

THE CANADIAN FOREIGN EXCHANGE COMMITTEE LE COMITÉ CANADIEN DU MARCHÉ DES CHANGES

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CFEC Releases Results of April 2016 Foreign Exchange Volume Survey

25 July 2016 - The Canadian Foreign Exchange Committee (CFEC) released today the results of its April 2016 semi-annual survey of foreign exchange volumes in Canada. The purpose of the survey is to provide information on the size and structure of the foreign exchange and foreign exchange derivatives markets in Canada. Volumes are broken down by product, currency, counterparty, maturity and execution method. The nine banks with the largest foreign exchange sales activity in Canada participate.

In April 2015 the reporting basis for the survey was changed to reflect transactions conducted through a Canadian-based sales desk¹ instead of through a Canadian-based trading desk. The change in methodology makes the survey consistent with the Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity produced by the Bank for International Settlements (BIS). Prior survey results have not been restated to reflect the change in reporting methodology.

The summary highlights of the April 2016 survey include the following:

- The monthly turnover in April of traditional foreign exchange products (defined as spot transactions, outright forwards and foreign exchange swaps) totaled US\$ 1.6 trillion. On an average daily basis, total turnover increased by 18.4% to US\$ 77.2 billion in April 2016 from US\$ 65.2 billion in October 2015.
- Spot transactions, outright forwards and foreign exchange swaps increased by 16%, 10% and 22% respectively from October 2015 to US\$ 16.8 billion, US\$ 12.7 billion and US\$ 47.7 billion on an average daily basis.
- The monthly turnover in April of foreign exchange derivatives (currency swaps and options) totaled US\$ 156.7 billion. On an average daily basis, derivatives turnover increased by 42.5% to US\$ 7.5 billion in April 2016 from US\$ 5.2 billion in October 2015.
- Currency swaps were close to flat and options increased by 88% from October 2015 to US\$ 2.7 billion and US\$ 4.8 billion respectively on an average daily basis in April 2016.
- Compared with the survey from one year ago, the average daily turnover of traditional foreign exchange products increased by 2.8% from US\$ 75.1 billion in April 2015, and foreign exchange derivatives increased by 59.6% from US\$ 4.7 billion in April 2015.

¹ Where no sales desk is involved in a transaction, for example in an interbank deal, volumes are based on the trading desk.

The detailed results of the survey are presented in the summary tables attached.

CFEC is an industry group composed of senior representatives from financial institutions actively involved in the foreign exchange market in Canada and the U.S. dollar/Canadian dollar market globally. Formed in 1989, its objective is to provide a forum for the regular discussion of issues and developments pertinent to the foreign exchange market, including the review of market practices and procedures. The Bank of Canada chairs CFEC and provides secretariat services to the Committee.

The Bank of Canada also co-ordinates the CFEC survey on behalf of the market participants. The nine banks that participate in the survey are:

- BAML Canada
- Bank of Nova Scotia
- BMO Capital Markets
- CIBC World Markets
- HSBC Bank Canada
- National Bank of Canada
- RBC Capital Markets
- State Street Canada
- TD Securities

Globally, the (London) Foreign Exchange Joint Standing Committee, the (New York) Foreign Exchange Committee, the Tokyo Foreign Exchange Market Committee, the Singapore Foreign Exchange Market Committee and the Australian Foreign Exchange Committee conduct similar surveys. Their results are also released today (see links below).

<http://www.bankofengland.co.uk/markets/forex/fxjsc/index.htm>

<http://www.newyorkfed.org/fxc/volumesurvey/>

http://www.fxcomtky.com/index_e.html

<http://www.sfemc.org/statistics.asp>

<http://www.rba.gov.au/afxc/statistics/>

The Canadian Foreign Exchange Committee
Semi-annual Foreign Exchange Volume Survey
April 2016

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25 July 2016

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Table 1: Traditional foreign exchange turnover in Canada
Summary of surveys
Billions of U.S. dollars

	Traditional foreign exchange turnover				Number of business days	Average total daily turnover	Per cent change (6 months)	Per cent change (1 year)
	Spot	Outright forwards	FX swaps	Total				
Apr. 2006	235.4	61.1	703.6	1000.1	19	52.6	8.5	
Oct. 2006	238.9	63.3	732.0	1034.1	21	49.2	-6.4	1.4
Apr. 2007	236.5	73.8	756.0	1066.2	20	53.3	8.3	1.3
Oct. 2007	326.5	88.0	1023.9	1438.4	22	65.4	22.7	32.9
Apr. 2008	375.0	110.3	913.0	1398.3	22	63.6	-2.8	19.3
Oct. 2008	401.9	185.3	873.3	1460.4	22	66.4	4.4	1.5
Apr. 2009	248.4	107.2	690.6	1046.1	21	49.8	-25.0	-21.7
Oct. 2009	269.9	99.6	724.1	1093.5	21	52.1	4.6	-21.5
Apr. 2010	358.3	119.5	719.9	1197.7	21	57.0	9.4	14.5
Oct. 2010	326.6	147.6	681.1	1155.3	20	57.8	1.4	10.9
Apr. 2011	347.1	174.7	702.3	1224.1	20	61.2	5.9	7.4
Oct. 2011	319.1	155.5	572.6	1047.2	20	52.4	-14.4	-9.3
Apr. 2012 ¹	315.8	143.1	732.2	1191.1	20	59.6	13.7	-2.6
Oct. 2012	267.0	158.7	695.3	1121.0	22	51.0	-14.4	-2.7
Apr. 2013	343.2	225.7	782.1	1351.0	22	61.4	20.4	3.0
Oct. 2013	320.1	197.6	633.7	1151.5	22	52.3	-14.8	2.6
Apr. 2014	311.2	214.6	695.4	1221.1	21	58.2	11.3	-5.2
Oct. 2014	363.2	241.0	725.0	1329.1	22	60.4	3.8	15.5
Apr. 2015 ²	359.4	337.1	880.1	1576.6	21	75.1	24.3	29.0
Oct. 2015	305.8	243.0	820.4	1369.2	21	65.2	-13.2	7.9
Apr. 2016	353.2	266.5	1001.8	1621.4	21	77.2	18.4	2.8

¹ Prior to April 2012, eight banks participated in the survey. From April 2012 to October 2014, seven banks participated.

² In April 2015, ten banks participated in the survey. This declined to nine banks in October 2015. Also, in April 2015 the reporting basis was changed to reflect trades conducted through a Canadian-based sales desk instead of through a Canadian-based trading desk.

Table 2: Over-the-counter (OTC) derivatives market turnover in Canada
Summary of surveys
Billions of U.S. dollars

	Foreign exchange derivatives			Number of business days	Average total daily turnover	Per cent change (6 months)	Per cent change (1 year)
	Currency swaps	Options	Total				
Apr. 2006	27.6	28.0	55.6	19	2.9	-27.5	
Oct. 2006	18.5	25.5	44.0	21	2.1	-27.6	-47.5
Apr. 2007	22.6	36.4	59.1	20	3.0	42.9	3.4
Oct. 2007	24.0	44.2	68.1	22	3.1	3.3	47.6
Apr. 2008	23.3	35.6	58.9	22	2.7	-12.9	-10.0
Oct. 2008	21.1	39.0	60.1	22	2.7	0.0	-12.9
Apr. 2009	21.8	25.3	47.1	21	2.2	-18.5	-18.5
Oct. 2009	17.6	28.0	45.6	21	2.2	0.0	-18.5
Apr. 2010	24.3	41.7	66.0	21	3.1	40.9	40.9
Oct. 2010	23.9	43.2	67.1	20	3.4	9.7	54.5
Apr. 2011	33.0	44.1	77.1	20	3.9	14.7	25.8
Oct. 2011	27.4	38.3	65.7	20	3.3	-15.4	-2.9
Apr. 2012	25.1	31.5	56.6	20	2.8	-15.2	-28.2
Oct. 2012	35.7	36.7	72.4	22	3.3	17.9	0.0
Apr. 2013	25.8	49.2	75.0	22	3.4	3.0	21.4
Oct. 2013	27.6	60.1	87.6	22	4.0	17.6	21.2
Apr. 2014	21.7	47.9	69.6	21	3.3	-17.5	-2.9
Oct. 2014	60.0	78.3	138.2	22	6.3	90.9	57.5
Apr. 2015	32.2	66.0	98.2	21	4.7	-25.4	42.4
Oct. 2015	56.3	53.7	110.0	21	5.2	10.6	-17.5
Apr. 2016	55.6	101.1	156.7	21	7.5	42.5	59.6

Table 3: Total reported foreign exchange turnover in Canada
Millions of U.S. dollars

Instrument and counterparty	Canadian dollar against U.S. dollar			U.S. dollar against currencies other than the Canadian dollar			Canadian dollar against currencies other than the U.S. dollar			All other currency pairs			All currencies		
	Oct-15	Apr-16	Per cent growth	Oct-15	Apr-16	Per cent growth	Oct-15	Apr-16	Per cent growth	Oct-15	Apr-16	Per cent growth	Oct-15	Apr-16	Per cent growth
Spot	143,434	169,217	18	129,142	144,253	12	21,954	30,571	39	11,286	9,123	-19	305,814	353,163	15
Reporting dealers	19,379	20,520	6	17,478	18,781	7	4,241	990	-77	2,192	3,165	44	43,288	43,455	0
Other dealers	83,130	106,238	28	88,583	106,492	20	9,713	7,402	-24	8,070	5,546	-31	189,496	225,678	19
Other financial institutions	20,394	23,523	15	18,009	14,719	-18	5,521	19,230	248	373	265	-29	44,297	57,737	30
Non-financial customers	20,531	18,936	-8	5,072	4,261	-16	2,479	2,949	19	651	147	-77	28,733	26,293	-8
Outright forwards	108,460	132,567	22	102,066	97,571	-4	22,804	32,383	42	9,627	3,970	-59	242,956	266,490	10
Reporting dealers	6,510	13,746	111	6,988	12,572	80	340	1,479	335	210	372	77	14,047	28,168	101
Other dealers	23,834	27,927	17	44,926	46,795	4	4,040	1,710	-58	6,204	1,481	-76	79,004	77,913	-1
Other financial institutions	59,405	73,651	24	44,308	32,911	-26	16,258	26,463	63	2,550	1,606	-37	122,521	134,631	10
Non-financial customers	18,711	17,243	-8	5,844	5,293	-9	2,166	2,731	26	663	511	-23	27,384	25,778	-6
Non-deliverable forwards													25,570	22,698	-11
FX swaps	468,127	573,063	22	322,566	401,727	25	18,434	22,926	24	11,259	4,048	-64	820,386	1,001,763	22
Reporting dealers	68,072	62,729	-8	11,546	14,286	24	409	1,075	163	0	132	-	80,027	78,222	-2
Other dealers	288,267	362,608	26	226,552	323,879	43	6,766	3,580	-47	5,181	1,015	-80	526,766	691,082	31
Other financial institutions	58,662	78,116	33	17,025	16,621	-2	9,440	16,483	75	1,673	436	-74	86,800	111,656	29
Non-financial customers	53,126	69,610	31	67,443	46,941	-30	1,819	1,787	-2	4,405	2,465	-44	126,793	120,803	-5
Currency swaps	33,452	40,691	22	18,625	11,246	-40	2,042	3,684	80	2,145	20	-99	56,263	55,641	-1
Reporting dealers	6,806	14,927	119	939	838	-11	0	3,476	-	21	0	-100	7,765	19,241	148
Other dealers	12,808	7,000	-45	11,575	10,086	-13	1,438	34	-98	1,167	20	-98	26,988	17,140	-36
Other financial institutions	1,454	7,413	410	1,473	10	-99	15	174	1060	492	0	-100	3,434	7,597	121
Non-financial customers	12,384	11,351	-8	4,638	312	-93	589	0	-100	465	0	-100	18,076	11,663	-35
OTC options	26,697	46,018	72	25,769	52,280	103	129	1,025	694	1,147	1,773	55	53,742	101,096	88
Reporting dealers	3,250	2,314	-29	3,963	2,899	-27	36	150	315	66	94	42	7,315	5,457	-25
Other dealers	14,714	35,769	143	19,552	44,492	128	68	824	1112	759	1,561	106	35,093	82,646	136
Other financial institutions	3,980	1,734	-56	1,963	2,834	44	1	2	100	322	26	-92	6,266	4,596	-27
Non-financial customers	4,753	6,201	30	291	2,055	606	24	49	104	0	92	-	5,068	8,397	66
Total dealers	526,769	653,777	24	432,100	581,119	34	27,050	20,720	-23	23,869	13,386	-44	1,009,787	1,269,001	26
Reporting	104,016	114,235	10	40,912	49,375	21	5,025	7,169	43	2,488	3,763	51	152,440	174,542	14
Other	422,753	539,542	28	391,188	531,744	36	22,025	13,550	-38	21,381	9,623	-55	857,347	1,094,459	28
Total customers	253,400	307,778	21	166,066	125,957	-24	38,312	69,868	82	11,594	5,548	-52	469,372	509,151	8
Financial	143,895	184,437	28	82,778	67,095	-19	31,235	62,352	100	5,410	2,333	-57	263,318	316,217	20
Non-financial	109,505	123,341	13	83,288	58,862	-29	7,077	7,516	6	6,184	3,215	-48	206,054	192,934	-6
Local	225,061	281,124	25	45,213	44,634	-1	36,883	68,842	87	5,951	3,373	-43	313,108	397,973	27
Cross-border	28,342	26,655	-6	120,854	81,323	-33	1,430	1,026	-28	5,643	2,175	-61	156,269	111,179	-29
Total turnover	780,169	961,555	23	598,166	707,076	18	65,362	90,588	39	35,463	18,934	-47	1,479,159	1,778,153	20

Table 4: Reported foreign exchange turnover in Canada by instrument and by counterparty

Summary of surveys

Billions of U.S. dollars (and percent shares)

	Instrument									Counterparty ¹								
	Spot		Outright forwards		Foreign exchange swaps		Currency swaps		OTC options		Dealers		Customers					
											Reporting		Other		Financial		Non-financial	
Oct-06	239	(22.1)	63	(5.9)	732	(67.8)	19	(1.8)	26	(2.4)	100	(9.6)	710	(68.7)	138	(13.3)	87	(8.4)
Apr-07	236	(21.0)	74	(6.6)	756	(67.2)	23	(2.0)	36	(3.2)	94	(8.8)	698	(65.5)	166	(15.5)	109	(10.2)
Oct-07	326	(21.7)	88	(5.8)	1024	(68.0)	24	(1.6)	44	(2.9)	92	(6.4)	1024	(71.2)	181	(12.6)	141	(9.8)
Apr-08	375	(25.7)	110	(7.6)	913	(62.6)	23	(1.6)	36	(2.5)	154	(11.0)	940	(67.2)	192	(13.8)	112	(8.0)
Oct-08	402	(26.4)	185	(12.2)	873	(57.4)	21	(1.4)	39	(2.6)	155	(10.6)	889	(60.9)	266	(18.2)	151	(10.3)
Apr-09	248	(22.7)	107	(9.8)	691	(63.2)	22	(2.0)	25	(2.3)	169	(16.1)	631	(60.3)	155	(14.8)	91	(8.7)
Oct-09	270	(23.7)	100	(8.7)	724	(63.5)	18	(1.6)	28	(2.5)	111	(10.1)	743	(68.0)	147	(13.5)	93	(8.5)
Apr-10	358	(28.3)	119	(9.4)	720	(57.0)	24	(1.9)	42	(3.3)	108	(9.0)	800	(66.8)	156	(13.0)	134	(11.2)
Oct-10	327	(26.7)	148	(12.1)	681	(55.7)	24	(2.0)	43	(3.5)	87	(7.5)	803	(69.5)	135	(11.7)	130	(11.3)
Apr-11	347	(26.7)	175	(13.4)	702	(54.0)	33	(2.5)	44	(3.4)	129	(10.5)	785	(64.1)	202	(16.5)	109	(8.9)
Oct-11	319	(28.7)	156	(14.0)	573	(51.5)	27	(2.4)	38	(3.4)	117	(11.2)	608	(58.1)	201	(19.1)	121	(11.5)
Apr-12	316	(25.3)	143	(11.4)	732	(58.7)	25	(2.0)	32	(2.6)	117	(9.8)	707	(59.4)	210	(17.6)	157	(13.2)
Oct-12	267	(22.4)	159	(13.3)	695	(58.2)	36	(3.0)	37	(3.1)	108	(9.7)	676	(60.3)	174	(15.5)	163	(14.5)
Apr-13	343	(24.1)	226	(15.8)	782	(54.8)	26	(1.8)	49	(3.5)	105	(7.4)	939	(65.8)	218	(15.3)	164	(11.5)
Oct-13	320	(25.8)	198	(15.9)	634	(51.1)	28	(2.2)	60	(4.8)	117	(9.5)	803	(64.8)	184	(14.8)	135	(10.9)
Apr-14	311	(24.1)	215	(16.6)	695	(53.9)	22	(1.7)	48	(3.7)	132	(10.2)	790	(61.2)	211	(16.4)	158	(12.2)
Oct-14	363	(24.7)	241	(16.4)	725	(49.4)	60	(4.1)	78	(5.3)	186	(12.7)	884	(60.2)	227	(15.5)	171	(11.6)
Apr-15	359	(21.5)	337	(20.1)	880	(52.5)	32	(1.9)	66	(3.9)	163	(9.7)	1012	(60.4)	300	(17.9)	200	(11.9)
Oct-15	306	(20.7)	243	(16.4)	820	(55.5)	56	(3.8)	54	(3.6)	152	(10.3)	857	(58.0)	263	(17.8)	206	(13.9)
Apr-16	353	(19.9)	266	(15.0)	1002	(56.3)	56	(3.1)	101	(5.7)	175	(9.8)	1094	(61.6)	316	(17.8)	193	(10.9)

¹ Beginning in April 2013, the counterparty breakdown is based on all five foreign exchange instruments, not just traditional foreign exchange turnover (spot, outright forwards and foreign exchange swaps).

Table 4a: Breakdown of other financial institutions

April 2016

Billions of U.S. dollars (and percent shares)

	Spot		Outright forwards		Foreign exchange swaps		Currency swaps		Options		Total	
Total Other Financial Institutions	57.7	(100.0)	134.6	(100.0)	111.7	(100.0)	7.6	(100.0)	4.6	(100.0)	316.2	(100.0)
Institutional investors	50.3	(87.1)	113.9	(84.6)	95.7	(85.7)	5.2	(68.9)	4.3	(93.4)	269.4	(85.2)
Hedge funds and proprietary trading firms	6.1	(10.6)	19.7	(14.6)	8.1	(7.2)	0.6	(7.6)	0.3	(5.5)	34.7	(11.0)
Official sector financial institutions	0.8	(1.4)	0.6	(0.5)	6.7	(6.0)	1.8	(23.5)	0.0	(0.5)	9.9	(3.1)
Other	0.6	(1.0)	0.4	(0.3)	1.2	(1.0)	0.0	(0.0)	0.0	(0.7)	2.1	(0.7)

Table 5: Currency distribution of foreign exchange market turnover in Canada
Summary of surveys¹
Percent shares

Currency	October 2011	April 2012	October 2012	April 2013	October 2013	April 2014	October 2014	April 2015	October 2015	April 2016
U.S. dollar	93.7	93.4	94.7	92.8	93.2	92.4	93.5	89.4	93.2	93.8
Canadian dollar	66.1	70.1	62.3	58.9	62.2	65.7	63.3	64.5	57.2	59.2
Euro	11.4	10.6	12.7	15.4	13.4	10.9	13.6	10.9	14.4	11.8
U.K. pound	6.5	5.0	7.4	6.4	6.6	6.0	5.8	7.5	10.3	11.8
Japanese yen	3.7	3.1	4.3	4.8	3.3	3.8	4.6	4.3	5.6	5.8
Australian dollar	3.8	2.6	3.0	2.6	3.1	3.1	2.3	3.4	2.3	2.6
Swiss franc	1.2	1.6	1.0	1.7	1.6	0.8	1.2	1.2	1.3	1.2
Mexican peso ²	--	--	--	3.5	2.5	2.9	3.4	2.7	3.1	2.4
Chinese yuan ²	--	--	--	0.1	0.3	0.4	0.5	0.3	0.3	0.7
Other currencies	13.5	13.5	14.6	13.8	13.8	14.0	11.8	15.7	12.2	10.7
All currencies ³	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0

¹ Beginning in April 2013, the currency distribution is based on all five foreign exchange instruments, not just traditional foreign exchange turnover (spot, outright forwards and foreign exchange swaps).

² The Mexican peso and Chinese yuan were not broken out before April 2013.

³ Since every foreign exchange transaction involves two currencies, the reporting of all currencies necessarily sums to 200 per cent.

Table 6: Reported foreign exchange market turnover in Canada by maturity¹
Millions of U.S. dollars

Instrument	October-11		April-12		October-12		April-13		October-13		April-14		October-14		April-15		October-15		April-16	
	Amount	% share	Amount	% share	Amount	% share	Amount	% share	Amount	% share	Amount	% share	Amount	% share	Amount	% share	Amount	% share	Amount	% share
Outright forwards																				
Up to 1 month	88,815	55.2	92,168	61.9	106,326	61.7	155,868	66.6	124,908	59.6	144,400	63.4	160,827	61.7	217,901	61.0	128548.0	50.0	157,820	53.6
1 month to 1 year	69,239	43.0	52,805	35.5	64,416	37.4	75,386	32.2	80,320	38.3	79,522	34.9	96,118	36.8	135,859	38.0	126497.0	49.2	132,174	44.9
More than 1 year	2,842	1.8	3,812	2.6	1,564	0.9	2,789	1.2	4,407	2.1	3,990	1.8	3,908	1.5	3,672	1.0	1956.0	0.8	4,664	1.6
Total	160,896	100.0	148,785	100.0	172,306	100.0	234,043	100.0	209,635	100.0	227,912	100.0	260,853	100.0	357,431	100.0	257001.0	100.0	294,658	100.0
Foreign exchange swaps																				
Up to 1 month	469,163	73.5	595,496	72.7	602,668	78.4	653,250	77.3	521,855	76.0	583,763	76.2	587,394	72.8	728,854	75.2	655546.0	72.8	790,867	73.2
1 month to 1 year	161,685	25.3	187,063	22.8	161,035	20.9	182,342	21.6	158,263	23.0	175,050	22.9	213,063	26.4	231,992	23.9	240592.0	26.7	273,160	25.3
More than 1 year	7,673	1.2	36,627	4.5	5,443	0.7	9,468	1.1	6,627	1.0	7,235	0.9	5,990	0.7	8,548	0.9	4274.0	0.5	15,958	1.5
Total	638,521	100.0	819,186	100.0	769,146	100.0	845,060	100.0	686,745	100.0	766,048	100.0	806,447	100.0	969,394	100.0	900412.0	100.0	1,079,985	100.0
OTC options																				
Up to 1 month	20,980	52.2	13,313	40.7	17,241	44.4	17,508	33.4	29,024	45.5	22,392	44.4	25,641	31.0	37,838	51.4	33243.0	54.4	27,660	26.0
1 month to 6 months	14,218	35.4	15,123	46.3	15,009	38.7	29,667	56.7	24,717	38.7	17,316	34.3	40,412	48.9	21,458	29.1	18333.0	30.0	38,434	36.1
Over 6 months	4,979	12.4	4,257	13.0	6,543	16.9	5,185	9.9	10,102	15.8	10,772	21.3	16,632	20.1	14,386	19.5	9480.0	15.5	40,458	38.0
Total	40,177	100.0	32,693	100.0	38,793	100.0	52,360	100.0	63,843	100.0	50,480	100.0	82,685	100.0	73,682	100.0	61056.0	100.0	106,552	100.0

¹ Not adjusted for local double-counting.

Table 7: Execution methods
percent shares
April 2016

Classification	Voice		Electronic					TOTAL
	Direct ¹	Indirect ²	Direct ¹		Indirect ²			
			Single-bank Proprietary trading systems	Other	Reuters Matching/ EBS	Other electronic communication networks	Other	
SPOT								
With reporting dealers	79	1	12	1	3	4	0	100
With other dealers	13	6	24	17	27	13	0	100
With other financial institutions	34	2	21	4	1	37	0	100
With non-financial customers	54	4	16	20	1	5	0	100
Total Spot	28	5	22	13	18	15	0	100
OUTRIGHT FORWARDS								
With reporting dealers	56	4	17	6	0	17	0	100
With other dealers	36	10	13	13	1	27	0	100
With other financial institutions	29	1	15	5	1	48	2	100
With non-financial customers	63	1	4	14	1	17	0	100
Total Outright forwards	37	4	13	8	1	36	1	100
FOREIGN EXCHANGE SWAPS								
With reporting dealers	61	16	2	5	14	2	0	100
With other dealers	25	11	24	11	27	3	0	100
With other financial institutions	51	4	9	9	1	27	0	100
With non-financial customers	94	0	0	5	0	1	0	100
Total Foreign exchange swaps	39	10	17	9	20	5	0	100
CURRENCY SWAPS								
With reporting dealers	45	39	6	4	2	3	0	100
With other dealers	44	25	10	0	4	17	0	100
With other financial institutions	93	1	3	0	1	2	0	100
With non-financial customers	73	7	10	1	4	6	0	100
Total Currency swaps	57	23	8	2	3	8	0	100
OTC OPTIONS								
With reporting dealers	25	51	16	5	0	3	0	100
With other dealers	12	67	14	2	0	4	0	100
With other financial institutions	52	31	9	1	0	7	0	100
With non-financial customers	22	59	8	1	0	11	0	100
Total OTC options	16	64	14	2	0	5	0	100
TOTAL FX CONTRACTS	36	11	17	9	15	12	0	100

¹ Direct means not intermediated by a third party.

² Indirect means intermediated by a third party.