

The foreign exchange market in London

In April, twenty-six central banks, including the Bank of England, conducted surveys of turnover in their local foreign exchange markets. This was the third survey of the London market;⁽¹⁾ the first was in March 1986 and the second in April 1989.⁽²⁾ This article⁽³⁾ sets out the results and compares them with those from previous surveys and for other major centres.

The results show that:

- *London has extended its lead in the last three years as the world's largest centre for foreign exchange trading. Total average daily turnover in London during April 1992 was US\$300 billion (60% higher than the US\$187 billion per day recorded in April 1989).⁽⁴⁾*
- *In addition, brokers in London intermediated in transactions averaging the equivalent of US\$12 billion per day between principals abroad (and not therefore included in the US\$300 billion daily figure). They continue to intermediate in about a third of foreign exchange business in London.*
- *About half of total turnover is now accounted for by forward business, predominately swaps, while the share of spot business has declined by 14% since 1989.*
- *London continues to feature a wide diversity of foreign banks, and the spread of actively traded currencies has remained larger than in other major centres.*
- *The most traded currency pairs are still sterling/US dollar (19%) and US dollar/deutschmark (23%); but their combined share has declined since 1989 as non-dollar currency trading has grown.*
- *Although interbank business continues to account for the bulk of activity, the proportion of business with non-financial customers and other financial institutions has risen to 23% of daily turnover.*

Coverage of the survey

The Bank of England's survey of the London foreign exchange market was conducted over the twenty business days of April 1992 and coincided with similar surveys conducted in other centres around the world by other central banks. A total of 352 principals and 13 brokers in foreign exchange participated in the London survey, a similar number to that in 1989. As in 1989, the institutions approached were mainly banks which report regularly to the Bank of England in respect of foreign exchange exposures as well as a number of investment houses listed by the Bank as market-makers in foreign exchange under Section 43 of the Financial Services Act 1986. Other institutions dealing in foreign exchange did not take part directly in the survey, but their transactions with principals taking part, or through brokers, would have been reported by those institutions.

The questionnaire

Survey participants were requested to complete a questionnaire prepared by the Bank of England, after consultation with representatives of the Foreign Exchange Committee of the British Bankers' Association and the Foreign Exchange and Currency Deposit Brokers' Association, and based on a standard format agreed with other central banks.

For the twenty business days of the survey period (the month of April 1992), contributors were asked to provide details about their gross turnover in foreign exchange, classified by type of currency, transaction and counterparty. As in 1986 and 1989, deposit business was specifically excluded from the survey. Gross turnover was defined as the absolute total value of all deals contracted, ie the sum of all foreign

(1) There is no significant foreign exchange market in the United Kingdom outside London.

(2) Described in the September 1986 *Bulletin* (pages 379-82) and in the November 1989 *Bulletin* (pages 531-35) respectively.

(3) Written and prepared in the Bank's Foreign Exchange Division by Ms Juliette Healey.

(4) All these figures are quoted after adjustment to allow for the fact that transactions between banks in the United Kingdom will have been reported by both parties to the transaction. Differences between figures quoted in this article and the press release of 24 September are due to the subsequent receipt of revised data.

exchange transactions during the month of April without netting purchases from sales of the same currencies. Data were requested in terms of US dollar equivalents, rounded to the nearest million.

The questionnaire was set out in a matrix format, analysing activity simultaneously by currency, instrument and counterparty, to maximise the information obtained and to minimise errors from double counting. This should enable the Bank for International Settlements, which intends to produce a summary of the results from all twenty-six countries early next year, to calculate global turnover more accurately and to classify activity in more detail.

The survey distinguished between the following types of transaction:

- for *spot* value (ie for settlement no more than two business days after the deal was contracted—ie including overnight and next day business);
- for *forward* value (ie for settlement more than two business days after dealing and including short-dated swaps);
- foreign currency *futures* contracts (ie standardised contracts traded on a formal exchange representing commitments to buy or sell fixed amounts of foreign currency at agreed exchange rates on specified dates in the future); and
- in foreign currency *options* contracts (ie agreements which give the right to, but do not impose any obligation on, the holder of the contract to buy or sell particular foreign currencies at agreed exchange rates at agreed dates in the future).

Forward contracts were further broken down into:

- *outright forwards* (ie single sales or purchases of foreign currency for value more than two business days after dealing); and
- *swaps* [ie spot purchases against matching outright forward sales or vice versa, and 'forward/forwards' (swap transactions between two forward dates rather than between spot and forward dates)].

In the case of swaps and forward/forward deals, respondents were asked to count only one of the two transactions involved. For options and futures they were requested to record the full principal amount of such contracts.

Long-term capital market cross-currency swaps (where the parties exchange currency liabilities and related interest payments) and interest rate contracts in foreign currency were excluded from the survey.

By counterparty, principals were requested to distinguish between transactions with other *interbank counterparties* (other commercial banks participating in the survey, either

in the United Kingdom or elsewhere), *other financial institutions* (which would include banks not participating in the survey) and other *customers* (non-financial customers), in each case separating local and cross-border transactions. Additionally, principals were asked how much business was done through brokers and how much through automated dealing systems and to indicate whether they operated netting arrangements and if so to give details. Brokers were also asked how much of their business was done through their own branches and subsidiaries abroad and how much through other brokers abroad.

Finally, contributors were asked to indicate how foreign exchange turnover recorded by their London offices during the survey period compared with levels regarded as normal.

The aggregate responses to the main sections of the questionnaire are reproduced at the end of this article, on pages 416–7.

The results of the survey

Daily turnover in London

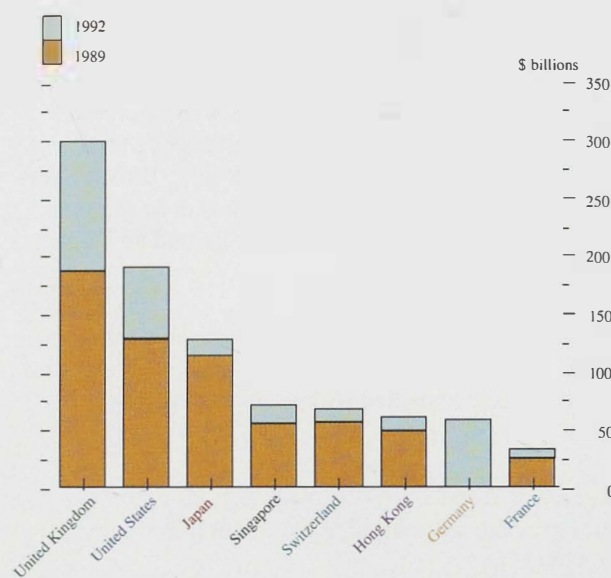
After adjustment to allow for double reporting of transactions between principals in the United Kingdom, the average volume of principals' business in London during the survey period is estimated to have been, in US dollar terms, some \$300 billion per day (60% higher than the 1989 figure of \$187 billion per day). However, the dollar depreciated between 1989 and 1992: valued in sterling terms the overall growth was 55% and in deutschmark terms, 42%. In addition, brokers in London intermediated in transactions averaging the equivalent of \$12 billion per day between principals abroad. (This business does not form part of the US\$300 billion per day figure for total London turnover.)

About 58% of contributors considered the overall level of turnover during the survey period to be normal; 29% considered business below normal and 7% above normal; the remaining 6% declined to comment.

Global turnover

With an estimated net daily turnover of \$300 billion, London remains the world's biggest centre for foreign exchange dealing. Indeed, as Chart 1 shows, its lead has grown a little since April 1989 as smaller percentage increases in turnover in their markets were reported by the Federal Reserve Bank of New York and the Bank of Japan. The volume of foreign currency trading in the United States and Japan increased to \$192 billion and \$128 billion per day respectively (compared with \$129 billion and \$115 billion per day in 1989). Singapore (\$74 billion, up 34%) overtook Switzerland (\$68 billion, up 19%) as the fourth largest centre, followed by Hong Kong (\$61 billion per day, up 24%) and Germany (\$57 billion per day). Germany did not take part in the earlier surveys, hence its growth in turnover is not available. Average net daily turnover in France rose by 35% to \$35 billion.

Chart 1
Major centres: average net daily turnover



In all, twenty-six central banks conducted surveys of their foreign exchange markets in April this year, compared with twenty in 1989 and only four in 1986. The surveys were broadly similar, with some differences in detail. Although it would be misleading simply to aggregate the individual results across countries to produce a figure for global turnover (because to do so would double count deals between centres), it is clear that there has been a further substantial increase in the global volume of foreign exchange activity over the last three years.⁽¹⁾ And, while the increase has been slower than the estimated rise in turnover between 1986 and 1989, it has almost certainly again exceeded published estimates of the rise in the value of world trade over the same period (but by a smaller margin than it did between 1986 and 1989). Part of the increase in foreign exchange turnover must have been generated by the rise in cross-border capital flows which have been stimulated by the continued deregulation of financial markets and the relaxation of exchange controls.

General trends

The surveys in London and most other centres revealed similar trends. In particular:

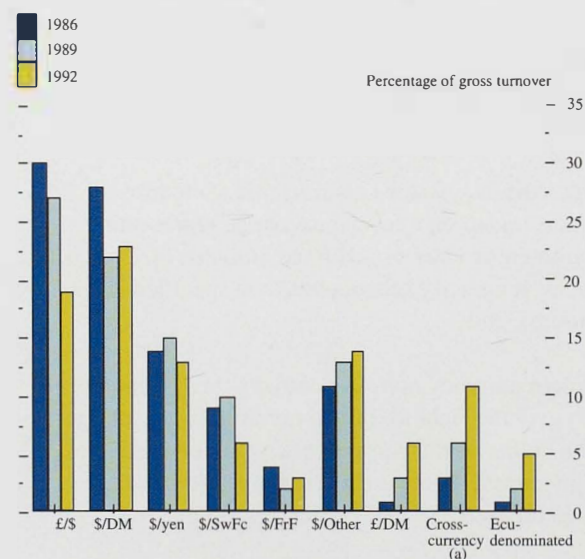
- non-dollar transactions, particularly those involving the deutschmark, have risen as a proportion of total turnover;
- the share of swap trading has increased at the expense of spot transactions;
- although interbank business continues to dominate foreign exchange markets, the share of customer business has increased; and
- the share of business executed through foreign exchange brokers has declined.

Exact comparisons of the results of the 1992 survey and the 1989 and 1986 surveys are not always possible because of changes in the format of the questionnaires. For example, previous surveys in London did not *simultaneously* identify business by counterparty and currency transaction. It was therefore previously impossible to analyse turnover by currencies on a net basis, ie adjusted for double counting of domestic interbank business.

Currencies traded

As in 1986 and 1989, sterling/US dollar (19%) and US dollar/deutschmark (23%) remain the two most traded currency pairs in London (see Chart 2). But their combined share of total business has fallen to 42% this year, down from 49% in 1989, as cross-currency trading⁽²⁾ continues to grow, in particular involving the deutschmark. Within US

Chart 2
Currency composition of principals' turnover



(a) Including DM/yen and DM/other.

dollar business there has been a shift away from trades between the dollar and sterling, the yen and the Swiss franc and towards transactions involving ERM currencies other than sterling. The share of sterling/deutschmark business has doubled to 6%, with 80% of the activity in the form of spot transactions. Also notable was the rapid growth in ecu-denominated business between 1989 and 1992; this will have undoubtedly fallen away since, as a result of the uncertainties surrounding ratification of the Maastricht treaty.

Table A shows that currency pairings are not equally represented in the spot and forward markets. US dollar/deutschmark business dominates spot trading, while sterling/US dollar dealing dominates forward trading (around 90% of which is accounted for by swap transactions). Foreign exchange swaps can be used to

(1) The Bank for International Settlements intends to produce a comprehensive summary of the results from all twenty-six countries and an estimate of global turnover early next year.

(2) Currency pairs not including the dollar.

Table A
Relative shares of total turnover by currencies traded

Shares of total net turnover, adjusted for double counting of domestic interbank business, are given in italics

	1992		Forwards	Total(a)	1989 Total	1986 Total		
	Spot	<i></i>						
£/US\$	7.3	6.4	11.2	10.1	19	17	27	30
US\$/DM	13.7	13.8	8.5	9.1	23	24	22	28
US\$/yen	5.1	4.9	6.9	6.9	13	12	15	14
US\$/Swiss franc	2.7	2.8	2.9	3.0	6	6	10	9
US\$/French franc	0.7	0.9	1.9	2.0	3	3	2	4
US\$/Canadian	0.6	0.6	1.5	1.6	2	2	2	2
US\$/Australian \$	0.5	0.5	0.8	0.7	1	1	2	2
US\$/lira							2	2
US\$/other ERM currencies	2.2	2.2	5.9	6.0	8	8	..	..
US\$/other	0.9	0.9	2.4	2.5	3	3	7	7
£/DM	4.8	4.3	0.9	0.9	6	6	3	1
£/other	0.7	0.7	0.5	0.6	1	1	1	1
DM/yen	2.1	2.0	0.3	0.3	3	3	2	2
DM/other ERM currencies	3.5	3.8	0.3	0.3	4	4	..	..
Other cross-currencies	2.7	3.0	0.7	0.8	3	4	3	2
Ecu-denominated	2.3	2.3	2.6	2.6	5	6	2	1

.. not available.

(a) Including options and futures business.

convert a money-market instrument in one currency into a money-market instrument in another currency. For example, a dollar deposit can be converted into a sterling deposit by doing a sterling/US dollar swap; in effect simultaneously lending sterling and borrowing dollars for a specified period of time by selling sterling, for instance spot, to buy dollars and agreeing to reverse the deal at a future date.

Table B
Currency composition: international comparisons

Percentages of principals' overall turnover
1989 data where available in italics

	London		New York		Tokyo		Singapore	
\$/£	17	27	9	15	..	4	12	16
\$/DM	24	22	34	33	..	10	29	24
\$/Yen	12	15	23	25	..	72	27	27
\$/SwFr	6	10	8	12	..	4	9	14
\$/other	20	17	15	..	..	..	..	..
DM/Yen	3	2	3	..	..	..	..	..
DM/other	16	7	7	15	..	10	23	19
Other	2	..	1	..	..	..	..	..

.. not available.

Note: 1992 data for London and New York are on a net basis, adjusted for double counting of domestic interbank business.

The results from other major centres (see Table B) reveal a similar shift towards non-dollar transactions. London, nevertheless, remains a more diversified foreign exchange market than elsewhere, with the possible exception of Singapore. In New York, for example, 74% of activity (85% in 1989) is between the US dollar and four major currencies (the deutschmark, the yen, sterling and the Swiss franc) compared with 59% in London. No detailed breakdown for 1992 is available for Tokyo but the Bank of Japan commented that, although US dollar/yen trading remains the most active, its share has declined while trading against the deutschmark has grown, including US dollar/deutschmark and deutschmark/yen trading. Among the reasons for London's diversified activity may be its favourable time zone position between the Far East and North America. In this context it is interesting to note that the US survey revealed that 66% of their business was

transacted between 8.00 am and noon local time; by midday in New York, most European markets are closed.

Type of transaction

Table C and Chart 3 indicate a significant shift in balance over the last six years between spot and forward business. By April 1992, only half of foreign exchange business transacted by principals in London was for spot value, as

Table C
Proportion of total gross turnover by transaction type

Figures on a net basis, adjusted for double counting of domestic interbank business, are in italics

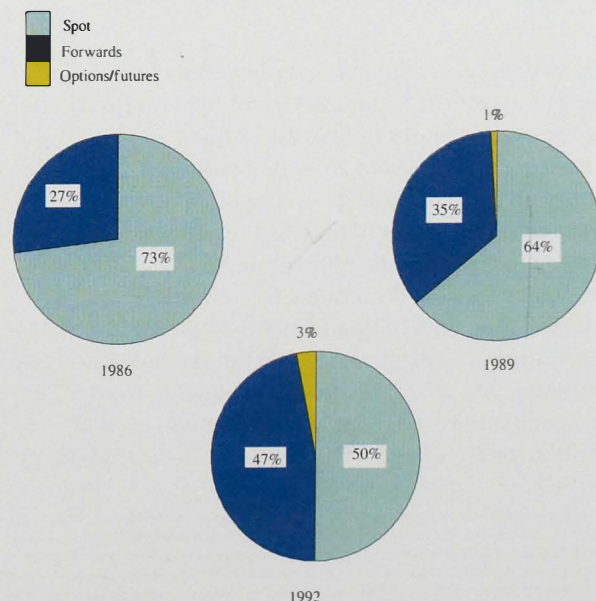
	Percentage of total turnover			Change 1989-92	
	1986(a)	1989(a)	1992		
Spot	73	64	50	49	-14
Forwards - outright	} 27	} 35	6	7	} +12
- swaps			41	41	
of which:					
Up to and for 7 days			33		} +13
7 days up to and for 1 month			4		
1 month up to and for 6 months	} 26	} 10	7		} -1
6 months up to and for 1 year			2		
Over 1 year	1	1	1		
Futures and options	—	1	3	3	+2

(a) A more limited breakdown was requested than in 1992.

compared with 64% in 1989 and 73% in 1986. The share of forward transactions, however, has increased sharply, from \$65 billion in 1989 to \$142 billion in 1992 (up 120%). This rise accounts for most of the 60% increase in overall turnover, with spot business up by only 24%. Similarly, in the United States, spot business as a proportion of total turnover has declined from 63% in 1989 to 49% in 1992 as the share of swap transactions has risen.

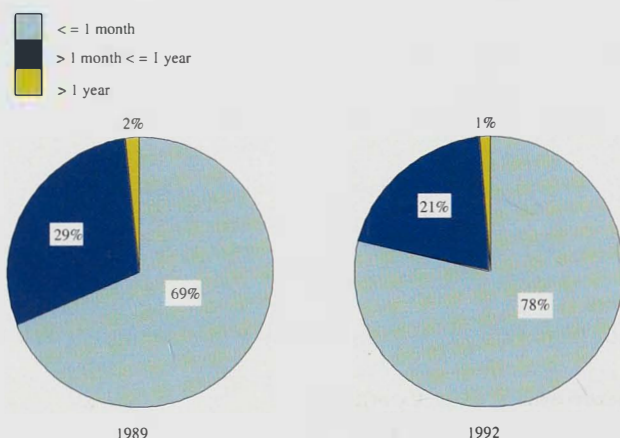
Most recorded forward transactions are swaps, which in themselves involve neither party assuming any foreign exchange risk and are closely akin to money-market

Chart 3
Type of transaction—principals' turnover



transactions. The increase in forward business has probably largely been in swaps. The figures show that at least half of the rise in forward transactions reflects an increase in swap activity, but the exact growth cannot be calculated because in 1989 there was no breakdown between outright forwards and swaps.

Chart 4
Maturity analysis of principals' forward business



In both London and the United States the maturity profile of forward transactions is very similar, with a concentration in short maturities primarily up to and including seven days (see Table C and Chart 4).

Business in futures and options, as measured by the survey, has increased rapidly but still represents only a small percentage of total measured activity (see Table C and Chart 3). As in previous years, however, the survey did not capture all institutions that are heavily active in those particular markets. Nor was there any adjustment made for those institutions which run global books and which were unable to distinguish business done in London from that done in other centres (and therefore did not include any of this business in their responses to the questionnaire).

The survey revealed daily turnover in London in foreign exchange futures⁽¹⁾ of \$3 billion (1% of total turnover), in exchange traded options of only \$0.1 billion and in over-the-counter options of \$5 billion (adjusted for double counting). By comparison, Tokyo reported turnover in foreign exchange futures of only \$14 million and in foreign exchange options, including brokering between non-residents, of \$8 billion, some 6% of turnover and up nearly 75% from \$4.5 billion in 1989. In the United States average turnover in exchange traded futures and options was \$11 billion or 6% of total turnover (up slightly from 5% in 1989),⁽²⁾ and turnover in over-the-counter options was \$15 billion, or 8% of total turnover (up from around 4% in

1989). These figures show that the growth in derivatives has been mainly concentrated in over-the-counter options.

Type of counterparty

As Table D shows, the proportion of principals' turnover accounted for by domestic and international interbank business declined from 86% to 77% between 1989 and 1992. Correspondingly, the share of business with 'other financial institutions' and 'non-financial institutions' both rose. The increase in the share of business with 'other financial institutions' reflects in part a widening of the definition of this category in the survey.⁽³⁾ This is unlikely, however, to have accounted for the whole of the increase: the share of 14% recorded in the 1992 survey includes business with

Table D
Average daily turnover by counterparty

	1989		1992	
	\$ billions	(percentage of total net turnover)	\$ billions	(percentage of total net turnover)
Gross turnover	241		369	
<i>of which:</i>				
Domestic interbank	108		137	
Net turnover(a)	187	100	300	100
<i>of which:</i>				
Other financial institutions	16	9	44	14
Non-financial institutions	10	5	26	9
Cross-border interbank	107	57	161	54
Net domestic interbank	54	29	69	23
Share of net turnover arranged through brokers, per cent	38		34	

(a) ie. figures adjusted to remove double counting of domestic interbank turnover.

securities houses not taking part in the survey as well as fund management companies. The share of business with 'non-financial' customers rose by 4% to 9% in 1992. Although it represents only a quarter of turnover, customer business normally generates considerable secondary interbank activity. For example, notwithstanding the increase in direct cross-currency trading, banks wishing to lay off the exchange risk they have taken on through cross-currency transactions with customers may do so by undertaking two deals, using the markets for each of the two currencies against the dollar. Moreover, outright forward orders from customers are likely to be covered by means of a swap and a matching spot transaction. This means, for example, that a bank that wished to cover a forward sale to a customer of a currency other than the US dollar or deutschmark against sterling might undertake at least four additional transactions (ie, spot and swap deals in both sterling/dollar and dollar/foreign currency). These additional transactions will have been reported by contributors to the survey, and this helps to explain the high ratio of interbank transactions to transactions with customers.

(1) These were not reported by counterparty sub-category and could not, therefore, be adjusted for double counting.

(2) US figures may be distorted by the reduction in trading on days immediately following a flood in Chicago.

(3) In 1989 'other financial institutions' were organisations which provided financial services other than those which were classified as 'interbank counterparties' or central banks. In 1992, 'other financial institutions' were again defined as organisations which provide financial services but this time the definition included central banks and commercial banks not taking part in the survey.

Customer business in more detail

Table E gives a more detailed breakdown of 'customer' business. It reveals that spot transactions account for nearly half, most of which is with overseas customers, while outright forwards account for over 12% (compared with 6% for principals' overall turnover) and swaps account for 34% (41% of overall turnover). In total, roughly half of the banks' business with customers is done with domestic customers and half with overseas customers. A greater proportion of business with overseas customers is done with other financial institutions than with non-financial customers.

Table E
Location of customer business by transaction type

	Percentage share of total customer business (\$69 billion)		
	Other financial customers	Non-financial customers	Total 'customer' business
Spot	32.3	14.6	46.9
of which:			
Local	12.8	6.1	18.9
Cross-border	19.5	8.5	28.0
Outright forwards	5.9	6.6	12.5
of which:			
Local	3.0	2.8	5.8
Cross-border	2.9	3.8	6.7
Swaps	21.3	12.7	34.0
of which:			
Local	11.7	6.5	18.2
Cross-border	9.6	6.2	15.8
Total cross-border	32.0	18.5	50.5

A comparison of the currency distribution of customer business (see Table F) with the currency distribution of overall business reported by principals confirms that customer business is slightly more diversified: the three most traded currency pairs account for 48% of customer business as opposed to 53% of principals' overall turnover.

Table F
Percentage share of total customer business by currency trades

	Other financial customers		Non-financial customers		Total	
	Spot	Forward	Spot	Forward	Spot	Forward
£/US\$	4.3	6.2	2.6	3.9	6.9	10.1
US\$/DM	8.6	6.1	3.9	3.9	12.5	10.0
US\$/yen	2.9	2.8	1.2	1.6	4.1	4.4
US\$/Swiss franc	2.5	1.7	0.5	0.6	3.0	2.3
US\$/other ERM currencies	3.8	4.9	1.3	2.8	5.1	7.7
£/DM	1.8	0.5	1.0	1.1	2.8	1.6
£/other	0.5	0.5	0.7	1.3	1.2	1.8
DM/yen	1.0	0.3	0.3	0.3	1.3	0.6
DM/other ERM currencies	2.9	0.3	0.8	0.4	3.7	0.7
Ecu-denominated	1.2	2.1	0.4	0.6	1.6	2.7

Automated dealing systems

Automated dealing systems are electronic systems which enable users to quote prices, and to deal and exchange settlement details on screen, thus dealing direct with other

users by screen rather than by telex machine, broker, or direct dealing over the telephone. The first of these systems became available in 1981. In the 1992 survey, London principals were asked for the first time to estimate the extent to which they use these services. Principals indicated that about 24% of their total gross turnover is arranged through automated dealing systems.⁽¹⁾ By comparison, principals in the United States have reported that about 32% of their total volume is effected in this way.

Brokers

In London, the proportion of principals' total foreign exchange business conducted through brokers has declined from 38% in 1989 to 34% in 1992.⁽²⁾ Similar declines have been seen in other centres: in the United States the share of brokered transactions has declined to 31% from 37% in 1989 and in France to 44% from 50% in 1989.

Table G
Counterparties to brokers' turnover, percentage share

	1989	1992
Between two principals in the United Kingdom	36	33
Between a principal in the United Kingdom and a principal abroad	50	49
Between two principals abroad	13	10
Involving other financial and non-financial institutions	1	8

As in 1989, about half of London brokers' gross activity is generated by deals between principals in the United Kingdom and abroad. Broking between principals in the United Kingdom accounts for a smaller proportion of brokers' overall turnover than in 1989, as does broking between pairs of principals abroad (half of which is in spot transactions). This has been offset by a higher share of business done involving 'other financial' and 'non-financial' institutions (of this, over three quarters is cross-border business and roughly two thirds spot business).

Table H
Currency composition of brokers' turnover, percentage share

	1992			1989	1986
	Spot	Forwards	Total (a)		
£/US\$	5.9	11.7	17.8	23	25
US\$/DM	15.6	9.0	26.4	28	31
US\$/yen	5.9	6.5	13.3	19	18
US\$/Swiss franc	2.0	4.0	6.1	9	10
US\$/French franc	0.1	2.1	2.3	3	5
US\$/other ERM currencies	0.1	3.6	3.7	9	9
US\$/other	0.7	2.1	2.9		
£/DM	4.9	0.3	5.8	7	1
£/other	0.2	—	0.4		
DM/yen	3.9	—	4.5		
DM/other ERM currencies	7.6	1.4	9.3	2	1
Other cross-currencies	0.2	1.7	1.9		
Ecu-denominated	1.8	3.6	5.5		

(a) Including futures and options business.

The change in currency composition of brokers' turnover is very similar to that of principals' business.

(1) For the purpose of this survey automated dealing systems were defined to include Reuters Dealing 2000, Quotron's FX Trader, Telerate's TTS, or any other comparable system.

(2) An estimate for the proportion of principals' business conducted through brokers can be derived from the survey responses of both principals and brokers. Since there was a discrepancy between the two, the figures of 38% in 1989 and 34% in 1992 represent best estimates.

Table J
Type of transaction—brokers' turnover

	Percentage of total turnover		Change
	1989 (a)	1992	
Spot	55	49	-6
Forwards—outright —swaps	} 45	2 44	} +1
<i>of which:</i>			
Up to and for 7 days 7 days up to and for 1 month	} 25	29 4	} +8
1 month up to and for 6 months 6 months up to and for 1 year	} 18	9 3	} -6
Over 1 year	2	1	-1
Options	—	5	+5

(a) A more limited breakdown was requested than in 1992.

The share of brokers' turnover accounted for by spot business has fallen (by 6%), but less sharply than the share of spot business in total market turnover (which fell by 14%). Forward business arranged by brokers has shifted towards the shorter maturities, as has forward business generally. No turnover in futures contracts was reported by brokers; these are largely broked by specialist financial institutions.

Brokers estimated that about 45% of their turnover is effected either through their own branches and subsidiaries abroad or through their links with other brokers abroad. In 1989 37%, and in 1986 40%, of brokers' business was reported to have been effected in this way.

Market concentration

Business in the London foreign exchange market continues to be quite widely dispersed. Twenty-five of the 352 principals taking part in the survey account for more than 1% each of total gross turnover (compared with twenty-seven in 1989 and twenty-four in 1986). Of these,

fourteen have a share of more than 2% (ten in both 1989 and 1986). The ten most active principals—eight of which were among the top ten in 1989—have a combined overall share of 43% as compared with the top ten in 1989 which held a share of 35% (36% in 1986). The top twenty account for 63% (nearly 50% in 1989).

The top ten principals' are slightly more active in spot transactions, where they account for 47% of gross turnover, than in forwards, where they account for 39% of gross turnover.

As in 1986 and 1989, business in the most actively traded currencies is more widely dispersed than in other currencies. But there is evidence of a drift towards more concentrated trading in most currencies. Table K below shows the proportion of trading by the ten most active principals in particular currency pairs.

Table K
Percentage share of the ten principals most active in individual currency pairs

	1986	1989	1992
£/US\$	40	34	48
US\$/DM	38	37	43
US\$/Yen	46	39	48
US\$/Swiss franc	57	60	66
US\$/French franc	70	61	54
Ecu-denominated	—	81	62

The ten most active principals in sterling/deutschmark transactions account for 52%, and the ten most active principals in deutschmark/yen account for 57%.

Market share of foreign banks

As in 1989, foreign-owned institutions operating in London account for around 80% of principals' aggregate turnover in

Table L
Principals' shares of the London market in different currencies: by country grouping

Where available figures for 1989 are given in italics

Per cent	US dollar against:										Other ERM currencies	Other currencies				
	£	DM	Yen	SwFc	FF	Can\$	A\$									
Nationality of principal																
United Kingdom	36	30	14	14	14	12	18	14	16	15	10	11	19	18	14	14
Other EC	9	15	12	19	2	4	2	9	26	48	2	5	1	3	32	5
North America	37	36	49	49	35	35	51	48	47	33	80	79	29	27	39	35
Japan	7	6	10	6	39	43	2	2	2	1	1	—	1	—	1	—
Other developed countries	10	11	14	11	9	7	27	26	9	2	7	3	50	52	14	42
Developing countries	1	3	1	1	1	1	—	1	—	—	—	1	—	—	—	2
	Sterling against:					DM against:					Other cross-currency	Ecu-denominated	Total			
	DM	Other currencies		Yen	SwFc	FF	Other ERM currencies									
Nationality of principal																
United Kingdom	37	41	37	41	18	11	9	29	27	22	16	7	28	28	20	20
Other EC	12	21	11	17	3	6	2	4	23	41	22	24	17	35	12	16
North America	36	32	31	25	37	47	43	22	29	33	32	19	35	9	41	39
Japan	3	2	10	4	31	32	2	—	2	—	1	3	4	4	10	11
Other developed countries	11		9	12	10	4	43	44	19	4	29	48	17	23	16	13
Developing countries	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	1

London. North American principals remain the most active, with about a 40% share, followed by UK principals at 20%. The share of Japanese banks' and 'developing' countries has also barely changed. EC principals (excluding the United Kingdom) have contributed 4% less than in 1989 and 'other developed countries' have continued to increase their share of turnover in London, up 3% since 1989.

North American principals are responsible for the highest proportion of turnover in eleven of the currency pairs surveyed (compared with six in 1989). But the majority of principals continue to specialise in their national currency (see Table L). The figures show that UK principals have

continued to lose market share of cross-currency trading involving sterling. Their share of sterling/deutschmark business has fallen from 62% in 1986 to 41% in 1989 and to 37% this year; there has been a similar fall in their share of sterling/other currency business. Table L also shows that North American and UK principals have increased their share of sterling/US dollar and US dollar/Swiss franc business, largely at the expense of other EC principals; and that Japanese principals have increased their share of US dollar/yen business. Also marked has been the shift in US dollar/French franc business away from other EC principals to principals from North American and other developed countries.

Principals' average daily turnover

US\$ millions

	US dollar against:									Sterling against:		
	DEM	JPY	CHF	AUD	CAD	FRF	Other ERM currencies	Ecu	Other	USD	DEM	JPY
Spot	50,440	18,928	9,938	1,781	2,325	2,723	8,175	2,080	3,419	27,045	17,830	786
Interbank counterparties	41,696	16,016	7,839	1,577	2,013	2,074	5,291	1,458	2,812	22,225	15,814	546
Local	18,224	8,034	3,038	574	879	663	2,640	748	1,375	15,442	9,523	298
Cross-border	23,472	7,982	4,801	1,003	1,134	1,411	2,651	710	1,437	6,783	6,291	248
Other financial institutions	5,994	2,051	1,727	108	221	498	2,160	564	468	2,975	1,291	132
Local	2,465	769	643	47	149	322	1,184	252	102	1,403	656	74
Cross-border	3,529	1,282	1,084	61	72	176	976	312	366	1,572	635	58
Non-financial institutions	2,750	861	372	96	91	151	724	58	139	1,845	725	108
Local	1,041	373	156	24	46	61	261	22	81	882	306	78
Cross-border	1,709	488	216	72	45	90	463	36	58	963	419	30
Forward	31,332	25,295	10,590	2,780	5,450	6,967	21,747	8,976	8,788	40,595	3,150	485
Outright	5,203	3,161	1,153	335	528	705	1,614	536	694	4,448	1,083	232
Interbank counterparties	3,441	2,353	762	243	389	409	1,054	423	443	2,673	443	64
Local	1,085	903	194	89	111	156	561	199	168	1,640	197	30
Cross-border	2,356	1,450	568	154	278	253	493	224	275	1,033	246	34
Other financial institutions	816	440	250	30	75	137	321	89	132	1,011	215	89
Local	284	160	55	20	48	68	155	36	30	777	168	62
Cross-border	532	280	195	10	27	69	166	53	102	234	47	27
Non-financial institutions	946	368	141	62	64	159	239	24	119	764	425	79
Local	251	164	64	21	21	71	112	6	38	466	192	56
Cross-border	695	204	77	41	43	88	127	18	81	298	233	23
Swaps	26,119	22,134	9,437	2,445	4,922	6,262	20,133	8,440	8,094	36,147	2,067	253
Interbank counterparties	20,949	19,828	8,235	2,182	4,578	5,273	16,592	6,919	7,114	30,886	1,604	113
Local	6,659	8,115	3,044	1,112	1,487	1,750	6,547	3,273	2,867	18,248	926	79
Cross-border	14,290	11,713	5,191	1,070	3,091	3,523	10,045	3,646	4,247	12,638	678	34
Other financial institutions	3,418	1,547	920	133	244	651	2,332	1,287	383	3,303	118	63
Local	1,540	597	411	57	120	392	1,543	972	136	2,088	57	35
Cross-border	1,878	950	509	76	124	259	789	315	247	1,215	61	28
Non-financial institutions	1,752	759	282	130	100	338	1,209	234	597	1,958	345	77
Local	656	281	158	33	57	187	786	134	479	1,053	161	46
Cross-border	1,096	478	124	97	43	151	423	100	118	905	184	31
Maturities of forwards:	31,322	25,295	10,590	2,780	5,450	6,967	21,747	8,976	8,788	40,595	3,150	485
Up to and for 7 days	21,063	16,215	7,019	2,123	3,571	4,577	16,618	6,182	6,725	29,343	1,696	193
Over 7 days up to and for 1 month	2,933	2,151	867	214	647	760	1,616	842	769	3,541	402	96
Over 1 month up to and for 6 months	5,360	4,308	1,998	389	853	1,253	2,573	1,285	980	5,472	775	158
Over 6 months up to and for 1 year	1,663	2,128	566	48	316	308	731	588	235	1,792	208	27
Over 1 year	303	493	140	6	63	69	209	79	79	447	69	11

Key:

USD = US dollar
 DEM = deutschmark
 JPY = yen
 CHF = Swiss franc
 AUD = Australian dollar
 CAD = Canadian dollar
 FRF = French franc

														Deutschmark against :						
CHF	AUD	CAD	FRF	Other EMS currency	Ecu	Other	JPY	CHF	FRF	Other ERM currency	Ecu	Other	Ecu/ other currencies	Res- idual	Total					
412	44	33	293	860	133	109	7,782	4,423	4,348	8,673	5,475	4,733	943	707	184,438					
363	22	22	127	560	97	29	6,819	3,859	3,858	6,611	5,099	3,577	853	440	151,697					
73	8	7	73	236	50	20	3,555	1,098	1,123	2,095	2,073	762	245	147	73,003					
290	14	15	54	324	47	9	3,264	2,761	2,735	4,516	3,026	2,815	608	293	78,694					
22	5	3	57	97	13	28	720	433	322	1,683	243	542	24	156	22,537					
10	4	2	42	64	3	26	245	105	57	143	72	25	17	80	8,961					
12	1	1	15	33	10	2	475	328	265	1,540	171	517	7	76	13,576					
27	17	8	109	203	23	52	243	131	168	379	133	614	66	111	10,204					
10	13	4	59	140	5	39	84	36	32	86	9	349	14	33	4,244					
17	4	4	50	63	18	13	159	95	136	293	124	265	52	78	5,960					
174	60	68	338	559	79	160	1,071	367	274	780	260	1,439	328	800	172,902					
71	33	53	173	270	26	106	685	195	140	346	110	390	122	417	22,829					
20	7	28	35	74	7	35	404	53	97	187	65	155	67	191	14,122					
6	5	27	28	45	2	7	175	18	28	63	32	56	8	53	5,886					
14	2	1	7	29	5	28	229	35	69	124	33	99	59	138	8,236					
7	6	3	51	51	8	11	157	24	16	57	25	12	14	83	4,130					
6	5	2	42	39	5	9	35	7	11	38	10	4	6	51	2,133					
1	1	1	9	12	3	2	122	17	5	19	15	8	8	32	1,997					
44	20	22	87	145	11	60	124	118	27	102	20	223	41	143	4,577					
25	17	20	60	95	8	47	16	44	11	36	11	22	5	52	1,931					
19	3	2	27	50	3	13	108	74	16	66	9	201	36	91	2,646					
103	27	15	165	289	53	54	386	172	134	434	150	1,049	206	383	150,073					
48	4	3	59	80	32	15	246	85	59	231	116	752	129	215	126,347					
27	2	1	22	39	23	6	106	31	5	31	52	234	67	64	54,817					
21	2	2	37	41	9	9	140	54	54	200	64	518	62	151	71,530					
18	7	4	23	20	10	6	76	34	50	54	14	36	25	64	14,840					
9	7	1	20	14	5	6	22	9	14	21	2	17	12	31	8,138					
9	—	3	3	6	5	—	54	25	36	33	12	19	13	33	6,702					
37	16	8	83	189	11	33	64	53	25	149	20	261	52	104	8,886					
25	15	5	70	107	6	26	22	24	9	33	10	137	18	44	4,582					
12	1	3	13	82	5	7	42	29	16	116	10	124	34	60	4,304					
174	60	68	338	559	79	160	1071	367	274	780	260	1,439	328	800	172,902					
56	23	28	114	249	36	54	597	175	157	456	191	1,043	139	343	118,986					
31	13	13	84	99	20	40	239	72	43	126	34	100	79	122	15,953					
64	16	11	117	171	22	44	198	103	62	155	35	209	73	277	26,961					
22	8	14	11	24	1	10	26	11	12	34	—	45	36	49	8,913					
1	—	2	12	16	—	12	11	6	—	9	—	42	1	9	2,089					