

# *Tokyo Foreign Exchange Market Committee*

July 25, 2011

## **Results of Turnover Survey of Tokyo FX Market**

Tokyo Foreign Exchange Market Committee (TFEMC) today released the results of its **Turnover Survey of Tokyo FX Market (Tokyo FX Survey)**. This is the sixth annual survey covering foreign exchange transactions in the Tokyo market in April 2011.

In this period, while the Eastern Japan Great Earthquake had a serious impact on the Tokyo foreign exchange market, retail margin trading, electronic trading, and emerging currency trading remained active.

The TFEMC conducted this survey in order to provide the updated picture of the Tokyo foreign exchange market on both accurate and timely manner for the better understanding of recent trends by market participants; thereby contributing to sound growth of the market. The TFEMC will continue Tokyo FX Survey in the future on an annual basis.

To achieve a representative survey, the TFEMC invited 20 leading financial institutions active in the Tokyo foreign exchange market (as listed below). In conducting this survey, Financial Markets Department of the Bank of Japan provided technical assistances in collecting and processing the data of respective respondents.

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<Annex>

The TFEMC conducts annual survey on foreign exchange market and on OTC derivatives market. This report shows the turnover of each market in April 2011<sup>1</sup>. This survey covers 20 financial institutions and summarizes three types of foreign exchange transactions, and one type of derivatives<sup>2</sup>. Similar type of surveys are also conducted and published by overseas foreign exchange market committees.

## Reporting Financial Institutions

Bank of America, N.A.  
The Bank of Tokyo-Mitsubishi UFJ, Ltd.  
Barclays Bank PLC, Tokyo Branch  
BNP Paribas Bank, Tokyo Branch  
Credit Agricole Corporate and Investment Bank, Tokyo Branch  
The Chuo Mitsui Trust and Banking Co. Ltd.  
Citibank Japan Ltd.  
Deutsche Securities Inc.  
Goldman Sachs (Japan) Ltd.  
J.P. Morgan Chase Bank, N.A.  
Mitsubishi UFJ Trust and Banking Corporation  
Mizuho Bank, Ltd.  
Mizuho Corporate Bank, Ltd.  
Nomura Securities Co., Ltd.  
The Royal Bank of Scotland PLC, Tokyo Branch  
Societe General, Tokyo Branch  
State Street Bank and Trust Company, Tokyo Branch  
Sumitomo Mitsui Banking Corporation  
The Sumitomo Trust & Banking Co., Ltd.  
UBS AG, Tokyo Branch

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<sup>1</sup> The turnover data in April 2010 are revised due to the data resubmission by some financial institutions.

<sup>2</sup> (1)foreign exchange ...spot, foreign exchange swap, forward  
(2)derivatives ...currency option

< Table 1 > Aggregate Turnover

(Daily averages in hundred millions of USD)  
 (Figures in parentheses represent percentage of total)

	April, 2006	April, 2007	April, 2008	April, 2009	April, 2010	April, 2011	
							Changes
Spot	660 < 32.8 >	933 < 38.8 >	1,053 < 34.8 >	702 < 27.6 >	965 < 36.6 >	1,062 < 37.3 >	+ 10.0
FX Swap	1,008 < 50.0 >	1,159 < 48.2 >	1,596 < 52.8 >	1,589 < 62.5 >	1,308 < 49.6 >	1,407 < 49.5 >	+ 7.6
Forwards	273 < 13.5 >	220 < 9.2 >	284 < 9.4 >	192 < 7.5 >	287 < 10.9 >	310 < 10.9 >	+ 7.9
FX Option	75 < 3.7 >	91 < 3.8 >	91 < 3.0 >	58 < 2.3 >	76 < 2.9 >	66 < 2.3 >	▲ 12.0
Total	2,016	2,403	3,025	2,542	2,636	2,846	+ 8.0

< Table 2 > Breakdown of Transactions by Type of Counterparty

(Daily averages in hundred millions of USD)  
(Figures in parentheses represent percentage of total of each category)

	April, 2006	April, 2007	April, 2008	April, 2009	April, 2010	April, 2011	
							Changes
Inter-dealer Transactions (*1)	1,461 < 100.0 >	1,950 < 100.0 >	2,380 < 100.0 >	2,057 < 100.0 >	1,943 < 100.0 >	2,196 < 100.0 >	+ 13.0
Spot	495 < 33.9 >	811 < 41.6 >	791 < 33.2 >	511 < 24.8 >	686 < 35.3 >	786 < 35.8 >	+ 14.6
FX Swap	842 < 57.7 >	958 < 49.1 >	1,439 < 60.5 >	1,455 < 70.7 >	1,090 < 56.1 >	1,216 < 55.4 >	+ 11.6
Forwards	71 < 4.9 >	110 < 5.6 >	80 < 3.4 >	49 < 2.4 >	109 < 5.6 >	141 < 6.4 >	+ 29.5
FX Option	53 < 3.6 >	71 < 3.7 >	71 < 3.0 >	43 < 2.1 >	59 < 3.0 >	53 < 2.4 >	▲ 10.4
Customer Transactions (*2)	555 < 100.0 >	454 < 100.0 >	644 < 100.0 >	485 < 100.0 >	693 < 100.0 >	650 < 100.0 >	▲ 6.2
Spot	166 < 29.8 >	121 < 26.8 >	263 < 40.8 >	191 < 39.4 >	279 < 40.3 >	276 < 42.4 >	▲ 1.3
FX Swap	165 < 29.8 >	201 < 44.4 >	157 < 24.4 >	135 < 27.8 >	218 < 31.5 >	191 < 29.5 >	▲ 12.4
Forwards	202 < 36.4 >	110 < 24.4 >	203 < 31.6 >	143 < 29.5 >	178 < 25.7 >	169 < 26.0 >	▲ 5.3
FX Option	22 < 4.0 >	20 < 4.4 >	21 < 3.2 >	16 < 3.3 >	17 < 2.4 >	14 < 2.1 >	▲ 17.6

\*1 "Inter-dealer Transactions" denote transactions between interbank dealers. Interbank dealers refers to financial institutions which are participating in interbank market and are treated as such by the respondent.

\*2 "Customer Transactions" denote transactions other than "Inter-dealer Transactions".

<Table 3> Breakdown of Transactions by Location of Counterparty

(Daily averages in hundred millions of USD)

(Figures in parentheses represent percentage of total of each category)

	April, 2006	April, 2007	April, 2008	April, 2009	April, 2010	April, 2011	
							Changes
Local Transactions (*)	740 < 100.0 >	732 < 100.0 >	866 < 100.0 >	699 < 100.0 >	826 < 100.0 >	911 < 100.0 >	+ 10.3
Spot	206 < 27.8 >	201 < 27.5 >	345 < 39.9 >	242 < 34.7 >	285 < 34.5 >	351 < 38.6 >	+ 23.1
FX Swap	315 < 42.6 >	386 < 52.7 >	290 < 33.5 >	292 < 41.8 >	301 < 36.4 >	321 < 35.3 >	+ 6.9
Forwards	197 < 26.6 >	115 < 15.7 >	198 < 22.9 >	147 < 21.0 >	211 < 25.5 >	214 < 23.5 >	+ 1.5
FX Option	22 < 3.0 >	30 < 4.1 >	33 < 3.8 >	18 < 2.5 >	30 < 3.6 >	25 < 2.7 >	▲ 16.7
Cross-border Transactions (*)	1,276 < 100.0 >	1,671 < 100.0 >	2,159 < 100.0 >	1,843 < 100.0 >	1,810 < 100.0 >	1,935 < 100.0 >	+ 6.9
Spot	455 < 35.6 >	732 < 43.8 >	708 < 32.8 >	460 < 25.0 >	680 < 37.6 >	710 < 36.7 >	+ 4.5
FX Swap	692 < 54.2 >	773 < 46.3 >	1,307 < 60.5 >	1,297 < 70.4 >	1,008 < 55.7 >	1,086 < 56.1 >	+ 7.8
Forwards	76 < 6.0 >	105 < 6.3 >	86 < 4.0 >	45 < 2.4 >	77 < 4.2 >	96 < 5.0 >	+ 25.6
FX Option	53 < 4.1 >	61 < 3.7 >	58 < 2.7 >	41 < 2.2 >	46 < 2.5 >	42 < 2.2 >	▲ 8.9

\* From 2010, the reporting basis was changed from the trading-desk basis to the sales desk basis. "Cross-border Transactions" denote transactions with non-residents.

<Table 4> Breakdown of Transaction by Currency Pair

(Daily averages in hundred millions of USD)  
(Figures in parentheses represent percentage of total of each pair)

	Against JPY						Against USD								Other Pairs		Total	
	USD	Changes	EUR	Changes	Others	Changes	EUR	Changes	GBP	Changes	AUD	Changes	Others	Changes	Changes	Changes		
Spot	483 <33.0>	▲ 7.1	122 <52.3>	+ 21.4	166 <51.7>	+ 31.3	134 <32.1>	+ 32.0	27 <31.3>	+ 0.8	33 <35.4>	+ 44.4	52 <33.0>	+ 57.2	43 <64.4>	+ 32.3	1,062 <37.3>	+ 10.0
FX Swap	791 <53.9>	▲ 5.6	36 <15.4>	▲ 42.5	91 <28.2>	+ 63.6	272 <65.2>	+ 70.8	57 <65.7>	+ 4.7	56 <59.2>	+ 8.6	84 <53.1>	+ 21.2	21 <30.5>	+ 17.2	1,407 <49.5>	+ 7.6
Forwards	150 <10.2>	+ 10.6	68 <29.2>	▲ 7.8	54 <16.8>	▲ 10.7	9 <2.2>	+ 82.2	3 <2.9>	+ 109.6	3 <3.1>	+ 55.0	21 <13.3>	+ 163.5	2 <3.2>	+ 86.3	310 <10.9>	+ 7.9
FX Option	42 <2.9>	▲ 22.3	7 <3.1>	▲ 38.0	10 <3.2>	+ 47.3	2 <0.5>	+ 65.3	0 <0.1>	▲ 41.5	2 <2.4>	+ 373.9	1 <0.6>	+ 201.9	1 <1.9>	+ 472.9	66 <2.3>	▲ 12.0
Total	1,467	▲ 5.3	234	▲ 6.2	321	+ 28.7	418	+ 56.2	86	+ 4.9	94	+ 22.7	159	+ 42.8	67	+ 30.3	2,846	+ 8.0

\* USD: US dollar, EUR: Euro, GBP: Pound sterling, AUD: Australian dollar

< Table 5 > Breakdown of Transactions by Methods of Execution

(Daily averages in hundred millions of USD)

(Figures in parentheses represent percentage of total of each category)

	April, 2006	April, 2007	April, 2008	April, 2009	April, 2010	April, 2011	
							Changes
Inter-dealer Transactions	1,461 < 100.0 >	1,950 < 100.0 >	2,380 < 100.0 >	2,057 < 100.0 >	1,943 < 100.0 >	2,196 < 100.0 >	+ 13.0
Voice Broker	339 < 23.2 >	449 < 23.0 >	589 < 24.7 >	636 < 30.9 >	493 < 25.4 >	462 < 21.1 >	▲ 6.2
Electronic Broking Systems (EBS, Reuters Matching)	280 < 19.2 >	332 < 17.0 >	394 < 16.6 >	338 < 16.4 >	292 < 15.0 >	550 < 25.1 >	+ 88.2
Electronic Trading Systems (*1)	34 < 2.3 >	409 < 21.0 >	379 < 15.9 >	224 < 10.9 >	429 < 22.1 >	355 < 16.1 >	▲ 17.3
Residual (Interbank Direct by Telephone or Reuters Conversation)(*2)	808 < 55.3 >	760 < 39.0 >	1,019 < 42.8 >	859 < 41.7 >	729 < 37.5 >	829 < 37.7 >	+ 13.6
Customer Transactions	555 < 100.0 >	454 < 100.0 >	644 < 100.0 >	485 < 100.0 >	693 < 100.0 >	650 < 100.0 >	▲ 6.2
Electronic Trading Systems (*1)	95 < 17.1 >	140 < 30.9 >	226 < 35.1 >	129 < 26.6 >	243 < 35.1 >	319 < 49.1 >	+ 31.1
Residual (by Telephone)	460 < 82.9 >	313 < 69.1 >	418 < 64.9 >	356 < 73.4 >	449 < 64.9 >	331 < 50.9 >	▲ 26.4

\*1 Electronic Trading System refers to single-bank and multi-bank trading platforms of e-commerce (e.g., FXAll, FXConnect, Curenex).

\*2 Transactions through Electronic Broking Systems are classified as residuals in some financial institutions.

<Table 6> Transactions of Asian and Other Emerging Currencies

(Daily averages in hundred millions of USD)

	HKD	SGD	TWD	KRW	THB	IDR	INR	MYR	PHP	CNY	BRL	RUB	ZAR
Spot	8.8	8.2	0.2	0.8	0.8	0.0	0.0	0.0	0.1	0.3	0.0	0.1	9.9
FX Swap	9.2	4.2	0.0	0.0	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.2	23.7
Forwards	1.1	1.1	0.6	3.1	0.4	1.8	3.2	0.7	0.5	3.2	3.2	0.3	1.3
of which NDF	0.0	0.0	0.6	3.0	0.0	1.8	3.2	0.7	0.5	3.2	3.2	0.2	0.0
Total	19.1	13.5	0.8	3.9	2.7	2.0	3.2	0.8	0.6	3.5	3.2	0.6	34.9

\* HKD: Hong Kong dollar, SGD: Singapore dollar, TWD: new Taiwan dollar, KRW: Korean won, THB: Thai baht, IDR: Indonesian rupiah, INR: Indian rupee, MYR: Malaysian ringgit, PHP: Philippine peso, CNY: Chinese yuan, BRL: Brazilian real, RUB: Russian ruble, ZAR: South African rand



< Table 7 > Foreign Exchange Volume Market Share

(Percentage, Percentage Pts.)

	First Quartile (5 Institutions)	Second Quartile (5 Institutions)	Third Quartile (5 Institutions)	Last Quartile (5 Institutions)
Spot	60.2	34.1	4.1	1.6
Changes	(▲ 9.5)	(+ 9.4)	(+ 0.3)	(▲ 0.2)
FX Swap	66.0	22.1	9.8	2.1
Changes	(+ 7.6)	(▲ 11.2)	(+ 3.2)	(+ 0.4)
Forwards	61.6	25.5	9.4	3.5
Changes	(▲ 2.1)	(+ 4.4)	(▲ 0.8)	(▲ 1.5)
FX Option	78.8	15.9	4.8	0.4
Changes	(▲ 2.3)	(+ 1.9)	(+ 1.0)	(▲ 0.6)
Total	58.5	29.8	9.3	2.4
Changes	(+ 1.8)	(▲ 4.4)	(+ 3.0)	(▲ 0.4)

(Type of Counterparty)

(Percentage, Percentage Pts.)

	First Quartile ( 5 Institutions )	Second Quartile ( 5 Institutions )	Third Quartile ( 5 Institutions )	Last Quartile ( 5 Institutions )
Inter-dealer Transactions	64.8	25.0	8.1	2.1
Changes	(+ 4.9)	(▲ 7.4)	(+ 2.4)	(+ 0.2)
Customer Transactions	67.2	21.9	8.1	2.7
Changes	(+ 0.7)	(▲ 3.2)	(+ 0.8)	(+ 1.6)

(Currency Pair)

(Percentage, Percentage Pts.)

	First Quartile ( 5 Institutions )	Second Quartile ( 5 Institutions )	Third Quartile ( 5 Institutions )	Last Quartile ( 5 Institutions )
Against JPY (Total)	60.1	27.2	10.0	2.7
Changes	(+ 3.2)	(▲ 6.1)	(+ 3.2)	(▲ 0.3)
Against JPY (USD)	61.1	26.0	10.4	2.5
Changes	(+ 3.1)	(▲ 7.6)	(+ 4.4)	(+ 0.0)

(ANNEX) Aggregated Reported Turnover in April 2011

< Table 1 > Turnover by Instrument, Counterparty and Currency

(In millions of USD)

	JPY against			USD against				Residual	Grand Total
	USD	EUR	Other	EUR	GBP	AUD	Other		
Spot Transaction									
With Reporting Dealers (Local)	38,569	6,669	3,560	9,896	1,445	2,933	4,050	1,382	68,502
With Other Financial Institutions	680,034	142,177	168,472	226,508	49,034	58,599	95,548	83,058	1,503,430
Local	49,760	16,144	22,154	2,912	922	878	846	339	93,955
Cross-Border	630,274	126,033	146,318	223,596	48,112	57,721	94,702	82,719	1,409,475
With Non-Financial Customers	248,027	95,282	159,802	31,712	3,562	5,242	5,282	2,415	551,324
Local	244,769	93,469	157,298	30,196	3,415	4,677	4,211	1,826	539,861
Cross-border	3,258	1,813	2,504	1,516	147	565	1,071	589	11,463
Total	966,630	244,128	331,834	268,116	54,041	66,774	104,880	86,855	2,123,256
Foreign Exchange Swaps									
With Reporting Dealers (Local)	80,952	3,124	1,019	42,549	1,312	3,445	4,159	310	136,868
With Other Financial Institutions	1,312,979	37,833	83,735	483,104	99,255	91,224	149,249	37,808	2,295,187
Local	81,775	12,712	20,955	12,393	4,189	2,097	2,473	498	137,092
Cross-Border	1,231,204	25,121	62,780	470,711	95,066	89,127	146,776	37,310	2,158,095
With Non-Financial Customers	188,379	31,116	96,398	18,764	12,726	16,884	15,462	3,059	382,788
Local	182,663	31,092	96,116	16,092	12,351	14,766	13,705	1,901	368,686
Cross-border	5,716	24	282	2,672	375	2,118	1,757	1,158	14,102
< Maturities >	1,663,258	75,196	182,168	586,963	114,607	114,995	173,028	41,488	2,951,703
Seven Days or Less	1,118,514	38,079	140,383	446,358	98,706	89,933	147,654	37,597	2,117,224
Over Seven Days and up to One Year	533,382	36,788	41,075	137,989	15,865	24,952	25,182	3,891	819,124
Over One Year	11,362	329	710	2,616	36	110	192	0	15,355
Total	1,582,310	72,073	181,152	544,417	113,293	111,553	168,870	41,177	2,814,843
Outright Forwards									
With Reporting Dealers (Local)	1,955	252	117	648	11	203	1,934	11	5,128
With Other Financial Institutions	109,161	65,891	46,286	13,302	4,011	4,285	31,583	2,936	277,455
Local	42,946	30,245	21,808	1,247	998	376	2,224	665	100,509
Cross-Border	66,215	35,646	24,478	12,055	3,013	3,909	29,359	2,271	176,946
Non-Financial Customers	188,566	70,107	61,685	4,650	997	1,325	8,754	1,321	337,405
Local	180,769	66,948	60,202	3,817	977	835	7,257	908	321,713
Cross-border	7,797	3,159	1,483	833	20	490	1,497	413	15,692
< Maturities >	301,645	136,500	108,206	19,247	5,030	6,012	44,202	4,277	625,119
Seven Days or Less	107,506	47,039	41,685	10,855	1,666	3,304	6,064	1,246	219,365
Over Seven Days and up to One Year	189,588	87,952	65,874	8,306	3,364	2,683	35,949	3,031	396,747
Over One Year	4,551	1,509	647	86	0	25	2,189	0	9,007
Total	299,682	136,250	108,088	18,600	5,019	5,813	42,271	4,268	619,988
OTC Options									
With Reporting Dealers (Local)	6,262	496	2,368	797	0	615	261	0	10,798
With Other Financial Institutions	59,277	8,482	15,700	3,119	181	3,630	1,559	2,490	94,438
Local	12,801	427	1,839	133	0	55	1	0	15,256
Cross-Border	46,476	8,055	13,861	2,986	181	3,575	1,558	2,490	79,182
With Non-Financial Customers	18,892	5,722	2,349	281	10	197	233	69	27,753
Local	15,726	5,298	1,695	232	5	196	223	69	23,444
Cross-border	3,166	424	654	49	5	1	10	0	4,309
< Maturities >	90,695	15,200	22,785	4,993	191	5,055	2,313	2,558	143,790
Seven Days or Less	11,491	743	584	1,156	43	509	125	268	14,919
Over Seven Days and up to One Year	62,127	13,963	17,994	3,641	148	4,543	1,974	2,001	106,391
Over One Year	17,077	494	4,207	196	0	3	214	289	22,480
Total	84,431	14,700	20,417	4,197	191	4,442	2,053	2,559	132,989

1) Turnover in nominal or notional principal amounts in April 2011.

2) Reporting dealers refers to financial institutions which are the respondents to this survey. Other financial institutions refers to financial institutions which are participating in interbank market (other than reporting dealers) and are treated as such by the respondents.

3) Geographical distinction between "local" and "cross-border" is based on the location of the sales desk of a counterparty. Any transactions with overseas branches or subsidiaries are included in "cross-border".

4) Spot Transaction: Single outright transaction involving the exchange of two currencies at a rate agreed on the date of the contract for value or delivery within two business days. Excluding a leg of foreign exchange swaps.

Foreign Exchange Swaps: Contract which commits two counterparties to exchange streams of interest payments in different currencies for an agreed periods of time and to change principal amounts in different currencies at a pre-agreed exchange rate at maturity. Excluding a leg of spot transaction.

Outright Forwards: Transaction involving the exchange of two currencies at a rate agreed on the date of the contract for value or delivery at some time in the future (more than two business days later). Including foreign exchange agreement transaction.

OTC Options: Option contract that gives the right to buy or sell a currency with another currency at a specified exchange rate during a specified period.

5) Non-dollar amounts should be converted into USD using exchange rates prevailing on the transaction date. If this is impractical or impossible, data may be reported using average or end-of-period exchange rates.

6) In millions of USD. Data should be rounded to the nearest million USD. Data in table 1 and 2 do not necessarily match due to the round off errors by some financial institutions.

7) In the case of transactions where the first leg has not come due, the remaining maturity is to be determined by the difference between near and far-end dates of the transaction and not by the date of conclusion of the deal. Aggregate data classified by maturity do not necessarily match with aggregate data by counterparty due to the limitations of data collection.

&lt;Table 2&gt; Turnover by Execution Method

(In millions of USD)

	JPY against			USD against				Residual	Grand Total
	USD	EUR	Other	EUR	GBP	AUD	Other		
<b>Spot Transaction</b>									
With Reporting Dealers (Local)	38,570	6,668	3,560	9,897	1,445	2,933	4,052	1,382	68,501
Voice Broker	11,762	783	81	1,109	14	339	1,407	32	15,526
Electronic Broking Systems (EBS, Reuters Matching)	12,969	2,081	588	3,089	220	582	386	311	20,224
Electronic Trading Systems	4,093	1,416	828	3,238	1,056	1,216	734	577	13,157
Residual (Interbank Direct by Telephone or Reuters Conversation)	9,746	2,388	2,063	2,461	155	796	1,525	462	19,594
With Other Financial Institutions	680,035	142,176	168,472	226,502	49,031	58,598	95,550	83,056	1,503,420
Voice Broker	31,814	5,717	11,699	3,967	1,161	3,237	3,048	102	60,745
Electronic Broking Systems (EBS, Reuters Matching)	174,521	58,437	48,752	81,098	14,414	22,367	17,923	7,793	425,305
Electronic Trading Systems	111,902	42,678	65,507	77,010	20,066	22,569	27,834	10,828	378,394
Residual (Interbank Direct by Telephone or Reuters Conversation)	361,798	35,344	42,514	64,427	13,390	10,425	46,745	64,333	638,976
With Non-Financial Customers	248,028	95,281	159,804	31,712	3,564	5,241	5,282	2,413	551,325
Electronic Trading Systems	150,982	68,993	123,889	28,813	3,201	4,458	3,772	1,666	385,774
Residual (by Telephone)	97,046	26,288	35,915	2,899	363	783	1,510	747	165,551
<b>Total</b>	<b>966,633</b>	<b>244,125</b>	<b>331,836</b>	<b>268,111</b>	<b>54,040</b>	<b>66,772</b>	<b>104,884</b>	<b>86,851</b>	<b>2,123,246</b>
<b>Foreign Exchange Swaps</b>									
With Reporting Dealers (Local)	80,954	3,125	1,020	42,549	1,312	3,446	4,158	311	136,867
Voice Broker	49,969	1,865	55	35,961	343	170	469	0	88,830
Electronic Broking Systems (EBS, Reuters Matching)	14,529	305	181	3,661	211	106	164	264	19,419
Electronic Trading Systems	2,623	197	496	662	156	228	522	0	4,882
Residual (Interbank Direct by Telephone or Reuters Conversation)	13,833	758	288	2,265	602	2,942	3,003	47	23,736
With Other Financial Institutions	1,312,980	37,832	83,734	483,104	99,258	91,224	149,253	37,808	2,295,193
Voice Broker	442,491	7,200	4,816	163,818	27,056	24,985	28,721	100	699,187
Electronic Broking Systems (EBS, Reuters Matching)	271,179	5,992	17,559	181,531	32,453	16,091	31,869	33,242	589,916
Electronic Trading Systems	112,889	11,118	38,016	27,164	5,901	13,181	9,590	2,974	220,833
Residual (Interbank Direct by Telephone or Reuters Conversation)	486,421	13,522	23,343	110,591	33,848	36,967	79,073	1,492	785,257
With Non-Financial Customers	188,379	31,116	96,398	18,764	12,726	16,884	15,462	3,059	382,788
Electronic Trading Systems	84,214	12,970	67,849	8,534	2,152	9,317	1,827	1,962	188,825
Residual (by Telephone)	104,165	18,146	28,549	10,230	10,574	7,567	13,635	1,097	193,963
<b>Total</b>	<b>1,582,313</b>	<b>72,073</b>	<b>181,152</b>	<b>544,417</b>	<b>113,296</b>	<b>111,554</b>	<b>168,873</b>	<b>41,178</b>	<b>2,814,848</b>
<b>Outright Forwards</b>									
With Reporting Dealers (Local)	1,955	253	117	649	11	204	1,936	12	5,129
Voice Broker	260	19	12	63	0	1	1,310	1	1,664
Electronic Broking Systems (EBS, Reuters Matching)	426	69	16	85	4	17	6	2	623
Electronic Trading Systems	435	125	46	56	0	42	19	4	726
Residual (Interbank Direct by Telephone or Reuters Conversation)	834	40	43	445	7	144	601	5	2,116
With Other Financial Institutions	109,164	65,891	46,285	13,301	4,009	4,284	31,583	2,934	277,451
Voice Broker	6,106	973	1,643	852	169	442	470	150	10,805
Electronic Broking Systems (EBS, Reuters Matching)	15,495	4,741	3,450	2,200	332	970	1,176	281	28,645
Electronic Trading Systems	37,236	17,879	14,014	4,389	2,719	1,584	9,851	1,692	89,364
Residual (Interbank Direct by Telephone or Reuters Conversation)	50,327	42,298	27,178	5,860	789	1,288	20,086	811	148,637
With Non-Financial Customers	188,566	70,108	61,683	4,651	998	1,324	8,753	1,320	337,403
Electronic Trading Systems	24,136	18,587	14,642	1,630	570	926	1,290	724	62,505
Residual (by Telephone)	164,430	51,521	47,041	3,021	428	398	7,463	596	274,898
<b>Total</b>	<b>299,685</b>	<b>136,252</b>	<b>108,085</b>	<b>18,601</b>	<b>5,018</b>	<b>5,812</b>	<b>42,272</b>	<b>4,266</b>	<b>619,983</b>
<b>OTC Options</b>									
With Reporting Dealers (Local)	6,263	496	2,369	797	0	615	261	0	10,799
Voice Broker	1,554	94	353	0	0	133	0	0	2,134
Electronic Broking Systems (EBS, Reuters Matching)	1,143	88	808	0	0	319	0	0	2,357
Electronic Trading Systems	0	0	0	0	0	0	0	0	0
Residual (Interbank Direct by Telephone or Reuters Conversation)	3,566	314	1,208	797	0	163	261	0	6,308
With Other Financial Institutions	59,277	8,483	15,699	3,119	181	3,630	1,559	2,489	94,437
Voice Broker	32,002	3,640	7,540	878	116	995	203	435	45,809
Electronic Broking Systems (EBS, Reuters Matching)	8,099	1,868	3,504	7	0	638	0	0	14,116
Electronic Trading Systems	291	124	0	455	6	245	417	249	1,787
Residual (Interbank Direct by Telephone or Reuters Conversation)	18,885	2,851	4,655	1,779	59	1,752	939	1,805	32,725
With Non-Financial Customers	18,894	5,722	2,349	281	10	197	233	69	27,755
Electronic Trading Systems	212	5	2	89	3	5	190	0	506
Residual (by Telephone)	18,682	5,717	2,347	192	7	192	43	69	27,249
<b>Total</b>	<b>84,434</b>	<b>14,701</b>	<b>20,417</b>	<b>4,197</b>	<b>191</b>	<b>4,442</b>	<b>2,053</b>	<b>2,558</b>	<b>132,991</b>

1) Turnover in nominal or notional principal amounts in April 2011.

2) Electronic Trading System refers to single-bank and multi-bank trading platforms of e-commerce (e.g., FXAll, FXConnect, Currenex, eSpeed).

&lt; Table 3 &gt; Turnover by Currencies of Asia and other emerging economies

( In millions of USD )

	HKD	SGD	TWD	KRW	THB	IDR	INR	MYR	PHP	CNY	BRL	RUB	ZAR	Total
<b>Spot Transaction</b>														
With Reporting Dealers (Local)	1,182	184	253	270	89	33	16	21	116	308	0	63	58	2,591
With Other Financial Institutions	14,993	14,869	7	1,173	980	32	7	20	11	151	1	92	4,715	37,051
Local	332	249	0	19	3	0	0	1	0	0	0	0	310	914
Cross-Border	14,661	14,620	7	1,154	977	32	7	19	11	151	1	92	4,405	36,137
With Non-Financial Customers	1,408	1,440	124	123	627	12	6	57	30	60	0	6	15,005	18,898
Local	1,397	681	124	123	622	12	6	57	30	60	0	6	15,002	18,120
Cross-border	11	759	0	0	5	0	0	0	0	0	0	0	3	778
<b>Total</b>	<b>17,583</b>	<b>16,493</b>	<b>384</b>	<b>1,566</b>	<b>1,696</b>	<b>77</b>	<b>29</b>	<b>98</b>	<b>157</b>	<b>519</b>	<b>1</b>	<b>161</b>	<b>19,778</b>	<b>58,540</b>
<b>Foreign Exchange Swaps</b>														
With Reporting Dealers (Local)	359	303	0	0	119	0	0	0	0	0	0	0	163	943
With Other Financial Institutions	16,449	7,432	0	0	2,699	274	0	0	0	0	2	351	38,780	65,987
Local	42	3	0	0	8	0	0	0	0	0	0	0	924	977
Cross-Border	16,407	7,429	0	0	2,691	274	0	0	0	0	2	351	37,856	65,010
With Non-Financial Customers	1,580	662	0	0	90	0	0	0	0	0	0	0	8,503	10,835
Local	674	543	0	0	90	0	0	0	0	0	0	0	7,988	9,295
Cross-border	906	119	0	0	0	0	0	0	0	0	0	0	515	1,540
<b>Total</b>	<b>18,388</b>	<b>8,397</b>	<b>0</b>	<b>0</b>	<b>2,908</b>	<b>274</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>351</b>	<b>47,446</b>	<b>77,765</b>
<b>Outright Forwards</b>														
With Reporting Dealers (Local)	13	1	284	570	0	68	32	145	144	558	0	81	5	1,899
With Other Financial Institutions	812	1,112	882	5,094	529	2,989	5,650	915	838	5,400	4,783	337	888	30,229
Local	382	92	20	128	125	9	160	7	18	34	85	5	151	1,216
Cross-Border	430	1,020	862	4,966	404	2,980	5,490	908	820	5,366	4,698	332	737	29,013
With Non-Financial Customers	1,348	1,018	51	499	288	591	784	350	103	467	1,697	265	1,720	9,181
Local	1,235	902	51	499	285	425	341	350	102	253	480	265	1,708	6,896
Cross-border	113	116	0	0	3	166	443	0	1	214	1,217	0	12	2,285
<b>Total</b>	<b>2,173</b>	<b>2,131</b>	<b>1,217</b>	<b>6,163</b>	<b>817</b>	<b>3,648</b>	<b>6,466</b>	<b>1,410</b>	<b>1,085</b>	<b>6,425</b>	<b>6,480</b>	<b>683</b>	<b>2,613</b>	<b>41,309</b>
<b>Non-Deliverable Forwards (as part of Outright Forwards)</b>														
With Reporting Dealers (Local)	0	0	281	570	0	68	32	145	144	557	0	81	0	1,876
With Other Financial Institutions	0	0	880	5,081	0	2,885	5,642	904	835	5,357	4,755	307	0	26,646
Local	0	0	20	117	0	9	159	3	15	34	85	5	0	447
Cross-Border	0	0	860	4,964	0	2,876	5,483	901	820	5,323	4,670	302	0	26,199
With Non-Financial Customers	0	0	46	419	0	587	764	348	68	426	1,697	10	0	4,365
Local	0	0	46	419	0	421	321	348	67	212	480	10	0	2,324
Cross-border	0	0	0	0	0	166	443	0	1	214	1,217	0	0	2,041
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1,207</b>	<b>6,070</b>	<b>0</b>	<b>3,540</b>	<b>6,438</b>	<b>1,397</b>	<b>1,047</b>	<b>6,340</b>	<b>6,452</b>	<b>398</b>	<b>0</b>	<b>32,887</b>

1) Turnover in nominal or notional principal amounts in April 2011.