

# Developments in international banking and capital markets in 1990

This article <sup>(1)</sup> continues the annual series on developments in international banking and capital markets. The article has a short overview, followed by sections on developments in international banking and capital markets. There is a feature on asset-backed bonds.

- There was a slowdown in the rate of growth of international banking business in 1990, particularly in the interbank market.
- Although its share slightly declined, Japan maintained its position, just ahead of London, as the largest international banking centre.
- Primary activity in the international capital markets, at \$494 billion, was broadly unchanged from 1989. There was a substantial shift in instrument composition, with an increase in floating-rate notes offsetting a sharp decline in equity-related issues.
- Falls in asset prices and recessionary pressures in many major economies led to a renewed emphasis among financial intermediaries on profitability and credit quality.

## Overview

The rate of growth of international banking business<sup>(2)</sup> slowed in 1990 after the slight recovery experienced in 1989; gross lending fell from \$807 billion in 1989 to \$589 billion in 1990 (Table A). The slowdown was notable in interbank business within the BIS reporting area<sup>(3)</sup> and in a continuing decline in lending to the outside area. The crisis in the Middle East temporarily disrupted activity in the markets in the late summer. In addition, German political and monetary union influenced financial markets throughout the year, initially through uncertainty and volatility within the German markets, but subsequently through upward pressure on real interest rates, as the direct financing costs of unification began to be realised. The tightening of monetary policy in Japan and recessionary pressures in a number of economies led to heightened concern over quality in both banking and corporate sectors. All these factors made it a testing year for the international markets, but the volume of intermediation through these markets as a whole was nevertheless resilient.

In the international bond markets, gross funds raised, at \$263 billion, were broadly unchanged from 1989. Issuance in the straight bond market was boosted by rallies in particular bond markets in the late spring and the autumn. Supranational borrowers took advantage of the conditions

**Table A**

### Estimated net lending in international markets 1985-90

\$ billions: banking flows adjusted to exclude estimated exchange rate effects

	1985	1986	1987	1988	1989	1990
1 Gross international bank lending	297	665	760	511	807	589
2 Net international bank lending	105	180	300	260	410	380
3 Gross new bond issues (a)	164	222	176	227	264	240
4 Less redemptions and repurchases	39	65	73	83	89	109
5 Net new bond issues	125	157	103	144	174	132
6 Net new euronote placements	10 (b)	13	23	20	7	32
7 Total international financing (2+5+6)	240	350	426	424	591	544
8 Less double counting	55	83	53	67	76	79
9 Total net international financing	185	267	373	357	515	465

Source: BIS, Bank of England and Euroclear.

(a) On a completions basis.

(b) Bank estimate.

and their high credit standing to raise a record quantity of funds, while there was an upturn in sovereign issuance largely accounted for by issues in Ecus. US corporate borrowing in the international bond markets was at its lowest rate (\$10 billion) since 1983, partly reflecting the credit downgrading of many US companies last year and a more general Gulf-induced decline in confidence. Even for top-rated corporate borrowers, spreads over US Treasuries in the secondary eurodollar market appeared to widen by

(1) Prepared jointly by the International Banking Group, Financial Statistics Division and the International Financial Markets Section, International Division.

(2) Defined for each country as all cross-border business plus foreign currency business with domestic residents.

(3) Data reported by banks in the Group of Ten countries, Luxembourg, Austria, Denmark, Finland, Ireland, Norway, Spain, Bahamas, Bahrain, Cayman Islands, Hong Kong, Netherlands Antilles and Singapore and by the branches of US banks in Panama.

around 20 basis points between mid-September and mid-December.

Floating-rate notes (FRNs) were the major beneficiary of the general uncertainty over the direction of interest rates, particularly deutschemark interest rates. There was record issuance of FRNs, following three relatively depressed years. In contrast, equity-related issues, the major source of growth in the international bond markets in 1989, fell sharply, reflecting less activity by Japanese companies, as a consequence of the weakness of Japanese equity prices during 1990. In the euronote market the stock of notes outstanding grew sharply as facilities were drawn down. However, the volume of new facilities was broadly the same as in 1989 although, within this, medium-term notes were more prominent. There was also a notable flight to quality in the eurocommercial paper (ECP) market following the spate of defaults in 1989. The intense competition and relative unprofitability of this market caused some securities houses to withdraw from the market. The remaining houses have reportedly raised fees, and become reluctant to bid for or remain dealers on unprofitable programmes.

The number of lead managers of eurobonds increased to the highest ever level (over 130), helped by the increasingly wide spread of currencies being issued in significant quantities. A reduction in the volume of equity warrant bond business in 1990 also acted to lessen the concentration in activity among particular companies. However, concern over profitability in the bond markets has led to an increasing use of the fixed price re-offering method. It has also caused a degree of retrenchment, albeit on a modest scale. Private placements, however, have become relatively more attractive than public bond issues for many securities houses. Many of these deals consist of complex structures that are profitably tailored to the requirements of particular investors. Securities houses have also placed greater emphasis on other markets, in which they believe profit opportunities look more promising. These included derivative products, such as swaps, which remained an important factor behind the launch of many bond issues, options and warrants on stock indices and currencies. Indeed activity in such warrants, which are similar to over-the-counter options, grew sharply in 1990, with premium income growing strongly from an estimated \$1 billion in 1989 to \$9 billion in 1990. Also a number of specialist derivative companies were established last year.

Market conditions also affected banks, notably those whose capital ratios were close to the interim BIS capital adequacy standards which mainly had to be met by the end of 1990. The Japanese banks whose deadline was March 1991 were adversely affected by the sharp decline in prices on the Japanese stock markets, because of their reliance on 45% of unrealised capital gains on security holdings as a source of tier two capital, and because the weakness of the markets restricted their ability to raise equity finance. There was

also concern that property prices might fall sharply. The banks reacted by raising subordinated capital both domestically and, after the agreement of the Ministry of Finance, internationally, as well as slowing the expansion of their international lending.

US banks were also affected by weakening asset prices, although, unlike their Japanese counterparts, the problem was particularly related to property markets. In addition, the onset of the US recession weakened the quality of many banks' loan books in general. Therefore, despite the generally satisfactory level of most US banks' capital ratios at the start of 1990, relative to the BIS standards, the drain on capital as a result of loan losses, and a related downturn in expected profits at a number of major banks, led to a market re-evaluation of the credit standing of many banks, which in turn temporarily restricted their ability to raise capital. A number of US banks responded by reducing the size of their balance sheets.

In general, European banks were better capitalised than their Japanese counterparts and not facing the scale of loan losses of the US banks. However, the general concern over bank profitability, including in the United Kingdom, meant that margins for bank issuers in the capital markets widened in the fourth quarter, even for top-rated banks. This was particularly evident in the variable-rate note (VRN) market, used by banks to raise tier two capital under the BIS standards, where the spreads on many bank VRNs widened so sharply in the fourth quarter that some began to reach an agreed 'backstop' rate. This made the instrument<sup>(1)</sup> illiquid and brought issuance to a halt.

Activity in the international syndicated credits market over the year as a whole increased slightly over 1989, despite the pressures on the banks' capital ratios. Nevertheless, conditions in the market deteriorated following the onset of the Gulf crisis. In the fourth quarter this was reflected in a reduction in the number of deals, but an increase in their average size. Lenders became increasingly selective in their attitude to borrowers. Margins over Libor increased, by around 20 basis points for well-rated borrowers to 25-40 basis points, as banks attempted to earn an adequate return on capital.

### International banking developments

Although continuing at a fairly brisk pace, international banking activity slowed during 1990 to an annual rate of 9%, compared with an increase of 15% in 1989. This slowdown was particularly reflected in the interbank markets, with Japanese banks reporting significant cutbacks in activity. Interbank lending as a percentage of all international lending fell from 85% in 1989 to 75% in 1990. In addition, particularly notable was a fall of \$17 billion in lending to countries outside the BIS reporting area and a further concentration of business within the reporting area.

(1) When the spread on a VRN widens to its backstop rate the option which the investor previously had to sell the instrument back to the arranging house becomes invalid.

**Table B**  
**Growth of international lending**

\$ billions: banking flows adjusted to exclude estimated exchange rate effects

	1986	1987	1988	1989	1990	Percentage change in 1990
<b>Gross lending</b>	<b>665</b>	<b>760</b>	<b>511</b>	<b>807</b>	<b>589</b>	<b>9.6</b>
<i>of which:</i>						
To inside area	639	736	496	794	584	11.0
<i>of which:</i>						
Banks	519	559	336	564	343	8.4
Non-banks	108	178	160	230	241	19.2
To outside area	13	11	14	-2	-17	-2.4
Unallocated	13	12	1	15	22	17.5
<b>Net lending (a)</b>	<b>180</b>	<b>300</b>	<b>260</b>	<b>410</b>	<b>380</b>	<b>14.4</b>
<i>of which:</i>						
To inside area	154	277	234	397	375	17.8
To outside area	13	11	14	-2	-17	-2.4

(a) BIS estimates of net international bank credit: excluding double counting resulting from the redepositing of funds between reporting banks, but allowing for the banks' own use of external funds for domestic lending.

### The interbank market within the BIS reporting area

Activity in the interbank market declined from an annual rate of growth of 17.1% in 1989 to 8.5% in 1990. Business between banks accounted for 62% of BIS-area banks' total cross-border lending in 1990, compared with 78% in 1989. This fall was mainly attributable to the sharp downturn in international activity of Japanese banks: in the first half of 1990 this was caused by the stresses on their capital position resulting from the sharp fall in prices on the Japanese stock market and, more particularly, in the final quarter by their reducing their money-market operations, as a result of the uncertainties arising from the Gulf crisis and the perception of greater counterparty risks. Business between banks in Japan and other reporting countries increased by only 6% in 1990 compared with 19% in 1989.

The slowdown in interbank activities was also reflected in a relatively small increase of \$35 billion in transactions between banks in the United States and those in other reporting countries except Japan. US banks, like the Japanese banks, restricted the rate of growth of their international lending, becoming increasingly selective in their approach to borrowers. In addition, the onset of the US recession and the related poor outlook for profits at a number

**Table C**  
**Interbank lending between banks in the BIS reporting area**

\$ billions: flows exclude estimated exchange rate effects; figures in *italics* are percentages

	Flows			Outstanding at end-Dec. 1990
	1988	1989	1990	
Cross-border interbank lending				
<i>of which:</i>				
Between banks in Japan and in other reporting countries	330	525	295	3,998
Between banks in the United States and other reporting countries except Japan	312	244	88	1,584
Between banks in Europe	13	116	35	781
Other	36	122	141	1,130
<i>Interbank lending as a percentage of all cross-border lending</i>	78	78	62	503
Memorandum items				
Lending to resident banks in foreign currency (a)	23	39	48	
International interbank lending	361	581	360	
<i>Interbank lending as a percentage of all international lending</i>	83	85	75	

Source: BIS.

(a) Excludes lending by banks in the United States. Includes lending by banks in Japan to resident non-banks.

of US banks had the effect of restraining their loan books. In contrast, interbank activity within Europe increased by 16%.

A noticeable aspect of interbank activity towards the end of the year was the unprecedented share of cross-border business carried out between related banking offices, which may have reflected the funding difficulties which were reported to have been experienced by some banks.

### Non-bank business within the BIS reporting area

Lending to non-banks within the reporting area grew by 26% in 1990, continuing the trend started in 1989 when lending increased by 25%. The use of the international markets to circumvent domestic regulations and continued financial liberalisation in many countries were the main factors underlying the strong growth in borrowing and deposits by non-bank entities within the reporting area.

Banks in the United States and the United Kingdom were the major suppliers of cross-border funds. Non-banks in the United Kingdom returned to being net borrowers of funds for the first time since 1987.

### Business outside the reporting area

Claims on countries outside the reporting area fell by \$17 billion to \$719 billion in 1990. Claims on non-OPEC developing countries fell by \$9 billion, on Mexico by \$15 billion (largely a result of the Brady debt reduction package), on other Latin American countries by \$11 billion and on Eastern Europe by \$10 billion, of which the Soviet Union accounted for \$6 billion. The major demand for funds came from non-reporting developed countries (up \$7 billion) and China (up \$7 billion). An inflow of funds of \$69 billion from the outside area in 1990 compared with \$58 billion in 1989, with non-OPEC less developed countries being the major contributors. As a result of these inflows, the net indebtedness of outside-area countries with the reporting banks contracted by over \$100 billion, leaving outstanding debts totalling less than \$100 billion for the first time since March 1981.

### Analysis by centre

Although its share of international lending fell slightly to 19.3% during 1990 compared with 20.7% at the end of 1989, Japan maintained its position as the largest international supplier of bank funds (Table D). The overall share of business conducted in the major European financial centres remained steady, with Germany (partly aided by the statistical inclusion of eastern German banks) and Luxembourg in particular showing steady increases in business. The United Kingdom's share declined slightly, to 18.4%. The share of total international bank lending of banks in the United States declined further to 7.7% compared with 9.4% at end-December 1989 and 10.1% in 1988.

**Table D**  
International banking analysed by centre

\$ billions

	End-December 1990			Total (a)	Percentage share of total		
	Foreign currency lending to:		Domestic currency lending to non-residents		End-Dec. 1988	End-Sept. 1989	1990
	Residents	Non-residents					
<b>Gross lending</b>	<b>1,309</b>	<b>4,403</b>	<b>1,504</b>	<b>7,508</b>			
<i>of which:</i>							
Belgium	57	183	14	254	3.4	3.3	3.4
Luxembourg	50	291	5	346	4.1	4.2	4.6
France	78	358	67	503	6.3	6.4	6.7
Germany	8	124	245	377	3.8	4.3	5.0
Italy	64	86	7	157	1.9	1.7	2.1
Netherlands	27	141	33	201	2.5	2.7	2.7
Switzerland	20	77	66	163	2.4	2.2	2.2
Swiss trustee accounts	..	..	..	292 (b)	3.1	3.4	3.9
United Kingdom	315	971	98	1,384	20.9	18.8	18.4
Other European countries	162	165	28	355	3.8	4.0	4.7
Canada	30	49	4	83	1.3	1.2	1.1
Japan:							
'Offshore' market	92	280	215	587	6.8	7.8	7.8
Other	406	253	203	862	14.2	12.9	11.5
United States							
International banking facilities	..	51	251	302	5.6	5.4	4.0
Other	..	14	261	275	4.5	4.0	3.7
'Offshore' banking centres	..	1,359	7	1,366	18.5	17.6	18.2

.. not available.

Source: BIS.

(a) The three components do not sum to the total, which also includes Swiss trustee accounts.

(b) End-November 1990.

### Analysis by currency

The dollar remained the most actively used currency in external lending during 1990 (Table E). The yen lost ground and was overtaken by the deutschemark which accounted for over 18% of all transactions during the year.

**Table E**  
Currency breakdown of external lending by BIS area banks<sup>(a)</sup>

Flows exclude estimated exchange rate effects; percentages in italic

	Flows			Outstanding at end-Dec. 1990				
	1988	1989	1990					
US dollar	172.0	47.7	257.8	43.2	185.8	38.2	2,939.2	50.2
Deutschemark	53.5	13.7	79.5	13.3	89.9	18.5	850.6	14.5
Yen	75.4	16.8	121.5	20.4	43.5	8.9	678.4	11.6
Swiss franc	-14.8	-1.5	-12.5	-2.1	5.9	1.2	284.3	4.9
Sterling	36.2	6.7	28.2	4.7	37.2	7.6	250.3	4.3
Ecu	23.5	5.1	24.6	4.1	23.8	4.9	194.6	3.3
French franc	7.4	2.2	17.5	2.9	38.1	7.8	164.9	2.8
Other (b)	49.6	9.3	80.2	13.4	62.8	12.9	488.9	8.4

Source: BIS.

(a) Excludes the lending of the 'offshore' banking centres for which currency detail is not available.

(b) Includes total non-dollar positions of banks in the United States for which no currency breakdown is available.

Sterling's share of international business increased to 7.6%. The private Ecu regained much of the ground lost in 1989, accounting for 4.9% of lending by BIS area banks. The dollar accounted for more than half of total external assets outstanding at end-1990. The deutschemark and the yen between them again accounted for a further quarter of outstanding external business.

### International banking business in London

The level of international business transacted in London has increased in the last two years. After claims had risen by

**Table F**  
Net cross-border banking flows

\$ billions: flows exclude estimated exchange rate effects

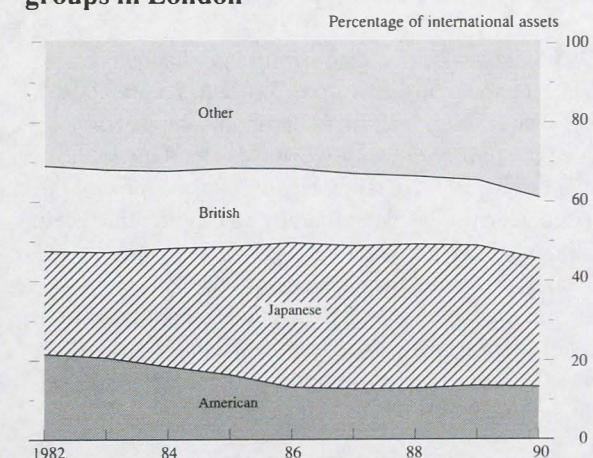
	Flows			Outstanding at end-Dec. 1990
	Net borrowing/lending (-)			
	1988	1989	1990	
<b>By residents of United States</b>				
Banks	13.6	13.3	28.1	77.4
Non-banks (a)	5.8	41.3	10.3	26.4
Total	19.4	54.6	38.4	103.8
<b>Germany, Federal Republic</b>				
Banks	-8.7	-29.6	-35.4	-144.2
Non-banks (a)	0.2	-22.0	23.8	30.1
Total	-8.5	-51.7	-11.6	-114.1
<b>Japan</b>				
Banks	23.3	-11.8	-29.7	7.9
Non-banks (a)	13.6	19.0	-72.5	-175.6
Total	36.9	7.3	-102.2	-167.7
<b>United Kingdom</b>				
Banks	27.6	25.3	28.5	132.3
Non-banks (a)	3.6	2.4	-1.2	-2.9
Total	31.2	27.7	27.3	129.4

Source: BIS.

(a) Net external flows vis-à-vis BIS-area banks.

only 4½% in 1988 they rose by 6% in 1989 and 8% in 1990. In spite of this increase, London's share of the international banking market as a whole declined from 20.9% at end-1988 to 18.4% at end-September 1990. While Japan continues to be the largest source of loans internationally, Japanese banks in London have seen an erosion in their share of business in the last two years, with their share of international assets falling from 36.4% at end-1988 to 32.2% at end-December 1990. The rapid growth experienced by the 'other overseas' group in the late 1980s has been maintained in the past two years to the extent that with 39% of all international assets at end-December 1990 they are now the largest 'nationality' group in London.

**Chart 1**  
International market shares of major bank groups in London



There has been an increase in net banking inflows into the United Kingdom in the past two years; UK banks' cross-border liabilities increased by 6.3% in 1989 and by 7.6% in 1990. Sterling's percentage share of these inflows increased from 9.7% at end-1989 to 11.3% at end-1990.

The steady increase in deposits with UK banks by overseas non-banks continued in 1989 and 1990; at end-December they represented 18% of UK banks' total international liabilities. The increase of \$45 billion in 1990 accounted for 39% of the increase in all liabilities for that year. Foreign currency liabilities to UK non-banks have seen a consistent increase throughout the nationality groups in 1989 and 1990. On the other hand, there has been a sharp decrease in the net supply of funds from other market sources, notably CD issues held by overseas residents which have fallen by \$9 billion during 1990—this in spite of net issues of \$9 billion by 'other overseas' banks and a small net positive issue by UK banks.

Figures for 1990 confirm the change in trend in international lending by *Japanese banks* in London first evidenced in the late 1980s. The rates of increase in their foreign currency business in the London interbank market and lending to their own offices overseas continued to slow compared with previous years. Having been lenders to overseas non-banks in previous years they reported a net decrease in lending of \$4.6 billion to this group in 1990. Previously, Japanese banks have been heavily reliant on CD issues, accounting for nearly half of the CDs issued by banks in London held by overseas residents in 1988. But 1990 saw a significant reversal in the trend as the stock of outstanding Japanese bank CDs held by overseas residents fell by \$8 billion. This contraction contributed \$14 billion to a fall in foreign currency liabilities in 1990.

*American banks'* share of international business in London continued on a marginally downward trend. Lending to their own offices remained their most important function in London. Foreign currency lending to UK non-banks continued to be a growth area although even this slowed in 1990 as did their activities in the interbank market. Like Japanese banks, American banks reduced the level of outstanding CDs held by overseas residents by \$6 billion over the twelve months ending December 1990.

Since 1985 there has been a gradual fall in *British banks'* share of international business from 20.6% to 15.5% at end-1990. The level of lending in particular showed a marked decline. More especially, overseas lending to all sectors fell during 1990. Claims on non-banks overseas continued to decrease last year thereby continuing the recent trend of them being significant net providers of funds to British banks. Although losing ground to the 'other overseas' and Japanese banks, British banks continued to be providers of foreign currency to non-banks in the United Kingdom. Overseas non-banks replaced overseas banks as the major suppliers of funds to British banks.

By far the greatest proportion of the increase in international lending by UK banks has been generated by the 'other overseas' banks, their business representing over 90% of the total increase in activity in 1990. Of this, the bulk of the business was transacted with their own offices overseas and

non-banks overseas while both these groups also have significant funds placed in London with the 'other overseas' banks. Their lending to UK banks, showing a healthy increase after two lean years, accounted for over 80% of all lending to that group last year.

## International capital markets

### Activity by market sector

#### International bonds

In the international bond markets,<sup>(1)</sup> total new issues remained broadly unchanged at \$263 billion. This aggregate figure masks a substantial shift in the instrument composition of borrowing. While new issues of straight fixed-rate and floating-rate debt rose from \$177 billion in 1989 to \$230 billion in 1990, new issues of equity-related bonds fell back sharply to \$33 billion. The latter reflected sharply reduced activity by Japanese borrowers, as a consequence of the weakness of the Japanese equity markets during 1990.

**Table G**  
**Announced<sup>(a)</sup> international bond issues**  
\$ billions

	1988	1989	1990
Fixed-rate bonds			
Straights	160.0	150.0	172.5
Equity-related bonds	41.8	85.1	33.1
of which:			
Warrants	29.7	69.6	22.6
Convertible	12.3	15.6	10.5
Bonds with non-equity warrants (currency, gold, debt)	1.2	0.5	0.1
Total fixed-rate bonds	203.0	235.6	205.7
Floating-rate notes	23.7	27.1	57.6
Total gross new issues	226.7	262.2	263.3
Repayments	82.6	89.4	108.5
<b>Total net new issues</b>	<b>144.1</b>	<b>172.8</b>	<b>154.8</b>

Source: Bank of England ICMS database, BIS.

(a) Difference in totals between this table and Table A reflect the difference between announcements and completions.

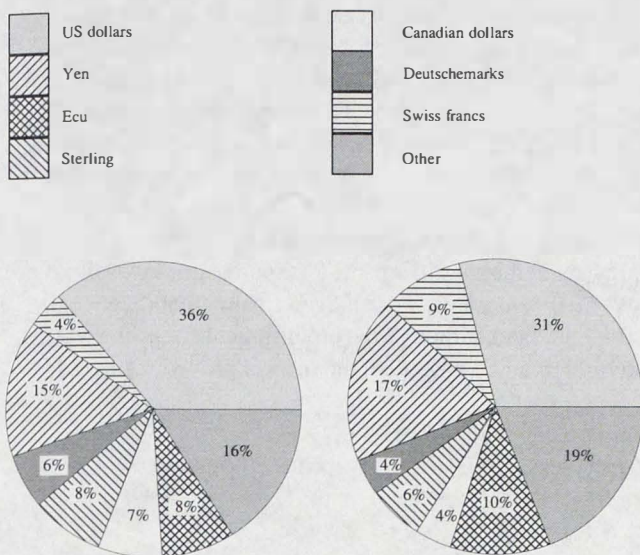
Turnover in the secondary eurobond market (fixed and floating-rate) increased in 1990 following three years of stagnation. The trading volume in eurodollar bonds was similar to that of 1989, but there was a sharp increase in the turnover of Ecu and yen eurobonds, and turnover of deutschmark FRNs doubled. The Ecu sector benefited from the launch of a number of large liquid benchmark issues and the associated increased institutional interest in the sector. The volume of trading in short and medium-term notes increased by 40%, to around a quarter of the size of the secondary eurobond market.

#### Straight fixed-rate bonds

The total volume of straight fixed-rate issues in the international bond markets rose by 15%, to \$173 billion, in 1990. This increase in primary activity was concentrated in the Swiss franc, Ecu, yen and French franc currency sectors. Activity remained robust for most of the year, being particularly buoyant in the fourth quarter when most major bond markets rallied.

(1) Eurobond markets together with other international issues of debt (ie foreign bonds issued in 'domestic' markets).

**Chart 2**  
Currency composition of announced straight fixed-rate international bonds



Source: Bank of England ICMS Database.

The share of the dollar sector in 1990 fell back to 30%, significantly less than in the period before 1987. The continuing depreciation of the dollar, a perceived worsening in corporate credit quality and the reversal of interest rate differentials between the United States and the other major industrial countries reduced the attractiveness of dollar-denominated issues to investors; and poor swap rates, for much of the year, reduced borrower interest. Nevertheless, the dollar sector was boosted by record borrowing in the Yankee (ie foreign) bond market (\$13 billion, within which companies borrowed \$5.8 billion, double the 1989 volume). The dollar sector also witnessed some large supranational and sovereign issues, as well as global securitised issues by banks attempting to take assets off their balance sheets. In April, the Securities and Exchange Commission approved Rule 144a which liberalised the US private placement market, by allowing immediate resale to 'qualified' investors, ie investors with a minimum of \$100 million invested in securities; banks and thrifts must in addition have net worth of \$25 million. Some interest appears to have been stimulated but this channel has not been widely utilised so far.

**Table H**  
Number of bookrunners, concentration levels, and commissions in the eurobond market

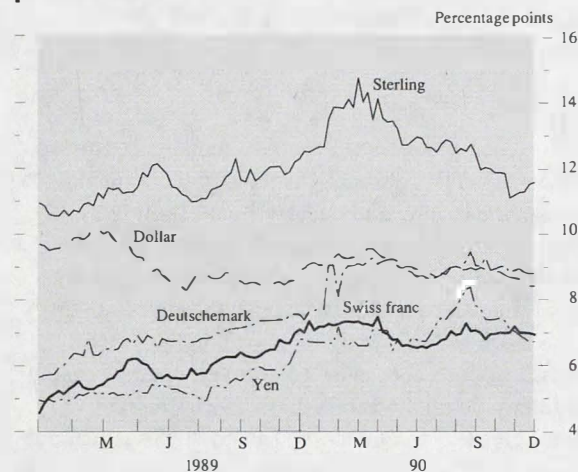
	No of bookrunners	Five firm concentration ratio (a)	Total issuance of eurobonds
1980	93	34	25.6
1981	88	38	29.1
1982	84	44	51.7
1983	88	47	49.5
1984	98	43	87.1
1985	108	37	137.1
1986	123	36	185.0
1987	121	36	141.6
1988	119	35	183.7
1989	116	43	223.7
1990	132	30	210.2

(a) Percentage share in total issues by the top five firms.

Yen-denominated straight fixed-rate financing in the international financial markets rose from \$23 billion in 1989 to \$30 billion in 1990. The increase reflected both a sharp increase in euroyen financing by Japanese companies (\$6.4 billion compared with around \$2 billion a year previously), reflecting the difficulties they had securing funds from more traditional sources; and record samurai bond issues (\$8.4 billion in 1990, within which were \$2.5 billion of reverse dual currency samurai bonds). The latter instruments were typically structured to pay coupons in Australian dollars, while redeeming the principal in yen. The yen markets were supported by strong international investor demand, particularly (but not exclusively) in the later part of the year in response to the strength of the yen, historically high interest rates and a reported feeling among some European investors that they were underweight in the currency.

The issue of fixed-rate international deutschemark bonds, which had peaked in 1988 at \$21 billion, contracted for the second successive year, to \$7 billion, against the background of increased public sector issuance of fixed-rate debt in the German domestic market, rising yields on deutschemark instruments and the uncertainty generated by German

**Chart 3**  
International bond yields: 5-year bonds, prime borrowers



Source: Salomon Brothers.

unification. Activity in deutschemark instruments was instead concentrated in floating-rate notes. The uncertainty surrounding the deutschemark appeared to boost issuance in other ERM currencies. In the period 1986 to 1988 deutschemark fixed-rate issues exceeded those of the French franc, Ecu, Italian lira and Luxembourg franc in total. In 1990 all these currencies had record years, with Ecu and French franc primary activity each exceeding that of the deutschemark.

In 1989 houses had been looking to broaden institutional interest in the Ecu sector. In the first quarter of 1990 the Ecu became an attractive alternative to the deutschemark for investors because it was perceived as a relatively stable means of investing in Europe with a modest exposure to German risks; interest in the prospects of economic

integration also played a part. Two large issues in this period, by the EIB and the Republic of Italy, created large liquid benchmarks which investors could trade. As the year developed, interest in the Far East and North America increased to complement the traditional interest of European investors.

Euro-French franc issuance benefited as international investor confidence in French economic policy developed, and differentials narrowed between deutschemark and French franc interest rates, interrupted only in the period immediately after the onset of the Middle East crisis. The majority of issuers were French companies. The year saw the first French franc issue lead managed by a non-French house. The Italian lira and Spanish peseta also became more attractive to investors, reflecting the view that, in the medium term, interest rates in these high yielding currencies would fall as there was greater monetary convergence in Europe. Supranational bodies took advantage of the strength of demand for these currency sectors, issuing and then swapping into other currencies. In the sterling markets, issuance had been significantly below previous years until ERM entry in October and the associated rally in the bond markets led to a surge of issues in the final months of the year. Issues in the straight fixed-rate Swiss franc sector totalled a buoyant \$15 billion, following a depressed year in 1989. As with other European currencies, the Swiss franc sector benefited from the uncertainty surrounding deutschemark interest rates.

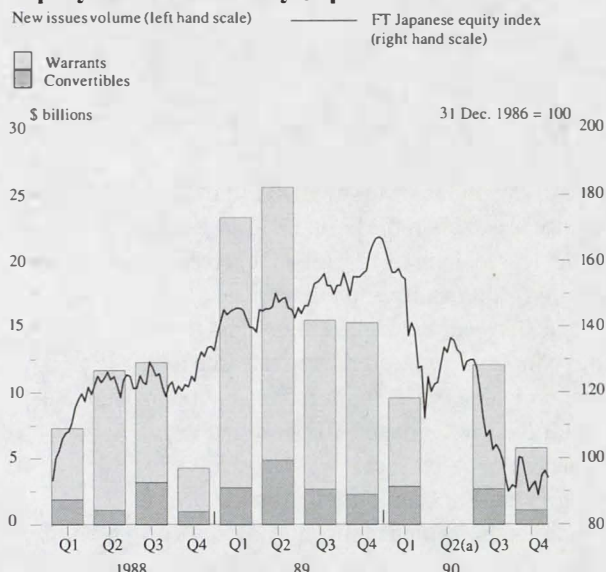
The process of deregulation in European markets continued. In January 1990 the Bundesbank dismantled the remaining restrictions on the issuing and underwriting of foreign currency bonds and notes by German residents. Until then residents could only issue foreign currency bonds through a non-resident financial subsidiary, ie outside Germany. In Finland, the Bank of Finland lifted its ban on the sale of Finnish markka bonds abroad on 1 February, opening up the market to international investors. In the Swiss market, participants agreed to deregulatory steps in the Swiss capital markets including abandonment of the 'loyalty clause' of the syndication agreement between Switzerland's three largest banks and twenty-two other member banks. The latter change may bring more competition to the Swiss market. On 1 July the bond markets in Luxembourg were liberalised, with abolition of the ceiling on the size of private and public placements and of the queuing system for issues in the public market.

Among other high yielding currencies, reinvestment of redemption flows underpinned the primary issuance in the Australian dollar for most of the year. In contrast the Canadian dollar sector was depressed by concerns about the currency, interest rates and, in the second quarter, political uncertainty surrounding the Meech Lake accord. In the fourth quarter there was the first global bond in the Canadian dollar market, a C\$1.25 billion issue delivered in both Canadian and European settlement systems.

### Equity-related primary activity

The sharp reduction in equity-related bond issues was one of the main features of primary activity in the international bond markets in 1990. New issues of cum-warrant bonds fell from a peak of \$85 billion in 1989 to \$33 billion in 1990, the lowest total since 1986. The sharp fall in prices on the Tokyo Stock Exchange (TSE) in late February led to an almost immediate reduction in new issues of equity warrant bonds. As a result of the difficult conditions, Japanese securities houses introduced a moratorium on new equity-related issues in April. The moratorium was lifted in July, when conditions were judged to have stabilized sufficiently and, although the environment for primary activity remained unsettled, the market proved resilient.

**Chart 4**  
Equity-related issues by Japanese borrowers



Source: FT actuaries world index and Bank of England ICMS Database.

(a) Equity-related issues suspended.

In the early months of the year the market was unsettled by proposals from the Japanese Ministry of Finance (MoF) that all Japanese equity warrant bonds should be registered locally and listed on the Tokyo Stock Exchange in order to improve price transparency. Primary and secondary market participants both in London and in Tokyo were concerned that the proposed changes would reduce secondary market liquidity. By early March 1990 the registration requirement had been introduced (with less impact on the market than feared), while in September an inter-dealer broker system and tighter disclosure rules were introduced to improve price transparency.

### Floating-rate notes (FRN)

The floating-rate note market, which had been depressed since difficulties arose in the perpetual FRN market at the end of 1986, made a strong recovery in 1990. Total issuance at \$57.6 billion was a record. While interest rate uncertainty in a number of countries made the instrument more attractive to borrowers and investors, two developments were particularly responsible: the special circumstances in

Germany affecting the Staatsbank (the old East German central bank); and the need for capital by Japanese banks.

In Germany, unification increased FRN issuance directly, in terms of East Germany's immediate funding requirements, and indirectly, through the uncertainty it generated for interest rates. In these circumstances, borrowers in deutschemarks tended to utilise the FRN structure, including the use of the fixed rate/reverse FRN structure<sup>(1)</sup> whereby there is a switch from fixed-rate to floating-rate coupons within the life of the bond—a characteristic which appealed to investors who believed that German interest rates would fall in the medium term as unification costs diminished. Even excluding the large borrowing by the Staatsbank in the third quarter (DM24 billion, or \$15 billion), issues of deutschemark FRNs were a record \$8.2 billion in 1990.

The other major factor underlying the substantial increase in FRN primary volumes was the efforts made by Japanese banks to improve their capital adequacy position before the end of the Japanese accounting half-year in September. In July, the MoF gave Japanese banks the right, previously denied, to raise capital through subordinated bond issues (in foreign currency in overseas markets) to boost their capital positions. The MoF required that the issues be launched either through foreign subsidiaries (for the long-term credit banks) or through other indirect conduits (for the city banks). Japanese banks took full advantage of their new, if temporary, source of capital, and raised \$6.9 billion of subordinated FRN issues in 1990, mostly in the third quarter.

### Euronotes

The volume of new euronote facilities announced during 1990, at \$73 billion, was broadly unchanged from the level recorded in the previous year. In contrast, Euroclear estimate that the stock of euronotes outstanding grew sharply from \$79 billion at end-1989 to \$111 billion at end-1990. The most notable increases in issues outstanding were in euro medium-term notes (EMTNs) (up to \$22 billion from \$10 billion) and short-term committed paper (up to \$19 billion from \$11 billion), the latter mainly after the onset of the Gulf crisis. The increase in spreads seen on new borrowings would have encouraged borrowers to utilise existing facilities. More generally, the overall increase in euronotes outstanding may be attributed to the steady

decline in short-term interest rates in a number of countries, but particularly the United States, which led to a steepening in yield curves and an increase in the relative attraction of short-term funding.

Intense competition in the eurocommercial paper (ECP) market led to the withdrawal of four houses in 1990 following two in 1989. Despite the decline in competition, the market is still believed to be relatively unprofitable and firms are reported to be much less willing to bid for low-return management positions on facilities. There have been reported movements towards a fixed-commission system, and firms have been seeking higher arrangement fees for new programmes. These steps may improve profitability but perhaps at the expense of the ECP market's competitiveness relative to the US CP market. The trend towards greater use of credit ratings continued, with a notable flight to quality among investors following the spate of defaults in the ECP market in 1989. Dealers report that 90% of new programmes are now rated.

One notable trend in the euronote market was the growth of the EMTN market, where the typical maturities range from one to five years. The EMTN market had previously suffered from a shortage of supply and a lack of liquidity. However, over 1990, the advantages of the instrument in terms of its flexibility were more widely recognised. EMTN programmes allow borrowers to tap specific pockets of investor demand at short notice. In line with liberalisations which have opened up or eased the access to MTN markets, there has been a movement by borrowers away from their traditional sources of EMTN funding, namely the dollar, towards a more diversified currency base. A significant number of MTN facilities announced in 1990 were global facilities, some of which took advantage of the regulations introduced in the United States. The Abbey National became the first borrower to launch a programme under Rule 144a last June.<sup>(2)</sup> There has also been a tendency towards borrowers launching EMTN programmes with longer maturities than in the past, giving rise to an increased substitutability of MTN programmes with medium-term bond issues.

Domestic and offshore markets for short-term note issues were liberalised further in 1990. Earlier in the year the Bank of England allowed UK corporations to issue sterling MTNs, while in April the Japanese Ministry of Finance (MoF) announced amendments to its regulations on CP issues by domestic firms which allowed securities firms to issue such instruments for the first time. The MoF also broadened the market by lowering the rating and capital requirements for CP corporate issues and permitted Japanese residents to issue ECP. Liberalisation by the Finnish authorities allowed the launch of the first Finnish markka EMTN programme,

**Table J**  
**Announced euronote facilities**

\$ billions

	1988	1989	1990
ECP/ECDs	56.4	50.1	47.8
NIFs/RUFs	10.6	10.3	3.0
MTNs (a)	16.3	12.2	22.1
<b>Total</b>	<b>83.3</b>	<b>72.6</b>	<b>72.9</b>

Source: Bank of England ICMS database.

(a) Includes ECP with MTN option and global MTNs.

(1) Fixed-rate/reverse FRNs are bonds which switch from paying fixed-rate to floating-rate coupons within the life of the bond. The floating rate is set as the difference between a constant (eg 15%) and the prevailing floating rate. Thus, when the bonds revert to floating-rate payments, investors would receive a coupon payment which varied inversely to floating rates. This profile of returns appealed to investors who believed that German interest rates would fall in the medium term.

(2) Although foreign issuers of MTNs in the United States are generally required to pay a premium to compensate for the unfamiliarity of their names, US offerings can be cheaper than the euromarkets at times for highly rated international borrowers, particularly when, as in the fourth quarter, the domestic US markets are rallying strongly.



while in December Germany announced that it would be repealing the legislation which had previously prevented the development of a domestic deutschmark CP market.

### International syndicated credits

In the international syndicated credits market, the volume of new announcements in 1990 increased to a record \$165 billion, 8% higher than in 1989, despite the difficult conditions which predominated in the market for much of the year. In the first half of 1990 it became apparent that banks were being increasingly cautious in their lending strategies, particularly on leveraged buyout loans, as they

**Table K**  
**Announced eurocurrency syndicated credits**  
\$ billions

Country of borrower:	1988	1989	1990
Major OECD	70.9	98.6	94.0
Minor OECD	18.3	25.8	28.8
International institutions	0.1	0.1	0.3
East Europe	1.2	2.2	12.1 (a)
Developing countries	9.3	25.0	30.0
<b>Total</b>	<b>99.8</b>	<b>151.7</b>	<b>165.2</b>

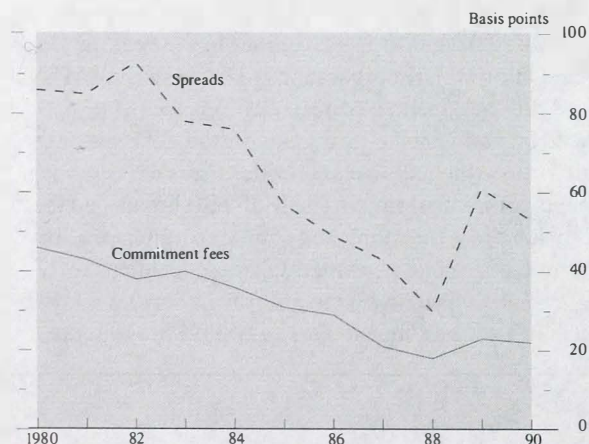
Source: Bank of England ICMS database.

(a) Of which \$5.3 billion was East German borrowing.

attempted to improve the quality of their balance sheets. In the summer, deals for some Asian countries and a few large loans for Eastern Europe boosted volumes, but the onset of the crisis in the Middle East caused a severe contraction in the number of new credits announced, as market participants took stock of the possible effect of the crisis on both borrowers and lenders. In the fourth quarter the credits market recovered owing to some large deals for good quality borrowers.

The increase in margins on corporate syndicated credits which began in 1989 was maintained in 1990. Unlike 1989, when the increase was due in part to the amount of highly leveraged merger and acquisition (M&A) deals, in 1990 it reflected a general move towards more realistic pricing levels for higher quality borrowers. This was particularly

**Chart 5**  
**Commitment fees<sup>(a)</sup> and spreads<sup>(b)</sup> in the syndicated credits market**



Source: Bank of England ICMS Database.

(a) Average commitment fee for eurodollar loans to corporates.

(b) Average spread on eurodollar loans to corporates.

true after the onset of the Middle East crisis when the participation of banks—especially Japanese and US banks—in the credits market became more selective. The change in market conditions was reflected in the repricing of a number of deals during syndication, because of banks' unwillingness to participate in credits at the tight margins which were initially indicated. The level of borrowing by the corporate sector remained almost unchanged at \$125 billion, despite a sharp fall in the volume of M&A related credits, from \$57 billion in 1989 to \$29 billion in 1990.

Another response of the banking sector to the changing market conditions has reportedly been to increase the number of bilateral and 'club' deals—a return to relationship banking. Borrowers find such deals attractive as they seek to strengthen relationships with fewer banks in tougher market conditions. Indeed there has been an increased awareness on the part of borrowers of the problems being faced by banks. For instance, some of the repriced deals referred to above were fully underwritten, at the original margin, but the borrowers allowed the credits to be repriced to avoid an unsuccessful syndication. For banks, relationship deals are said to provide wider margins.

In an effort to improve the quality of their balance sheets, an increasing number of banks have reportedly been selling loans in the secondary market. However, the scope for such action is uncertain—views differ about whether the European secondary market is likely to grow along the lines of the much larger US market. While banks may want to improve the quality of their balance sheets, they may not be prepared to sell loans which were syndicated at tight margins at a discount in the secondary market, implying a capital loss. Some borrowers have also expressed doubts about the desirability of the further development of the secondary loan market owing to worries about the quality of the banks which could potentially take over their loan and a possible negative impact on the relationship between the selling bank and the borrower.

### Review of borrowers

In 1990, the largest group of borrowers in the international capital markets was the major OECD countries, raising \$308 billion, just over \$20 billion less than in 1989. Borrowers from the United States and Japan sharply reduced their financing, but this was partially offset by increased activity by entities in the United Kingdom, France and Italy.

The decline in borrowing by US borrowers was largely concentrated in the syndicated credits market. The fall in merger and acquisition activity meant that borrowing by the US corporate sector fell sharply to \$14 billion, from \$47 billion in 1989. However, large securitised issues by US banks and financial institutions led to an increase in US borrowing in the bond markets. The US corporate sector however raised only \$10 billion of international bonds, the lowest total since 1983, perhaps reflecting the generally recessionary conditions and the credit downrating of many US companies last year. The available evidence also suggests that fund-raising in their domestic market was also

**Table L**  
**Total borrowing activity by country grouping**

\$ billions, at quarterly rates

	1988	1989	1990
OECD	91.6	106.5	100.2
of which:			
United States	10.0	18.9	12.9
Japan	14.9	26.1	16.7
United Kingdom	18.5	13.2	15.5
Developing countries	2.5	5.5	6.3
Oil producers	0.8	1.5	2.7
USSR, China and Eastern Europe	1.5	1.6	8.3
International institutions	5.9	6.5	7.9
<b>Total</b>	<b>102.3</b>	<b>121.6</b>	<b>125.4</b>

Source: Bank of England ICMS database.

subdued, in part because of the collapse of the junk bond market.

The Japanese had been very heavy borrowers in the international markets in 1989, with a flow of equity-related issues by Japanese corporates. In 1990, with conditions depressed for the latter market, there was a sharp decline in issues but securities houses and other companies managed to maintain some activity and altogether there were \$27 billion of equity-related bond issues by the Japanese corporate sector. In addition, corporate borrowers raised a record amount of fixed-rate euroyen bonds (\$6.4 billion). The Japanese authorities announced measures which would allow corporate borrowers easier access to the domestic bond markets, but market conditions were difficult and the volume of domestic issues was at its lowest since 1986. Japanese borrowing in the FRN market was boosted by capital-raising activities of the Japanese banks.

There was a noticeable increase in total financing through the international capital markets by borrowers from most of the major European countries. Funds raised by UK, French and Italian borrowers totalled \$126 billion, compared with \$96 billion a year earlier. Total government borrowing by all countries in the international markets rose to its highest level since 1986, with the French and Italian governments borrowing heavily in Ecus. In addition, French companies took advantage of the improved investor sentiment towards

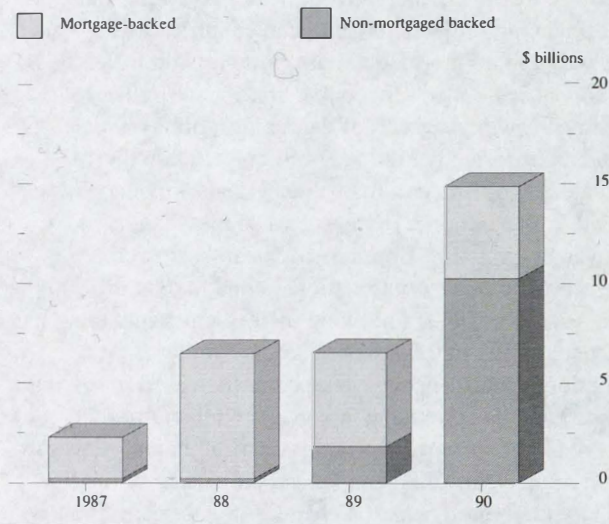
the French franc to issue international bonds in that currency, while in the early months of the year Italian financial institutions were very active in the syndicated credits market, the majority of deals being related to the property market. UK companies were active in the syndicated credits market, with acquisition finance slightly above the 1989 total at \$11 billion.

Supranational bodies were heavy borrowers in the international markets, raising a record \$31.6 billion. Their top credit rating attracted investors. As well as in the major currency sectors, the supnationals were active in smaller markets such as Portuguese escudos, Austrian schillings, New Zealand dollars and Norwegian kroner, probably swapping the proceeds into major currencies. In 1990, borrowing by Eastern European countries was dominated by refinancing of the debt of the old East German central bank, the Staatsbank. In total this amounted to DM32 billion. There was also a large \$3 billion credit to Vnesheconombank from a syndicate of German banks, 90% guaranteed by the German government. Except for these deals, financing for Eastern European countries was sparse. There was a sharp increase in borrowing by South-East Asian countries, reflecting relative confidence in the economic growth prospects of the region. Bonds issued totalled an historically high \$2.2 billion, while in the syndicated credits market the value of deals announced doubled to \$12 billion. There were also initial signs of improvement in Latin America. Mexican borrowers successfully tapped the international bond market in 1990 on a number of occasions, following their re-entry into the markets in 1989. In total they raised \$4.0 billion. International confidence in Mexico has increased following several years of economic adjustment and the introduction of a debt reduction programme under the Brady plan. Towards the end of the year, Chile announced the raising of the first voluntary unsecured bank loan to a Latin American country since 1982 and also its imminent return to the eurobond markets.

## Asset-backed bonds

The growing emphasis on the cost of capital in banking, stimulated by the BIS capital adequacy standards, sharply increased interest in asset-backed bond issues (also known as securitised deals) in the international markets in 1990. Total volumes of \$15 billion were over twice the 1989 total. In addition, the type of instruments securitised broadened beyond the common mortgage, to encompass a wide range of assets including credit card loans, car loans, junk bonds, relocation funding loans and student loans (many of which have been used for some time in the United States). The volume raised by non-mortgage securitised issues rose from \$1.8 billion in 1989 to \$10.2 billion in 1990.

### Asset-backed issues since 1987



### The benefits of securitisation

Securitisation is a technique which is used, particularly by financial companies, to raise funds through the issue of marketable debt secured against companies' existing assets or future earnings. Assets of an illiquid nature can thus be securitised and readily sold so as to improve firms' liquid capital. In addition, borrowers or intermediaries may be able to earn a regular income stream, through any fees paid for administering an issue. To the investor, securitised issues usually offer the credit quality of legal claims over specified assets, and historically pay higher yields than those available on straight bonds of equivalent credit quality. Investors may also be able to diversify their portfolios relatively quickly by obtaining exposure to a business activity to which they would otherwise have limited access (for instance, to business in a geographical area outside a bank's branch network). More generally, securitisation permits the exploitation of comparative advantage between those who specialise in the origination of loans, and those who have capacity to take additional assets onto their balance sheet.

### The securitisation process

The first stage in the securitisation process is the segregation of assets, by the *sponsor*, into pools which are relatively homogeneous with respect to credit quality, maturity, and interest rate risk; a procedure which will usually require highly efficient computer systems. The sponsor will then transfer this pool of assets to a *trust* (or issuing vehicle) which he has specifically established. This trust issues the securities to investors, and would normally be *bankruptcy remote*, ie in the event of the originator's bankruptcy the pledged assets would remain in place to service the issue on the original terms. Each issue of asset-backed securities has a *servicer* responsible for collecting interest and principal payments on the loans or leases in the underlying pool of assets, and for transmitting these funds to investors (or a trustee representing them). Such a trustee will monitor the activities of servicers to ensure that they properly fulfil their role.

### Credit enhancement

A *guarantor* may also be involved to ensure that principal and interest payments are received by investors on a timely basis, even if the servicer is unable to collect these payments from the underlying pool of assets. Privately issued mortgage-backed securities and other types of asset-backed issues generally rely on some form of credit enhancement provided by the originator or a third party to insulate the investor from some or all of the credit risks and so ensure a high credit rating, in most cases triple A. Usually credit enhancement is provided for several multiples of historic losses experienced on the particular asset backing the security. This might be achieved by the insurance of cash flows from the pool by a third party, through the use of stand-by letters of credit or insurance policies covering a proportion of the issue. An alternative technique is 'overcollateralisation'. This involves backing an issue of securities with underlying assets, the value of which exceeds the face value of the securities. A similar principle underlies the senior-subordinated structure, which involves the issue of at least two classes of asset-backed security, with the senior tranche(s) having a prior claim on the cash flows from the underlying pool of assets.

### The structure of asset-backed issues

Although more intricate structures now exist, most asset-backed issues are structured as either pass-through or pay-through securities. Under the pass-through structure, the owner of the security is provided with a pro-rata ownership share in the underlying asset pool. The issuer of the pass-through instrument primarily acts as a conduit for the investors by collecting and distributing, on a pro-rata basis,

payments of both interest and principal from the underlying asset pool. However, the possibility of prepayment means that both the payments stream and the maturity of such a security are uncertain.

The more complicated pay-through structure uses the cash flow from the underlying asset pool to collateralise the asset-backed securities. Pay-through securities offer investors a greater choice (and certainty) of maturity. This is accomplished by separating securities into different classes (with differing maturities and coupons), and reallocating the income from the pool of underlying assets to individual securities on the basis of class. These classes of security may then be retired in sequence. This reduces the uncertainty of the payment stream and the maturity associated with pass-through securities, as investors can choose to purchase a fast maturing or slow maturing tranche, depending on their preferences. The pay-through structure is now utilised on both mortgage and non-mortgage asset-backed deals.

### The asset-backed market's prospects

A number of factors are likely to influence the future development of the asset-backed sector. First, structural and supervisory factors remain important considerations in most securitised asset markets. For example, in both the United

Kingdom and the United States, supervisory capital standards for banks currently allow a 50% weight on mortgage-backed bonds, reflecting the weight on the underlying mortgages. However, on implementation of the Solvency Ratio Directive in January 1993, the risk weighting on mortgage-backed issues in the UK will rise from 50% to 100%, unless the Directive is amended. Similarly, regulatory barriers to securitisation remain an important consideration, despite successive liberalisations over the last three years.<sup>(1)</sup> Indeed even where facilitating legislation is passed, as in France in 1989, technical difficulties can restrict issuance. Second, the aversion of some international investors to the relative complexity, and prepayment risk,<sup>(2)</sup> of asset-backed deals remains a significant influence. A third important factor is the performance of the underlying assets: the current more difficult economic environment may raise the cost of the technique, and test the durability of the structure. In the fourth quarter of 1990, there was a marked deterioration in the delinquency rates associated with the underlying asset pools, because of recession in a number of countries. This, as well as the sustained high level of new issues in 1990, led to widening in spreads over government securities in the fourth quarter of 1990, to well over 100 basis points, a wide spread for triple A rated issues. However, while capital remains expensive and difficult to raise, interest in the technique is likely to continue.

(1) For example, in October 1990 the Japanese Ministry of Finance gave permission for eleven securities houses to sell and securitise US credit card debt.

(2) Prepayment risk is the risk that an investor will be forced to reinvest cash flow from an issue (resulting from the early repayment of debt supporting the security) at a lower rate than the yield of the original investment.