For Immediate Release 5 September 2013, 09:00 ET

Contact: Bank of Canada Media Relations (613) 782-8782

Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity in Canada during April 2013

OTTAWA — During the month of April, the Bank of Canada and 52 other central banks and monetary authorities conducted a survey of turnover activity in the foreign exchange and over-the-counter (OTC) derivatives markets in their respective countries. This worldwide effort was coordinated by the Bank for International Settlements (BIS) and is undertaken every three years.

The purpose of the survey is to obtain global, comprehensive, and consistent information on the size and structure of the foreign exchange and OTC derivatives markets. The data are collected to increase market transparency and to help central banks, market participants, and others better understand and monitor patterns of activity in global financial markets.

The Bank of Canada is releasing the summary results of its survey today, as are many other participating central banks. As well, the BIS is issuing a press release that summarizes highlights of the aggregated global turnover. Canada has participated in this survey since 1983, and summary results of earlier surveys are shown in Tables 1 through 4 and 7.

Almost all financial institutions in Canada that are active in the wholesale foreign exchange and derivatives markets were surveyed. They consisted of 15 financial institutions, estimated to represent approximately 98 per cent of these markets in Canada.² With respect to foreign exchange, the survey covered spot transactions, outright forwards, foreign exchange swaps, currency swaps,³ and OTC options. The interest rate products covered were forward-rate agreements, interest rate swaps, and OTC options. Participants were also asked to identify transactions by currency and type of counterparty, and, in the case of foreign exchange, they were asked to identify the execution method for each transaction.

^{1.} The highlights of the global results, which have been aggregated by the BIS, along with direct links to other national press releases, can be found at <<u>http://www.bis.org/publ/rpfx13.htm</u>>.

² Globally, almost 1,300 reporting dealers, mainly large commercial and investment banks, participated in the April 2013 triennial turnover survey.

^{3.} Currency swaps involve the exchange of streams of interest payments and principal amounts, whereas foreign exchange swaps involve the exchange of principal amounts only.

The turnover part of the triennial survey is conducted on the basis of residence or location. In particular, the basis for reporting is the country in which the sales desk of a trade is located. Where no sales desk is involved in a deal, the trading desk is used to determine the location. Although there was variation in their individual qualitative assessments, on average, reporting dealers in Canada indicated that turnover activity during the month of April was normal and that activity was increasing compared to the previous six months.

Highlights of the 2013 survey

- During the month of April, total turnover of foreign exchange transactions rose from US\$1.3 trillion in 2010 to over US\$1.4 trillion in 2013, an increase of 9.8 per cent. However, with one more business day in April 2013 than in 2010, average daily turnover increased by 4.7 per cent from US\$61.9 billion in 2010 to US\$64.8 billion in 2013 (Table 1).
- There was considerable variation in turnover growth by product. On an average daily basis from April 2010 to April 2013 spot transactions fell 18 per cent to US\$15.0 billion in April 2013. In contrast, outright forwards and options increased 60 per cent and 37 per cent respectively to US\$10.1 billion and US\$3.1 billion. Foreign exchange swaps were up 5 per cent to US\$35.6 billion, and currency swaps were largely unchanged at US\$1.2 billion.
- Single-currency interest rate derivatives turnover in April 2013 totaled US\$747.4 billion, down 14.6 per cent from the US\$875.5 billion recorded in 2010 (Table 2). Average daily turnover fell by 18.5 per cent from US\$41.7 billion to US\$34.0 billion. On an average daily basis, forward rate agreements grew by 4 per cent to US\$6.8 billion, interest rate swaps fell by 27 per cent to US\$25.2 billion and interest rate options more than tripled in volume to US\$2.0 billion (from a much smaller base that had fallen considerably three years ago).
- The composition of foreign exchange business by type of instrument or product over the past 11 surveys is shown in Table 3. The proportion of spot transactions fell to 23 per cent from 29 percent whereas the proportion of outright forwards rose to 16 per cent from 10 per cent. In contrast, the proportion of foreign exchange swaps and currency swaps remained unchanged at 55 per cent and 2 per cent respectively. Foreign exchange options rose slightly to 5 per cent.

^{4.} In contrast, in the Canadian Foreign Exchange Committee (CFEC) survey of foreign exchange volumes, the basis for reporting is the location of the trading desk in Canada, i.e., it includes all transactions that are priced and executed by traders in Canada. As with the triennial survey, the CFEC survey in Canada is coordinated by the Bank of Canada.

- Table 3 also provides data on the composition of foreign exchange business by type of counterparty. This table shows that the proportion of business going through reporting dealers rose to 63 per cent from 54 per cent, a level more typical of most of the earlier surveys. The proportion of financial customer⁵ business fell to 26 percent from 38 per cent (see next bullet for more detail), and non-financial customers, which are mainly end-users such as corporations and government entities, rose to 12 per cent from 8 per cent.
- For the first time, reporting dealers were asked to provide a detailed breakdown of
 the other financial institutions counterparty category. The sub-category
 breakdown is provided in Table 3a and as can be seen, most of the volumes are
 attributed to non-reporting banks (42 per cent) and institutional investors (42 per
 cent), with lesser amounts to hedge funds and proprietary trading firms (13 per
 cent) and official sector financial institutions (3 per cent).
- Table 4 shows the distribution by currency of foreign exchange market activity in Canada. Of the transactions, 92.5 per cent have the U.S. dollar on one side and 61.2 per cent had the Canadian dollar on one side. The other most significant currencies in foreign exchange transactions in Canada in 2013 were the euro (17.3 per cent), the U.K. pound sterling (7.9 per cent), the Japanese yen (6.2 per cent), the Australian dollar (3.7 per cent), and the Mexican peso (3.1 per cent).
- Tables 5 and 6 provide more detailed information on the turnover in foreign exchange and interest rate derivatives respectively in Canada. In Table 5, it can be seen that total foreign exchange turnover in Canadian-dollar against U.S.-dollar transactions declined by 8.4 per cent, whereas other currency business against the U.S. dollar increased by 42.5 per cent. The Canadian dollar against currencies other than the U.S. dollar, and all other currency pairs, represent a relatively small percentage of total transactions (8.0 per cent). Non-deliverable forwards (NDFs) totaled US\$28.2 billion during the month of April. By volume, approximately one-third of all foreign exchange transactions are undertaken with local (located inside Canada) counterparties and two-thirds with cross border (located outside Canada) counterparties.
- Almost half of all interest rate derivatives in Canada (Table 6) are denominated in Canadian dollars, with more than one-third in U.S. dollars and the remainder in other currencies. Canadian-dollar and other currency interest rate derivatives declined in volume (by 36.6 percent and 24.8 per cent respectively) whereas U.S.-dollar derivatives increased by 70.1 per cent. By volume, approximately onefifth of all interest rate derivatives are with local counterparties and four-fifths are with cross border counterparties.

-

⁵ Financial customers comprise financial institutions such as mutual funds, pension funds, hedge funds, currency funds, money market funds, leasing companies, insurance companies, financial subsidiaries of corporate firms, and central banks. Financial customers also include smaller commercial and investment banks that do not participate as reporting dealers in the triennial survey.

- In a complementary question in the April survey, reporting dealers were asked how much of their reported turnover was centrally cleared through central counterparties (CCPs) after execution. The proportion for forward rate agreements and interest rate swaps was 60 per cent and 53 per cent respectively.
- Table 7 provides a maturity breakdown for outright forwards and foreign exchange swaps. More than 98 per cent of these transactions are less than one year in duration, with over 59 per cent being less than 7 days.
- This survey included a re-formatted execution methods table for foreign exchange contracts with a more detailed counterparty breakdown for each product (Table 8). Forty-four percent of all foreign exchange transactions were undertaken by way of voice direct⁶ (over the telephone), with the highest percentages attributed to non-financial customers and other financial institutions. Twelve per cent of transactions were intermediated through voice brokers (voice indirect). Forty-five per cent of all foreign exchange transactions were executed electronically, mostly through Reuters Matching/EBS (18 per cent) and single-bank proprietary trading systems (13 per cent), but also through other electronic communications networks or multibank dealing systems (7 per cent) and "other" direct electronic means such as Reuters Conversational Dealing (7 per cent).

Note: Additional tables on the results of the Canadian survey, including detailed tables on amounts outstanding, will be made available on the FX Volumes and Rates of the Canadian Foreign Exchange Committee's (CFEC's) website (<www.cfec.ca>) later this year. These will be published after the release of the final comprehensive BIS 2013 Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity report expected before the end of the year. The CFEC's website will contain a direct link to that report once it is available.

-

⁶ Most internal or related party trades are classified as having been executed by "voice direct" in the survey.

Table 1: Foreign exchange turnover in Canada Summary of surveys

Billions of U.S. Dollars in April

		Fo	reign excha	nge turnove	er ¹		Number of	Average	
	Spot	Outright forwards	FX swaps	Currency swaps	Options	Total	business days	daily turnover	Per cent change
1983	44.3	5.2	53.7			103.2	20	5.2	
1986	81.5	11.2	98.5			191.2	20	9.6	84.6
1989	123.9	14.1	161.9			299.9	20	15.0	56.3
1992	162.1	17.6	281.2			460.9	21	21.9	46.0
1995	228.5	47.9	290.1	1.0	15.0	582.5	19	30.7	40.2
1998	226.5	30.0	516.2	5.8	18.2	796.7	21	37.9	23.5
2001	217.3	45.0	570.6	7.1	44.9	884.9	20	44.2	16.6
2004	385.7	83.4	663.4	12.6	100.4	1245.5	21	59.3	34.2
2007	273.1	86.1	837.3	32.1	52.0	1280.6	20	64.0	7.9
2010	383.9	132.0	710.9	26.0	46.9	1299.7	21	61.9	-3.3
2013	329.0	221.2	782.1	26.8	67.5	1426.5	22	64.8	4.7

¹Currency sw aps and options were not included in the survey until 1995.

Table 2: Single-currency interest rate derivatives turnover in Canada Summary of surveys

Billions of U.S. Dollars in April

	Single-c	urrency inte	rest rate de	rivatives	Number		
	Forward	Interest			of	Average	
	rate	rate			business	daily	Per cent
	agreements	swaps	Options	Total	days	turnover	change
1995	56.7	20.2	5.6	82.5	19	4.3	
1998	51.0	61.4	22.0	134.4	21	6.4	48.8
2001	57.7	121.5	19.2	198.4	20	9.9	54.7
2004	71.5	152.6	30.4	254.5	21	12.1	22.2
2007	123.8	215.5	72.3	411.6	20	20.6	70.2
2010	137.3	725.6	12.6	875.5	21	41.7	102.4
2013	149.0	554.1	44.4	747.4	22	34.0	-18.5

Table 3: Reported foreign exchange turnover in Canada by instrument and by counterparty Summary of surveys

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

					Instru	ment ¹					Counterparty ²							
	Sį	oot		right ards	Foreign exchange swaps			ency aps	Opti	ions	Reporting dealers		Financial ³		Non-financial			
1983	44	(43)	5	(5)	54	(52)					75	(73)	8	(8)	19	(19)		
1986	82	(43)	11	(6)	98	(51)					131	(69)	24	(12)	36	(19)		
1989	124	(41)	14	(5)	162	(54)					217	(72)	25	(8)	58	(20)		
1992	162	(35)	18	(4)	281	(61)					360	(76)	32	(7)	79	(17)		
1995	229	(39)	48	(8)	290	(50)	1	(0)	15	(3)	347	(61)	141	(25)	79	(14)		
1998	227	(28)	30	(4)	516	(65)	6	(1)	18	(2)	550	(71)	123	(16)	100	(13)		
2001	217	(25)	45	(5)	571	(64)	7	(1)	45	(5)	534	(64)	198	(24)	101	(12)		
2004	386	(31)	83	(7)	663	(53)	13	(1)	100	(8)	704	(62)	318	(28)	110	(10)		
2007	273	(21)	86	(7)	837	(65)	32	(3)	52	(4)	661	(55)	422	(35)	113	(9)		
2010	384	(29)	132	(10)	711	(55)	26	(2)	47	(4)	660	(54)	465	(38)	102	(8)		
2013	329	(23)	221	(16)	782	(55)	27	(2)	67	(5)	892	(63)	365	(26)	169	(12)		

¹Currency sw aps and options were not included in the survey until 1995.

²Beginning in 2013, the counterparty breakdown is based on all five foreign exchange products, not just traditionnal foreign exchange turnover (spot, outright forwards and foreign exchange swaps).

³A more detailed breakdown of financial customers or other financial institutions is provided in Table 3a.

Table 3a: Breakdown of the other financial institutions counterparty category
April 2013

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

	Sp	Spot		Outright forwards		eign e swaps	Currency swaps		Options		Total	
Total Other Financial Institutions	73.5	73.5 (100) 10		(100)	167.5	(100)	2.7	(100)	14.1	(100)	365.3	(100)
Non-reporting banks	43.4	(59)	23.9	(22)	78.7	(47)	1.8	(66)	4.5	(32)	152.4	(42)
Institutional investors	21.8	(30)	55.7	(52)	67.5	(40)	0.7	(26)	6.6	(47)	152.3	(42)
Hedge funds & proprietary trading firms	7.1	(10)	24.3	(23)	12.9	(8)	0.0	(0)	3.0	(21)	47.3	(13)
Official sector financial institutions	8.0	(1)	3.5	(3)	7.9	(5)	0.2	(8)	0.0	(0)	12.5	(3)
Others	0.3	(0)	0.0	(0)	0.4	(0)	0.0	(0)	0.0	(0)	8.0	(0)

Table 4: Reported foreign exchange turnover in Canada by currency Summary of surveys ¹

Percent shares

r				•	ercent snare						
Currency	April	March	April	April	April	April	April	April	April	April	April
,	1983	1986	1989	1992	1995	1998	2001	2004	2007	2010	2013
U.S. dollar	99.0	99.4	99.2	96.3	96.6	96.8	96.0	95.3	95.6	94.2	92.5
Canadian dollar	75.7	68.2	66.2	65.2	69.6	70.2	61.8	55.5	67.8	69.7	61.2
Euro ²							15.7	17.7	11.7	12.8	17.3
German mark ²	10.7	13.4	12.9	17.0	16.0	14.9					
U.K. pound	6.8	8.3	6.3	6.9	4.4	4.6	7.8	7.8	6.9	4.3	7.9
Japanese yen	2.9	4.2	7.3	5.8	6.0	7.3	8.7	9.4	5.4	4.5	6.2
Australian dollar ³						1.0	2.3	4.2	3.5	2.8	3.7
Mexican peso ³							0.5	1.9	3.9	2.6	3.1
Swiss franc	2.9	4.7	5.6	5.0	4.4	2.3	4.2	4.5	2.6	1.1	1.5
Swedish krona ³											1.4
Hong Kong dollar ³							0.2	1.4	0.5	0.4	0.2
Other currencies	2.0	1.8	2.5	3.8	3.0	2.9	2.8	2.3	2.0	7.4	4.8
All currencies ⁴	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0

¹ Beginning in 2013, the currency breakdown is based on all five foreign exchange products, not just traditionnal foreign exchange turnover (spot, outright forwards and foreign exchange swaps).

 $^{^{2}}$ On 1 January 1999, the Euro replaced 11 European currencies including the German mark.

³ "--" indicates the currency was not broken out and reported separately.

⁴ Since every foreign exchange transaction involves two currencies, the reporting of all currencies necessarily sums to 200 per cent.

Table 5: Total reported foreign exchange turnover in Canada

Millions of U.S. dollars

Instrument and counterparty	Canadian dollar against U.S. dollar				llar again currencies		Canadi currencies	an dollar other tha dollar	•	. All other currency pairs			All currencies		
	April 2010	April 2013	Per cent growth	April 2010	April 2013	Per cent growth	April 2010	April 2013	Per cent growth	April 2010	April 2013	Per cent growth	April 2010	April 2013	Per cent growth
Spot	217,154	184,502	-15.0	135,484	111,277	-17.9	16,292	22,683	39.2	14,965	10,512	-29.8	383,894	328,973	-14.3
Reporting dealers	127,257	131,254	3.1	89,420	74,906	-16.2	5,515	9,876	79.1	8,208	7,177	-12.6	230,399	223,212	-3.1
Financial customers	60,456	27,399	-54.7	42,205	33,052	-21.7	8,681	9,838	13.3	6,609	3,181	-51.9	117,951	73,470	-37.7
Non-financial customers	29,441	25,849	-12.2	3,859	3,319	-14.0	2,096	2,969	41.7	148	154	4.1	35,544	32,291	-9.2
Outright forwards	55,907	110,752	98.1	56,033	78,442	40.0	15,832	27,665	74.7	4,254	4,328	1.7	132,026	221,186	67.5
Reporting dealers	9,718	46,097	374.3	27,189	39,156	44.0	1,646	2,986	81.4	1,989	2,405	20.9	40,542	90,643	123.6
Financial customers	27,833	47,329	70.0	23,449	35,404	51.0	11,964	23,090	93.0	1,921	1,699	-11.6	65,167	107,522	65.0
Non-financial customers	18,356	17,326	-5.6	5,395	3,882	-28.0	2,222	1,589	-28.5	344	224	-34.9	26,317	23,021	-12.5
o/w Non-deliverable forwards					27,290			777			149			28,216	
FX swaps	532,252	420,482	-21.0	158,753	315,502	98.7	18,247	42,547	133.2	1,651	3,596	117.8	710,903	782,127	10.0
Reporting dealers	272,756	262,755	-3.7	113,097	247,243	118.6	2,906	8,540	193.9	40	288	620.0	388,805	518,826	33.4
Financial customers	230,886	106,640	-53.8	36,556	38,028	4.0	13,420	20,206	50.6	730	2,584	254.0	281,592	167,458	-40.5
Non-financial customers	28,610	51,087	78.6	9,100	30,231	232.2	1,921	13,801	618.4	875	724	-17.3	40,506	95,843	136.6
Currency swaps	15,724	21,927	39.4	9,511	4,756	-50.0	362	51	-85.9	442	24	-94.6	26,039	26,758	2.8
Reporting dealers	8,201	13,998	70.7	5,694	3,758	-34.0	0	37		337	24	-92.9	14,232	17,817	25.2
Financial customers	2,091	1,856	-11.2	3,684	871	-76.4	142	0	-100.0	96	0	-100.0	6,013	2,727	-54.6
Non-financial customers	5,432	6,073	11.8	133	127	-4.5	220	14	-93.6	9	0	-100.0	5,794	6,214	7.2
OTC options	23,268	35,749	53.6	18,637	29,318	57.3	1,641	1,752	6.8	3,343	633	-81.1	46,889	67,452	43.9
Reporting dealers	16,278	27,112	66.6	14,527	13,159	-9.4	1,225	940	-23.3	2,616	553	-78.9	34,646	41,764	20.5
Financial customers	2,794	1,415	-49.4	3,509	12,620	259.6	372	31	-91.7	663	0	-100.0	7,338	14,129	92.5
Non-financial customers	4,196	7,222	72.1	601	3,539	488.9	44	781	1675.0	64	17	-73.4	4,905	11,559	135.7
Total reporting dealers	434,210	481,216	10.8	249,927	378,222	51.3	11,292	22,378	98.2	13,189	10,447	-20.8	708,623	892,262	25.9
Total customers	410,095	292,196	-28.7	128,491	161,073	25.4	41,082	69,350	68.8	11,459	8,583	-25.1	591,127	534,234	-9.6
Financial	324,060	184,639	-43.0	109,403	119,975	9.7	34,579	53,165	53.7	10,019	7,464	-25.5	478,061	365,306	-23.6
Non-financial	86,035	107,557	25.0	19,088	41,098	115.3	6,503	16,185	148.9	1,440	1,119	-22.3	113,066	168,928	49.4
Local	294,208	355,008	20.7	31,123	81,340	161.4	37,321	66,655	78.6	1,666	1,246	-25.2	364,317	504,248	38.4
Cross border	550,097	418,404	-23.9	347,295	457,955	31.9	15,053	28,042	86.3	22,988	17,847	-22.4	935,433	922,248	-1.4
Total turnover	844,305	773,412	-8.4	378,418	539,295	42.5	52,374	94,697	80.8	24,654	19,093	-22.6	1,299,750	1,426,496	9.8

Table 6: Total single-currency interest rate derivatives turnover in Canada Millions of U.S. dollars

Instrument and counterparty	Са	nadian do	ollar		U.S. Dolla	r	All o	ther curre	ncies	All currencies			
,	April 2010	April 2013	Per cent growth	April 2010	April 2013	Per cent growth	April 2010	April 2013	Per cent growth	April 2010	April 2013	Per cent growth	
Forward rate agreements	102,456	22,380	-78.2	21,616	101,090	367.7	13,257	25,525	92.5	137,329	148,995	8.5	
	96.433	20,990	-78.2 -78.2	12.833	22.039	71.7	4.253	11.370	92.3 167.3	137,329	54.399	-52.1	
Reporting dealers Financial customers	6.023	993	-7 o.2 -83.5	8.783	79,051	800.0	9,004	14,155	57.2	23,810	94,199	295.6	
	- ,	993 397		-,	•		*	•	-	,	•		
Non-financial customers	0	397		0	0		0	0		0	397		
Interest rate swaps	459,037	305,922	-33.4	137,150	165,683	20.8	129,430	82,482	-36.3	725,616	554,087	-23.6	
Reporting dealers	346,562	110,733	-68.0	114,562	95,506	-16.6	96,856	10,785	-88.9	557,979	217,024	-61.1	
Financial customers	76,348	176,457	131.1	17,001	68,148	300.8	16,952	71,339	320.8	110,301	315,944	186.4	
Non-financial customers	36,127	18,732	-48.1	5,587	2,029	-63.7	15,622	358	-97.7	57,336	21,119	-63.2	
OTC options	5,753	31,119	440.9	5,845	13,168	125.3	981	82	-91.6	12,579	44,368	252.7	
Reporting dealers	2,690	26,448	883.2	3,957	11,611	193.4	981	82	-91.6	7,628	38,140	400.0	
Financial customers	588	2,962	403.7	449	70	-84.4	0	0		1,037	3,032	192.4	
Non-financial customers	2,475	1,709	-30.9	1,439	1,487	3.3	0	0		3,914	3,196	-18.3	
Total reporting dealers	445,685	158,171	-64.5	131,352	129,155	-1.7	102,090	22,237	-78.2	679,126	309,563	-54.4	
Total customers	121,561	201,250	65.6	33,259	150,785	353.4	41,578	85,852	106.5	196,398	437,887	123.0	
Financial	82,959	180,412	117.5	26,233	147,269	461.4	25,956	85,494	229.4	135,148	413,175	205.7	
Non-financial	38,602	20,838	-46.0	7,026	3,516	-50.0	15,622	358	-97.7	61,250	24,712	-59.7	
Local	163,672	128,737	-21.3	22,412	23,237	3.7	736	570	-22.6	186,820	152,544	-18.3	
Cross border	403,573	230,684	-42.8	142,198	256,703	80.5	142,932	107,519	-24.8	688,703	594,906	-13.6	
Total turnover	567,245	359,421	-36.6	164,610	279,940	70.1	143,668	108,089	-24.8	875,523	747,450	-14.6	

Table 7: Reported foreign exchange market turnover in Canada by maturity¹

Millions of U.S. dollars

	19	98	20	01	20	04	20	07	2010		2013	
Instrument	Amounts	% share										
Outright forwards												
Up to 7 days	10,045	30.5	18,103	38.4	28,679	33.7	35,172	37.1	46,297	32.8	101,660	40.1
Over 7 days and up to 1 year	20,224	61.4	27,675	58.8	52,377	61.6	57,853	61.0	91,290	64.6	148,571	58.6
Over one year	2,656	8.1	1,306	2.8	3,995	4.7	1,851	2.0	3,677	2.6	3,215	1.3
Total	32,925	100.0	47,084	100.0	85,051	100.0	94,876	100.0	141,264	100.0	253,446	100.0
Foreign exchange swaps												
Up to 7 days	458,098	72.2	445,261	70.1	548,093	76.6	699,368	74.8	573,787	70.6	566,641	65.1
Over 7 days and up to 1 year	168,461	26.6	177,050	27.9	160,716	22.5	231,368	24.8	232,868	28.7	288,801	33.2
Over one year	7,668	1.2	12,793	2.0	6,605	0.9	4,042	0.4	5,847	0.7	15,467	1.8
Total	634,227	100.0	635,104	100.0	715,414	100.0	934,778	100.0	812,502	100.0	870,909	100.0

¹ Not adjusted for local double counting.

Table 8: Excecution methods for foreign exchange contracts

Percentage share of total transactions, April 2013

	Vo	ice			Electronic			
l			Dire	ct ¹		Indirect ²		Ī
			Single-bank			Other		İ
	Direct1	Indirect ²	proprietary	Other	Reuters	electronic	Other	Total
			trading		Matching/	communication		
			systems		EBS	networks ³		
Spot - Total	44	13	7	10	22	4	0	100
with reporting dealers	40	15	7	6	29	3	0	100
local	51	17	3	3	23	4	0	100
cross-border	35	14	8	8	33	2	0	100
with other financial institutions	48	7	7	23	5	10	0	100
with non-financial customers	69	3	10	17	0	1	0	100
Outright forwards - Total	60	7	4	4	7	18	0	100
with reporting dealers	61	10	2	1	13	13	0	100
local	56	8	1	0	16	19	0	100
cross-border	67	11	3	3	10	7	0	100
with other financial institutions	53	5	7	6	1	28	0	100
with non-financial customers	84	2	3	8	0	4	0	100
FX swaps - Total	38	12	18	7	21	5	0	100
with reporting dealers	28	14	24	5	26	3	0	100
local	46	20	6	2	22	4	0	100
cross-border	21	12	31	6	27	3	0	100
with other financial institutions	42	9	5	14	17	13	0	100
with non-financial customers	90	0	0	7	0	2	0	100
Currency swaps - Total	55	41	1	2	1	0	0	100
with reporting dealers	40	56	1	3	1	0	0	100
local	42	56	1	0	1	0	0	100
cross-border	38	56	1	4	0	0	0	100
with other financial institutions	95	2	1	1	1	1	0	100
with non-financial customers	94	3	1	2	1	0	0	100
OTC options - Total	48	8	35	2	3	4	0	100
with reporting dealers	33	9	53	2	3	0	0	100
local	52	8	34	1	6	0	0	100
cross-border	29	9	57	2	2	0	0	100
with other financial institutions	67	1	5	3	2	22	0	100
with non-financial customers	83	11	4	1	1	0	0	100
Total	44	12	13	7	18	7	0	100

¹ Direct means not intermediated by a third party.

² Indirect means intermediated by a third party.

³ Multi-bank dealing systems in which various banks provide liquidity to the system.