
The foreign exchange market in London

By Dale Thomas of the Bank's Foreign Exchange Division.

In April, 26 central banks, including the Bank of England, conducted surveys of turnover in their local foreign exchange markets as part of a worldwide exercise co-ordinated by the Bank for International Settlements. The UK survey was the fourth of the London market, after those in March 1986, April 1989 and April 1992.⁽¹⁾ This article sets out the results and compares them with those from previous surveys and for other major centres.

The results show that:

- *London has consolidated its position as the world's largest centre for foreign exchange business. Total average daily turnover in London during April 1995 was US\$464 billion (60% higher than the US\$290 billion⁽²⁾ recorded in April 1992).⁽³⁾*
- *The proportion of gross turnover accounted for by forward business, largely in swaps, increased from 48% to 59%, continuing the trend seen between 1989 and 1992. Nearly 80% of the increase in total turnover was accounted for by activity in the swap market. As a consequence, trading for spot value now accounts for rather less than half of total turnover.*
- *US dollar/Deutsche Mark trading, which accounts for 22% of transactions, continues to have the largest share of the market. Turnover in US dollar/yen (17%) is now greater than turnover in sterling/US dollar (11%). Overall, the proportion of trades that involve sterling has fallen from 24% to 16%.*
- *The proportion of interbank business transacted through London brokers is around 35%, a similar share to 1992: about 30% through conventional voice brokers and 5% through electronic brokers.*
- *Interbank business continues to be concentrated among the larger principals: the top 20 firms now account for 68% of the market, compared with 63% in 1992. But a wide range of banks continue to participate in the London market, with 79% of turnover generated by non UK owned banks.*
- *Interbank business continues to form the bulk of activity, but the proportion of business with non-financial customers and other financial institutions has risen further, to 25% of the total.*

The results of the survey

A total of 26 central banks conducted surveys of the foreign exchange markets in April this year, the same number as in 1992, but more than the 20 in 1989. The surveys were co-ordinated by the Bank for International Settlements (BIS) and the survey forms were broadly similar, although with some differences in detail to allow for local factors.

Daily turnover in London

After adjusting to allow for double reporting of transactions between UK principals, the average volume of principals' business in London during the survey period is estimated to have been some \$464 billion a day—60% higher than the 1992 figure of \$290 billion a day (see Chart 1). However, there have been large exchange rate movements since 1992:

(1) Described in the September 1986 *Bulletin* (pages 379–82), the November 1989 *Bulletin* (pages 531–35) and the November 1992 *Bulletin* (pages 408–17) respectively. There is no significant foreign exchange market in the United Kingdom outside London.

(2) The 1992 figures differ from those included in the 1992 *Bulletin* article since they do not include data on turnover in options and futures.

(3) All these figures are quoted after adjustment to allow for transactions between UK banks being reported by both parties to the transaction.

The London survey

The coverage of the survey

The Bank of England's survey of the London foreign exchange market was conducted over the 18 business days of April 1995 and coincided with similar surveys conducted in other centres around the world. A total of 301 principals and 12 brokers in foreign exchange participated in the London survey, a smaller number than in 1992. As in 1992, the institutions approached were mainly banks which report regularly to the Bank 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, will have been reported by those institutions.

The questionnaire

Survey participants were requested to complete a questionnaire prepared by the Bank of England, based on a standard format produced by the Bank for International Settlements (BIS) and agreed with other central banks.

For the 18 business days of the survey period, contributors were asked to provide details about their gross turnover in foreign exchange, classified by type of currency, transaction and counterparty. As in previous years, deposit business was specifically excluded from the survey. Gross turnover was defined as the total absolute value of all deals contracted, ie the sum of all foreign exchange transactions during the month of April without netting purchases from sales of the same currencies. For swap transactions, participants were asked only to report the size of the near end of the swap. 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 BIS, which intends to produce a summary of the results from all 26 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—but here defined also to include overnight and next day business); and
- for *forward* value (ie for settlement more than two business days after dealing, but including overnight and other short-dated swaps):

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)].

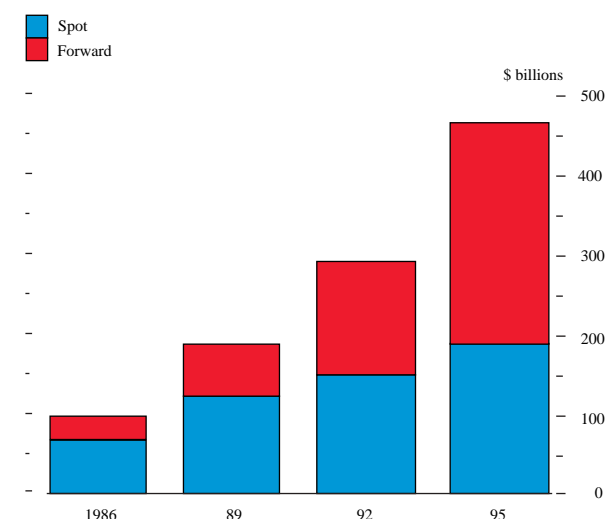
By counterparty, principals were requested to distinguish between transactions with other *interbank counterparties* (other commercial banks participating in the survey, either in the United Kingdom or elsewhere), *other financial institutions* (which would include banks not participating in the survey) 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 in Table L at the end of the main article. In conjunction with the foreign exchange survey, the Bank of England also conducted a parallel survey of the London derivatives market, again as part of a worldwide exercise co-ordinated by the BIS. Data on foreign exchange options and futures trading, which were included in the results of the foreign exchange survey in 1992, will this year be included in the derivatives market survey.⁽¹⁾

(1) It is intended to summarise the results of the derivatives market survey in a future *Quarterly Bulletin*.

Chart 1
Daily turnover in London



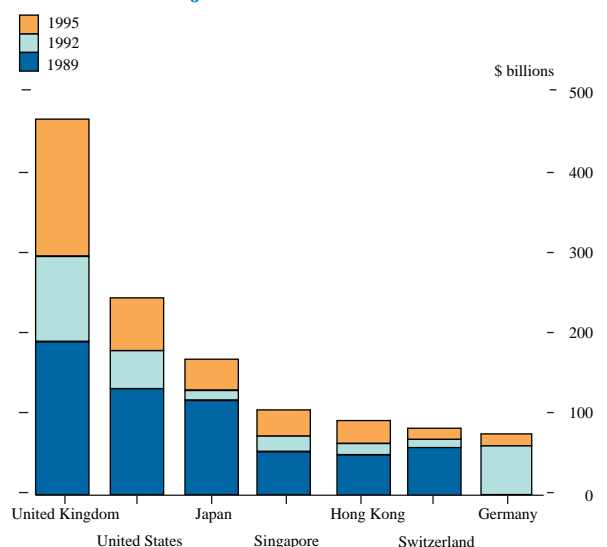
in sterling terms the overall growth was 74%; in Deutsche Mark terms it was 31%.

About 26% of the firms taking part in the survey considered the overall level of turnover during the survey period to have been below normal; 53% considered business normal and 7% above normal; the remaining 14% did not comment.

Global turnover

The worldwide results show that London has further consolidated its position as the world's biggest centre for foreign exchange business (see Chart 2). Both the Federal Reserve Bank of New York and the Bank of Japan reported smaller percentage increases than London's—of 46% and 34%, to \$244 billion and \$161 billion respectively (compared with \$167 billion and \$120 billion in 1992).

Chart 2
Turnover in major centres



It is clear that there has been a substantial further increase in global foreign exchange activity over the past three years.

However, it would be misleading simply to aggregate the individual results from countries to produce a figure for global turnover; to do so would double count deals between centres. Early next year, the BIS intends to produce a comprehensive summary of the results from all 26 countries and an estimate of global turnover, adjusted for such double counting.

Currencies traded

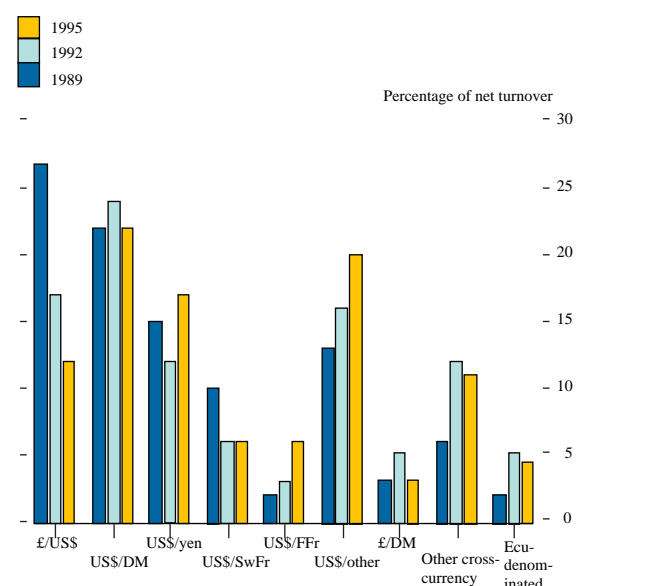
US dollar/Deutsche Mark trading, which accounts for 21.5% of transactions, continues to have the largest share of the London market (see Table A). Sterling/US dollar (11.5%) is

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

	1995		Forwards		Total		1992	1989
	Spot	Total					Total	Total
£/US\$	3.6	<i>3.1</i>	9.2	8.3	12.8	<i>11.5</i>	17.2	27.0
US\$/DM	11.9	<i>11.8</i>	9.2	9.7	21.1	<i>21.5</i>	23.7	22.0
US\$/yen	5.9	<i>5.7</i>	10.9	<i>11.3</i>	16.8	<i>17.0</i>	12.3	15.0
US\$/Swiss franc	1.6	<i>1.7</i>	3.5	3.7	5.1	<i>5.5</i>	6.0	10.0
US\$/French franc	0.8	<i>0.9</i>	4.3	4.5	5.1	<i>5.5</i>	2.9	2.0
US\$/Canadian \$	0.6	<i>0.5</i>	1.8	1.9	2.4	<i>2.4</i>	2.3	2.0
US\$/Australian \$	0.4	<i>0.4</i>	1.2	1.2	1.7	<i>1.6</i>	1.3	2.0
US\$/lira	0.4	<i>0.4</i>	2.9	2.9	3.2	<i>3.4</i>		2.0
US\$/peseta	0.2	<i>0.2</i>	1.8	1.8	2.0	<i>2.1</i>		
US\$/other EMS	0.7	<i>0.8</i>	4.9	5.1	5.7	<i>5.9</i>		
US\$/other	1.2	<i>1.2</i>	2.9	2.9	4.0	<i>4.2</i>	3.4	
£/DM	3.3	<i>2.8</i>	0.4	0.4	3.7	<i>3.2</i>	5.4	3.0
£/other	0.4	<i>0.4</i>	0.9	1.0	1.3	<i>1.3</i>	1.3	1.0
DM/yen	2.1	<i>1.9</i>	0.3	0.3	2.4	<i>2.2</i>	2.4	2.0
DM/other EMS	4.6	<i>4.8</i>	0.8	0.9	5.4	<i>5.7</i>	4.3	2.0
Ecu-denominated	1.1	<i>1.1</i>	3.2	3.0	4.3	<i>4.1</i>	5.1	2.0
Other cross-currencies	2.2	<i>2.3</i>	0.7	0.8	3.0	<i>3.1</i>	3.9	3.0

Chart 3
Currency composition of principals' turnover



still actively traded, but turnover in US dollar/yen (17.0%) is now greater (see Chart 3).

There has been a further growth in cross-currency trading,⁽¹⁾ particularly involving the Deutsche Mark. Within the US dollar business, there has been a shift away from trades

(1) Currency pairs not involving the dollar.

involving sterling and the Swiss franc towards the yen and EMS currencies other than sterling. The share of US dollar/French franc business has almost doubled and is now as large as that of US dollar/Swiss franc. The trend to greater trading of US dollar/EMS currencies was already evident in 1989; in contrast, the increase in the share of US dollar/yen transactions reverses the fall seen between 1989 and 1992.

The share of sterling/Deutsche Mark trading fell to 3.2% and the total proportion of net trading that involved sterling fell from 23.9% to 16.0%, although the absolute level of turnover involving sterling rose. This decline was evident in previous years and reflects the growing internationalisation of the London market, through the growth of trading in other currency pairs, as well as the reduced use of sterling as a trading and reserve currency.

Table A shows that, as in 1992, the currency pairs are not equally represented in the spot and forward markets. US dollar/Deutsche Mark business clearly dominates spot trading but in the forward market, US dollar/Deutsche Mark, US dollar/yen and sterling/US dollar all have around the same market share. Sterling/US dollar, in particular, has a much higher share of the forward than the spot market, because of the widespread use of the liquid forward market for money-market purposes. Also almost all forward deals involve the US dollar. This is because it is standard practice if a trader wants to swap one non-dollar currency for another for the transaction to be executed in two deals: one swapping the first non-dollar currency for the dollar and the other swapping the dollars for the second non-dollar currency.

The results from other centres reveal similar trends (see Table B). In New York, for example, the share of US dollar/Deutsche Mark (down from 33% to 30%) and sterling/US dollar (down from 10% to 8%) business has

Table B
Currency composition: international comparisons

Percentages of principals' overall turnover;
1992 data where available in *italics*

	London		New York		Tokyo		Singapore
\$/£	11	17	8	10	12
\$/DM	22	24	30	33	12	14	29
\$/yen	17	12	20	22	76	67	27
\$/SwFr	6	6	7	8	9
\$/other	25	20	21	15	6	11	..
DM/yen	2	3	2	3	4	4	..
DM/other	14	16	11	7	23
Other	4	2	—	1	2	4	..

.. not available.

Note: Data are on a net basis, adjusted for double counting of domestic interbank business.

declined, while trading in US dollar/other EMS currencies—particularly the French franc—has increased sharply. However, London remains the most diversified foreign exchange market. For instance, in New York 64% of activity (74% in 1992) is between the US dollar and four major currencies (the Deutsche Mark, yen, sterling and the

Swiss franc), compared with 55% in London (59% in 1992). In Tokyo, the range of currencies traded is particularly limited: 76% of turnover is accounted for by the US dollar/yen, up from 67% in 1992. Among the reasons for London's diversified activity may be its favourable time position between Asia and North America and the depth of its market, which allows business in previously little traded currency pairs to develop quickly.

Type of transaction

Table C shows that the significant shift in the balance of business between spot and forward, observed in 1992, has continued. By April 1995, only 41% of gross foreign exchange business transacted by principals in London was for spot value, compared with 52% in 1992, 64% in 1989

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 1992-95
	1986	1989	1992		1995		
Spot	73	64	52	51	41	40	-11
Forwards: outright			6	7	7	8	1
Forwards: swaps	27	35	42	42	52	52	10
<i>of which:</i>							
Up to and for 7 days						42	9
7 days and up to and for 1 month				24		5	1
1 month and up to 6 months			26			6	2
6 months up to and for 1 year				10	10	6	
Over 1 year	1		—		1		1

and 73% in 1986. Around 80% of the increase in turnover between 1992 and 1995 was accounted for by the increase in forward transactions, up from \$143 billion in 1992 to \$278 billion in 1995. A similar shift in turnover was reported in most other centres. In Tokyo, the share of forward transactions rose from 64% to 75%; in New York, it increased by rather less, from 45% to 47%.

In London, spot business increased by 26% between 1992 and 1995, roughly in line with the growth in world trade⁽¹⁾ but not as fast as the recent expansion in international capital flows. The annual rate of growth in the spot market slowed to 8% between 1992 and 1995, compared with 14.5% between 1986 and 1992.

In the forward market, nearly 90% of transactions are foreign exchange swaps, which are used to convert a money-market instrument or security from one currency to another. For example, a dollar deposit can be converted into a sterling deposit using a sterling/US dollar swap—in effect simultaneously lending dollars and borrowing sterling for a specified period of time. This is done by selling dollars to buy sterling for spot value, and simultaneously agreeing to reverse the deal at a future date. Swaps require neither party

(1) IMF figures show that world trade grew by 13.6% between 1992 and 1994, and is forecast to grow by 8.3% in 1995.

to assume any foreign exchange risk in respect of the transaction, and are often used to manage liquidity and to hedge currency exposure.

The more widespread use of swaps suggests that investors are becoming increasingly sophisticated in their management of liquidity and currency risk. It also provides further evidence of the increasing integration of global currency and money markets and, by extension, asset markets. In the swap markets, liquidity—that is the ability to complete large deals without moving prices—is extremely important. As a result, market participants are attracted to those centres, such as London, that have the greatest liquidity, creating above average growth in the swap markets in those centres.

The maturity profile of forward transactions is much the same as in 1992, with business concentrated in the shorter maturities, primarily up to and including seven days.

Type of counterparty

As Table D shows, the proportion of principals' turnover accounted for by domestic and international interbank business declined from 78% in 1992 to 75% in 1995 (see Chart 4). Correspondingly, the share of business with other financial institutions rose by four percentage points.

Table D
Average daily turnover by counterparty

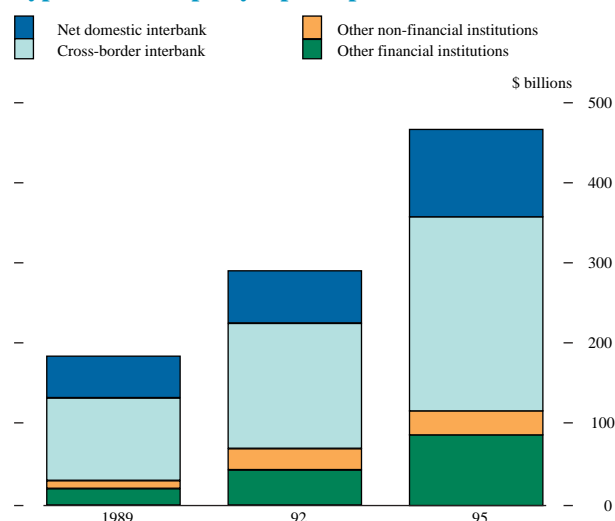
\$ billions; percentage of total net turnover in italics

	1989	1992	1995
Gross turnover	241	357	571
<i>of which:</i>			
Domestic interbank	108	134	215
Net turnover	187	290	464
<i>of which:</i>			
Other financial institutions	16	42	85
Non-financial institutions	9	14	18
Cross-border interbank	10	24	30
Net domestic interbank	107	158	241
Net domestic interbank	54	67	108
Share of net turnover arranged through brokers, per cent	38	34	35

The decline in the relative share of interbank business, largely at the expense of business generated with other financial institutions, is probably related to the increased size and international focus of those institutions. Many pension funds and asset managers have started to look outside their domestic markets for investment opportunities, resulting in increased capital flows and associated foreign exchange activity.

The bulk of interbank business arises from secondary activity generated as a direct result of customer business, but of course it also includes some position-taking by market participants. For example, despite the increase in direct cross-currency trading, banks wishing to lay off the

Chart 4
Type of counterparty—principals' turnover



exchange rate 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. Furthermore, 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 wishing to cover a forward sale to a customer of a currency other than the US dollar or Deutsche Mark against sterling may undertake at least four additional transactions (ie spot and swap deals in both sterling/US dollar and US dollar/the currency concerned). These additional transactions will have been reported by contributors to the survey, and serve to explain the high ratio of interbank transactions to transactions directly with customers.

Customer business in more detail

Table E gives a more detailed breakdown of customer business. It shows that spot transactions account for 35%, outright forwards for 15% and swaps for 49% of principals'

Table E
Location of customer business by transaction type

	Percentage share of total customer business (\$115 billion)		
	Other financial customers	Non-financial customers	Total customer business
Spot	26	10	35
<i>of which:</i>			
Local	14	5	18
Cross-border	12	5	17
Outright forward	11	4	15
<i>of which:</i>			
Local	8	2	11
Cross-border	2	2	5
Swaps	37	12	49
<i>of which:</i>			
Local	19	7	26
Cross-border	18	5	23
Total cross-border	32	13	45

business with customers. The growth of swaps with customers (up from 34% in 1992) highlights the increasing use of the foreign exchange market for liquidity and risk management.

A comparison of the currency distribution of customer business (Table F) with that of all business reported by principals confirms that customer business is slightly more diversified; the three most traded currency pairs account for 48% of business with customers, compared with 50% of the overall turnover of principals.

Table F
Percentage share of total customer business by currency trades

	Other financial customers		Non-financial customers		Total customer business	
	Spot	Forward	Spot	Forward	Spot	Forward
£/US\$	1.9	5.9	1.1	2.8	3.0	8.7
US\$/DM	6.6	7.3	2.7	2.7	9.3	10.0
US\$/yen	4.2	8.4	1.4	2.5	5.6	11.0
US\$/SwFr	1.9	3.3	0.4	0.7	2.3	4.0
US\$/other EMS currencies	3.0	12.3	0.6	3.1	3.6	15.4
£/DM	1.1	0.4	0.5	0.4	1.5	0.8
£/other	0.4	—	0.4	—	0.8	—
DM/yen	0.7	0.3	0.3	0.2	1.0	0.5
DM/other EMS currencies	2.3	—	0.9	—	3.2	—

Methods of doing business

Principals in the foreign exchange market are able to conduct their business in essentially one of two ways: either directly with another interbank counterparty, via an automated dealing system or by using the telephone or telex; or by using the intermediation services of a foreign exchange broker. In the survey, London principals were asked to detail how much business they carried out through each channel.

Automated dealing systems

Automated dealing systems⁽¹⁾ are electronic systems which enable users to quote prices, and to deal and exchange settlement details, on screen. Principals indicated that about 31% of their gross turnover is arranged through such automated dealing systems, an increase of seven percentage points on 1992.

Foreign exchange brokers

In London, the proportion of principals' total foreign exchange business handled by brokers is 35%, little changed from the 34% in 1992.⁽²⁾ However, that 35% includes business conducted both by traditional voice brokers—who quote prices over lines to principals' dealing rooms—and by the three electronic broking systems which have begun operating since the 1992 survey. The latter account for 5% of total turnover, with the voice brokers' share falling to 30%. In the United States, the proportion of principals' total foreign exchange business handled by electronic brokers was 13%; voice brokers have seen their share of the principals market fall from 30% in 1992 to 24% in 1995.

Although the communication medium differs, the service provided by the electronic brokers is broadly similar to that

of the voice brokers—the prices quoted on screen are firm and can be 'hit' in the same way as those quoted by a voice broker, provided that the necessary credit lines are available—and, in London, they are supervised on the same basis by the Bank of England. Like the voice brokers, they are international organisations providing a trading service in all the major centres. But unlike the voice brokers, who achieve this international coverage by having a number of operations in different locations around the world, two of the three electronic brokers run international computer systems that serve all the trading centres.

The electronic brokers are currently active only in the spot markets; and their business is concentrated in a small number of currency pairs, although they offer the ability to trade in a range of currencies. This contrasts with the large foreign exchange voice brokers, which are normally active in both spot and forward business across a wide range of currency pairs. The limited scope of electronic brokers' business is illustrated by the fact that 77% of the deals conducted through the electronic systems are in three currency pairs: US dollar/Deutsche Mark (58%); Deutsche Mark/French franc (13%); and Deutsche Mark/Swiss franc (6%).

Within the markets in which they are active, the electronic brokers have taken business from the voice brokers and from direct dealing between banks. For example, between 1992 and 1995 the proportion of London interbank US dollar/Deutsche Mark spot business conducted through the voice brokers fell from 39% to 26%. Over the same period, the electronic brokers took 23% of the London market in the currency pair, indicating that nearly half of this turnover came from the creation of new brokered business—typically low-value interbank transactions.

The analysis of brokers' business excludes deals between principals abroad transacted by electronic brokers. Table G shows that between 1992 and 1995 the proportion of deals brokered between principals abroad has fallen to 7%, while

Table G
Counterparties to brokers' turnover

Percentage share	1989	1992	1995
	Between two principals in the United Kingdom	36	33
Between a principal in the United Kingdom and a principal abroad	50	49	52
Between two principals abroad	13	10	7
Involving other financial and non-financial institutions	1	8	3

the share of business between principals in the United Kingdom has increased to 38%. As Table H shows, the proportion of brokers' business that is for spot value has fallen to 46%, in line with the decline in the share of overall business done for spot value.

(1) For the purposes of this survey, automated dealing systems included systems such as Reuters 2000-1.

(2) An estimate of 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 figure of 35% in 1995 represents a best estimate.

Table H
Type of transaction—brokers' turnover

	Percentage of total turnover			Change 1992-95
	1989	1992	1995	
Spot	55	52	46	-6
Forwards: outright	45	2	1	-1
Forwards: swaps		46	53	7
<i>of which:</i>				
Up to and for 7 days	} 25	31	35	4
7 days and up to and for 1 month		4	5	1
1 month and up to 6 months	} 18	9	8	-1
6 months up to and for 1 year		3	5	2
Over 1 year	2	1	1	—

Market concentration

The trend—evident in previous surveys—towards the concentration of business among the largest participants has continued, but slowed. As a result, business in the London market continues to be quite widely dispersed. 26 of the principals taking part in the survey each accounted for more than 1% of total gross turnover (24 in 1992); of these, 15 had a share of 2% (14 in 1992). The ten most active principals—seven of which were in the top ten in 1992—saw their overall market share rise by less than 1% to 44%. However, the top 20 banks increased their market share to 68%, up from 63% in 1992, as an increasingly active second tier of banks took business away from smaller banks. This shift also appeared in New York, where the top 20 increased their market share to 70% from 60% in 1992.

As in previous years, business is more widely dispersed in the most actively traded currencies than in other currencies. The top ten principals in US dollar/Deutsche Mark have 40% of the market; for the US dollar/Swiss franc market, the share is 66%. Table J shows the proportion of trading taken by the ten most active principals in particular currency pairs.

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

	1986	1989	1992	1995
£/US\$	40	34	48	50
US\$/DM	38	37	43	40
US\$/yen	46	39	48	47
US\$/Swiss franc	57	60	66	66
US\$/French franc	70	61	54	51

Market share of foreign banks

As in 1989 and 1992, foreign-owned institutions operating in the London market account for 79% of principals' aggregate turnover. North American principals remain the most active, with a 42% market share, followed by UK principals (at 21%) and Japanese (at 10%). The share of business executed by banks from other developed countries fell by 5%, while that of other EU banks rose by 3% (but only as a result of the accession of Finland, Austria and Sweden at the start of 1995 and the consequent reclassification of their institutions).

The North American principals' dominance extends across the range of traded currency pairs. They have increased their share of US dollar/Swiss franc and US dollar/EMS currency business, continuing the trend seen between 1989 and 1992. It is interesting to note, however, that their share of the US dollar/Deutsche Mark market has fallen to 44%, as a number of European institutions have built up significant market share in that currency pair. More generally, although the majority of principals continue to specialise in their national currencies (see Table K), there is a clear trend towards the leading banks trading a whole range of currencies, not necessarily involving their domestic currency. For example, UK principals' share of the sterling/Deutsche Mark business has fallen further, to 31%, while their share of US dollar/Deutsche Mark business has risen to 18%.

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

Figures in 1992 are in italics

Per cent	US dollar against:															
	£		DM		Yen		SwFr		FFr		Can\$		Aus\$		Other EMS currencies	
Nationality of principal																
United Kingdom	38	36	18	14	14	14	13	18	20	15	7	10	27	19	17	14
Other European Union	13	9	17	12	8	2	7	2	20	26	15	2	2	1	23	32
North America	33	37	44	49	40	35	54	51	49	47	69	80	34	29	52	39
Japan	6	7	10	10	30	39	2	2	5	2	1	1	1	1	1	1
Other developed countries	8	10	10	14	7	9	24	27	6	9	8	7	36	50	6	14
Developing countries	1	1	1	1	1	1	1	—	—	—	—	—	—	—	—	—
	Sterling against:				DM against:								Total			
	DM		Other currencies		Yen		SwFr		FFr		Other EMS currencies					
Nationality of principal																
United Kingdom	31	37	25	37	23	18	16	9	24	27	7	16			21	20
Other European Union	14	12	39	11	6	3	4	2	17	23	30	22			15	12
North America	36	36	19	31	28	37	42	43	39	29	45	32			42	41
Japan	7	3	3	10	31	31	2	2	1	2	4	1			10	10
Other developed countries	11	11	5	9	11	10	37	43	19	19	14	29			11	16
Developing countries	1	—	8	1	—	—	—	—	—	—	—	—			1	1

Table L
Principals' average daily turnover

US\$ millions

	US dollar against:											Sterling against:				
	DM	Yen	SwFr	Aus\$	Can\$	FFr	ITL	PTA	Other EMS currencies	Ecu	Other	USD	DM	Yen	SwFr	Aus\$
Spot	67,747	33,699	9,276	2,450	3,160	4,697	2,233	1,107	4,123	2,014	6,662	20,834	18,725	710	269	38
Interbank counterparties	57,080	27,290	6,665	1,989	2,314	2,760	1,585	745	2,892	1,530	5,416	17,434	16,967	459	168	11
Local	25,675	14,638	2,679	942	1,348	959	498	185	761	473	1,837	12,565	11,792	342	88	5
Cross-border	31,405	12,652	3,986	1,048	967	1,801	1,087	560	2,131	1,058	3,579	4,869	5,174	117	80	6
Other financial institutions	7,596	4,846	2,196	305	561	1,591	495	325	1,051	414	865	2,158	1,211	153	76	9
Local	2,602	2,914	1,343	175	351	1,401	396	271	849	319	248	1,278	632	109	65	8
Cross-border	4,994	1,932	852	130	210	191	99	53	203	95	616	881	579	44	12	1
Non-financial institutions	3,071	1,563	416	156	284	347	153	37	180	70	382	1,242	548	98	25	17
Local	1,459	896	148	116	87	189	58	13	79	36	205	775	318	67	19	15
Cross-border	1,612	667	268	39	197	158	95	24	100	34	176	467	229	31	7	2
Forward	52,728	62,328	19,850	7,041	10,488	24,417	16,322	10,053	28,192	17,624	16,459	52,392	2,471	3,392	201	89
Outright	6,577	6,180	2,265	467	2,061	2,706	1,824	828	2,016	1,177	1,524	3,676	823	2,684	57	36
Interbank counterparties	4,032	2,883	1,079	221	1,271	1,343	1,216	523	983	768	1,065	2,335	482	1,278	8	2
Local	1,575	1,407	381	104	1,116	439	750	247	340	529	429	1,640	303	1,263	1	1
Cross-border	2,457	1,476	698	117	155	903	466	276	643	238	636	696	179	15	7	1
Other financial institutions	1,549	2,668	1,009	171	662	1,148	471	241	881	337	311	711	134	1,242	23	12
Local	805	2,265	853	83	568	988	411	229	755	302	166	523	86	1,232	13	6
Cross-border	744	403	155	88	94	160	60	13	126	36	145	187	47	10	11	7
Non-financial institutions	997	629	177	75	128	215	138	63	152	72	148	630	208	164	26	21
Local	369	365	54	53	44	96	43	26	55	34	57	450	134	79	10	20
Cross-border	628	265	123	22	84	119	94	37	97	38	91	180	74	85	15	1
Swaps	46,151	56,149	17,586	6,574	8,426	21,711	14,498	9,225	26,175	16,447	14,934	48,717	1,648	708	144	53
Interbank counterparties	37,222	46,840	14,225	5,374	6,532	17,694	10,554	7,572	21,372	14,490	12,163	40,072	1,033	258	86	28
Local	13,945	18,268	4,614	2,825	2,590	6,221	4,543	2,869	8,744	8,577	5,298	25,954	609	120	40	25
Cross-border	23,277	28,572	9,611	2,549	3,942	11,473	6,012	4,703	12,628	5,913	6,865	14,118	423	138	45	3
Other financial institutions	6,818	7,023	2,761	1,080	1,526	3,252	3,097	1,444	3,604	1,399	2,252	6,053	327	81	25	10
Local	3,228	4,350	1,072	348	1,068	1,449	2,012	645	1,639	882	1,118	3,158	204	47	5	7
Cross-border	3,590	2,673	1,689	732	458	1,803	1,084	799	1,965	516	1,135	2,895	123	34	20	3
Non-financial institutions	2,111	2,286	600	120	368	765	848	209	1,199	559	519	2,592	288	370	33	15
Local	844	1,601	198	63	145	269	602	124	874	308	234	1,620	174	345	21	14
Cross-border	1,267	685	401	57	223	495	246	85	325	251	285	972	114	25	12	1
Maturities of forwards:	52,728	62,328	19,850	7,041	10,488	24,417	16,322	10,053	28,192	17,624	16,459	52,392	2,471	3,392	201	89
Up to and for 7 days	38,031	43,701	16,106	5,222	8,051	16,051	13,182	7,068	21,567	13,807	12,060	35,566	1,533	2,212	87	25
Over 7 days up to and for 1 month	4,244	5,607	1,037	418	820	2,039	690	708	1,749	843	893	5,646	248	281	33	20
Over 1 month up to and for 6 months	4,809	5,723	1,197	676	801	3,380	1,065	701	2,116	1,461	1,323	5,345	376	670	27	18
Over 6 months up to and for 1 year	5,052	6,874	1,401	701	732	2,714	1,134	1,484	2,523	1,359	1,996	5,437	286	225	52	26
Over 1 year	592	424	109	23	84	233	251	92	237	153	187	399	29	4	2	—

Key:

USD = US dollar
DM = Deutsche Mark
SwFr = Swiss franc
Aus\$ = Australian dollar
Can\$ = Canadian dollar
FFr = French franc
ITL = Italian lira
PTA = Spanish peseta

Deutsche Mark against:																	
Can\$	FFr	ITL	PTA	Other EMS currencies	Ecu	Other	Yen	SwFr	FFr	ITL	PTA	Other EMS currencies	Ecu	Other	Ecu/ other currencies	Residual	Total
43	241	118	83	266	58	251	12,165	7,052	14,832	3,870	2,859	4,770	3,525	3,768	591	2,031	234,269
22	103	28	36	136	29	117	11,027	6,154	12,974	3,231	2,334	4,082	2,968	3,350	504	1,218	193,616
11	78	19	18	72	24	92	6,859	2,448	5,000	1,174	952	1,178	1,334	1,038	140	500	95,718
10	26	9	17	64	5	25	4,168	3,707	7,974	2,056	1,382	2,905	1,635	2,312	364	718	97,897
10	48	68	25	54	21	46	836	749	1,394	451	399	439	354	297	40	602	29,684
7	39	65	19	48	2	40	360	278	542	172	140	150	130	184	24	461	15,622
3	9	4	6	6	19	6	476	471	852	278	258	289	224	113	16	141	14,062
12	90	21	23	76	9	89	302	149	463	189	127	248	203	121	47	211	10,969
10	72	16	20	66	7	60	134	42	109	49	43	60	37	27	3	103	5,338
2	18	5	3	10	2	29	168	108	355	140	84	188	166	94	43	109	5,631
153	461	123	77	370	69	501	1,683	555	1,936	851	677	1,270	372	1,116	429	2,349	337,039
98	172	37	33	107	18	80	904	153	511	378	286	286	56	334	70	1,222	39,645
40	14	8	2	23	3	7	674	84	333	231	191	136	33	154	35	737	22,192
39	9	4	1	11	1	5	449	26	122	74	67	46	9	88	24	171	11,671
1	5	4	2	12	2	2	226	58	211	157	124	89	24	65	11	566	10,521
46	56	10	7	28	4	18	129	44	115	62	44	45	9	55	22	306	12,569
34	53	7	6	23	2	7	43	11	57	16	15	28	5	9	18	106	9,725
13	3	3	1	5	1	11	86	33	58	46	29	17	5	46	4	200	2,844
12	102	19	24	56	11	55	101	25	63	85	50	106	14	126	13	178	4,883
8	98	18	23	44	10	48	44	12	26	20	20	43	5	17	1	56	2,382
4	5	1	1	12	2	7	56	14	37	64	30	63	9	109	12	123	2,501
55	289	87	45	263	51	421	779	402	1,426	473	391	984	315	781	359	1,127	297,394
26	118	36	16	90	24	264	470	278	859	303	230	690	240	566	203	757	240,684
24	65	28	10	69	11	206	249	138	291	122	117	444	131	339	21	180	107,686
2	53	8	6	22	14	59	221	140	568	181	112	246	108	227	183	577	132,997
9	38	21	5	34	9	80	173	101	414	102	57	149	47	107	79	191	42,367
6	27	14	2	23	5	30	93	33	200	39	33	57	23	53	60	65	21,995
3	11	7	3	11	4	50	81	67	214	63	24	92	24	54	19	126	20,372
20	134	30	24	138	17	77	135	24	153	68	104	145	29	109	77	179	14,343
15	102	26	21	112	17	52	93	6	40	34	40	33	3	18	3	66	8,117
5	31	4	3	26	—	25	42	18	113	33	65	112	26	91	74	113	6,226
153	461	123	77	370	69	501	1,683	555	1,936	851	677	1,270	372	1,116	429	2,349	337,039
109	118	40	16	113	23	188	1,004	351	1,429	521	440	459	269	623	342	821	241,133
17	125	25	18	94	10	77	366	31	143	143	54	128	17	189	28	517	27,257
20	122	25	17	89	19	108	161	102	210	82	71	195	23	160	34	702	31,827
6	90	30	18	65	17	126	127	66	152	104	112	488	58	143	26	286	33,909
—	6	3	9	10	1	3	25	5	2	1	1	1	4	—	—	22	2,913