Financial market developments

- *There was a reduction in volatility, and a partial decoupling, of the major industrial countries’ bond markets in the final quarter of 1994.*

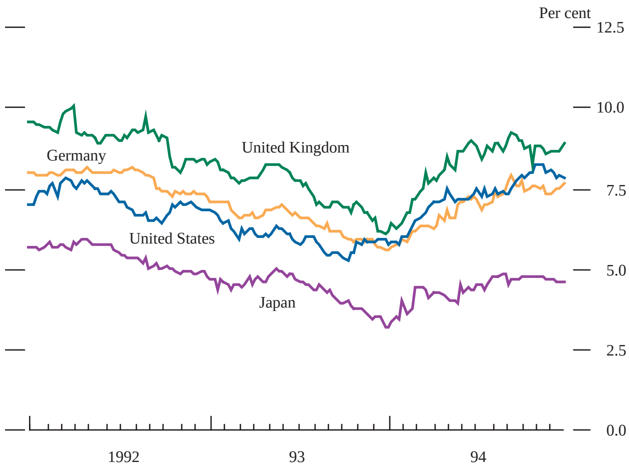
- *In 1994 as a whole, in spite of a particularly adverse global interest rate environment, international borrowing activity expanded: significant growth in the medium-term note and syndicated credit markets more than offset a reduction in bond issues.*

- *Since early 1994, the volume of activity in exchange-traded derivatives has fallen, as financial markets have become less volatile, but the longer-term trend towards increased volumes has continued as risk management tools have gained wider acceptance.*

Bond and equity prices

Most major bond markets worldwide were affected by turbulence and falls in prices for much of 1994, particularly after the increase in US official interest rates in February. In the fourth quarter, however, there were some signs that markets were becoming more settled: the yields on ten-year government bonds were unchanged over the quarter in the United States, Germany and Japan, and declined in France and the United Kingdom (see Chart 1); and volatility in most major bond markets also declined. Steadier conditions may have reflected increased market confidence in the actions of monetary authorities to contain inflationary pressures in various countries.

Chart 1
Ten-year government bond yields



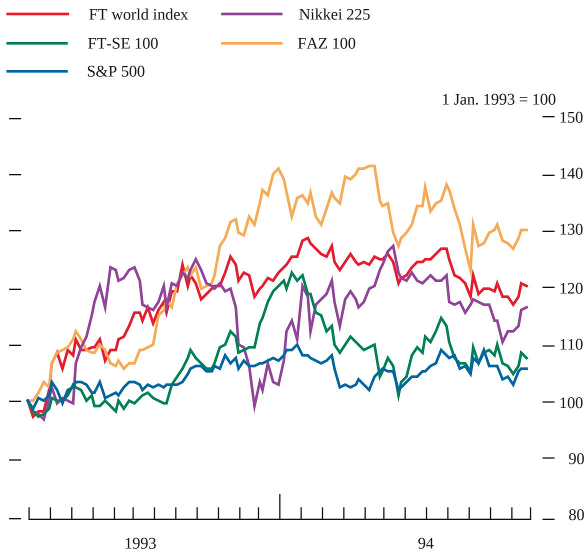
Source: Bloomberg.

The yield curve for US Treasuries flattened significantly during the quarter: the spread between thirty-year and two-year rates fell from 125 basis points to just under 20 basis points over the period. There were signs of growing investor confidence—evident in buying at the long end of the yield curve—particularly after the Federal Reserve’s 75 basis-point increase in the target federal funds rate to 5.5% on 15 November, which was larger than many market participants had expected. The long bond yield peaked at 8.16% on 7 November, its highest since August 1991; by the end of the quarter, the yield had fallen to 7.88%. Two-year yields rose from 6.60% to 7.71% over the quarter, reflecting expectations of further official rate rises.

For much of 1994, events in the US Treasury market significantly influenced other countries’ bond markets—perhaps more than might have been expected given differences in cyclical and inflationary conditions. But the degree of synchronisation in bond market movements appeared to weaken in the fourth quarter, in part perhaps because market attention to some extent shifted away from the United States to countries where there was a greater perception that a tightening of monetary policy was in prospect. In addition, some market participants may have held smaller cross-currency (and possibly less leveraged) positions in the fourth quarter than earlier in the year. Many investors repatriated portions of their bond portfolios in the first three quarters (the box on international securities transactions on pages 30–31 discusses this in more detail).

The bond market fall in the spring of 1994 appears to have taken its toll on equity prices in the major industrial countries, with the magnitude and timing of the effect varying in the light of local conditions. Over the fourth quarter as a whole, equity indices in most major markets were little changed (see Chart 2). In the United States, the Standard and Poor’s 500 index fell sharply—but temporarily—in November, following the increase in interest rates. In Japan, the equity market had been a notable exception to the global trend during the first half of the year, posting strong gains. But some switching from equities into long-term government bonds and the disappointing reaction to the Japan Tobacco privatisation contributed to a spell of weakness thereafter. The FT-SE 100 recovered from a five-month low in early December—despite some positive corporate earnings figures—to end the quarter 39 points higher at 3,065; the market was generally subdued owing to

Chart 2
Equity indices[a]



(a) End-week prices.

investor concern that the growth in corporate earnings might slow.

Bond and equity price movements over the year as a whole seem to have been affected by a longer-term trend towards international asset diversification and experience with that strategy. Many Japanese investors, for example, have shown an increased reluctance recently to hold overseas assets, following disappointing returns in yen terms from overseas investment—mainly as a result of the appreciation of the currency. Conversely, many American investors have been increasingly tempted overseas in search of benefits from diversification. US pension funds and mutual funds, which have traditionally held a very small proportion of their assets overseas—far less than their UK equivalents—have shown greater interest in foreign assets recently.

International financing activity

In spite of a particularly adverse global interest rate environment, borrowing in the international capital and credit markets continued to expand in 1994. The volume of borrowing facilities arranged expanded by 5% to $864 billion and, after reduced activity in the aftermath of the bond market weakness in the early part of the year, activity was buoyant in the fourth quarter (see Table A).

There were, however, very different developments in the main market segments. The unsettled bond market conditions for much of the year contributed to a 21% fall in straight fixed-rate bond issuance in 1994; and, despite some signs that the market was becoming more settled in the final months, the volume of issues in the fourth quarter remained 20% below the quarterly average for 1993. There was, however, strong growth in the euromedium-term note (EMTN) market, which has become increasingly difficult to distinguish from the eurobond market: the volume of new programmes rose by 69% in 1994 and issuance under

Table A
Total financing activity:[a] international markets by sector

$ billions; by announcement date

	1993 Year	1994 Year	Q1	Q2	Q3	Q4
International bond issues						
Straights	375.7	296.1	77.1	68.6	75.0	75.4
Equity-related	39.6	33.2	20.7	5.7	4.0	2.8
of which:						
Warrants	*20.8*	*10.8*	*8.2*	*0.8*	*0.7*	*1.1*
Convertibles	*18.8*	*22.3*	*12.5*	*4.8*	*3.3*	*1.7*
Floating-rate notes	68.5	92.7	38.7	17.8	17.9	18.3
Bonds with non-equity warrants (currency, gold, debt)	1.5	0.1	0.1	—	—	—
Total	**485.4**	**422.1**	**136.2**	**92.1**	**96.9**	**96.5**
Credit facilities (announcements)						
Euronote facilities	117.4	193.3	35.7	46.0	40.2	71.4
of which:						
CP	*24.2*	*36.4*	*3.9*	*15.4*	*10.9*	*6.2*
MTNs	*92.7*	*157.0*	*31.9*	*30.6*	*29.3*	*65.2*
NIFs/RUFs	*0.5*	—	—	—	—	—
Syndicated credits	221.2	248.6	52.0	64.5	59.3	72.8
Total	**338.6**	**441.9**	**87.7**	**110.5**	**99.5**	**144.2**
Memo: amounts outstanding						
All international						
Bonds (b)	1,847.9	. .	1,977.4	2,060.1	2,049.3	. .
Euronotes (c)	255.8	323.2	289.8	330.3	378.7	323.2
of which, EMTNs	*146.6*	*292.5*	*177.9*	*216.5*	*259.4*	*292.5*

. . not available.

(a) Maturities of one year and over. The table includes euro and foreign issues and publicised placements. Issues which repackage existing bond issues are not included. Figures may not add to totals because of rounding. Bond total includes issues from MTN programmes.
(b) BIS-adjusted figures, including currency adjustment. Includes issues of fixed-rate bonds and floating-rate notes.
(c) Euroclear figures.

existing programmes also grew strongly. The floating-rate note (FRN) and syndicated credit markets also grew significantly.

The deterioration in market conditions came to a halt in the latter part of 1994: the decline in the average maturity of new issues halted, large-scale offerings such as global bonds returned to the market, and some borrowers who had stayed out of the market in the unsettled conditions earlier in the year returned.

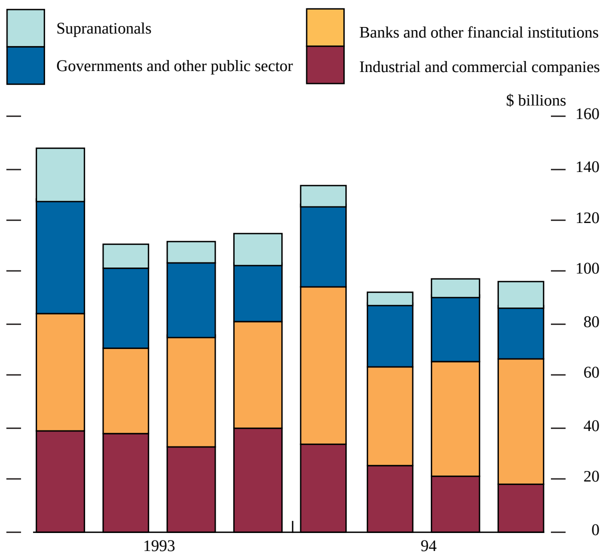
International bonds

Borrowers

In the fourth quarter, banks continued to be a major source of demand for capital (see Chart 3). Over the year as a whole, they raised $122 billion, an increase of 53% on 1993. In contrast, the volume of international bond issues by industrial and commercial companies was subdued: in 1994 as a whole, volumes were 33% lower than in the previous year. The strength of EMTN issuance and syndicated borrowing suggests that companies may have preferred to use those markets rather than make bond issues to raise long-term debt.

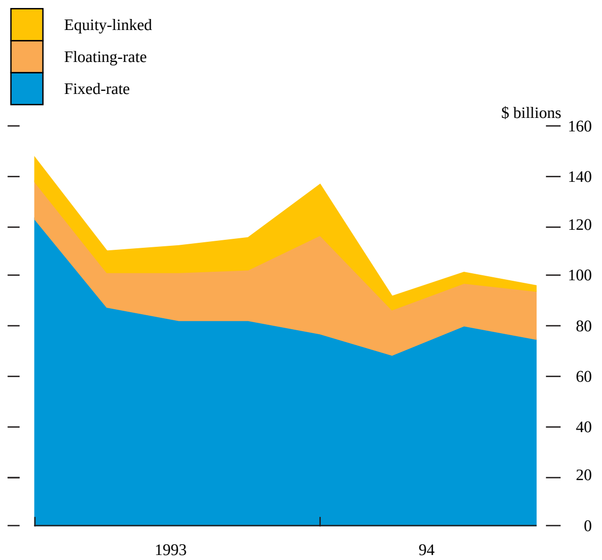
Supranational borrowers were more active in the fourth quarter, increasing their share of total international bond issues from about 6% to 10%. Over 1994 as a whole, however, their share fell again to 7%, compared with 11% in 1993. Many supranational borrowers were able to refrain

Chart 3
Borrowers in the international bond market



Source: Bank of England ICMS database.

Chart 4
International bond issues



Source: Bank of England ICMS database.

from issuing during the unsettled conditions earlier in the year because of their high liquidity levels; they have since chosen to re-enter the market.

Sovereign borrowers were particularly active in the international bond market in 1994. Three of the top five borrowers in the euromarkets in the year to October were sovereign borrowers; the largest, Sweden, issued nearly a third more debt than the largest private borrower. On occasion, the international markets provided some sovereign borrowers with more attractive funding opportunities than their domestic markets.

OECD issues continued to account for roughly three quarters of all borrowing in the fourth quarter. This proportion has been fairly stable for the past two years. Latin American borrowers more than doubled their issues of international bonds to $6 billion between the third and fourth quarters. Renewed investor confidence in the region was a contributory factor; it remains to be seen how far this will be affected by the recent unsettled conditions in Mexican financial markets. International bond issues by Asian borrowers fell in each quarter in 1994, from about $11 billion to $4 billion; the fall was particularly evident in fixed-rate borrowing.

Instruments

In 1994 as a whole, the subdued level of fixed-rate borrowing—which continued in the fourth quarter—was offset in part by increased issues of FRNs. FRN issues were 35% higher at almost $93 billion (see Chart 4). Issues of structured notes in international markets, however, fell to $0.6 billion in the fourth quarter of 1994, compared with $2.4 billion in the last quarter of 1993. Investors have been increasingly cautious about complex financial instruments, following reported losses by some who had taken large positions in mortgage-backed securities and structured instruments earlier in 1994.

Gross borrowing in bonds with equity warrants attached was $1.1 billion in the fourth quarter; there has been a decline in such issues since a change in Japanese accounting regulations on 1 April 1994, which raised the immediate costs of issue. Convertible issues also fell significantly over the quarter to $1.7 billion. With estimated redemptions of $11.7 billion over the quarter, there were net repayments of almost $9 billion in the equity-linked sector.

Currency composition

Borrowing in dollar-denominated international bonds totalled $37.3 billion, 39% of total issues (see Table B). This was a similar share to that in 1993 and the first quarter of 1994, following two quieter quarters.

Table B
Currency composition of international bond issues

$ billions

Currency denomination	1993 Year	1994 Year	Q1	Q2	Q3	Q4
US dollar	175.8	147.3	53.3	26.2	30.6	37.3
Yen	58.7	77.8	11.1	20.7	23.9	22.1
Deutsche Mark	56.4	39.8	13.7	8.4	8.5	9.2
Sterling	42.6	29.5	13.5	6.6	5.3	4.1
French franc	42.3	28.7	13.6	8.5	3.1	3.5
Swiss franc	27.5	20.8	7.1	3.2	6.2	4.3
Italian lira	12.3	17.1	4.7	5.0	4.6	2.7
Ecu	11.4	7.6	3.4	1.8	1.5	0.9
Other	58.2	53.3	16.1	11.6	13.2	12.3
Total	**485.2**	**421.9**	**136.5**	**92.0**	**96.9**	**96.4**

Source: Bank of England ICMS database.

The popularity of yen-denominated bonds continued in the fourth quarter; yen issues constituted almost a quarter of total borrowing, totalling $22.1 billion. Yen-denominated assets in general were in demand from Japanese investors who wished to avoid potential currency losses, but there was also substantial foreign interest in international issues; euroyen issues by Japanese borrowers actually declined to $3 billion. A major factor behind the increased borrowing in euroyen during the last three quarters of 1994 was recent deregulation, notably the removal at the start of the year of the lock-up period for foreign public sector borrowers.(1) Foreign borrowers accounted for over 80% of euroyen issues in 1994, borrowing over $13 billion in each of the last three quarters. The relative appeal of euroyen issues led, however, to a decline in Samurai issues;(2) they accounted for only 13% of total yen issuance in the fourth quarter, compared with almost a quarter in the same period in 1992 and 1993.

Deutsche Mark, sterling and French franc issues fell in 1994. In the French franc sector, potential issuers may have been deterred by new arrangements under which they must now satisfy the authorities that at least half the investors in a eurofranc issue will be foreign. Italian lira issuance, however, rose by some 40% in 1994, spurred by recent deregulation. Although Italian investors have continued to absorb the largest share of new lira issues, foreign investors have increasingly been attracted by high-coupon lira bonds.

The volatility in currency and bond markets in the early part of 1994, combined with uncertainty over the direction of interest rates, affected the Ecu market throughout the year. During the fourth quarter, activity remained subdued owing to the limited natural investor base and uncertainty over the future development of the Ecu. The Bank held its regular monthly Ecu Treasury bill auctions, which continued to be oversubscribed at all three maturities on offer. Overall cover was at least two times at each auction, at levels in a range of 10–40 basis points below Ecu Libid. ECU 200 million of one-month, ECU 500 million of three-month and ECU 300 million of six-month bills were on offer at each tender. There are currently ECU 3.5 billion Treasury bills outstanding across the maturities. Turnover was ECU 2 billion in September, rising to ECU 2.5 billion in October and ECU 3.8 billion in November.

Turnover in all three of the outstanding Ecu Treasury notes, maturing in 1995, 1996 and 1997, has been fairly steady at around ECU 2 billion per month. The Bank held a tender on 18 October, re-opening the Ecu Treasury note maturing in January 1997. ECU 500 million was sold at the tender which was five times covered and bids were allotted at yields in a tight range of 7.60% to 7.62%. The note has maintained its benchmark status in the 1997 segment of the Ecu curve.

Among the United Kingdom's other foreign currency debt, the DM 5.5 billion five-year and US$3 billion ten-year bonds, launched in 1992 to complete HMG's ECU 10 billion foreign currency borrowing programme, continued to trade well in the fourth quarter. They remained liquid and maintained tight spreads in comparison with the comparable underlying government bonds. They continued to be among the more actively traded Eurobond issues settled through the international settlement systems.

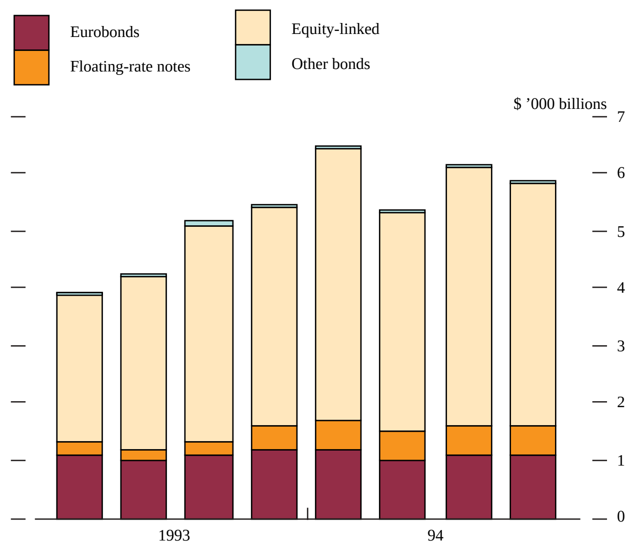
Maturities

Many investors responded to the particularly uncertain market conditions earlier in 1994 by shortening the duration of their portfolios, notably by making investment fund allocations at shorter maturities. As a result, borrowers found it increasingly difficult to place bonds with relatively long maturities. In the latter part of 1994, there was evidence of increased investor appetite for longer maturities, at least in some currencies, and of a corresponding selective lengthening of the maturity of issues.

Secondary market turnover

The turnover of bonds, as measured by the volume of settlements through Euroclear and Cedel, was $5,900 billion in the fourth quarter, 10% below the first quarter level (see Chart 5). The fall was accounted for by a reduction in the volume of domestic government bonds traded through the two systems—turnover in these instruments had previously driven the strong increase in volumes.

Chart 5
Secondary market turnover



Source: Euroclear and Cedel.

Note issues

The impressive growth of the EMTN market in recent years continued in 1994, helped by borrowers' desire, faced with unsettled bond market conditions, for flexibility in the timing, size, currency and maturity of their financing. And as market uncertainty diminished, increased borrower and investor familiarity with EMTNs and the advantages arising from their flexibility spurred further growth in the market. In assessing developments in different segments of the international capital markets, the increasingly blurred distinction between securities issued with normal eurobond documentation and those offered under EMTN documentation should be kept in mind.

(1) Previously, euroyen bonds could not be sold to Japanese domestic investors for a period of 90 days after issue, although issuers regularly registered investor interest on the day of issue but only delivered the bonds after 90 days. Issues by public sector entities became exempt from these 'seasoning' restrictions wth effect from 1 January.
(2) A Samurai bond is a yen-denominated bond issued in the Japanese domestic market by a foreign issuer.

International securities transactions in 1994

This box uses official flow of funds, money, credit and capital accounts data from four countries[1] to investigate some of the transaction flows that accompanied the fluctuations in international government bond and equity prices in the first three quarters of 1994. It looks most closely at bond transactions, since equity price falls during the period were less significant than those in bond markets.[2] And it focuses particularly on the first half of the year, when financial markets were most disturbed. It highlights a number of broad patterns—for example in the categories of investor that were net purchasers or net sellers of securities, and how the pace of securities issuance altered—as well as some of the problems of interpretation.

The transactions data analysed are the quantity counterparts of the price changes but, for several reasons, need to be interpreted carefully. First, there is no simple causal relationship between changes in any category of investors' asset holdings and price changes. Only the changes in portfolios, not the direction of price pressures which these may have generated or have been generated by, can be observed. Indeed in principle, large changes in prices can occur without any portfolio shifts at all, particularly among broad categories of investor. Second, differences in national statistical methods—for example in the treatment of repos—and in financial market structures can complicate data interpretation, though the significance of this potential problem is reduced by looking at broad categories of investor. And finally, different types of investor are likely to react at different speeds—and perhaps in opposite directions—to the same piece of news, because of their differing constraints and objectives; to give one example, professional investors are likely to react swiftly to limit any losses. But such behavioural characteristics are difficult to identify *a priori*.

In addition to these problems of interpretation, there are some difficulties with the available data: flow of funds data tend to be out of date, subject to revision and often insufficiently disaggregated to allow a full analysis.[3] And the data from different sources are not always consistent.

While bearing these caveats in mind, several main patterns can be identified from the transactions data for the first three quarters of 1994.

First, the changes to the pattern of government bond transactions were greater than those in equity markets; this was consistent with the larger bond price movements during the period. Net sales—or a slowing of the rate of purchases—by categories of investors were more widespread in government bond markets than in equity markets. The contrast was strongest in the United States in the second and third quarters; it was less clear cut in Japan, where transactions in bond and equity markets were relatively undisturbed. The rate of net government bond issues also generally slowed more than equity issues, reflecting a reduction in required funding, especially in the United Kingdom throughout the period and in Germany in the second quarter. This contrast was less obvious in the United States—where the slowdown in government bond issues in the second and third quarters was matched by a slowdown in corporate equity issues—and weakest in Japan, where issue patterns in both markets were relatively unchanged.

Second, domestic flow of funds and capital account data[4] indicate that there were widespread net sales of securities—especially government bonds—by foreign investors, suggesting a retrenchment from foreign investments and a return to domestic habitats. The German government bond market was the first to be affected, with foreign investors making net sales in each of the first two quarters (see Table 1). The retrenchment seems to have been strongest in

Table 1
German bond market[(a)]

DM billions

	1993 H1	1993 H2	1994 Q1	1994 Q2	1994 Q3
Net sales	197.4	185.2	61.0	33.8	74.2
of which, public bonds	*120.7*	*109.9*	*34.1*	*13.3*	*39.9*
Purchases by:					
Residents	76.8	93.5	69.2	57.2	62.8
of which:					
Credit institutions	*77.0*	*87.4*	*52.9*	*28.4*	*20.5*
Non-banks	*0.2*	*7.0*	*16.7*	*29.0*	*42.8*
Non-residents	136.0	90.0	-1.5	-19.2	18.4
of which:					
US	*3.6*	*6.2*	*5.4*	*-1.3*	*0.4*
Japanese	*4.0*	*4.8*	*-1.4*	*5.2*	*-4.2*
EU	*121.1*	*68.3*	*-9.1*	*-21.6*	*12.4*
of which, UK	*71.1*	*54.8*	*-1.2*	*-15.5*	*4.1*

Source: Bundesbank.

(a) Both government and corporate bonds.

the second quarter, when there were net sales of government bonds by foreign investors in all four countries. UK investors were reported to be major net sellers of both US and German government bonds.[5] The retrenchment abated in the third quarter, when foreign investors made large net purchases of German and (especially) US government bonds; and their net sales of UK gilts fell significantly. Foreign investors' net sales of Japanese government bonds rose significantly, however.

The capital account data, however, provide less evidence that the retrenchment originated in the four countries considered. They indicate that only Japanese and, particularly, UK investors repatriated substantial funds from abroad at some time during the period; the UK repatriation was evident in net sales of foreign securities, residents' repayment of borrowing from overseas and running down of

(1) Germany, Japan, the United Kingdom and the United States.
(2) Chart 1 in the article on developments in the gilt-edged market in 1994 illustrates movements in yields in some major countries' government bonds during 1994; see page 66.
(3) For example, German data do not split non-bank residents into households and non-bank financial institutions.
(4) Direct foreign investment flows are excluded from the analysis, since the focus is on transactions in securities markets.
(5) But the international nature of UK securities markets means that such sales cannot necessarily be attributed solely to UK investors. Securities firms from many countries have UK operations, and several international markets (eg the Eurobond market) have their centres in London.

their overseas deposits, and UK banks' reduction of their net overseas exposure. In contrast, the data suggest that US and German investors continued to make net purchases of foreign securities—both equities and bonds—throughout the period, though their scale fell progressively, especially in the US case. The retrenchment seems therefore to have originated in part from investors in countries not considered in this analysis, or not to have affected foreign investments in all countries.(6) The data suggest that the limited retrenchment weakened after the first quarter—when Japanese investors resumed their (large) purchases of foreign securities and UK investors' net sales halved—and ended in the third quarter, when UK investors resumed their net purchases of foreign securities.

Third, the pattern of banks' transactions in their domestic government bonds altered significantly in the first three quarters compared with 1993, while for domestic equities their transactions pattern remained relatively unchanged. The turnaround in government bond transactions was most pronounced in the United States and Japan; domestic banks made net sales in the second and (especially) third quarters in the United States, and in the first and third quarters in Japan. UK and German banks altered their patterns less, though they made smaller net purchases than in 1993 and in the United Kingdom made small net sales in the third quarter. Domestic banks continued generally to be net purchasers of domestic equities, though often at lower rates than in 1993. Only US domestic banks (in the first quarter) and German banks (in the second) were net sellers of equities.

Fourth, households in the United States and Japan consistently made net sales of domestic equities during the period, as did UK households in the second and third quarters. Indeed, households' net equity sales were among the largest recorded, especially in the United States and the United Kingdom. But the net sales in both these countries did not represent a significant change in transaction patterns. In Japan, however, households' net equity sales contrasted more strongly with their past behaviour. Households also generally continued to make net purchases of domestic government bonds—at mainly above their average 1993 quarterly rates. In some periods, for example in the second and third quarters in the United States, households were the largest net purchasers of domestic government bonds (see Table 2).

Fifth, the domestic non-bank financial sectors—which include insurance companies and pension funds among others—generally made few net sales of domestic government bonds or domestic equities. And at times, their net purchases of securities were at a rate at, or above, their 1993 quarterly average—for example in UK equities and Japanese bonds (on the latter see Table 3). The major exception was in the United States, where the non-bank financial sector was a major seller of US Treasuries, especially in the first quarter. Several parts of the US non-bank financial sector also made large net sales of corporate equities.

Table 2
US Treasury securities

$ billions

	1993 H1	1993 H2	1994 Q1	1994 Q2	1994 Q3
Net issues (a)	142.4	105.9	53.0	29.6	32.5
Transactions by:					
Domestic private sector	104.7	34.6	27.6	22.8	1.9
of which:					
Non-financial sector	*50.8*	*11.6*	*68.0*	*41.3*	*37.3*
of which, households	*34.8*	*10.7*	*59.6*	*43.1*	*49.7*
Commercial banks	9.2	18.6	14.4	-9.3	-20.7
Non-bank financial sector	44.7	4.4	-54.9	-9.2	-14.7
of which:					
Life insurance companies	*12.8*	*8.5*	*-1.7*	*5.8*	*1.9*
Private pension funds	*8.1*	*6.8*	*-9.0*	*-1.8*	*-1.2*
Mutual funds	*10.3*	*15.6*	*-24.8*	*1.5*	*-16.4*
Money-market mutual funds	*0.2*	*0.6*	*-11.3*	*-5.2*	*0.3*
Brokers and dealers	*-5.1*	*-40.0*	*-17.3*	*-13.4*	*-1.7*
Non-residents	20.1	53.4	10.5	-1.5	20.9

Source: US Federal Reserve.

(a) Net of Treasury bill rollovers.

Table 3
Japanese bond market(a)

¥100 billions

	1993 H1	1993 H2	1994 Q1	1994 Q2	1994 Q3
Net bond issues	149	74	76	78	. .
of which:					
Public	*183*	*-7*	*79*	*82*	*24*
Other	*-34*	*81*	*-3*	*-4*	. .
Net purchases by:					
Banks (b)	-16.8	27.0	-22.1	17.2	-8.6
Credit associations (c)	6.9	5.5	4.3	5.4	1.2
OFIs	18.0	9.2	10.9	1.9	7.1
Insurance corporations	26.6	22.3	11.8	34.5	14.8
Investment trusts	15.3	21.3	4.1	8.6	0.1
Pension funds	3.7	3.9	1.6	2.1	3.7
Bond dealers	-1.9	-7.5	2.6	-6.4	-3.8
Companies	11.2	6.6	5.0	7.1	8.0
Individuals	3.5	1.3	2.2	3.0	3.4
Others	-93.5	-92.2	-49.6	-45.3	-54.2
Non-residents ($ billions)	-19.8	-11.3	11.6	-9.9	-14.6 (d)

. . not available.

Sources: Bank of Japan and Japanese Security Dealers' Association.

(a) Both public and private bonds.
(b) City banks; regional banks; long-term credit banks; trust banks; financial institutions for agriculture and forestry and second regional banks.
(c) Shinkin banks.
(d) Provisional.

Finally, government bond dealers made large net sales of domestic government bonds in all countries for which data are available. Only in the United States did they make sales in all three quarters, however. Both UK and US dealers' net sales were highest in the first quarter, when UK GEMMs sold most of their gilt portfolio (see Table 4). Net sales by Japanese bond dealers began in the second quarter and halved in the following quarter.

Table 4
UK gilt transactions

£ billions

	1993 H1	1993 H2	1994 Q1	1994 Q2	1994 Q3
Net sales:					
Excluding repos	26.1	26.3	6.0	4.4	5.9
Repos	0.1	0.4	1.2	-1.7	-0.2
Net purchases by:					
M4 institutions	6.4	4.3	1.1	0.1	-0.5
Life assurance companies and pension funds	7.1	4.0	3.3	3.4	3.9
Other OFIs	5.2	5.4	-4.3	2.1	1.2
of which, GEMMs	*2.0*	*4.0*	*-5.7*	*0.3*	*-0.5*
Persons	2.2	3.2	1.6	0.7	2.7
ICCs	0.4	0.2	0.1	-0.1	-0.4
Overseas	4.7	8.7	4.2	-1.7	-1.1

Sources: CSO and Bank of England.

(6) The latter explanation would imply that foreign investors continued to purchase securities in the countries not considered in this analysis.

Syndicated credits

The volume of announced syndicated credits has been on an upward trend: it rose by 12% to $249 billion in 1994 as a whole, and activity also picked up strongly in the fourth quarter. The upward trend has in part reflected an improvement in the world economy and a consequent increase in mergers and acquisitions activity. There has, however, been a marked increase in competition among banks for syndicated lending mandates recently. The spreads and fees that banks have been able to charge corporate borrowers have come under considerable pressure, and some borrowers have reportedly negotiated more favourable loan structures than had been usual in the recent past.

The increasingly aggressive competition in the syndicated credit market and the unsettled bond market conditions after early February contributed to the significant pick-up in activity over the course of 1994. This marked something of a change in pattern from the experience of recent years when the bond and medium-term note markets have offered more flexible finance at lower overall costs for highly rated borrowers than the syndicated credit market. Although the bond and medium-term note markets have remained an attractive and widely used financing channel for highly rated borrowers, the relative attractiveness of the syndicated credit market has increased, resulting in a shift of activity.

Equities

Equity turnover in London, New York and Tokyo fell over the course of 1994 from the historically high level in the first quarter. During the fourth quarter, the Tokyo Stock Exchange announced changes to its listing rules in an effort to stem the reduction in the number of companies listed. The minimum net asset requirement was reduced from ¥100 billion to ¥10 billion, and pre-tax profit is now only required to be ¥2 billion for the first two of the three years prior to listing, reduced from ¥20 billion. Reporting requirements were also eased. These changes came into effect on 1 January.

Derivatives

In 1994 as a whole, major derivative exchanges were affected by the trend towards the growing use of derivatives by industrial and commercial companies and investment institutions to manage their risk exposures, and by the unsettled conditions in bond and money markets which further increased the demand for risk management tools. At 153 million contracts, turnover on the London International Financial Futures Exchange (LIFFE) was 50% higher in 1994 than in 1993, despite a 9% fall in turnover between the third and fourth quarters. This pattern—of weaker activity as the year progressed, superimposed on a long-term growth trend—was also seen in the world's other major derivative exchanges.

Among LIFFE's contracts, the Italian futures and options contracts performed particularly strongly in 1994: volumes in the BTP and Eurolira futures increased 86% and 134% respectively. (The turnover of lira-denominated contracts constituted nearly 11% of LIFFE's total turnover during 1994.) Volumes in LIFFE's German government bond futures contract rose 83% during 1994—consolidating its position as the exchange's most heavily traded contract—and Deutsche Mark denominated contracts accounted for over half of the exchange's total turnover in the year.

Aggregate turnover on the London commodity exchanges—the London Metal Exchange (LME), the International Petroleum Exchange and London Commodities Exchange—increased by 14% in the fourth quarter. They traded a total of nearly 66 million contracts in 1994—a 25% increase on 1993. Turnover on the LME was at record levels in the fourth quarter, up 22% compared with the third quarter and 36% higher than in the same period a year earlier. The increased volumes reflected the continued upward trend in base metal prices and active 'non-trade' interest by funds and financial institutions. Changes in the LME's membership were evidence of the increased non-trade involvement: in 1992, banks and securities houses constituted roughly 7% of members; this had risen to 25% by the third quarter of 1994.

There are several reasons for the non-trade interest in commodities, particularly base metals. There has been an increasing appreciation among investors of the benefits of a commodity element in portfolios to enhance their risk-return attributes; and commodity derivatives have facilitated the adjustment of risk exposures by, for example, eliminating the requirement for physical delivery. The increased interest has been reflected in increased activity in the over-the-counter (OTC)—as well as exchange-traded—markets, and a range of warrants on baskets of base metals were issued by a range of financial institutions in 1994. Copper and aluminium attracted particular attention because the markets in these metals are both relatively deep and liquid. Non-trade interest in soft commodities was also strong during 1994.

Several exchanges took steps to increase their international links during the quarter. LIFFE initiated discussions with the Singapore exchange (SIMEX) about the listing of its eurodeutschemark futures contract in the Asian time zone, and reached agreement with the Tokyo exchange (TIFFE) about the listing of its euroyen futures contract, which is similar to TIFFE's contract. And LIFFE and the Chicago Board of Trade initiated a feasibility study into a possible link between the two exchanges' after-hours electronic trading systems. Meanwhile, the development of closer links between the DTB and MATIF (the main German and French derivatives exchanges) is progressing. DTB screens have been set up in France to allow MATIF members to trade DTB bond contracts; and trading in two (as yet unspecified) MATIF contracts will be transferred on to the joint system by the end of 1995.