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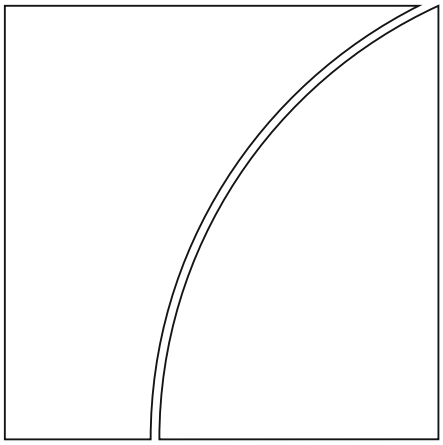

Triennial Central Bank Survey

Foreign exchange turnover in April 2013: preliminary global results

Monetary and Economic Department

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

This publication is available on the BIS website (www.bis.org).

This publication presents the preliminary global results of the 2013 BIS Triennial Central Bank Survey of turnover in foreign exchange markets. A separate publication presents the results of turnover in over-the-counter (OTC) interest rate derivatives markets (www.bis.org/publ/rpfxf13.htm). Many participating authorities also publish details of their national results, links to which are available on the BIS website (www.bis.org/statistics/triennialrep/national.htm). The preliminary global results for a companion survey on amounts outstanding in OTC derivatives markets will be published in November 2013.

The preliminary results of the 2013 Triennial Survey are subject to change. Final global results will be available before the end of 2013. The December 2013 *BIS Quarterly Review* will include several special feature articles that analyse the results of the 2013 survey.

Contents

Notations

billion	thousand million
trillion	thousand billion
e	estimated
lhs	left-hand scale
rhs	right-hand scale
$	US dollar unless specified otherwise
…	not available
.	not applicable
–	nil or negligible

Differences in totals are due to rounding.

The term "country" as used in this publication also covers territorial entities that are not states as understood by international law and practice but for which data are separately and independently maintained.

Abbreviations

ARS	Argentine peso
AUD	Australian dollar
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
DKK	Danish krone
EUR	euro
GBP	pound sterling
HKD	Hong Kong dollar
HUF	Hungarian forint
IDR	Indonesian rupiah
ILS	Israeli new shekel
INR	Indian rupee
JPY	yen
KRW	Korean won
LTL	Lithuanian litas
LVL	Latvian lats
MXN	Mexican peso
MYR	Malaysian ringgit
NOK	Norwegian krone
NZD	New Zealand dollar
OTH	other currencies
PEN	Peruvian new sol
PHP	Philippine peso
PLN	Polish zloty
RMB	renminbi; see CNY
RON	new Romanian leu
RUB	Russian rouble
SAR	Saudi riyal
SEK	Swedish krona
SGD	Singapore dollar
THB	Thai baht
TRY	Turkish lira
TWD	new Taiwan dollar
USD	US dollar
ZAR	South African rand

1. BIS Triennial Central Bank Survey

The BIS Triennial Central Bank Survey is the most comprehensive source of information on the size and structure of global foreign exchange (FX) and OTC derivatives markets. By increasing market transparency, the survey aims to help policymakers and market participants to better monitor patterns of activity and exposures in the global financial system. It also helps to inform the current discussions on reforms to OTC markets.

Foreign exchange market activity has been surveyed every three years since 1989, and OTC interest rate derivatives market activity since 1995.[1] The Triennial Survey is coordinated by the BIS under the auspices of the Markets Committee (for the foreign exchange part) and the Committee on the Global Financial System (for the interest rate derivatives part).

The latest survey of turnover took place in April 2013. Central banks and other authorities in 53 jurisdictions participated in the 2013 survey (see page 16). They collected data from about 1,300 banks and other dealers in their jurisdictions and reported national aggregates to the BIS, which then calculated global aggregates.

Highlights of the 2013 survey

Trading in foreign exchange markets averaged $5.3 trillion per day in April 2013. This is up from $4.0 trillion in April 2010 and $3.3 trillion in April 2007. FX swaps were the most actively traded instruments in April 2013, at $2.2 trillion per day, followed by spot trading at $2.0 trillion.

The growth of foreign exchange trading was driven by financial institutions other than reporting dealers. The 2013 survey collected a finer sectoral breakdown of these other institutions for the first time. Smaller banks (not participating in the survey as reporting dealers) accounted for 24% of turnover, institutional investors such as pension funds and insurance companies 11%, and hedge funds and proprietary trading firms another 11%. Trading with non-financial customers, mainly corporations, contracted between the 2010 and 2013 surveys, reducing their share of global turnover to only 9%.

The US dollar remained the dominant vehicle currency; it was on one side of 87% of all trades in April 2013. The euro was the second most traded currency, but its share fell to 33% in April 2013 from 39% in April 2010. The turnover of the Japanese yen increased significantly between the 2010 and 2013 surveys. So too did that of several emerging market currencies, and the Mexican peso and Chinese renminbi entered the list of the top 10 most traded currencies. Methodological changes in the 2013 survey ensured more complete coverage of activity in emerging market currencies.

Trading is increasingly concentrated in the largest financial centres. In April 2013, sales desks in the United Kingdom, the United States, Singapore and Japan intermediated 71% of foreign exchange trading, whereas in April 2010 their combined share was 66%.

[1] More frequent regional surveys are conducted by local foreign exchange committees in Australia, Canada, London, New York, Singapore and Tokyo. These semiannual surveys are geared towards the structure of local FX markets, and there are some methodological differences compared to the Triennial Survey. For example, the Triennial Survey collects data based on the location of the sales desk, whereas some regional surveys are based on the location of the trading desk.

2. Foreign exchange turnover in April 2013

The 2013 Triennial Survey shows a significant pickup in global FX market activity to $5.3 trillion per day in 2013, up from $4.0 trillion in 2010 (Table 1). With growth in global FX turnover of about 35% at current exchange rates, the 2013 survey results continue the trend of strong turnover growth evidenced in past Triennial Surveys. FX turnover computed at constant exchange rates grew roughly by the same magnitude. The growth in global FX market activity between 2010 and 2013 outpaced the 19% rise from 2007 to 2010 reported in the prior survey, but falls short of the record 72% increase (at current exchange rates) between 2004 and 2007.

Turnover by currencies and currency pairs

The currency composition of global FX trading shifted notably between 2010 and 2013, not only among the world's most actively traded currencies, but also among important emerging market currencies. The Japanese yen stood out as the major currency that saw the most substantial jump in trading activity, whereas the role of the euro as an international currency declined over the period. The Mexican peso and the Chinese renminbi saw the most significant rise in market share among major emerging market currencies.

The role of the US dollar as the world's dominant vehicle currency remains unchallenged. FX deals with the US dollar on one side of the transaction represented 87% of all deals initiated in April 2013, about 2 percentage points higher than three years ago (Table 2 and Graph 1, left-hand panel).

Among the major currencies, trading in the Japanese yen jumped the most, rising by 63% since the 2010 survey. Turnover in the USD/JPY pair rose by about 70% in this period (Table 3). As a result, the yen significantly expanded its share in global FX trading by 4 percentage points to 23% in 2013 (Table 2 and Graph 1, left-hand panel). Additional information from the semiannual surveys by regional FX committees suggests that most of the rise in yen trading occurred between October 2012 and April 2013, a period characterised by expectations of a regime shift in Japanese monetary policy, which then took place in April 2013.

The international role of the euro, by contrast, has shrunk since the beginning of the euro area sovereign debt crisis in 2010. With an increase of just 15%, trading of the euro expanded by less than the overall market. The euro remains the second most important currency worldwide, but its global market share decreased by almost 6 percentage points to 33%, reaching the lowest value since the introduction of the common currency (Table 2). Trading in the most actively traded euro exchange rate crosses, such as EUR/JPY, EUR/GBP and EUR/CHF, expanded less than that in their USD counterparts (Table 3 and Graph 1, right-hand panel).

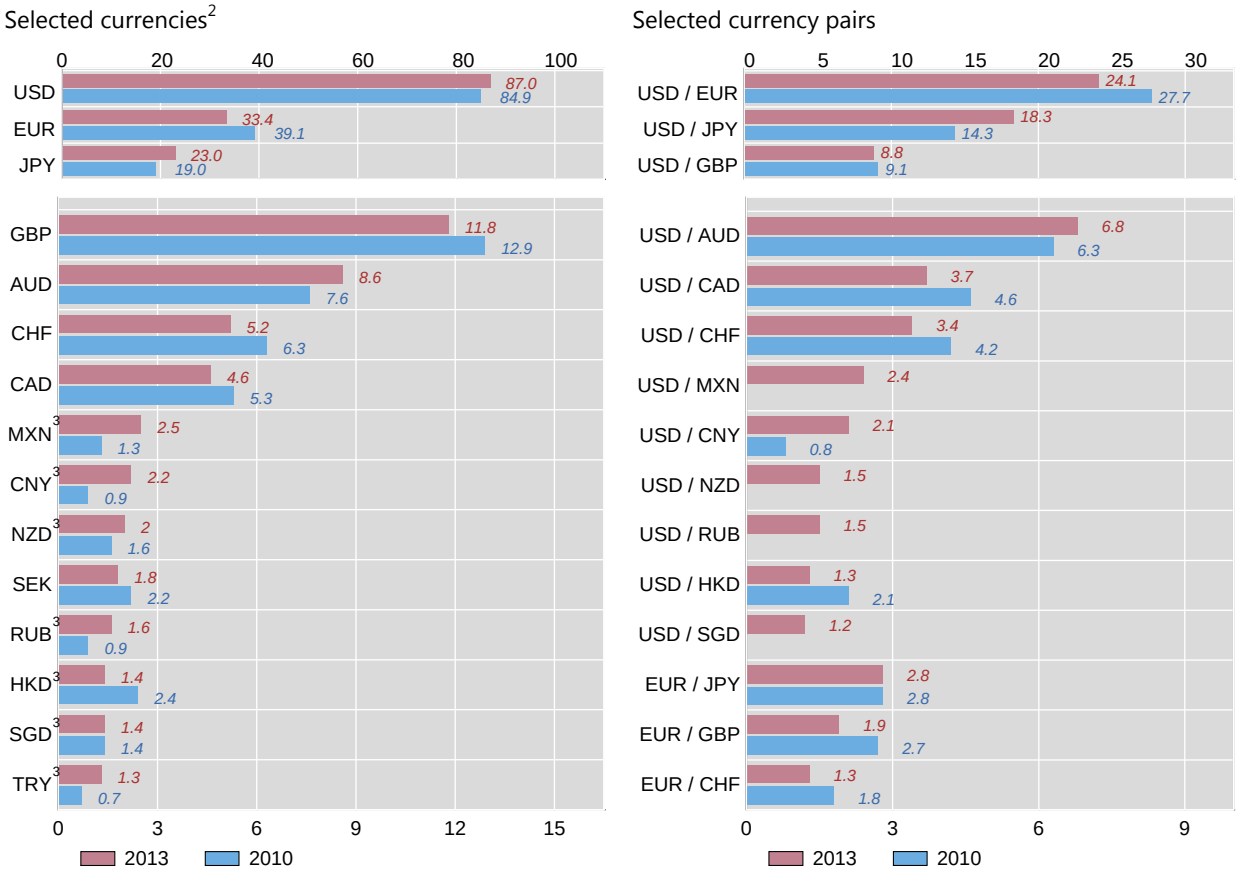
Among the most actively traded advanced economy currencies, the Australian and New Zealand dollars continued increasing their share in global FX trading (Table 2 and Graph 1, left-hand panel). By contrast, sterling, the Canadian dollar, the Swedish krona and, most notably, the Swiss franc lost ground in global FX trading in relative terms (Graph 1, left-hand panel).

The 2013 Triennial Survey further shows a significant rise in the global importance of several major emerging market currencies.[2] Turnover in the Mexican peso reached $135 billion in 2013, raising the peso's share in global FX trading to 2.5%. The Mexican peso has thus become part of the group of the world's 10 most actively traded currencies, ahead of well established currencies such as NZD and SEK. The Russian rouble also saw a significant increase in market share, making it the 12th most actively traded currency worldwide.

[2] Part of the turnover growth in some emerging market currencies may reflect refinements in the data collection methodology for these currencies (see the explanatory notes on page 20).

Foreign exchange market turnover by currency and currency pairs[1]

Net-net basis, daily averages in April, in per cent — Graph 1



[1] Adjusted for local and cross-border inter-dealer double-counting, ie "net-net" basis. [2] As two currencies are involved in each transaction, the sum of shares in individual currencies will total 200%. The share of currencies other than the ones listed is 12.2% for 2013 and 13.7% for 2010. [3] Turnover for 2010 may be underestimated owing to incomplete reporting of offshore trading. Methodological changes in the 2013 survey ensured a more complete coverage of the indicated currencies.

Source: BIS Triennial Central Bank Survey. For additional data by currency and currency pairs, see Tables 2 and 3 on pages 10-11.

The role of the renminbi in global FX trading surged, in line with increased efforts to internationalise the Chinese currency. Renminbi turnover soared from $34 billion to $120 billion. The renminbi has thus become the ninth most actively traded currency in 2013, with a share of 2.2% in global FX volumes, mostly driven by a significant expansion of offshore renminbi trading.

Turnover by counterparty

The counterparty segment that contributed the most to growth in global FX turnover between 2010 and 2013 was *other financial institutions* (Table 4 and Graph 2), thus continuing the trend evident in past Triennial Surveys. This category includes smaller banks that do not act as dealers in the FX market (and therefore do not report in the Triennial Survey), institutional investors, hedge funds and proprietary trading firms as well as official sector financial institutions, among others. In the 2010 survey, *other financial institutions* had for the first time surpassed *other reporting dealers* (ie trading in the inter-dealer market) as the main counterparty category in the Triennial Survey. Transactions of FX dealers with this group of customers grew by 48% to $2.8 trillion in 2013, up from $1.9 trillion in 2010. Trading activity

with these counterparties expanded most strongly in FX options (82%), outright forwards (58%) and the spot market (57%).

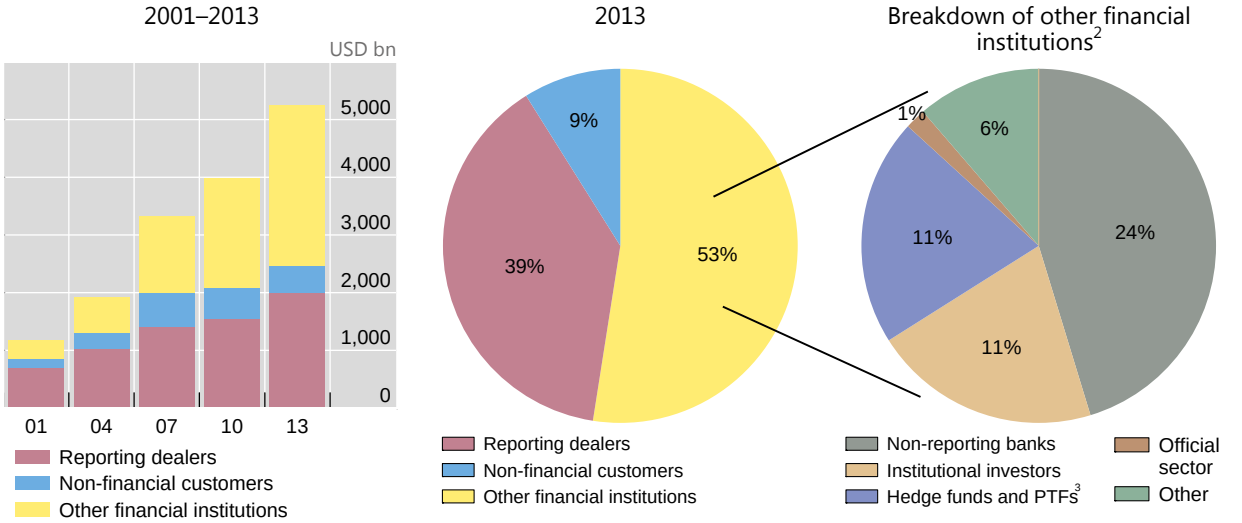
Trading with other reporting dealers rose at a similar rate as the aggregate foreign exchange market between 2010 and 2013, whereas transactions with non-financial customers contracted significantly over the past three years.

The 2013 survey provides a breakdown of the heterogeneous counterparty category *other financial institutions* to shed more light on the contribution of various financial FX end users to global trading activity. The new figures indicate that non-reporting banks, ie smaller and regional banks that serve as clients of the large FX dealing banks but do not engage in market-making in major currency pairs, account for roughly 24% of global FX turnover (Graph 2). Other quantitatively significant financial players include institutional investors as well as hedge funds and proprietary trading firms, with a share in global FX turnover of about 11% for each group (Table 5).[3] By contrast, trading by official sector financial institutions such as central banks and sovereign wealth funds accounted for less than 1% of global FX market activity in April 2013.

Inter-dealer trading grew by 34% to $2.1 trillion in 2013, up from $1.5 trillion in 2010. The share of inter-dealer trading in global FX transactions stood at 39% in 2013, and hence remained roughly constant over the past three years.[4]

Foreign exchange market turnover by counterparty[1]

Net-net basis, daily averages in April — Graph 2



[1] Adjusted for local and cross-border inter-dealer double-counting, ie "net-net" basis. [2] For definitions of counterparties, see page 19. [3] Proprietary trading firms.

Source: BIS Triennial Central Bank Survey. For additional data by counterparty, see Tables 4 and 5 on pages 12-13.

[3] The category of hedge funds and proprietary trading firms also includes counterparties that specialise in algorithmic and high-frequency trading. For a definition of the different counterparty categories, see the table on page 19.

[4] The relative importance of inter-dealer trading in the global FX market has decreased by almost 25 percentage points since 1998 (Table 4), as increased concentration and market share has allowed dealers to match larger quantities of customer trades on their own books by internalising trades. Moreover, heavy investment in IT infrastructure by top-tier dealers in recent years has facilitated the warehousing of inventory risk, reducing the need to offload accumulated inventory quickly in the inter-dealer market.

Dealers' FX transactions with non-financial customers decreased substantially between 2010 and 2013, from $532 billion in 2010 to $465 billion in 2013. Non-financial customers – a group that includes corporations, governments and high net worth individuals, among others – accounted for merely 9% of global FX turnover in 2013. Since the 1998 Triennial Survey, the share of non-financial customers has decreased by 8 percentage points. With the exception of currency swaps, where the share of non-financial customers expanded slightly, the declining role of non-financial customers in FX turnover is evident across all relevant instrument categories, most notably spot and forwards (Table 4).

Foreign exchange trading has become more locally concentrated since 2010, reversing the trend of the surveys since 1998 (Table 4). The share of cross-border FX transactions fell considerably, from 65% in 2010 to 58% in 2013 – the lowest level since the 2001 survey. The decrease in the share of cross-border deals is also evident in other OTC markets, such as the market for interest rate derivatives, but does not necessarily mean that trading activity has become less international. The increasing concentration of FX trading in large financial centres documented below suggests that a rising proportion of trading takes place between counterparties located in these centres, although they could be headquartered elsewhere.[5]

New data collected in the Triennial Survey show that 16% of dealers' global FX transactions were conducted via a prime brokerage relationship with their clients (Table 5). A much smaller fraction (3.5%) of global FX volumes in 2013 was driven by trades of dealers with retail customers, either via electronic margin trading platforms or through so-called retail aggregators.

Turnover by instrument and maturity

Trading activity moved up across all main FX instrument categories. As turnover growth was fairly evenly spread across instruments, categories' shares in total turnover remained roughly in line with those of the previous survey (Graph 3).

Spot market trading grew by 38% to $2 trillion per day in April 2013, contributing about 40% to the rise in global FX market activity between 2010 and 2013. While again a significant driver of the rise in global FX turnover, growth in this market segment was more moderate compared to its 48% increase between 2007 and 2010.[6]

FX swaps remained the most actively traded FX instrument in 2013, but at 27%, the growth in trading did not keep pace with that of the overall market.[7] Their daily volume of $2.2 trillion accounted for 42% of all FX-related transactions (Table 1 and Graph 3), 2 percentage points less than in 2010. Turnover of currency swaps also grew at a similar rate (26%); with a turnover of $54 billion per day, this instrument continued to account for a small share of the overall market.

Trading activity increased more strongly in other parts of the FX OTC derivatives market, in particular forwards and FX options. Trading volumes of outright forwards trended up to $680 billion in 2013 from $475 billion in 2010, a 43% increase. The share of forwards in overall FX trading edged up slightly, by 1 percentage point to 13%, the highest since the survey began. Trading of FX options increased the most, by more than 60%. Taken together, the rise in turnover of FX forwards and options accounted for almost a quarter of global FX turnover growth between 2010 and 2013.

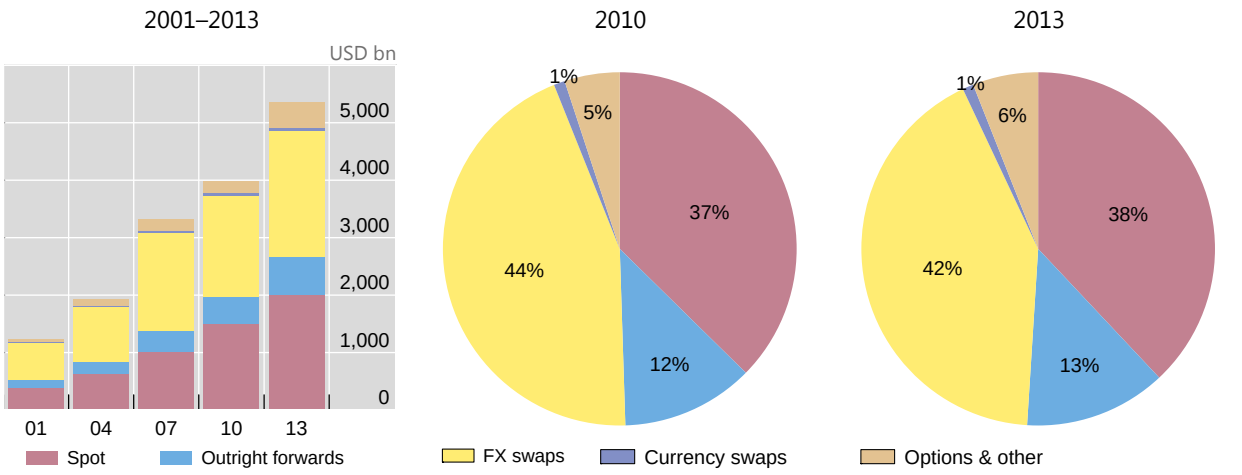
[5] See the companion BIS publication on OTC interest rate derivatives turnover in April 2013 (www.bis.org/publ/rpfxf13.htm).

[6] The surge in spot trading documented in the 2010 survey was attributed at the time to the increased use of algorithmic trading and execution strategies and the rising participation of specialised high-frequency trading firms in the foreign exchange market (M King and D Rime, "The $4 trillion question: what explains FX growth since the 2007 survey?", *BIS Quarterly Review*, December 2010, www.bis.org/publ/qtrpdf/r_qt1012e.pdf).

[7] FX swaps are heavily used by banks to raise liquidity across money markets denominated in different currencies.

Foreign exchange market turnover by instrument[1]

Net-net basis, daily averages in April — Graph 3



[1] Adjusted for local and cross-border inter-dealer double-counting, ie "net-net" basis.

Source: BIS Triennial Central Bank Survey. For additional data by instrument, see Table 1 on page 9.

The 2013 survey shows a tendency towards slightly longer maturities of FX swaps and outright forwards. For instance, 56% of outright forwards initiated in April 2013 had a contractual maturity between 7 days and one year, compared to 52% in the prior survey (Table 4). Turnover in FX swaps and forwards with maturity beyond one year also expanded strongly, albeit from a very small base.

The vast majority of trading of FX instruments (including spot transactions) continues to be conducted over the counter. OTC turnover by far exceeds the trading volume of standardised FX products on organised exchanges (Table 1). As a result, the common market practice of reading speculative positioning in currencies from open interest on exchanges remains risky and subject to inaccuracy.

Geographical distribution of turnover

Foreign exchange market activity has become ever more concentrated in a handful of global financial centres (Table 6). The vast majority of global FX trading in 2013 has occurred via the intermediation of dealers' sales desks in five jurisdictions: the United Kingdom (41%), the United States (19%), Singapore (5.7%), Japan (5.6%) and Hong Kong SAR (4.1%).

The share of centres in global FX trading has further risen since the last survey. While the top five financial centres in 2010 (which included Switzerland and excluded Hong Kong) accounted for roughly 71% of global foreign exchange trading (Table 6), the share of the top five global FX trading centres moved up by 4 percentage points to 75% in 2013. The United Kingdom, the United States and Singapore expanded their share the most, with turnover growth of 47%, 40% and 44%, respectively. Singapore overtook Japan as the world's third major FX trading centre in 2013. By contrast, trading activity fell by 13% in Switzerland and by 5% Australia.

3. Tables

Global foreign exchange market turnover

Net-net basis,[1] daily averages in April, in billions of US dollars — Table 1

Instrument	1998	2001	2004	2007	2010	2013
Foreign exchange instruments	1,527	1,239	1,934	3,324	3,971	5,345
Spot transactions	568	386	631	1,005	1,488	2,046
Outright forwards	128	130	209	362	475	680
Foreign exchange swaps	734	656	954	1,714	1,759	2,228
Currency swaps	10	7	21	31	43	54
Options and other products[2]	87	60	119	212	207	337
Memo:						
Turnover at April 2013 exchange rates[3]	*1,718*	*1,500*	*2,036*	*3,376*	*3,969*	*5,345*
Exchange-traded derivatives[4]	*11*	*12*	*26*	*80*	*155*	*160*

[1] Adjusted for local and cross-border inter-dealer double-counting (ie "net-net" basis). [2] The category "other FX products" covers highly leveraged transactions and/or trades whose notional amount is variable and where a decomposition into individual plain vanilla components was impractical or impossible. [3] Non-US dollar legs of foreign currency transactions were converted into original currency amounts at average exchange rates for April of each survey year and then reconverted into US dollar amounts at average April 2013 exchange rates. [4] Sources: FOW TRADEdata; Futures Industry Association; various futures and options exchanges. Foreign exchange futures and options traded worldwide.

Currency distribution of global foreign exchange market turnover

Net-net basis,[1] percentage shares of average daily turnover in April[2] Table 2

Currency	1998		2001		2004		2007		2010		2013	
	Share	Rank	Share	Rank	Share	Rank	Share	Rank	Share	Rank	Share	Rank
USD	86.8	1	89.9	1	88.0	1	85.6	1	84.9	1	87.0	1
EUR	...	32	37.9	2	37.4	2	37.0	2	39.1	2	33.4	2
JPY	21.7	2	23.5	3	20.8	3	17.2	3	19.0	3	23.0	3
GBP	11.0	3	13.0	4	16.5	4	14.9	4	12.9	4	11.8	4
AUD	3.0	6	4.3	7	6.0	6	6.6	6	7.6	5	8.6	5
CHF	7.1	4	6.0	5	6.0	5	6.8	5	6.3	6	5.2	6
CAD	3.5	5	4.5	6	4.2	7	4.3	7	5.3	7	4.6	7
MXN[3]	0.5	9	0.8	14	1.1	12	1.3	12	1.3	14	2.5	8
CNY[3]	0.0	30	0.0	35	0.1	29	0.5	20	0.9	17	2.2	9
NZD[3]	0.2	17	0.6	16	1.1	13	1.9	11	1.6	10	2.0	10
SEK	0.3	11	2.5	8	2.2	8	2.7	9	2.2	9	1.8	11
RUB[3]	0.3	12	0.3	19	0.6	17	0.7	18	0.9	16	1.6	12
HKD[3]	1.0	8	2.2	9	1.8	9	2.7	8	2.4	8	1.4	13
NOK[3]	0.2	15	1.5	10	1.4	10	2.1	10	1.3	13	1.4	14
SGD[3]	1.1	7	1.1	12	0.9	14	1.2	13	1.4	12	1.4	15
TRY[3]	...	33	0.0	30	0.1	28	0.2	26	0.7	19	1.3	16
KRW[3]	0.2	18	0.8	15	1.1	11	1.2	14	1.5	11	1.2	17
ZAR[3]	0.4	10	0.9	13	0.7	16	0.9	15	0.7	20	1.1	18
BRL[3]	0.2	16	0.5	17	0.3	21	0.4	21	0.7	21	1.1	19
INR[3]	0.1	22	0.2	21	0.3	20	0.7	19	1.0	15	1.0	20
DKK[3]	0.3	14	1.2	11	0.9	15	0.8	16	0.6	22	0.8	21
PLN[3]	0.1	26	0.5	18	0.4	19	0.8	17	0.8	18	0.7	22
TWD[3]	0.1	21	0.3	20	0.4	18	0.4	22	0.5	23	0.5	23
HUF[3]	0.0	28	0.0	33	0.2	23	0.3	23	0.4	24	0.4	24
MYR[4]	0.0	27	0.1	26	0.1	30	0.1	28	0.3	25	0.4	25
CZK[4]	0.3	13	0.2	22	0.2	24	0.2	24	0.2	27	0.4	26
THB[4]	0.1	19	0.2	24	0.2	22	0.2	25	0.2	26	0.3	27
CLP[4]	0.1	24	0.2	23	0.1	25	0.1	30	0.2	29	0.3	28
ILS[4]	...	34	0.1	25	0.1	26	0.2	27	0.2	31	0.2	29
IDR[4]	0.1	25	0.0	28	0.1	27	0.1	29	0.2	30	0.2	30
PHP[4]	0.0	29	0.0	29	0.0	31	0.1	31	0.2	28	0.1	31
RON[4]	...	35	...	37	...	40	0.0	34	0.1	33	0.1	32
COP[4]	...	36	0.0	31	0.0	33	0.1	33	0.1	32	0.1	33
SAR[4]	0.1	23	0.1	27	0.0	32	0.1	32	0.1	34	0.1	34
PEN[4]	...	37	0.0	32	0.0	35	0.0	36	0.0	36	0.1	35
OTH	...		6.6		6.6		7.7		4.7		1.6	
Total	**200.0**		**200.0**		**200.0**		**200.0**		**200.0**		**200.0**	

[1] Adjusted for local and cross-border inter-dealer double-counting (ie "net-net" basis). [2] Because two currencies are involved in each transaction, the sum of the percentage shares of individual currencies totals 200% instead of 100%. [3] Turnover for years prior to 2013 may be underestimated owing to incomplete reporting of offshore trading in previous surveys. Methodological changes in the 2013 survey ensured more complete coverage of activity in emerging market and other currencies. [4] Turnover may be underestimated owing to incomplete reporting of offshore trading.

Global foreign exchange market turnover by currency pair

Net-net basis,[1] daily averages in April, in billions of US dollars and percentages — Table 3

Currency pair	2001		2004		2007		2010		2013	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
USD / EUR	372	30.0	541	28.0	892	26.8	1,098	27.7	1,289	24.1
USD / JPY	250	20.2	328	17.0	438	13.2	567	14.3	978	18.3
USD / GBP	129	10.4	259	13.4	384	11.6	360	9.1	472	8.8
USD / AUD	51	4.1	107	5.5	185	5.6	248	6.3	364	6.8
USD / CAD	54	4.3	77	4.0	126	3.8	182	4.6	200	3.7
USD / CHF	59	4.8	83	4.3	151	4.5	166	4.2	184	3.4
USD / MXN	...	...	...	...	...	...	...	...	128	2.4
USD / CNY	...	...	...	...	...	...	31	0.8	113	2.1
USD / NZD	...	...	...	...	...	...	...	...	82	1.5
USD / RUB	...	...	...	...	...	...	...	...	79	1.5
USD / HKD	...	...	...	...	...	...	85	2.1	69	1.3
USD / SGD	...	...	...	...	...	...	...	...	65	1.2
USD / TRY	...	...	...	...	...	...	...	...	63	1.2
USD / KRW	...	...	...	...	...	...	58	1.5	60	1.1
USD / SEK	...	...	...	...	57	1.7	45	1.1	55	1.0
USD / ZAR	...	...	...	...	...	...	24	0.6	51	1.0
USD / INR	...	...	...	...	...	...	36	0.9	50	0.9
USD / NOK	...	...	...	...	...	...	...	...	48	0.9
USD / BRL	...	...	...	...	...	...	25	0.6	48	0.9
USD / PLN	...	...	...	...	...	...	...	...	22	0.4
USD / TWD	...	...	...	...	...	...	...	...	22	0.4
USD / OTH	199	16.0	307	15.9	612	18.4	445	11.2	213	4.0
EUR / JPY	36	2.9	61	3.2	86	2.6	111	2.8	147	2.8
EUR / GBP	27	2.1	47	2.4	69	2.1	109	2.7	102	1.9
EUR / CHF	13	1.1	30	1.6	62	1.9	71	1.8	71	1.3
EUR / SEK	...	...	...	...	24	0.7	35	0.9	28	0.5
EUR / AUD	1	0.1	4	0.2	9	0.3	12	0.3	21	0.4
EUR / NOK	...	...	...	...	...	...	...	...	20	0.4
EUR / CAD	1	0.1	2	0.1	7	0.2	14	0.3	15	0.3
EUR / PLN	...	...	...	...	...	...	...	...	14	0.3
EUR / DKK	...	...	...	...	...	...	...	...	13	0.2
EUR / HUF	...	...	...	...	...	...	...	...	9	0.2
EUR / TRY	...	...	...	...	...	...	...	...	6	0.1
EUR / CNY	...	...	...	...	...	...	...	...	1	0.0
EUR / OTH	20	1.6	38	1.9	83	2.5	102	2.6	52	1.0
JPY / AUD	...	...	...	...	...	...	24	0.6	45	0.8
JPY / CAD	...	...	...	...	...	...	...	...	6	0.1
JPY / NZD	...	...	...	...	...	...	4	0.1	5	0.1
JPY / ZAR	...	...	...	...	...	...	...	...	4	0.1
JPY / BRL	...	...	...	...	...	...	...	...	3	0.1
JPY / TRY	...	...	...	...	...	...	...	...	1	0.0
JPY / OTH	5	0.4	14	0.7	49	1.5	49	1.2	42	0.8
Other currency pairs	23	1.8	36	1.9	90	2.7	72	1.8	89	1.7
All currency pairs	1,239	100.0	1,934	100.0	3,324	100.0	3,971	100.0	5,345	100.0

[1] Adjusted for local and cross-border inter-dealer double-counting (ie "net-net" basis).

Global foreign exchange market turnover by instrument, counterparty and maturity

Net-net basis,[1] daily averages in April, in billions of US dollars and percentages — Table 4

Instrument/counterparty/maturity	1998		2001		2004		2007		2010		2013	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Spot transactions	568	37.2	386	31.2	631	32.6	1,005	30.2	1,488	37.5	2,046	38.3
with reporting dealers	347	61.2	216	56.0	310	49.2	426	42.4	517	34.7	675	33.0
with other financial institutions	121	21.3	111	28.9	212	33.7	394	39.2	754	50.7	1,183	57.8
with non-financial customers	99	17.5	58	15.0	108	17.0	184	18.3	217	14.6	188	9.2
Outright forwards	128	8.4	130	10.5	209	10.8	362	10.9	475	11.9	680	12.7
with reporting dealers	49	38.3	52	40.0	73	35.1	96	26.5	112	23.7	182	26.7
with other financial institutions	34	26.9	41	31.3	80	38.3	159	43.9	254	53.5	402	59.1
with non-financial customers	44	34.7	37	28.7	56	26.6	107	29.6	108	22.8	96	14.2
Up to 7 days	65	51.2	51	38.8	92	44.3	154	42.6	219	46.1	271	39.8
Over 7 days and up to 1 year	57	44.8	76	58.4	111	53.2	200	55.4	245	51.5	378	55.5
Over 1 year	5	4.0	4	2.7	5	2.6	7	2.0	11	2.4	31	4.6
Foreign exchange swaps	734	48.1	656	52.9	954	49.3	1,714	51.6	1,759	44.3	2,228	41.7
with reporting dealers	511	69.7	419	63.9	573	60.0	796	46.4	834	47.4	1,085	48.7
with other financial institutions	124	16.9	177	27.0	293	30.7	682	39.8	755	42.9	999	44.9
with non-financial customers	98	13.4	60	9.1	89	9.3	236	13.8	170	9.7	143	6.4
Up to 7 days	528	72.0	451	68.7	700	73.4	1,329	77.5	1,299	73.9	1,562	70.1
Over 7 days and up to 1 year	192	26.2	196	29.9	242	25.3	365	21.3	442	25.1	579	26.0
Over 1 year	10	1.4	8	1.2	10	1.0	18	1.0	14	0.8	87	3.9
Currency swaps	10	1	7	0.6	21	1.1	31	0.9	43	1.1	54	1.0
with reporting dealers	5	55	4	53.5	12	57.7	12	38.6	20	46.8	29	53.7
with other financial institutions	2	23	2	21.3	5	23.4	13	41.1	19	45.0	19	34.7
with non-financial customers	2	22	2	25.2	3	14.2	6	20.4	4	8.2	6	11.6
FX options and other products[2]	87	6	60	4.8	119	6.2	212	6.4	207	5.2	337	6.3
with reporting dealers	48	55	28	47.1	49	41.4	62	29.2	60	29.1	99	29.4
with other financial institutions	18	20	15	26.0	44	36.6	91	42.8	113	54.7	207	61.3
with non-financial customers	21	24	16	26.8	21	17.9	59	28.0	33	16.1	31	9.3
Total	1,527	100.0	1,239	100.0	1,934	100.0	3,324	100.0	3,971	100.0	5,345	100.0
with reporting dealers	961	63.0	719	58.1	1,018	52.6	1,392	41.9	1,544	38.9	2,070	38.7
with other financial institutions	299	19.6	346	27.9	634	32.8	1,339	40.3	1,896	47.7	2,809	52.6
with non-financial customers	265	17.4	173	14.0	276	14.3	593	17.8	532	13.4	465	8.7
Local	698	45.7	525	42.4	743	38.4	1,274	38.3	1,393	35.1	2,259	42.3
Cross-border	828	54.2	713	57.5	1,185	61.2	2,051	61.7	2,578	64.9	3,086	57.7

[1] Adjusted for local and cross-border inter-dealer double-counting (ie "net-net" basis). [2] The category "other FX products" covers highly leveraged transactions and/or trades whose notional amount is variable and where a decomposition into individual plain vanilla components was impractical or impossible.

Global foreign exchange market turnover by instrument, currency and counterparty

Net-net basis,[1] daily averages in April 2013, in billions of US dollars — Table 5

Instrument/currency/counterparty	Total	Spot transactions	Outright forwards	Foreign exchange swaps	Currency swaps	FX options
Total	5,345	2,046	680	2,228	54	337
By currency						
USD	4,652	1,691	588	2,030	50	293
EUR	1,786	754	178	766	18	70
JPY	1,231	612	123	332	11	153
GBP	631	227	69	301	5	29
AUD	462	196	50	183	6	27
CHF	275	84	27	149	1	14
CAD	244	93	36	101	2	12
MXN	135	57	14	58	1	6
CNY	120	34	28	40	1	17
NZD	105	39	11	50	2	3
SEK	94	27	12	53	1	2
RUB	85	37	9	37	0	3
HKD	77	21	7	47	0	1
NOK	77	21	10	43	0	2
SGD	75	20	11	40	1	3
TRY	70	16	10	39	3	3
KRW	64	19	24	16	1	4
ZAR	60	19	7	31	0	2
BRL	59	11	34	1	3	11
INR	53	15	24	10	0	3
DKK	42	7	5	29	0	0
PLN	37	11	6	20	0	1
TWD	24	6	11	6	0	1
HUF	22	7	3	10	0	1
OTH	207	66	64	65	2	12
By counterparty[3]						
with reporting dealers	2,070	675	182	1,085	29	99
local	743	262	46	382	15	38
cross-border	1,327	413	136	703	14	61
with other financial institutions	2,809	1,183	402	999	19	207
local	1,242	551	178	405	5	103
cross-border	1,567	632	224	595	13	104
non-reporting banks	1,278	506	95	606	8	63
institutional investors	603	267	127	153	2	54
hedge funds and PTFs[2]	576	282	115	104	4	69
official sector	53	12	8	31	1	2
other	300	116	57	105	4	19
with non-financial customers	465	188	96	143	6	31
local	274	120	58	77	4	14
cross-border	192	68	38	66	2	17
Of which: prime brokered	*874*	*598*	*116*	*104*	*1*	*55*
Of which: retail-driven	*185*	*78*	*24*	*74*	*1*	*7*

[1] Adjusted for local and cross-border inter-dealer double-counting (ie "net-net" basis). [2] Proprietary trading firms. [3] See explanatory notes for definitions of counterparties.

Geographical distribution of global foreign exchange market turnover[1]

Net-gross basis,[2] daily averages in April, in billions of US dollars and percentages — Table 6

Country	1998		2001		2004		2007		2010		2013	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Argentina	2	0.1	...	...	1	0.0	1	0.0	2	0.0	1	0.0
Australia	48	2.3	54	3.2	107	4.1	176	4.1	192	3.8	182	2.7
Austria	12	0.6	8	0.5	15	0.6	19	0.4	20	0.4	17	0.3
Bahrain	3	0.1	3	0.2	3	0.1	3	0.1	5	0.1	9	0.1
Belgium	27	1.3	10	0.6	21	0.8	50	1.2	33	0.6	22	0.3
Brazil	5	0.2	6	0.3	4	0.1	6	0.1	14	0.3	17	0.3
Bulgaria	...	...	...	...	...	...	1	0.0	1	0.0	2	0.0
Canada	38	1.8	44	2.6	59	2.3	64	1.5	62	1.2	65	1.0
Chile	1	0.1	2	0.1	2	0.1	4	0.1	6	0.1	12	0.2
China	0	0.0	...	...	1	0.0	9	0.2	20	0.4	44	0.7
Chinese Taipei	5	0.2	5	0.3	9	0.4	16	0.4	18	0.4	26	0.4
Colombia	...	...	0	0.0	1	0.0	2	0.0	3	0.1	3	0.1
Czech Republic	5	0.2	2	0.1	2	0.1	5	0.1	5	0.1	5	0.1
Denmark	28	1.3	24	1.4	42	1.6	88	2.1	120	2.4	103	1.5
Estonia	...	...	...	...	0	0.0	1	0.0	1	0.0	0	0.0
Finland	4	0.2	2	0.1	2	0.1	8	0.2	31	0.6	15	0.2
France	77	3.7	50	2.9	67	2.6	127	3.0	152	3.0	190	2.8
Germany	100	4.7	91	5.4	120	4.6	101	2.4	109	2.2	111	1.7
Greece	7	0.3	5	0.3	4	0.2	5	0.1	5	0.1	3	0.0
Hong Kong SAR	80	3.8	68	4.0	106	4.1	181	4.2	238	4.7	275	4.1
Hungary	1	0.1	1	0.0	3	0.1	7	0.2	4	0.1	4	0.1
India	2	0.1	3	0.2	7	0.3	38	0.9	27	0.5	31	0.5
Indonesia	2	0.1	4	0.2	2	0.1	3	0.1	3	0.1	5	0.1
Ireland	11	0.5	9	0.5	7	0.3	11	0.3	15	0.3	11	0.2
Israel	...	...	1	0.1	5	0.2	8	0.2	10	0.2	8	0.1
Italy	29	1.4	18	1.0	23	0.9	38	0.9	29	0.6	24	0.4
Japan	146	7.0	153	9.0	207	8.0	250	5.8	312	6.2	374	5.6
Korea	4	0.2	10	0.6	21	0.8	35	0.8	44	0.9	48	0.7
Latvia	...	...	...	...	2	0.1	3	0.1	2	0.0	2	0.0
Lithuania	...	...	...	...	1	0.0	1	0.0	1	0.0	1	0.0
Luxembourg	23	1.1	13	0.8	15	0.6	44	1.0	33	0.7	51	0.8
Malaysia	1	0.1	1	0.1	2	0.1	3	0.1	7	0.1	11	0.2
Mexico	9	0.4	9	0.5	15	0.6	15	0.4	17	0.3	32	0.5
Netherlands	43	2.0	31	1.8	52	2.0	25	0.6	18	0.4	112	1.7
New Zealand	7	0.3	4	0.2	7	0.3	13	0.3	9	0.2	12	0.2
Norway	9	0.4	13	0.8	14	0.6	32	0.7	22	0.4	21	0.3
Peru	...	...	0	0.0	0	0.0	1	0.0	1	0.0	2	0.0
Philippines	1	0.0	1	0.1	1	0.0	2	0.1	5	0.1	4	0.1
Poland	3	0.1	5	0.3	7	0.3	9	0.2	8	0.2	8	0.1
Portugal	4	0.2	2	0.1	2	0.1	4	0.1	4	0.1	4	0.1
Romania	...	...	...	...	...	...	3	0.1	3	0.1	3	0.1
Russia	7	0.3	10	0.6	30	1.1	50	1.2	42	0.8	61	0.9
Saudi Arabia	2	0.1	2	0.1	2	0.1	4	0.1	5	0.1	5	0.1
Singapore	145	6.9	104	6.1	134	5.1	242	5.6	266	5.3	383	5.7
Slovakia	...	...	1	0.0	2	0.1	3	0.1	0	0.0	1	0.0
Slovenia	...	...	0	0.0	0	0.0	0	0.0	...	...	...	...
South Africa	9	0.4	10	0.6	10	0.4	14	0.3	14	0.3	21	0.3
Spain	20	1.0	8	0.5	14	0.5	17	0.4	29	0.6	43	0.6
Sweden	16	0.8	25	1.5	32	1.2	44	1.0	45	0.9	44	0.7
Switzerland	92	4.4	76	4.5	85	3.3	254	5.9	249	4.9	216	3.2
Thailand	3	0.1	2	0.1	3	0.1	6	0.1	7	0.1	13	0.2
Turkey	...	...	1	0.1	3	0.1	4	0.1	17	0.3	27	0.4
United Kingdom	685	32.6	542	31.8	835	32.0	1,483	34.6	1,854	36.8	2,726	40.9
United States	383	18.3	273	16.0	499	19.1	745	17.4	904	17.9	1,263	18.9
Total	**2,099**	**100.0**	**1,705**	**100.0**	**2,608**	**100.0**	**4,281**	**100.0**	**5,043**	**100.0**	**6,671**	**100.0**

[1] 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. [2] Adjusted for local inter-dealer double-counting (ie "net-gross" basis).

4. Explanatory notes

The format of the foreign exchange turnover part of the Triennial Central Bank Survey was refined and clarified in 2013. Below is a summary of the main changes:

- A more detailed counterparty breakdown is available for "other financial institutions".
- The list of currencies for which comprehensive and internationally consistent data are collected has been expanded. In addition to the eight major currencies, 16 other widely traded currencies have been singled out where reporting across jurisdictions has been harmonised to enhance the quality of the data. The list of currency pairs for which data are collected has also been expanded.
- Dealers were requested to report information on their deals with clients via prime brokerage relationships. Data on retail-driven transactions were also collected.
- Additional information on turnover of non-deliverable forwards was requested from reporting dealers, with separate identification of six emerging market currency pairs.
- Execution methods have been clarified to disentangle methods from counterparties, and to distinguish more clearly between electronic and voice execution.
- Reporting dealers have been asked to provide complementary information on algorithmic and high-frequency trading in spot FX as well as on centrally cleared OTC derivatives transactions.

Notwithstanding these changes, the data collected for the 2013 survey are largely comparable to those of the previous survey in 2010.

Participating authorities

Central banks and other authorities in 53 jurisdictions participated in the 2013 Triennial Survey. The same authorities participated in the 2010 survey.

Argentina	Central Bank of Argentina
Australia	Reserve Bank of Australia
Austria	Central Bank of the Republic of Austria
Bahrain	Bahrain Monetary Agency
Belgium	National Bank of Belgium
Brazil	Central Bank of Brazil
Bulgaria	Bulgarian National Bank
Canada	Bank of Canada
Chile	Central Bank of Chile
China	People's Bank of China
	State Administration of Foreign Exchange
Chinese Taipei	Central Bank of China
Colombia	Bank of the Republic
Czech Republic	Czech National Bank
Denmark	Danmarks Nationalbank
Estonia	Bank of Estonia
Finland	Bank of Finland
France	Bank of France
Germany	Deutsche Bundesbank
Greece	Bank of Greece
Hong Kong SAR	Hong Kong Monetary Authority
Hungary	Magyar Nemzeti Bank
India	Reserve Bank of India
Indonesia	Bank Indonesia
Ireland	Central Bank of Ireland
Israel	Bank of Israel
Italy	Bank of Italy
Japan	Bank of Japan
Korea	Bank of Korea
Latvia	Bank of Latvia
Lithuania	Bank of Lithuania
Luxembourg	Central Bank of Luxembourg
Malaysia	Central Bank of Malaysia
Mexico	Bank of Mexico
Netherlands	Netherlands Bank
New Zealand	Reserve Bank of New Zealand
Norway	Central Bank of Norway
Peru	Central Reserve Bank of Peru
Philippines	Bangko Sentral ng Pilipinas
Poland	National Bank of Poland
Portugal	Bank of Portugal
Romania	National Bank of Romania
Russia	Central Bank of the Russian Federation
Saudi Arabia	Saudi Arabian Monetary Agency
Singapore	Monetary Authority of Singapore
Slovakia	National Bank of Slovakia
South Africa	South African Reserve Bank
Spain	Bank of Spain
Sweden	Sveriges Riksbank
	Statistics Sweden
Switzerland	Swiss National Bank
Thailand	Bank of Thailand
Turkey	Central Bank of the Republic of Turkey
United Kingdom	Bank of England
United States	Federal Reserve Bank of New York

Coverage

The Triennial Survey of foreign exchange turnover covers spot transactions, outright forwards, foreign exchange swaps, currency swaps, currency options and other foreign exchange transactions with exposure to more than one currency.

The basis for reporting was in principle the location of the sales desk of any trade, even if deals entered into in different locations were booked in a central location. Thus, transactions concluded by offices located abroad were not reported by the country of location of the head office, but by that of the office abroad (insofar as the latter was a reporting institution in one of the other 52 reporting countries). Where no sales desk was involved in a deal, the trading desk was used to determine the location of deals.

The survey collected turnover data for both proprietary and commissioned business of the reporting institutions. Commissioned business refers to reporting institutions' transactions as a result of deals as an agent or trustee in their own name, but on behalf of third parties, such as customers or other entities.

Turnover data

Turnover data provide a measure of market activity, and can also be seen as a rough proxy for market liquidity. Turnover is defined as the gross value of all new deals entered into during a given period, and is measured in terms of the nominal or notional amount of the contracts.

No distinction was made between sales and purchases (eg a purchase of $5 million against sterling and a sale of $7 million against sterling would amount to a gross turnover of $12 million). Direct cross-currency transactions were counted as single transactions (eg if a bank sold $5 million of Swiss francs against the Swedish krona, the reported turnover would be $5 million); however, cross-currency transactions passing through a vehicle currency were recorded as two separate deals against the vehicle currency (eg if a bank sold $5 million of Swiss francs against euro first and then used the euro to purchase krona, the reported turnover would be $10 million). The gross amount of each transaction was recorded once, and netting arrangements and offsets were ignored.

OTC derivatives transactions that are centrally cleared via central counterparties (CCPs) were reported on a pre-novation basis (ie with the original execution counterpart as counterparty). Any post-trade transaction records that arise from central clearing via CCPs (eg through novation) was not reported as additional transactions.

As in the previous foreign exchange Triennial Surveys, turnover data were collected over a one-month period, the month of April, in order to reduce the likelihood that very short-term variations in activity might contaminate the data. The data collected for the survey reflected all transactions entered into during the calendar month of April 2013, regardless of whether delivery or settlement was made during that month. In order to allow comparison across countries, daily averages of turnover were computed by dividing aggregate monthly turnover for the country in question by the number of days in April on which the foreign exchange and derivatives markets in that country were open. The number of trading days ranged from 19 to 22 in April 2013, with the exception of Saudi Arabia (30 days).

Transactions are reported to the BIS in US dollar equivalents, with non-dollar amounts generally converted into US dollars using the exchange rate prevailing on the date of the trade.

Instruments

The instruments covered in the foreign exchange turnover part of the survey are defined as follows:

Spot transactions	Single outright transactions involving the exchange of two currencies at a rate agreed on the date of the contract for value or delivery (cash settlement) within two business days. The spot legs of swaps are not included among spot transactions but are reported as swap transactions even when they are due for settlement within two days. This means that spot transactions are exclusive of overnight swaps and spot next swaps, as well as other "tomorrow/next day" transactions.
Outright forwards	Transactions involving the exchange of two currencies at a rate agreed on the date of the contract for value or delivery (cash settlement) at some time in the future (more than two business days later). This category also includes forward foreign exchange agreement transactions (FXA), non-deliverable forwards (NDFs) and other forward contracts for differences. Outright forwards are generally not traded on organised exchanges, and their contractual terms are not standardised.
Foreign exchange swaps	Transactions involving the actual exchange of two currencies (principal amount only) on a specific date at a rate agreed at the time of the conclusion of the contract (the short leg), and a reverse exchange of the same two currencies at a date further in the future at a rate (generally different from the rate applied to the short leg) agreed at the time of the contract (the long leg). Both spot/forward and forward/forward swaps are included. For *turnover*, only the forward leg is reported as such. The spot leg is not reported at all, ie neither as spot nor as foreign exchange swap transactions. Short-term swaps carried out as "tomorrow/next day" transactions are also included in this category.
Currency swaps	Contracts which commit two counterparties to exchange streams of interest payments in different currencies for an agreed period of time and/or to exchange principal amounts in different currencies at a pre-agreed exchange rate at maturity.
OTC options	Option contracts that give the right to buy or sell a currency with another currency at a specified exchange rate during a specified period. This category also includes exotic foreign exchange options such as average rate options and barrier options. OTC options include: • Currency swaption: OTC option to enter into a currency swap contract. • Currency warrant: long-dated (over one year) OTC currency option.
Other products	Other derivative products are instruments where decomposition into individual plain vanilla instruments such as forwards, swaps or options is impractical or impossible. An example of "other" products are swaps with underlying notional principal in one currency and fixed or floating interest rate payments based on interest rates in currencies other than the notional (differential swaps or "diff swaps").

Counterparties

Following the methodology of the previous Triennial Central Bank Surveys, reporting institutions were requested to provide for each instrument a breakdown of contracts by counterparty as follows: reporting dealers, other financial institutions and non-financial customers, with separate information on local and cross-border transactions. The distinction between local and cross-border had to be determined according to the location of the counterparty and not its nationality. Given the increasing role of other financial institutions in foreign exchange markets, the 2013 survey of foreign exchange turnover has started capturing their contribution in more details for five sub-categories.

Reporting dealers	Financial institutions that participate as reporters in the Triennial Survey. These are mainly large commercial and investment banks and securities houses that (i) participate in the inter-dealer market and/or (ii) have an active business with large customers, such as large corporate firms, governments and non-reporting financial institutions; in other words, reporting dealers are institutions that actively buy and sell currency and OTC derivatives both for their own account and/or in meeting customer demand. In practice, reporting dealers are often those institutions that actively or regularly deal through electronic platforms, such as EBS or Reuters dealing facilities. This category also includes the branches and subsidiaries of institutions operating in multiple locations that do not have a trading desk but do have a sales desk in those locations that conducts active business with large customers. The identification of transactions with reporting dealers allows the BIS to adjust for double-counting in inter-dealer trades.
Other financial institutions	Financial institutions that are not classified as "reporting dealers" in the survey. These are typically regarded as foreign exchange and interest rate derivatives markets end users. They mainly cover all other financial institutions, such as smaller commercial banks, investment banks and securities houses, and mutual funds, pension funds, hedge funds, currency funds, money market funds, building societies, leasing companies, insurance companies, other financial subsidiaries of corporate firms and central banks.
Non-reporting banks	Smaller or regional commercial banks, publicly owned banks, securities firms or investment banks not directly participating as reporting dealers.
Institutional investors	Institutional investors such as mutual funds, pension funds, insurance and reinsurance companies and endowments. Primary motives for market participation are to trade FX instruments eg for hedging, investing and risk management purposes. A common label for this counterparty category is "real money investors".
Hedge funds and proprietary trading firms	(i) Investment funds and various types of money managers, including commodity trading advisers (CTAs) which share (a combination of) the following characteristics: they often follow a relatively broad range of investment strategies that are not subject to borrowing and leverage restrictions, with many of them using high levels of leverage; they often have a different regulatory mandate than "institutional investors" and typically cater to sophisticated investors such as high net worth individuals or institutions; and they often hold long and short positions in various markets, asset classes and instruments, with frequent use of derivatives for speculative purposes. (ii) Proprietary trading firms that invest, hedge or speculate for their own account. This category may include, for example, specialised high-frequency trading (HFT) firms that employ high-speed algorithmic trading strategies characterised by numerous frequent trades and very short holding periods.
Official sector financial institutions	Central banks, sovereign wealth funds, international financial institutions of the public sector (BIS, IMF etc), development banks and agencies.
Other	All remaining financial institutions (eg retail aggregators) that cannot be classified in any of the four above-mentioned sub-categories for other financial institutions.
Non-financial customers	Any counterparty other than those described above, ie mainly non-financial end users, such as corporations and non-financial government entities. May also include private individuals who directly transact with reporting dealers for investment purposes, either on the online retail trading platforms operated by the reporting dealers or by other means (eg giving trading instructions by phone).

Trading relationships

For the first time in the 2013 survey, reporting dealers were requested to identify how much of their total turnover for each instrument and currency pair was attributed to: (i) transactions conducted in a foreign exchange prime brokerage relationship (with the reporting dealer in the role of FX prime broker; and (ii) transactions that are directly or indirectly generated by retail investors. As in previous surveys, reporting dealers were requested to identify how much of their grand total foreign exchange turnover was attributed to "related party" transactions.

Prime brokers	Institutions (usually large and highly rated banks) facilitating trades for their clients (often institutional funds, hedge funds and other proprietary trading firms). Prime brokers enable their clients to conduct trades, subject to credit limits, with a group of predetermined third-party banks in the prime broker's name. This may also involve granting the client access to electronic platforms that are traditionally available only to large dealers. In an FX prime brokerage relationship, the client trade is normally "given up" to the prime broker, which is interposed between the third-party bank and the client and therefore becomes the counterparty to both legs of the trade.
Retail-driven transactions	Reporting dealers' (i) transactions with "wholesale" financial counterparties that cater to retail investors (ie electronic retail trading platforms and retail margin brokerage firms), and (ii) direct transactions with "non-wholesale" investors (ie private individuals) executed online or by other means (eg phone), if applicable.
Related party trades	Transactions between desks and offices, transactions with branches and subsidiaries and transactions between affiliated firms. These trades are included regardless of whether the counterparty is resident in the same country as the reporting dealer or in another country. However, trades conducted as back-to-back deals and trades to facilitate internal bookkeeping and internal risk management within a given reporting dealer are excluded, be they on a local or cross-border basis.

Currencies and currency pairs

All foreign exchange transactions involving the 24 currencies listed in the table below were collected in the survey. This list of currencies for which reporting is compulsory and consistent across all jurisdictions has been expanded from eight currencies in the 2010 survey to 24 in the 2013 survey.[8] These changes in the reporting setup were introduced to better capture offshore trading in non-major currencies, most of which are emerging market currencies.[9]

Currencies collected in the 2013 survey

AUD	CHF	EUR	HUF	KRW	NZD	SEK	TWD
BRL	CNY[1]	GBP	INR	MXN	PLN	SGD	USD
CAD	DKK	HKD	JPY	NOK	RUB	TRY	ZAR

[1] Includes also offshore transactions commonly denoted by CNH.

[8] In the past, several technical features in its reporting setup had limited the Triennial Survey's capacity to capture turnover in non-major currencies in a consistent manner globally. This was less of an issue in the past when non-major currencies were mainly traded onshore, but offshore trading of many non-major currencies has expanded significantly. Given the global nature of the Triennial Survey, it is crucial to have consistent reporting of these currencies across all participating jurisdictions.

[9] In previous surveys, only eight "major" currencies were subject to compulsory reporting on a global basis. Reporting of the other "non-major" currencies was only compulsory in the currencies' "home" jurisdictions, whereas the reporting of these currencies' offshore turnover was left to the discretion of the offshore jurisdictions. Potentially inconsistent treatment of non-major currencies across jurisdictions is known to be associated with problems such as "overnetting", which affects the accuracy of the turnover aggregates.

Data were collected for the following 47 currency pairs. Turnover in currency pairs that are not listed was recorded in aggregate under "other" and "residual".

Currency pairs collected in the 2013 survey

	Domestic currency against	USD against	EUR against	JPY against	Residual[1]
G8 currencies	AUD, CAD, CHF, EUR, GBP, JPY, SEK, USD	AUD, CAD, CHF, EUR, GBP, JPY, SEK,	AUD, CAD, CHF, GBP, JPY, SEK	AUD, CAD	
Non-G8 currencies		BRL, CNY, HKD, INR, KRW, MXN, NOK, NZD, PLN, RUB, SGD, TRY, TWD, ZAR	CNY, DKK, HUF, NOK, PLN, TRY	BRL, NZD, TRY, ZAR	
Other	Other[2]	Other[2]	Other[2]	Other[2]	

[1] Transactions that do not involve the domestic currency, USD, EUR, or JPY in one leg. [2] Currencies not explicitly listed in the table.

Given the interest in identifying turnover in all reporting countries' currencies, supplementary information for currencies recorded in aggregate under "other" and "residual" was also collected for the following 37 currencies: ARS, AUD, BGN, BHD, BRL, CAD, CHF, CLP, CNY, COP, CZK, DKK, GBP, HKD, HUF, IDR, ILS, INR, KRW, LTL, LVL, MXN, MYR, NOK, NZD, PEN, PHP, PLN, RON, RUB, SAR, SEK, SGD, THB, TRY, TWD and ZAR.

Transactions conducted in a special unit of account adjusted to inflation (like CLF, COU and MXV) were treated as having been done in the main currency (respectively CLP, COP and MXN).

Maturities

Transactions in outright forwards and foreign exchange swaps were broken down between the following original maturity bands: seven days or less; over seven days and up to one year; over one year.

For outright forward contracts, the maturity band for the transaction is determined by the difference between the delivery date and the date of the initiation of the contract. For both spot/forward and forward/forward foreign exchange swaps, the maturity band for the contract is determined by the difference between the due date of the second or long leg of the swap and the date of the initiation of the contract.

Elimination of double-counting

Double-counting arises because transactions between two reporting entities are recorded by each of them, ie twice. In order to derive meaningful measures of overall market size, it is therefore necessary to halve the data on transactions between reporting dealers. To permit this, reporters are asked to distinguish deals contracted with other reporters (dealers).

The following methods of adjustment were applied: data on local deals with other reporters were first divided by two, and this figure was subtracted from total gross data to arrive at so-called "net-gross" figures, ie business net of local inter-dealer double-counting. In a second step, data on cross-border deals with other reporters were also divided by two, and this figure was subtracted from total "net-gross" data to obtain so-called "net-net" figures, ie business net of local and cross-border inter-dealer double-counting.

Gross turnover	Minus	= **Net-gross turnover**	Minus	= **Net-net turnover**
Not adjusted for inter-dealer double-counting (ie "gross-gross" basis)	half of the turnover with local reporting dealers	Adjusted for local inter-dealer double-counting (ie "net-gross" basis)	half of the turnover with reporting dealers abroad	Adjusted for local and cross-border inter-dealer double-counting (ie "net-net" basis)