	...	...	...	...	...	...	...
Canada	32,787	300	23,146	2,553	6,785	1	1
Chile	...	...	...	...	...	...	...
China	...	...	...	...	...	...	...
Chinese Taipei	...	...	...	...	...	...	...
Colombia	0	...	...	...	...	0	...
Czech Republic	92	...	61	...	32	...	...
Denmark	1,059	...	8	...	988	...	63
Finland	...	...	...	...	...	...	...
France	36,173	2,031	23,090	...	11,052	...	...
Germany	30,340	1,693	6,701	25	21,920	...	...
Greece	...	...	...	...	...	...	...
Hong Kong SAR	58,215	4	41,188	...	17,023	...	...
Hungary	...	...	...	...	...	...	...
India	38	8	23	8	...	...	...
Indonesia	0	0	...	...	...	...	...
Ireland	63	...	...	...	63	...	...
Israel	361	20	...	66	182	92	...
Italy	1,243	...	224	...	1,018	...	...
Japan	759	...	735	...	24	...	...
Korea	...	...	...	...	...	...	...
Latvia	...	...	...	...	...	...	...
Lithuania	...	...	...	...	...	...	...
Luxembourg	119	...	119	...	...	...	...
Malaysia	17	4	7	6	...	...	...
Mexico	12	1	11	...	...	...	...
Netherlands	16,993	86	8,323	50	8,535	...	...
New Zealand	592	...	...	2	590	...	...
Norway	3,953	...	389	...	2,487	...	1,077
Peru	...	...	...	...	...	...	...
Philippines	...	...	...	...	...	...	...
Poland	1,206	45	957	...	204	...	...
Portugal	...	...	...	...	...	...	...
Romania	...	...	...	...	...	...	...
Russia	10	8	...	...	2	...	...
Saudi Arabia	...	...	...	...	...	...	...
Singapore	18,117	279	13,319	...	4,414	...	105
Slovakia	...	...	...	...	...	...	...
South Africa	8,271	1,766	920	4,266	724	595	...
Spain	0	...	0	...	...	...	...
Sweden	3,764	181	2,359	301	589	335	...
Switzerland	3,706	53	2,851	...	753	...	49
Thailand	...	...	...	...	...	...	...
Turkey	19	0	18	1	0	...	...
United Arab Emirates	105	19	69	6	...	12	...
United Kingdom	999,705	122,806	140,275	601,092	113,053	1,946	20,532
United States	864,806	39,312	120,229	117,262	397,895	49,937	140,172
Total	2,098,547	168,685	392,219	725,640	596,966	52,950	162,088

¹ Adjusted for local inter-dealer double-counting (ie "net-gross" basis). Data may differ slightly from national survey data owing to differences in aggregation procedures and rounding.

OTC single currency interest rate derivatives turnover by country and counterparty in April 2019¹

Overnight index swaps

Daily averages, in millions of US dollars

	Total	Reporting dealers		Other financial institutions		Non-financial customers	
		Local	Cross-border	Local	Cross-border	Local	Cross-border
Argentina	...	...	...	...	...	...	...
Australia	47,606	1,813	4,304	8,956	32,519	14	...
Austria	395	1	298	9	88	...	...
Bahrain	...	...	...	...	...	...	...
Belgium	52	19	5	1	27	...	...
Brazil	5	...	5	...	...	...	...
Bulgaria	...	...	...	...	...	...	...
Canada	16,208	3,136	8,740	1,740	2,487	105	...
Chile	62	...	62	...	...	...	...
China	78	69	...	10	...	...	...
Chinese Taipei	18	...	18	...	...	...	...
Colombia	317	2	282	29	3	...	...
Czech Republic	...	...	...	...	...	...	...
Denmark	517	16	51	5	446	...	...
Finland	945	123	36	...	786	...	...
France	41,742	8,111	20,718	214	12,271	296	133
Germany	3,773	583	2,431	87	550	68	54
Greece	28	...	28	...	...	...	...
Hong Kong SAR	164,351	180	84,866	509	78,795	...	1
Hungary	...	...	...	...	...	...	...
India	4,044	1,214	422	1,996	137	274	1
Indonesia	...	...	...	...	...	...	...
Ireland	587	8	...	...	579	...	...
Israel	...	...	...	...	...	...	...
Italy	3,880	80	3,342	432	21	...	6
Japan	11,393	1,530	5,103	98	4,662	...	...
Korea	83	4	66	4	9	...	...
Latvia	...	...	...	...	...	...	...
Lithuania	0	...	0	...	...	...	...
Luxembourg	268	4	264	...	0	...	...
Malaysia	17	10	...	7	...	0	...
Mexico	26	5	20	2	...	...	...
Netherlands	991	41	542	...	408	...	...
New Zealand	9,631	760	2,833	27	4,155	...	1,855
Norway	895	61	...	122	712	...	...
Peru	...	...	...	...	...	...	...
Philippines	...	...	...	...	...	...	...
Poland	12	...	12	...	...	...	...
Portugal	47	...	47	...	...	...	...
Romania	...	...	...	...	...	...	...
Russia	181	20	103	32	23	...	3
Saudi Arabia	15	...	15	...	...	...	...
Singapore	35,493	670	19,991	757	13,625	...	450
Slovakia	...	...	...	...	...	...	...
South Africa	1,852	577	739	529	6	...	...
Spain	1,562	116	975	...	471	...	1
Sweden	30	...	8	21	...	...	...
Switzerland	17,282	581	14,081	25	998	...	1,596
Thailand	...	...	...	...	...	...	...
Turkey	37	...	27	...	2	7	...
United Arab Emirates	1,164	...	811	307	46	...	...
United Kingdom	1,073,939	136,470	103,975	695,803	130,288	757	6,646
United States	789,473	14,330	91,773	143,024	433,713	27,154	79,479
Total	2,229,001	170,535	366,995	854,744	717,827	28,675	90,224

¹ Adjusted for local inter-dealer double-counting (ie "net-gross" basis). Data may differ slightly from national survey data owing to differences in aggregation procedures and rounding.

Table 6

OTC single currency interest rate derivatives turnover by country and counterparty in April 2019¹

Other swaps

Daily averages, in millions of US dollars

	Total	Reporting dealers		Other financial institutions		Non-financial customers	
		Local	Cross-border	Local	Cross-border	Local	Cross-border
Argentina	16	...	...	16	...	...	...
Australia	36,092	1,856	4,729	5,548	23,421	152	385
Austria	204	2	174	3	13	0	11
Bahrain	397	...	67	2	328	...	...
Belgium	6,366	1,653	2,901	55	989	543	225
Brazil	1,782	0	91	169	1,503	18	...
Bulgaria	0	...	0	...	...	0	...
Canada	70,459	9,186	27,252	8,886	24,594	257	285
Chile	968	201	728	26	3	9	...
China	13,844	2,072	1,984	7,694	203	1,881	9
Chinese Taipei	776	245	368	77	58	23	5
Colombia	4	...	3	0	...	1	...
Czech Republic	2,180	3	2,085	3	79	10	...
Denmark	6,007	22	105	116	5,646	99	18
Finland	499	56	52	225	118	18	31
France	37,744	5,933	15,239	3,344	10,639	171	2,417
Germany	21,052	794	6,756	944	10,735	99	1,723
Greece	112	...	107	...	1	5	...
Hong Kong SAR	209,631	2,981	109,848	806	95,735	97	164
Hungary	37	...	37	...	...	...	...
India	710	224	223	53	45	146	20
Indonesia	11	3	3	1	...	4	...
Ireland	6,645	...	28	1	6,616	...	...
Israel	196	8	...	32	134	22	...
Italy	5,967	52	1,415	70	4,350	72	9
Japan	118,505	25,012	22,775	7,988	60,128	2,313	290
Korea	8,158	1,846	4,714	1,413	74	103	6
Latvia	2	...	1	...	...	1	...
Lithuania	0	...	0	...	...	...	0
Luxembourg	93	...	72	...	10	1	10
Malaysia	77	46	0	27	3	...	...
Mexico	1,727	64	594	527	357	70	116
Netherlands	10,140	662	3,889	444	5,010	32	103
New Zealand	5,991	496	2,772	458	1,912	241	112
Norway	1,578	154	100	263	647	43	371
Peru	16	...	16	0	...	0	...
Philippines	265	9	237	...	3	8	7
Poland	878	248	485	29	97	19	...
Portugal	111	11	95	...	4	...	...
Romania	15	...	7	...	...	7	...
Russia	180	26	34	17	64	1	38
Saudi Arabia	157	2	71	...	34	46	5
Singapore	58,573	2,557	27,885	2,021	25,116	216	778
Slovakia	17	0	16	...	...	1	...
South Africa	3,658	485	820	1,361	541	447	4
Spain	14,063	72	3,960	144	9,722	20	145
Sweden	4,240	153	1,700	608	254	294	1,230
Switzerland	10,885	1,440	5,732	1,476	1,716	115	407
Thailand	1,086	493	360	30	185	12	5
Turkey	50	...	49	0	0	0	...
United Arab Emirates	1,158	28	848	130	108	31	13
United Kingdom	1,154,092	174,581	266,708	526,410	180,851	2,777	2,765
United States	578,242	27,497	71,381	105,483	319,537	7,103	47,242
Total	2,395,657	261,175	589,516	676,903	791,584	17,527	58,952

¹ Adjusted for local inter-dealer double-counting (ie "net-gross" basis). Data may differ slightly from national survey data owing to differences in aggregation procedures and rounding.

Table 7

OTC single currency interest rate derivatives turnover by country and counterparty in April 2019¹

Options

Daily averages, in millions of US dollars

	Total	Reporting dealers		Other financial institutions		Non-financial customers	
		Local	Cross-border	Local	Cross-border	Local	Cross-border
Argentina	...	...	...	...	...	...	...
Australia	1,857	80	1,083	103	567	23	0
Austria	77	0	59	7	9	0	2
Bahrain	...	...	...	...	...	...	...
Belgium	972	37	788	...	12	30	106
Brazil	14	...	14	...	...	...	...
Bulgaria	...	...	...	...	...	...	...
Canada	3,137	792	37	373	1,085	121	729
Chile	...	...	...	...	...	...	...
China	1,749	455	292	886	...	115	...
Chinese Taipei	42	4	28	2	8	...	...
Colombia	...	...	...	...	...	...	...
Czech Republic	0	...	0	...	...	...	...
Denmark	2,831	26	1,579	264	946	13	3
Finland	2,200	975	452	752	3	18	...
France	4,038	304	1,874	479	1,248	110	23
Germany	857	21	352	71	24	26	362
Greece	31	0	17	...	...	15	...
Hong Kong SAR	3,006	5	1,378	42	1,575	0	6
Hungary	...	...	...	...	...	...	...
India	6	0	...	...	...	5	...
Indonesia	1	0	0	...	...	0	...
Ireland	14	...	7	...	...	7	...
Israel	1	1	...	0	...	...	...
Italy	374	8	319	2	11	33	2
Japan	4,579	701	1,916	499	1,438	16	9
Korea	283	8	275	0	...	...	...
Latvia	...	...	...	...	...	...	...
Lithuania	...	...	...	...	...	...	...
Luxembourg	5	...	0	...	...	0	5
Malaysia	7	...	5	2	...	...	...
Mexico	65	2	29	10	0	24	...
Netherlands	106	2	65	9	2	6	22
New Zealand	1	...	...	1	...	...	...
Norway	...	...	...	...	...	...	...
Peru	...	...	...	...	...	...	...
Philippines	...	...	...	...	...	...	...
Poland	16	0	7	0	0	8	...
Portugal	13	...	11	...	...	1	...
Romania	...	...	...	...	...	...	...
Russia	228	8	...	...	0	220	...
Saudi Arabia	41	...	0	...	20	20	...
Singapore	3,896	28	1,664	588	1,488	84	44
Slovakia	1	...	1	...	...	1	...
South Africa	150	150	...	0	0	0	0
Spain	612	6	231	32	303	17	22
Sweden	989	35	81	22	3	848	0
Switzerland	11	...	6	...	...	...	6
Thailand	3	...	0	0	...	3	...
Turkey	0	...	...	0	...	0	0
United Arab Emirates	579	6	266	246	...	62	...
United Kingdom	442,306	124,167	255,918	10,808	50,188	376	849
United States	119,183	10,297	18,596	43,891	45,418	457	524
Total	594,282	138,117	287,353	59,089	104,349	2,661	2,714

¹ Adjusted for local inter-dealer double-counting (ie "net-gross" basis). Data may differ slightly from national survey data owing to differences in aggregation procedures and rounding.

Table 8

OTC single currency interest rate derivatives turnover by country in April 1995 - 2019, "net-gross" basis¹

All instruments

Daily averages, in millions of US dollars

	1995	1998	2001	2004	2007	2010	2013	2016	2019
Argentina	...	...	...	...	...	...	2	1	16
Australia	2,814	2,830	9,811	12,754	22,725	40,642	66,184	56,385	97,099
Austria	2,150	3,327	4,238	13,538	4,898	4,826	1,174	1,169	827
Bahrain	3,953	186	217	97	141	48	87	541	399
Belgium	5,768	4,856	14,093	30,523	21,605	9,990	8,634	16,659	11,651
Brazil	...	...	262	898	126	6,962	3,537	1,294	1,865
Bulgaria	...	...	...	...	21	3	5	0	0
Canada	4,431	6,415	9,916	12,118	20,582	41,692	33,975	32,789	122,634
Chile	...	...	...	20	5	200	133	301	1,030
China	...	...	...	...	...	1,521	12,966	4,086	16,024
Chinese Taipei	...	116	108	1,538	1,463	1,571	575	571	840
Colombia	...	...	...	...	5	18	121	191	321
Czech Republic	...	...	172	617	706	298	157	168	2,272
Denmark	2,681	4,172	5,787	10,816	10,043	16,404	59,354	9,897	10,474
Estonia	...	...	...	...	1	3	3	...	...
Finland	1,642	2,118	513	267	3,025	1,327	2,371	2,273	3,644
France	18,811	40,577	65,096	151,296	176,135	193,325	145,581	141,215	120,023
Germany	10,867	29,077	94,030	42,777	90,240	48,472	101,347	31,311	56,021
Greece	124	4	29	174	233	198	36	66	172
Hong Kong SAR	3,539	2,437	2,641	11,258	17,292	18,457	27,897	109,775	435,872
Hungary	...	3	0	198	833	171	83	125	37
India	...	...	109	750	3,395	3,498	3,248	1,858	4,799
Indonesia	...	...	4	22	71	4	21	10	13
Ireland	1,475	1,805	5,815	11,776	7,170	7,111	3,218	1,079	7,309
Israel	...	...	...	...	...	...	370	218	559
Italy	1,503	4,062	23,699	37,862	29,836	27,271	24,015	14,094	11,463
Japan	26,444	31,623	15,761	30,863	76,357	89,923	67,136	55,910	135,256
Korea	...	7	82	869	5,386	10,691	7,837	6,618	8,524
Latvia	...	...	...	...	...	...	...	...	2
Lithuania	...	...	...	6	52	20	...	19	1
Luxembourg	1,970	2,009	4,455	7,339	3,409	2,440	376	356	485
Malaysia	...	1	30	58	137	130	146	135	199
Mexico	...	180	366	1,394	2,919	1,392	2,390	1,464	1,831
Netherlands	4,111	3,545	24,212	18,833	26,959	61,330	28,693	21,520	28,231
New Zealand	153	421	314	1,271	2,778	1,504	2,544	4,635	16,215
Norway	1,454	2,816	2,907	5,212	6,647	11,950	5,651	3,636	6,426
Peru	...	...	...	...	17	4	40	...	16
Philippines	...	...	...	15	4	1,094	40	44	265
Poland	...	...	439	958	2,681	1,561	3,038	1,490	2,112
Portugal	61	998	329	731	786	739	717	249	170
Romania	...	...	...	...	2	4	4	9	15
Russia	...	...	...	...	...	...	219	107	598
Saudi Arabia	...	247	127	132	282	206	207	504	214
Singapore	16,256	5,341	3,193	8,597	57,410	34,579	37,143	58,026	116,443
Slovakia	...	...	8	...	...	2	8	25	18
Slovenia	...	...	...	...	25	...	...	...	...
South Africa	178	754	578	2,961	4,474	6,032	10,590	9,196	13,930
Spain	3,389	2,871	20,464	11,928	16,776	30,741	13,729	5,604	16,238
Sweden	1,863	3,568	3,224	7,411	12,290	18,249	16,998	13,743	9,023
Switzerland	2,442	5,882	9,615	12,049	60,654	74,861	32,618	8,178	31,885
Thailand	...	...	8	96	386	702	767	321	1,089
Turkey	...	...	...	25	122	4	124	142	105
United Arab Emirates	...	...	...	...	...	...	...	...	3,007
United Kingdom	58,760	122,928	237,762	563,009	957,093	1,234,902	1,347,749	1,180,246	3,670,238
United States	31,723	58,447	115,668	317,436	525,011	641,834	628,153	1,240,774	2,356,103
Total	208,563	343,625	676,084	1,330,488	2,173,209	2,648,906	2,702,010	3,039,027	7,324,002

¹ Adjusted for local inter-dealer double-counting (ie "net-gross" basis). Data may differ slightly from national survey data owing to differences in aggregation procedures and rounding. The data for the Netherlands are not fully comparable over time due to reporting improvements in 2013. The 2019 data for Switzerland are not fully comparable with past periods due to reporting improvements in 2019.

Table 9.1

OTC single currency interest rate derivatives turnover by country in April 1995 - 2019, "net-gross" basis¹

Forward rate agreements

Daily averages, in millions of US dollars

	1995	1998	2001	2004	2007	2010	2013	2016	2019
Argentina	...	...	...	...	...	...	...	...	...
Australia	1,995	1,470	5,464	5,570	3,607	6,729	18,193	4,105	11,545
Austria	1,927	1,133	1,962	3,912	562	2,131	72	151	151
Bahrain	3,858	96	169	6	...	...	11	...	2
Belgium	4,074	1,109	1,157	2,932	1,665	265	4,986	6,631	4,261
Brazil	...	...	22	121	...	562	12	28	61
Bulgaria	...	...	...	...	...	...	...	...	...
Canada	2,983	2,428	2,883	3,404	6,191	6,539	6,773	2,592	32,787
Chile	...	...	...	...	1	...	...	...	...
China	...	...	...	...	...	...	...	3	...
Chinese Taipei	...	...	44	47	12	2	...	...	...
Colombia	...	...	...	...	5	0	13	29	0
Czech Republic	...	...	115	552	482	132	14	2	92
Denmark	2,179	3,372	4,117	2,877	3,741	3,698	18,816	2,866	1,059
Estonia	...	...	...	...	...	...	...	...	...
Finland	1,488	1,779	30	43	162	80	65	491	...
France	5,033	4,632	6,713	28,640	19,117	46,430	48,539	34,841	36,173
Germany	4,270	5,569	17,155	9,695	24,895	15,098	77,186	12,377	30,340
Greece	28	3	...	...	18	15	...	...	...
Hong Kong SAR	1,590	404	531	318	721	1,341	2,039	3,427	58,215
Hungary	...	0	0	105	566	117	43	56	...
India	...	...	13	99	...	15	34	5	38
Indonesia	...	...	...	4	2	0	3	...	0
Ireland	1,280	1,068	1,204	992	103	889	33	...	63
Israel	...	...	...	...	...	...	25	65	361
Italy	874	850	6,790	8,025	2,550	8,402	9,387	2,683	1,243
Japan	2,292	968	1,051	354	3,424	1,962	2,671	822	759
Korea	...	...	18	116	438	433	64	439	...
Latvia	...	...	...	...	...	...	...	...	...
Lithuania	...	...	...	6	...	...	...	...	...
Luxembourg	855	348	1,191	1,822	203	154	9	64	119
Malaysia	...	...	0	10	10	...	...	...	17
Mexico	...	180	214	768	311	8	20	...	12
Netherlands	2,242	1,821	4,548	5,286	950	936	13,564	8,747	16,993
New Zealand	81	270	203	847	590	802	1,293	154	592
Norway	1,400	2,654	2,591	4,037	5,357	3,571	3,613	1,684	3,953
Peru	...	...	...	...	...	...	...	...	...
Philippines	...	...	...	14	2	...	...	...	...
Poland	...	...	408	691	1,435	775	2,035	836	1,206
Portugal	55	801	38	...	1	4	338	39	...
Romania	...	...	...	...	...	...	...	...	...
Russia	...	...	...	...	...	...	...	...	10
Saudi Arabia	...	11	16	6	2	9	9	...	...
Singapore	5,017	1,141	755	2,240	1,610	4,695	13,497	1,680	18,117
Slovakia	...	...	8	...	...	...	...	...	...
Slovenia	...	...	...	...	...	...	...	...	...
South Africa	35	269	470	1,821	2,313	4,004	8,672	7,817	8,271
Spain	1,515	1,077	3,490	1,304	538	3,610	6,908	759	0
Sweden	1,373	2,717	2,749	4,688	8,831	6,989	7,480	8,581	3,764
Switzerland	1,623	1,922	7,846	1,578	6,270	19,058	13,708	1,851	3,706
Thailand	...	...	3	2	14	34	19	...	...
Turkey	...	...	...	...	7	...	...	...	19
United Arab Emirates	...	...	...	...	...	...	...	...	105
United Kingdom	34,801	42,440	83,165	169,703	154,495	382,042	472,659	375,015	999,705
United States	10,487	16,033	23,028	40,019	92,120	268,438	141,575	241,951	864,806
Total	93,356	96,566	180,161	302,656	343,320	789,971	874,373	720,790	2,098,547

¹ Adjusted for local inter-dealer double-counting (ie "net-gross" basis). Data may differ slightly from national survey data owing to differences in aggregation procedures and rounding. The data for the Netherlands are not fully comparable over time due to reporting improvements in 2013. The 2019 data for Switzerland are not fully comparable with past periods due to reporting improvements in 2019.

Table 9.2

OTC single currency interest rate derivatives turnover by country in April 1995 - 2019, "net-gross" basis¹

Swaps

Daily averages, in millions of US dollars

	1995	1998	2001	2004	2007	2010	2013	2016	2019
Argentina	...	...	...	...	...	...	2	1	16
Australia	544	1,272	4,050	6,651	17,788	33,581	46,713	51,399	83,698
Austria	196	2,080	2,205	9,338	4,084	2,274	1,039	961	599
Bahrain	91	90	47	81	141	48	75	541	397
Belgium	1,636	3,594	11,887	24,944	15,820	4,730	3,445	6,114	6,418
Brazil	...	...	229	777	126	5,489	3,492	1,266	1,787
Bulgaria	...	...	...	...	19	3	5	0	0
Canada	1,061	2,926	6,073	7,265	10,775	34,553	25,186	29,344	86,667
Chile	...	...	...	20	4	200	133	301	1,030
China	...	...	...	...	...	206	12,959	4,015	13,923
Chinese Taipei	...	115	58	658	907	1,480	545	525	794
Colombia	...	...	...	...	1	17	107	162	321
Czech Republic	...	...	54	62	220	165	143	166	2,180
Denmark	252	694	1,490	7,229	4,865	11,799	39,496	6,286	6,525
Estonia	...	...	...	...	0	3	3	...	...
Finland	141	331	328	209	1,963	948	1,763	1,582	1,445
France	12,514	32,448	55,838	117,848	138,907	128,191	93,094	99,463	79,487
Germany	5,251	20,273	74,043	30,893	63,371	31,553	22,976	17,997	24,824
Greece	1	1	25	134	146	183	23	4	140
Hong Kong SAR	1,844	1,939	1,895	9,594	15,991	15,828	23,687	73,811	373,982
Hungary	...	3	...	90	267	55	40	69	37
India	...	...	96	650	3,395	2,334	3,213	1,831	4,754
Indonesia	...	...	4	18	67	3	18	10	11
Ireland	180	728	4,160	10,187	6,914	6,210	3,180	1,075	7,232
Israel	...	...	...	...	...	...	344	152	196
Italy	449	2,909	16,580	27,660	24,584	16,969	13,927	11,222	9,847
Japan	12,816	17,612	12,562	22,006	49,082	82,300	55,860	47,358	129,899
Korea	...	7	64	705	4,508	9,855	7,570	6,011	8,241
Latvia	...	...	...	...	...	...	...	...	2
Lithuania	...	...	...	...	8	20	...	8	1
Luxembourg	969	1,574	2,658	4,385	3,054	719	366	287	361
Malaysia	...	1	5	47	125	130	144	47	94
Mexico	...	...	147	424	2,362	1,293	2,247	1,402	1,754
Netherlands	1,326	1,532	19,337	12,746	25,422	60,042	14,887	12,609	11,131
New Zealand	40	101	108	411	2,144	682	1,251	4,479	15,622
Norway	33	155	301	937	1,216	8,361	2,036	1,953	2,472
Peru	...	...	...	...	17	4	40	...	16
Philippines	...	...	...	1	2	1,094	40	44	265
Poland	...	...	31	267	1,240	786	992	643	890
Portugal	6	157	288	627	635	653	372	198	157
Romania	...	...	...	...	2	1	2	8	15
Russia	...	...	...	...	...	...	219	107	360
Saudi Arabia	...	75	112	100	111	190	198	491	173
Singapore	11,083	4,183	2,392	5,577	54,240	28,570	22,752	55,675	94,066
Slovakia	...	...	...	...	...	2	8	24	17
Slovenia	...	...	...	...	25	...	...	...	...
South Africa	27	214	101	1,063	1,331	1,093	1,781	857	5,510
Spain	264	1,726	16,753	10,408	15,558	24,809	5,551	4,463	15,625
Sweden	410	368	419	2,533	1,973	8,012	7,225	4,839	4,269
Switzerland	483	3,908	1,729	10,435	54,319	55,752	18,877	6,199	28,168
Thailand	...	...	6	93	371	663	748	310	1,086
Turkey	...	...	...	0	21	4	96	139	87
United Arab Emirates	...	...	...	...	...	...	...	...	2,322
United Kingdom	18,537	68,754	141,738	299,146	710,078	738,631	795,805	757,279	2,228,031
United States	14,222	31,368	81,542	196,721	317,826	309,275	382,525	898,321	1,367,715
Total	84,376	201,140	459,353	822,939	1,556,024	1,629,765	1,617,202	2,112,047	4,624,658

¹ Adjusted for local inter-dealer double-counting (ie "net-gross" basis). Data may differ slightly from national survey data owing to differences in aggregation procedures and rounding. The data for the Netherlands are not fully comparable over time due to reporting improvements in 2013. The 2019 data for Switzerland are not fully comparable with past periods due to reporting improvements in 2019.

OTC single currency interest rate derivatives turnover by country in April 1995 - 2019, "net-gross" basis¹

Options and other products

Daily averages, in millions of US dollars

	1995	1998	2001	2004	2007	2010	2013	2016	2019
Argentina	...	...	...	...	...	...	...	...	...
Australia	275	87	297	534	1,330	332	1,279	881	1,857
Austria	27	113	70	288	252	421	64	57	77
Bahrain	4	1	1	10	...	...	...	...	...
Belgium	59	153	1,050	2,647	4,120	4,995	203	3,914	972
Brazil	...	...	11	0	1	911	33	...	17
Bulgaria	...	...	...	...	2	...	...	...	...
Canada	387	1,062	960	1,449	3,616	599	2,017	853	3,180
Chile	...	...	...	...	...	...	...	...	...
China	...	...	...	...	...	1,315	7	69	2,102
Chinese Taipei	...	0	6	833	544	89	30	46	46
Colombia	...	...	...	...	...	0	...	...	...
Czech Republic	...	...	3	2	3	1	0	...	0
Denmark	250	106	179	711	1,436	906	1,042	745	2,890
Estonia	...	...	...	...	0	...	0	...	...
Finland	13	8	156	15	900	299	543	200	2,200
France	1,263	3,497	2,546	4,808	18,111	18,704	3,948	6,911	4,363
Germany	1,345	3,235	2,832	2,189	1,974	1,821	1,185	936	857
Greece	95	...	3	40	69	...	13	62	31
Hong Kong SAR	105	94	215	1,346	579	1,288	2,171	32,537	3,674
Hungary	...	0	...	3	...	...	...	...	...
India	...	...	...	0	...	1,149	...	22	6
Indonesia	...	...	...	...	2	0	...	...	1
Ireland	15	9	451	597	153	13	5	5	14
Israel	...	...	...	...	...	...	...	...	1
Italy	179	303	329	2,177	2,703	1,900	701	189	374
Japan	11,337	13,043	2,149	8,503	23,851	5,661	8,605	7,730	4,598
Korea	...	...	...	48	441	403	204	169	283
Latvia	...	...	...	...	...	...	...	...	...
Lithuania	...	...	...	...	45	0	...	11	...
Luxembourg	145	87	607	1,132	152	1,566	1	5	5
Malaysia	...	...	25	1	2	...	2	88	87
Mexico	...	...	5	201	247	91	123	61	65
Netherlands	543	191	327	800	587	352	242	165	106
New Zealand	33	50	4	12	44	20	0	2	1
Norway	21	7	15	238	74	18	2	...	...
Peru	...	...	...	...	...	...	...	...	...
Philippines	...	...	...	...	...	...	...	...	...
Poland	...	...	...	0	6	...	10	11	16
Portugal	...	40	2	104	150	81	7	12	13
Romania	...	...	...	...	...	3	2	1	...
Russia	...	...	...	...	...	...	...	...	228
Saudi Arabia	...	160	...	26	168	7	...	13	41
Singapore	156	17	46	780	1,560	1,313	894	671	4,260
Slovakia	...	...	...	...	...	...	...	1	1
Slovenia	...	...	...	...	...	...	...	...	...
South Africa	116	271	8	77	830	935	138	522	150
Spain	1,610	68	221	216	681	2,323	1,271	382	612
Sweden	80	483	56	190	1,485	3,247	2,293	323	989
Switzerland	336	53	40	36	66	51	33	129	11
Thailand	...	...	...	0	2	6	...	11	3
Turkey	...	...	...	25	95	...	27	2	0
United Arab Emirates	...	...	...	...	...	...	...	...	579
United Kingdom	5,422	11,734	12,859	94,160	92,520	114,229	79,286	47,952	442,502
United States	7,015	11,045	11,098	80,697	115,064	64,121	104,054	100,501	123,582
Total	30,830	45,920	36,570	204,893	273,865	229,170	210,435	206,190	600,797

¹ Adjusted for local inter-dealer double-counting (ie "net-gross" basis). Data may differ slightly from national survey data owing to differences in aggregation procedures and rounding. The data for the Netherlands are not fully comparable over time due to reporting improvements in 2013. The 2019 data for Switzerland are not fully comparable with past periods due to reporting improvements in 2019.

Table 9.4

OTC single currency interest rate derivatives turnover by currency in April 1995 - 2019, "net-net" basis¹

Daily averages, in billions of US dollars and percentage share

Currency	1995		1998		2001		2004		2007		2010		2013		2016		2019	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
USD	41	27	71	27	152	31	347	34	532	32	654	32	639	28	1,357	51	3,274	50
EUR	232	47	461	45	656	39	834	41	1,133	49	641	24	1,587	24
GBP	17	6	37	8	90	9	172	10	213	10	187	8	237	9	538	8
AUD	3	1	8	2	12	1	19	1	37	2	76	3	108	4	401	6
JPY	35	23	27	10	27	6	46	5	137	8	124	6	69	3	83	3	213	3
CAD	7	3	6	1	8	1	15	1	48	2	30	1	39	1	90	1
SEK	2	1	5	1	13	1	33	2	20	1	36	2	19	1	61	1
NZD	0	0	0	0	2	0	7	0	4	0	5	0	26	1	56	1
CNY	0	0	2	0	14	1	10	0	33	1
NOK	2	1	3	1	8	1	8	0	15	1	9	0	15	1	31	0
KRW	0	0	0	0	5	0	16	1	12	1	13	0	27	0
CHF	9	4	6	1	10	1	19	1	20	1	14	1	14	1	26	0
ZAR	1	0	0	0	2	0	3	0	5	0	16	1	16	1	25	0
MXN	0	0	0	0	2	0	5	0	5	0	10	0	26	1	23	0
HKD	1	0	1	0	4	0	9	1	3	0	2	0	5	0	18	0
INR	0	0	0	0	3	0	2	0	6	0	6	0	17	0
SGD	0	0	0	0	3	0	4	0	4	0	4	0	12	0	15	0
CZK	0	0	0	0	1	0	0	0	1	0	1	0	12	0
PLN	0	0	1	0	2	0	1	0	7	0	5	0	8	0
BRL	0	0	1	0	2	0	3	0	16	1	7	0	8	0
HUF	0	0	0	0	1	0	0	0	2	0	8	0	8	0
THB	0	0	0	0	0	0	1	0	3	0	2	0	6	0
TWD	0	0	0	0	0	0	1	0	1	0	1	0	2	0	4	0
DKK	2	1	5	1	2	0	1	0	2	0	4	0	2	0	3	0
MYR	0	0	0	0	0	0	0	0	0	0	2	0	3	0	2	0
ILS	0	0	0	0	2	0	1	0	2	0
CLP	0	0	0	0	1	0	4	0	1	0
RUB	0	0	0	0	0	0	0	0	1	0
SAR	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
COP	0	0	0	0	0	0	1	0	1	0
AED	1	0
TRY	0	0	0	0	0	0	0	0	1	0
BHD	0	0	...	...	0	0	0	0	0	0
IDR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHP	0	0	0	0	1	0	0	0	0	0	0	0
ARS	0	0	0	0	0	0
RON	0	0	0	0	0	0	0	0
PEN	0	0	0	0	0	0	0	0	0	0
BGN	0	0	0	0	0	0
DEM	18	12	63	24	...	...	...	...	...	...	...	...	...	...	...	...	...	...
FRF	25	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...
ITL	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BEF	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
ESP	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
XEU	1	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
FIM	1	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
ATS	1	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
NLG	1	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
PTE	0	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
OTH	58	38	28	10	4	1	12	1	50	3	36	2	8	0	14	1	11	0
Total	151	100	265	100	489	100	1,025	100	1,686	100	2,054	100	2,311	100	2,677	100	6,505	100

¹ Adjusted for local and cross-border inter-dealer double-counting (ie "net-net" basis). Turnover for years prior to 2013 may be underestimated owing to incomplete reporting in previous surveys. Methodological changes in the 2013 survey ensured more complete coverage of activity in emerging market and other currencies. See annex for abbreviations.

Table 10.1

Annex: abbreviations used in the tables

AED	United Arab Emirates dirham
ARS	Argentine peso
ATS	Austrian schilling
AUD	Australian dollar
BEF	Belgian franc
BGN	Bulgarian lev
BHD	Bahraini dinar
BRL	Brazilian real
CAD	Canadian dollar
CHF	Swiss franc
CLP	Chilean peso
CNY	Chinese yuan (renminbi)
COP	Colombian peso
CZK	Czech koruna
DEM	Deutsche mark
DKK	Danish krone
ESP	Spanish peseta
EUR	euro
FIM	Finnish markka
FRF	French franc
GBP	pound sterling
HKD	Hong Kong dollar
HUF	Hungarian forint
IDR	Indonesian rupiah
ILS	Israeli new shekel
INR	Indian rupee
ITL	Italian lira
JPY	Japanese yen
KRW	Korean won
LOC	local currencies
MXN	Mexican peso
MYR	Malaysian ringgit
NLG	Dutch guilder
NOK	Norwegian krone
NZD	New Zealand dollar
OTH	currencies of other reporting countries
PEN	Peruvian sol
PHP	Philippine peso
PLN	Polish zloty
PTE	Portuguese escudo
RES	residual currencies
RMB	renminbi; see CNY
RON	Romanian leu
RUB	Russian rouble
SAR	Saudi riyal
SEK	Swedish krona
SGD	Singapore dollar
THB	Thai baht
TOT	total
TRY	Turkish lira
TWD	New Taiwan dollar
USD	US dollar
XEU	European currency unit
ZAR	South African rand