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INTRODUCTION

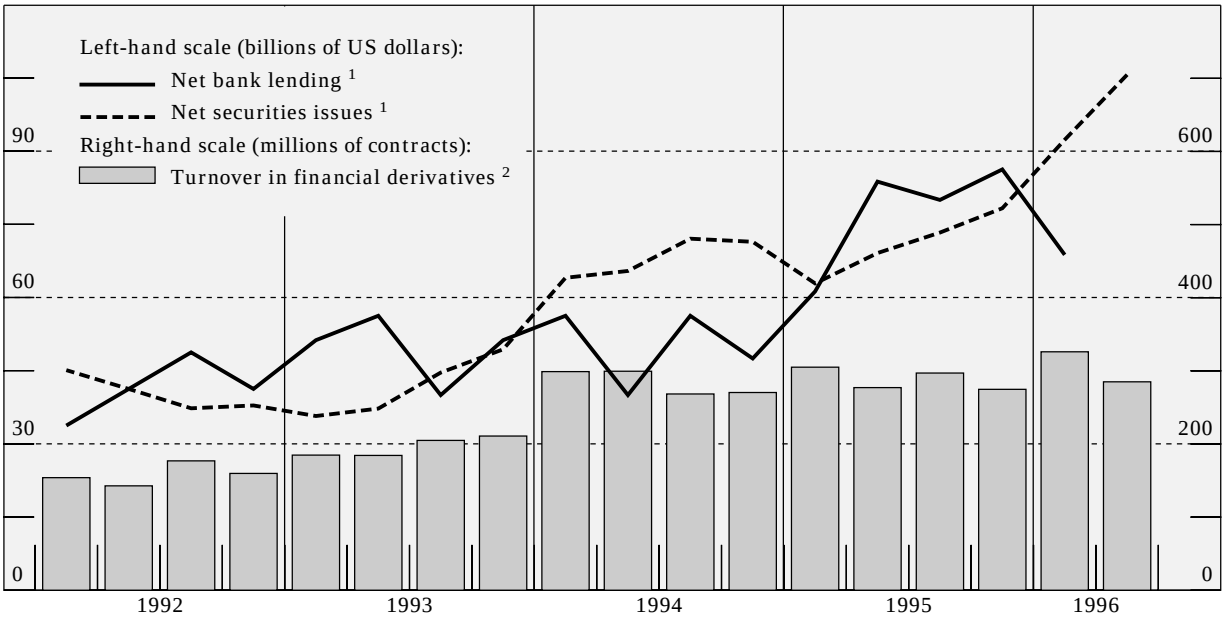
This commentary on recent developments in international banking, securities and global derivatives markets is based on partial information available for the second quarter of 1996 and on more detailed banking data for the first quarter. It is divided into four parts. Part I provides an overview of total international financial market activity and of the main underlying trends that appear to have emerged in recent months. Part II deals with the international banking market, using information on syndicated loan facilities for the second quarter of 1996 and the more detailed BIS international banking statistics, which are available up to end-March only. It includes (in Appendix 1) an appraisal of changes in the composition of international bank lending by nationality group of reporting banks over the last ten years. Part III concentrates on developments in international securities markets in the second quarter of 1996. It incorporates (in Appendix 2) a description of the key features of international securities issuance by borrowers from developing countries, as well as (in Appendix 3) an assessment of prospects for a single pan-European government bond market. Part IV covers activity in derivatives markets, focusing primarily on exchange-traded instruments, for which comprehensive and up-to-date statistics are available. It also describes briefly (in Appendix 4) the new market for credit derivatives, which has aroused widespread interest recently, but whose further development raises a number of questions regarding standardisation of market practices and regulation.

I

OVERVIEW OF RECENT INTERNATIONAL BANKING AND FINANCIAL MARKET DEVELOPMENTS

The upward movement of major long-term interest rates which began earlier in the year moderated in the second quarter. While US dollar interest rates moved significantly above German rates, the interest rate differentials between high-yielding European Union (EU) currencies and the German mark narrowed further. In addition to some loss of attraction of German mark assets and a more positive perception of the prospects for European economic and monetary union (EMU), the strengthening of high-yielding EU currencies against the German mark also reflected indirectly an improvement in sentiment vis-à-vis the dollar (which strengthened against both the German mark and, following a temporary setback in April, the yen).[1] Against this background, the volatility of interest rates and exchange rates tended to decline, which, combined with the high level of global liquidity, served to facilitate international financing. This in turn alleviated fears of a rerun of the global bond market reversal of February 1994.

Total international financing



[1] Four-quarter moving averages. [2] Financial derivatives traded on organised exchanges.

Sources: Bank of England, Euroclear, Euromoney, Futures Industry Association, International Financing Review (IFR), International Securities Market Association (ISMA), national data and BIS.

Data on international securities market activity during the second quarter of 1996 show a record volume of net new financing, with a record volume of developing country debt financing and a recovery in European public sector issues. While the growing sophistication of borrowers continued to favour issues launched under the umbrella of euronote facilities, improved sentiment about the US dollar and non-core European currencies shifted the currency composition of issues in their direction. Although the more defensive attitude of investors with respect to market risk was reflected in a higher proportion of floating rate and shorter-term paper, the growing number of lower-rated borrowers accessing the market, together with reduced spreads and longer maturities, provided an illustration of investors' greater tolerance for credit risk. Admittedly, a more active use of derivatives to hedge

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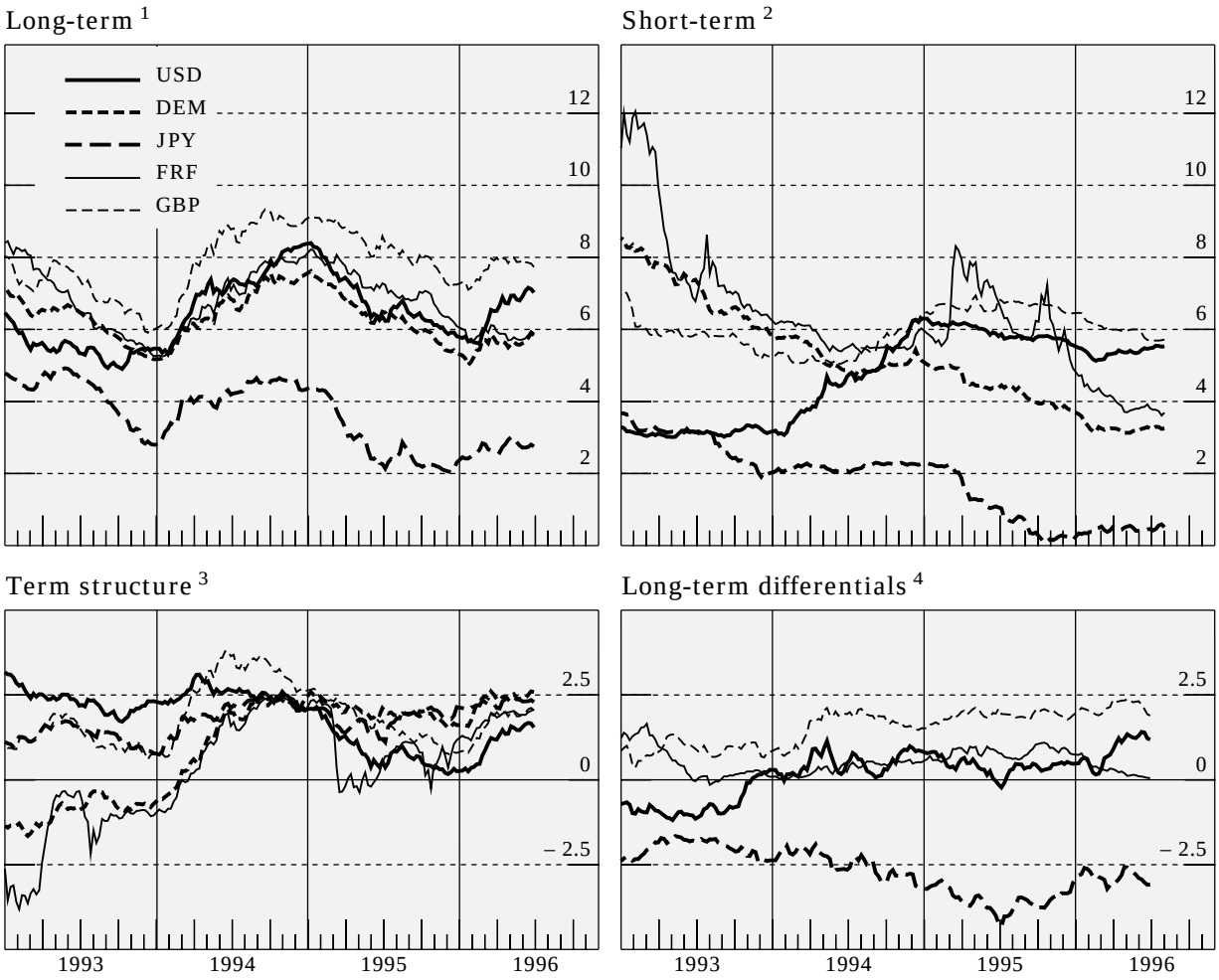
[1] See Chapter VI of the 66th BIS Annual Report, which analyses the nature of this relationship in recent years.

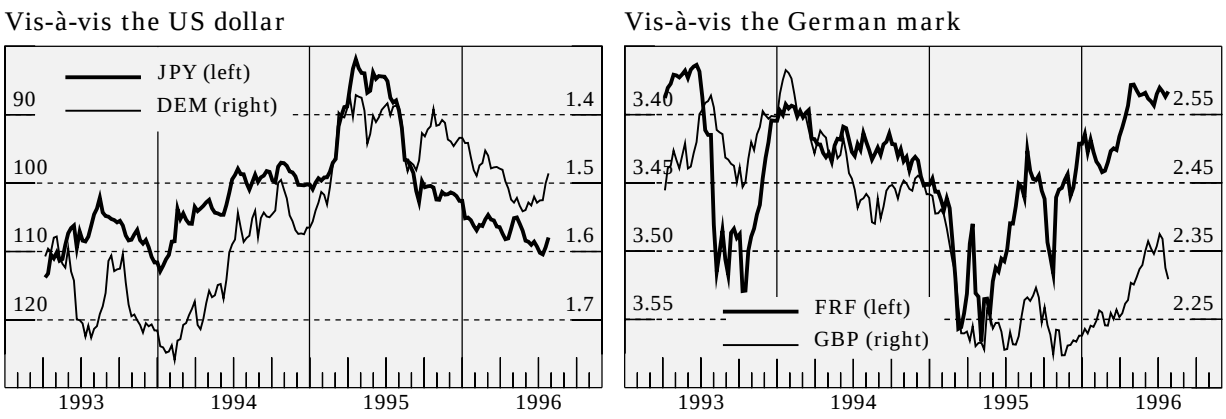
market risks may have encouraged the participation of a broader spectrum of investors. However, one could also ask whether the very loose conditions which have characterised the international syndicated loan market for some time are not now spreading to the international securities market as well.

International long and short-term interest rates

Weekly averages, in percentages and percentage points



Bilateral exchange rates



[1] Yields in annual terms on five-year interest rate swaps. [2] Three-month euromarket interest rates.

[3] Long-term rates minus short-term rates. [4] Vis-à-vis German long-term rates.

Source: BIS.

More detailed figures on international banking activity now available for the first quarter of 1996 shed light on differences between the bond market reversals that took place in early 1994 and 1996. The most significant difference was that, despite the accelerating pull-back of Japanese banks in 1996, there was no massive unwinding of borrowing by banks' customers. This confirms earlier evidence of a considerably smaller overhang of leveraged exposure than before the interest rate shock of 1994. The international banking market was able to accommodate maturity and currency shifts without undue strain. Nor was there any drying-up of banking funds for developing countries, the loss of momentum recorded in the pace of such lending being more demand than supply-driven.

The continuing ample availability of international banking and securities financing to emerging market borrowers since the beginning of the year points to new factors influencing such flows, as explained in Appendix 2 of this commentary. At a general level, it could be argued that the expected tightening of US short-term interest rates was already discounted, and that the diversification of international investment flows in a context of greater exchange rate stability acted to some extent as a buffer against the upward trend of interest rates. Other recent international financial developments highlighted in this commentary include: the evolving strategy of countries faced with large short-term capital inflows (pages 8-11); the changing role of major national banking groups (pages 12-14); the prospects for a single European government bond market, as reflected in current market conditions (pages 28-31); and issues relating to the new market for credit derivatives (pages 36-40).

Estimated net financing in international markets[1]

In billions of US dollars

Components of net international financing	1994	1995				1996		Stocks at end-
	Year	Year	Q2	Q3	Q4	Q1	Q2	March 1996
Total international[2] bank claims[3]	272.9	681.5	167.5	101.2	93.0	91.7	..	9,342.9
minus: interbank redepositing	82.9	336.5	92.5	41.2	38.0	6.7	..	4,542.9
A = Net international bank lending[3]	**190.0**	**345.0**	**75.0**	**60.0**	**55.0**	**85.0**	**..**	**4,800.0**
B = Net euronote placements	**140.2**	**192.4**	**52.6**	**57.8**	**45.9**	**56.6**	**74.3**	**643.1**
Completed international bond issues[4]	373.6	359.9	79.9	101.9	103.6	130.0	124.7	
minus: redemptions and repurchases[4]	228.1	239.2	58.2	60.4	65.8	74.5	71.2	
C = Net international bond financing[4]	**145.5**	**120.8**	**21.7**	**41.5**	**37.8**	**55.5**	**53.4**	**2,231.1**
D = Total international financing[5]	**475.7**	**658.2**	**149.4**	**159.3**	**138.6**	**197.1**	**..**	**7,674.2**
minus: double-counting[6]	60.7	118.2	39.4	29.3	8.6	52.1	..	1,184.2
E = Total net international financing	**415.0**	**540.0**	**110.0**	**130.0**	**130.0**	**145.0**	**..**	**6,490.0**

[1] Changes in amounts outstanding excluding exchange rate valuation effects for banking data and euronote placements; flow data for bond financing. [2] Cross-border claims in all currencies plus local claims in foreign currency. [3] See notes to Table 1 of the statistical annex. [4] Excluding bonds issued under EMTN programmes which are included in item B. [5] A + B + C. [6] International securities purchased or issued by the reporting banks, to the extent that they are taken into account in item A.

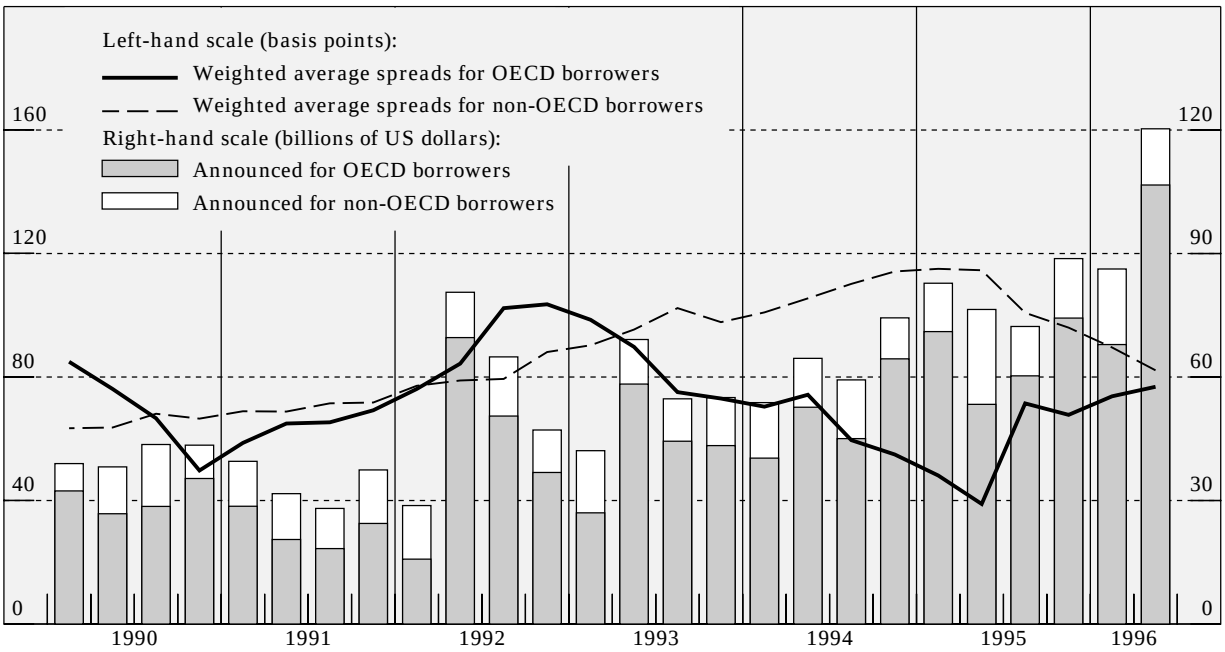
II

THE INTERNATIONAL BANKING MARKET

Main features

Total announcements of international syndicated loan facilities reached a record level in the second quarter of 1996 (see Annex Table 8). Activity was supported by a large number of structures arranged for a wide variety of entities, including, in particular, sizable merger and acquisition-related deals in the United States and the United Kingdom, a Fr.fr. 60 billion ($12 billion) banking facility for the Caisse d'Amortissement de la Dette Sociale (CADES), a French state entity set up to help finance the country's social security system (see also the section on securities markets), and an apparent switch to syndicated credits by second-tier financial institutions from developed and developing countries. In spite of market participants' expectations of a slowdown in refinancing transactions from the high levels seen in 1995, various sources indicated that the volume of such facilities continued to be substantial. There were also market reports indicating that banks were beginning to show some signs of resistance to a further easing of conditions, but there was little actual evidence that this was having any impact on the pricing of new facilities. In fact, ample liquidity and the growing participation of non-bank lenders helped to keep spreads offered to creditworthy OECD country borrowers at historically low levels. For example, the five-year portion of the CADES facility, at 6 basis points over PIBOR, carried some of the finest terms seen in the market. The increase in the average spreads paid by OECD borrowers since mid-1995 (see the graph) largely reflects the higher proportion of merger-related facilities. At the same time, emerging market borrowers have continued to benefit from an erosion of margins.

Announced facilities in the international syndicated credit market and weighted average spreads *



* Four-quarter moving average of spreads over LIBOR on US dollar credits.

Sources: Bank of England, Euromoney and BIS.

Detailed international banking statistics available for the first quarter indicate that, despite the contraction in interbank activity, there was an acceleration of net international bank lending, to $85 billion. They also reveal three other salient features. Firstly, there was a marked shift in the currency composition of net flows in the three major currencies, away from the yen and the

dollar, and in favour of the German mark. In the case of the dollar and the yen, this was partly related to the specific behaviour of Japanese banks (see below). The contrasting movements in European currencies illustrated a variety of influences. In particular, there was a strong build-up of euro-German mark bank deposits (away from longer-term assets denominated in the German currency) and of claims denominated in guilders, Swiss francs and lire, but there was a contraction in French franc and sterling assets. Secondly, while the higher cost of interbank funds to Japanese banks' foreign establishments in the preceding two quarters had been eased somewhat by inflows of funds from Japanese banks' head offices, Japanese banks displayed a further retreat from the international bank credit market in the first quarter of this year. This brought their share of the market to 24%, its lowest level in more than a decade (see Appendix 1 at the end of this section for a long-term appraisal of the changing role of major national banking groups).

Main features of international lending by BIS reporting banks[1]

In billions of US dollars

Components of international bank lending	1994	1995					1996	Stocks at end-March 1996
	Year	Year	Q1	Q2	Q3	Q4	Q1	
Claims on outside-area countries	**36.6**	**118.9**	**20.2**	**36.0**	**31.9**	**30.8**	**20.8**	**1,022.8**
Claims on inside-area countries	**226.2**	**540.5**	**281.0**	**132.0**	**57.0**	**70.5**	**60.4**	**8,068.0**
Claims on non-banks	-48.6	214.4	79.5	89.0	1.9	44.0	31.3	2,440.6
Banks' borrowing for local onlending[2]	191.8	-10.4	36.7	-49.6	13.9	-11.5	22.5	1,084.5
Interbank redepositing	82.9	336.5	164.8	92.5	41.2	38.0	6.7	4,542.9
Unallocated	**10.2**	**22.1**	**18.5**	**-0.4**	**12.3**	**-8.3**	**10.4**	**252.1**
Gross international bank lending	**272.9**	**681.5**	**319.8**	**167.5**	**101.2**	**93.0**	**91.7**	**9,342.9**
Net international bank lending[3]	**190.0**	**345.0**	**155.0**	**75.0**	**60.0**	**55.0**	**85.0**	**4,800.0**
Memorandum item: Syndicated credits[4]	**252.0**	**320.2**	**82.8**	**76.4**	**72.3**	**88.8**	**86.2**	

[1] Changes in amounts outstanding excluding exchange rate valuation effects. [2] Estimates of international borrowing by reporting banks, either directly in domestic currency or in foreign currency, for the purpose of local onlending in domestic currency (see also notes to Table 1 of the statistical annex). [3] Defined as total international claims of reporting banks minus interbank redepositing. [4] Announced new facilities.

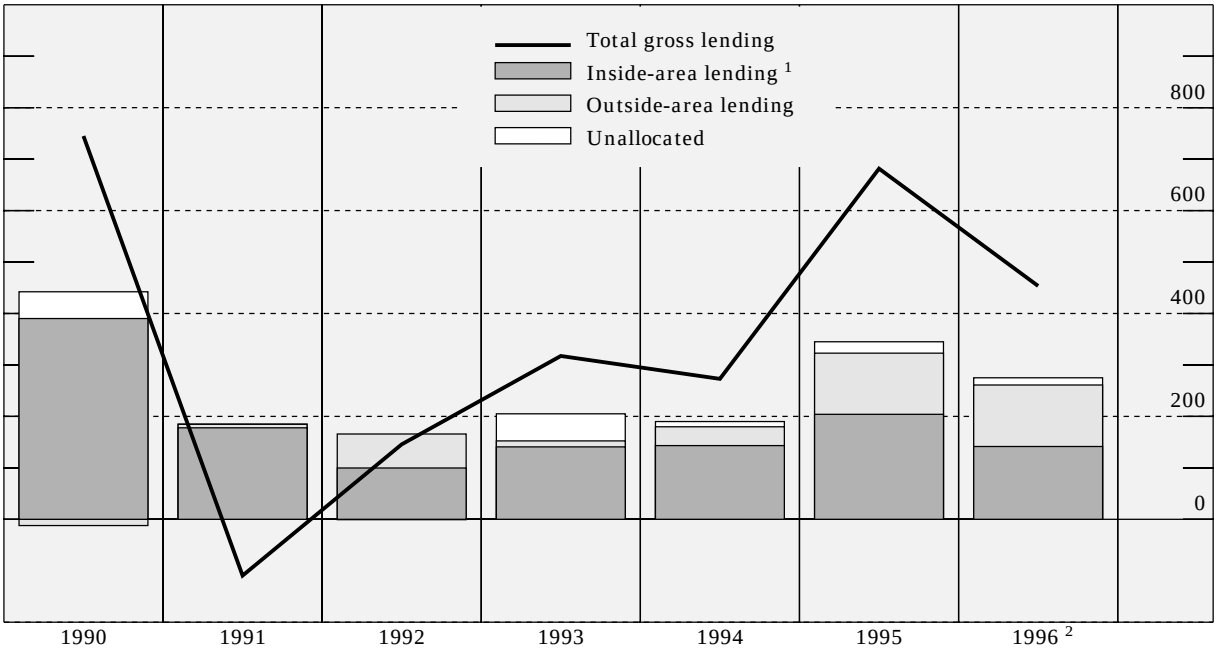
The third important development in the first quarter of 1996 was the apparent loss of momentum in new bank lending to developing countries. However, this may not have represented the emergence of a new trend, given the role played by specific factors affecting reported claims on Thailand and large repayments of commercial bank debt by Argentina and Mexico (see the section on business with countries outside the reporting area). In fact, new measures recently taken in major emerging economies to stem inflows (including non-administrative measures, such as the broadening of exchange rate bands), and the further upsurge in international securities issuance by borrowers in these countries suggest that there has so far been no falling-off of capital flows to developing countries.

Developments by currency and market centre

Buoyant lending in German marks, stagnating dollar business and repayments in yen and French francs characterised the currency distribution of international banking activity in the first quarter of 1996. This pattern stands in sharp contrast with that seen in 1995, when the immediate effect of the "Japan premium" had been associated with important flows of funds to Japanese banks' foreign affiliates from their head offices, and when bouts of weakness in high-yielding European currencies had meant strong trading demand for these currencies.

Total international bank lending

In billions of US dollars



[1] Net of interbank redepositing. [2] Sum of last four quarters.

Source: BIS.

In the case of the Japanese banking system, net flows of funds from Japanese banks' foreign affiliates to their head offices compounded the effect of the further reduction in Japanese banks' involvement in the international interbank market, creating a shift from net outflows to net inflows by banks located in Japan. The contraction recorded vis-à-vis own foreign affiliates reflected a drop in the funding needs of these affiliates, which continued to trim their international books. Most

Currency composition of international bank lending[1]

In billions of US dollars

Currencies	1994	1995					1996	Stocks at end-March 1996
	Year	Year	Q1	Q2	Q3	Q4	Q1	
Banks in industrial reporting countries ..	**97.1**	**560.9**	**282.5**	**99.6**	**90.4**	**88.5**	**102.0**	**7,475.8**
US dollar	134.5	127.2	60.1	39.6	14.1	13.4	4.2	3,207.6
German mark	-27.9	27.3	1.0	17.5	-13.1	22.0	47.4	1,162.1
Japanese yen	47.9	171.7	66.0	-17.5	65.5	57.7	-21.6	887.4
French franc	-40.8	54.2	40.9	9.8	11.0	-7.5	-10.3	338.1
Swiss franc	-7.0	-4.5	3.5	7.2	3.8	-19.1	12.2	310.2
Italian lira	11.3	44.9	18.4	0.8	15.1	10.6	10.3	265.2
Pound sterling	11.3	8.6	3.2	30.6	-19.4	-5.8	-1.0	259.3
ECU	-28.3	-20.0	17.7	-3.7	-19.7	-14.3	1.0	197.4
Other and unallocated[2]	-3.9	151.5	71.7	15.3	33.1	31.5	59.8	848.5
Banks in other reporting countries[3]	**175.9**	**120.6**	**37.3**	**68.0**	**10.9**	**4.4**	**-10.3**	**1,867.2**

[1] Changes in amounts outstanding excluding exchange rate valuation effects. [2] Including all non-dollar positions of banks in the United States, for which no currency breakdown is available. [3] No currency breakdown is available.

affected by the reduced foreign presence of Japanese banks were the United Kingdom, the United States and Asian offshore centres. Indeed, the retrenchment of Japanese banks in the United States fully accounted for the decline in external assets reported by banks there.

Business with countries inside the reporting area

Activity in the *interbank market* within the reporting area was affected by two major contrasting influences during the first quarter of 1996. There was, on the one hand, a further reduction in claims reported by Japanese banks' affiliates located in other industrial reporting countries, accompanied this time by repayments of short-term interbank lines to their head offices. On the other hand, a strong upsurge was recorded in transactions denominated in European currencies. The second development should be seen in relation to the less favourable fixed income market conditions which emerged in the course of the quarter and which, judging from these statistics, appear to have been associated with maturity shifts. In particular, there was a high volume of new euromarket depositing by investors switching out of major bond markets. This created a strong demand and supply imbalance, with the international interbank market being called upon to recycle the excess volume of loanable funds.

Also illustrating the shift by investors, cross-border *deposits by non-banks* from within the reporting area jumped by a record $60.3 billion, while local foreign currency deposits rose by $30 billion. Offshore deposits in national currency by French, Italian and Japanese residents, as well as in foreign currencies by Dutch and US residents, were the main sources of new cross-border depositing.

Banks' business with non-bank entities inside the reporting area[1]

In billions of US dollars

Country of residence of non-bank customers	Cross-border positions					Memorandum item: Domestic bank credit and money[2]				
	1995				1996	1995				1996
	Q1	Q2	Q3	Q4	Q1	Q1	Q2	Q3	Q4	Q1
Total assets	**65.4**	**91.2**	**23.7**	**31.0**	**16.1**					
Canada	2.7	1.9	-1.3	-1.9	-0.5	4.4	3.6	6.8	8.9	5.1
France	-1.1	0.8	-1.3	-1.0	-3.2	32.8	40.6	20.4	19.1	24.2
Germany	8.6	5.7	8.4	2.3	-0.4	35.2	45.9	50.6	88.3	55.7
Italy	-2.7	4.3	4.1	-0.2	1.5	5.6	2.9	-10.6	17.0	5.8
Japan	32.8	34.8	-11.2	10.1	-14.6	-85.9	55.9	52.7	88.7	-83.1
United Kingdom	3.5	0.9	3.8	3.0	1.8	23.7	7.0	10.5	10.6	20.6
United States	14.0	21.0	18.8	-7.4	20.8	69.4	103.6	71.0	51.1	15.1
Other countries ...	7.6	21.8	2.4	26.1	10.7					
Total liabilities	**17.4**	**30.7**	**13.4**	**15.7**	**60.3**					
Canada	-1.4	1.8	-1.3	-0.7	0.0	-2.3	6.5	6.4	5.9	0.5
France	-0.4	0.9	1.2	-0.4	8.8	-6.8	17.5	12.1	32.4	-24.2
Germany	5.6	3.3	-8.0	-13.2	3.2	-42.2	5.7	12.1	83.3	-3.0
Italy	4.6	1.7	-1.2	-4.3	8.5	-26.0	3.5	-0.4	43.0	-26.1
Japan	1.0	0.3	3.0	-0.2	6.5	-8.1	19.4	50.1	116.8	7.8
United Kingdom	0.0	0.3	0.5	5.8	5.5	27.4	18.6	17.2	27.3	28.4
United States	-8.7	2.9	8.9	9.7	5.8	20.1	94.8	72.3	68.4	79.0
Other countries ...	16.7	19.5	10.3	19.0	22.0					

[1] Changes in amounts outstanding excluding exchange rate valuation effects. [2] For Japan, M2 + CDs; for the United Kingdom, M4; for other countries, M3.

This suggests renewed interest in liquid assets denominated in their own currencies on the part of French and Italian residents, a defensive attitude of Japanese investors vis-à-vis non-yen assets, and some currency diversification of holdings by US residents. In the case of Dutch residents, the bulk of the new funds may have represented the rechannelling into Germany of domestic currency borrowing by German banks on the international market through their Dutch affiliates. At the same time, German non-bank residents increased their eurocurrency claims, albeit mostly in foreign currencies, a movement which was part of a broader shift back towards monetary assets.

Business with countries outside the reporting area

The volume of bank lending to outside-area countries in the first quarter of 1996 receded noticeably from the record quarterly average of 1995 (from $29.7 billion to $20.8 billion). A loss of momentum of banking flows to Asian economies and a drying-up of net lending to Latin American countries were the main underlying factors. There were, at the same time, continuing debt repayments by African and Middle Eastern countries. Small credit flows ($3.7 billion) to the group of non-reporting developed countries masked a massive repayment of government debt by New Zealand and strong borrowing by banks located in Australia, as the presence of foreign banks in the local market continued to expand.

The slowdown in the pace of lending to Asia (from $21.6 billion per quarter on average in 1995 to $18.2 billion) was fully accounted for by Thailand, where the flows were cut from a quarterly average of almost $10 billion in 1995 to less than $3 billion (see Annex Table 5A). While the Thai figures for 1995 were considerably inflated by the build-up of inter-office accounts by foreign banks seeking to obtain local banking licences, this phenomenon may have run its course more recently. Although new measures had been announced at the beginning of the year to curb short-term capital imports, there was some evidence of continuing large inflows of such capital into the

Banks' business with countries outside the reporting area*

In billions of US dollars

Outside-area country groups	1994	1995					1996	Stocks at end-March 1996
	Year	Year	Q1	Q2	Q3	Q4	Q1	
Total assets	**36.6**	**118.9**	**20.2**	**36.0**	**31.9**	**30.8**	**20.8**	**1,022.8**
Developed countries	-1.3	24.9	7.3	7.5	5.7	4.3	3.7	193.9
Eastern Europe	-13.0	3.1	0.2	1.0	1.4	0.5	3.7	89.7
Developing countries	50.9	90.9	12.7	27.4	24.8	26.0	13.4	739.3
Latin America	2.0	15.1	-2.9	4.5	5.2	8.3	0.5	245.5
Middle East	3.1	-6.8	-1.0	-0.9	-1.9	-3.0	-4.5	69.4
Africa	-2.0	-3.7	-1.6	-1.2	-0.4	-0.4	-0.8	35.9
Asia	47.8	86.3	18.3	25.0	21.9	21.2	18.2	388.5
Total liabilities	**74.6**	**96.6**	**27.5**	**20.1**	**37.2**	**11.7**	**28.8**	**924.1**
Developed countries	22.4	20.3	11.8	-1.1	15.5	-5.9	5.2	178.5
Eastern Europe	2.0	9.2	0.9	1.9	3.7	2.7	-0.4	46.3
Developing countries	50.1	67.1	14.8	19.4	18.0	14.9	24.1	699.3
Latin America	21.0	42.4	1.3	14.4	17.8	8.9	3.6	204.6
Middle East	2.9	8.8	11.7	5.2	-6.3	-1.9	8.6	211.9
Africa	3.3	-1.2	0.0	0.5	-1.1	-0.6	-0.1	40.7
Asia	22.9	17.0	1.7	-0.6	7.5	8.4	12.0	242.0

* Changes in amounts outstanding excluding exchange rate valuation effects.

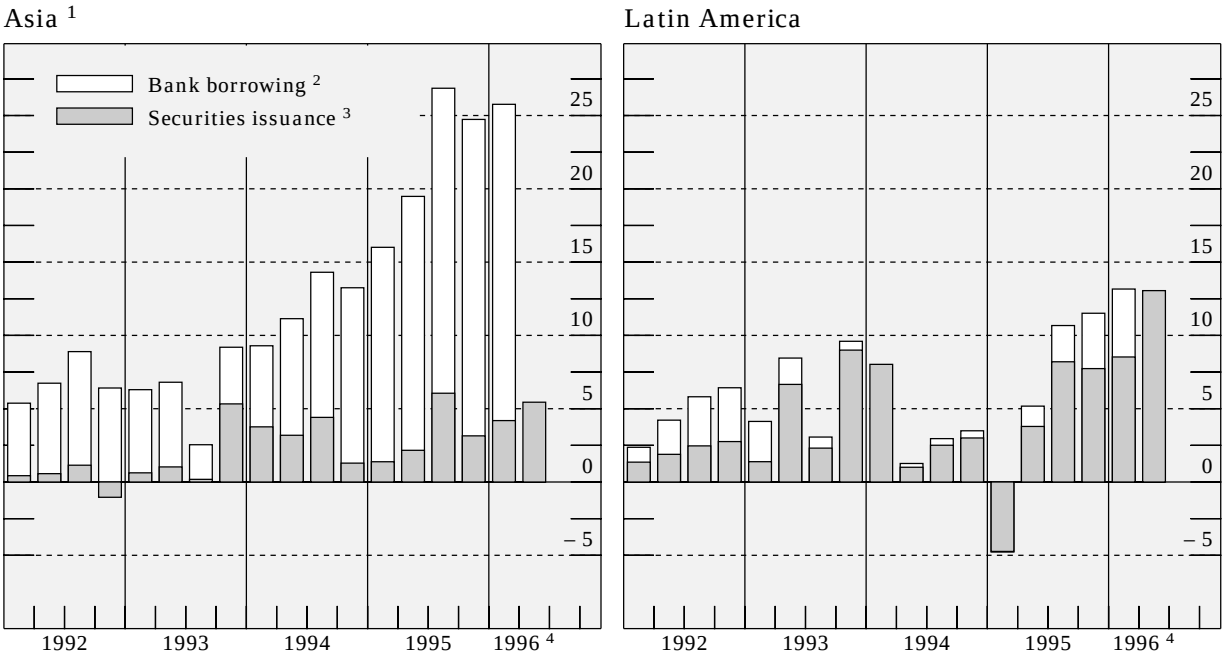
country (as illustrated by the easing of local interest rates), leading the Thai authorities to announce further measures in the second quarter (see also the section on structural and regulatory developments below).[2]

Other major Asian debtors (the Republic of Korea, China, Indonesia and Taiwan) continued to have heavy recourse to international banking funds in the first quarter of 1996. There was even a renewed acceleration of such inflows in the case of Korea (from $4.2 billion in the fourth quarter of 1995 to $7.4 billion), following some loss of momentum in the second half of last year and despite the further lowering of domestic interest rates and some weakening of economic growth. With the exception of Taiwan, where there was strong demand for foreign currencies, measures were taken or considered by these countries' authorities to stem short-term capital imports. While China and Indonesia continued to rely on quantitative restrictions and close monitoring of foreign borrowing, Korea attempted to counter the impact of inflows by announcing new measures to liberalise capital outflows in March 1996.

The strong recovery in bank lending to Latin America after the first quarter of 1995 appears to have come to an abrupt halt at the beginning of 1996. Several factors dampened international bank credit to the region in the period under review. Firstly, the overall stagnation in claims partly reflected massive repayments of debt by government entities in Mexico and Argentina (see Annex Table 5B). Secondly, Latin American borrowers raised a near-record net volume of funds

International bank and securities financing in Asia and Latin America

In billions of US dollars



[1] Excluding Hong Kong, Japan and Singapore. [2] Exchange-rate-adjusted changes in BIS reporting banks' claims vis-à-vis Asian and Latin American countries (four-quarter moving average). [3] Net issues of euronotes and international bonds. [4] Data on bank borrowing are not yet available for the second quarter of 1996.

Sources: Bank of England, Euroclear, Euromoney, IFR, ISMA, national data and BIS.

[2] In June 1996, the Thai authorities introduced more stringent capital requirements for the granting of banking licences.

in the international securities market ($8.5 billion in the first quarter; see the graph on the preceding page). Thirdly, in contrast to the same period of last year, there was no significant depositing with reporting banks by corporate entities and individuals of the region (except Venezuela). In fact, there was even some evidence of a return of resident funds, especially in the case of Argentina. The ability of major Latin American countries to rebuild credibility and sustain the pace of economic reforms will be critical in the years to come, in view of the large volume of debt repayment obligations.

At $3.7 billion, new bank lending to eastern Europe was the highest since the fourth quarter of 1988, despite continuing debt repayment by Hungarian banks. Although anecdotal evidence suggests continued capital outflows from the Russian Federation, new deposits received from other eastern European countries' non-bank residents came to a standstill (see Annex Table 5B). Two sets of factors contributed to the upsurge in bank lending to the region. There were, on the one hand, significant flows to Poland (with an increase in outstanding claims of $1.7 billion) and the Czech Republic ($0.7 billion) on account of large differentials between domestic and international interest rates. These developments occurred despite attempts by the Polish authorities to limit the flows, through a revaluation of the centre of the exchange rate band (in December 1995) and a cut in official interest rates (in January 1996), and the Czech authorities' widening of the exchange rate band (in February 1996). On the other hand, some $1.8 billion of new credits were granted to the Russian Federation, partly reflecting the opening to foreigners of a government Treasury bill market offering guaranteed dollar yields as well as the granting of loans under official support schemes from Germany and France. At the same time, the country continued to make payments of interest rate arrears into an escrow account under the tentative multi-year debt rescheduling agreement signed last November.

Structural and regulatory developments

Several international regulatory initiatives relevant to international banking activity were taken during the second quarter of 1996. In May, the Basle Committee on Banking Supervision and the International Organization of Securities Commissions (IOSCO) issued a joint statement identifying the major principles guiding their activity and announced a joint initiative to set up additional arrangements for the effective exchange of information between banking and securities supervisors of diversified financial groups, in both normal and emergency situations.[3] Evidence of inadequate information-sharing between regulators following the collapse of a number of large financial firms had added urgency to the need for cooperation, culminating in a request to regulators for action by the Group of Seven Heads of Government at the June 1995 summit in Halifax. Work to implement the initiative will be mainly conducted through the Joint Forum on financial conglomerates made up of banking, securities and insurance supervisors and established in July 1995. In June, participants at the 9th Biennial International Conference of Banking Supervisors in Stockholm endorsed a report prepared by a working group of members of the Basle Committee and the Offshore Group of Banking Supervisors designed to strengthen implementation of the 1992 *Minimum Standards for the Supervision of International Banking Groups and their Cross-Border Establishments*. The report contains recommendations for improving standards of cross-border banking supervision in host countries, for the exchange of information between host and home supervisors, for the effectiveness of home-country supervision, and for dealing with potential supervisory gaps.[4]

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[3] See "Response of the Basle Committee on Banking Supervision and of the International Organization of Securities Commissions to the Request of the G-7 Heads of Government at the June 1995 Halifax Summit", Montreal, May 1996.

[4] See "The Supervision of Cross-Border Banking", a report by a working group comprised of members of the Basle Committee on Banking Supervision and the Offshore Group of Banking Supervisors, Basle (to be published shortly).

At a more technical level, the Basle Committee issued a proposal in April to extend the Capital Accord to the multilateral netting of forward foreign exchange transactions.[5] The Capital Accord, which sets capital requirements for banks' on and off-balance-sheet activities, was recently amended to recognise the benefits of legally enforceable bilateral netting agreements for capital purposes. Recent industry initiatives have sought to extend these benefits to multilateral netting, whereby all initial bilateral transactions between participating counterparties are netted through a central clearing house. Given that clearing houses for OTC transactions do not provide for daily margin payments (a feature which exempts derivatives exchanges from the Capital Accord's requirements), the exposure of participants to counterparty default risk can build up over time. With the recent launch of a multilateral foreign exchange netting scheme and the planned introduction of others, the Basle Committee aims with its new interpretation to provide banks with guidance concerning the application of the risk-based capital framework to the area of forward replacement risk.[6] In March, a working party of the Group of Ten central banks had published a report endorsing correctly designed multilateral netting and settlement arrangements as a way of reducing foreign exchange settlement risk.[7]

With the majority of high-yielding markets still subject to a sizable volume of short-term foreign capital imports, further temporary restrictive measures were implemented during the second quarter in a number of countries, including China, Greece, Thailand and Poland. Increasingly, however, a greater role is being given to market forces, in particular through a formal or informal widening of currency bands (in the Czech Republic and Poland) and the liberalisation of capital outflows (in Korea).[8] Such indirect measures appear more consistent with the general international commitment to liberalise domestic financing systems (particularly for potential OECD members). Furthermore, in the case of several Asian countries (most notably Korea, Taiwan and Thailand) market liberalisation is part of a strategy aimed at developing regional financial centres. Finally, with local securities markets still in their infancy, a disproportionate burden of restrictive measures continue to fall on the domestic banking system, creating an incentive for international financial flows to bypass it. This trend, which had already been observed in the second half of 1995,[9] appears to have continued in the first quarter of 1996, with 45% of reporting banks' lending to entities located in Asia being directly granted to the non-bank sector.

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5 See "Interpretation of the Capital Accord for the Multilateral Netting of Forward Value Foreign Exchange Transactions", Basle Committee on Banking Supervision, Basle, April 1996.

6 The first multilateral foreign exchange netting scheme to begin operations was the London-based Exchange Clearing House Ltd. (ECHO). Another system under development is the New York-based Multinet. Both schemes focus on the multilateral netting and settlement of spot and forward foreign exchange transactions.

7 See "Settlement Risk in Foreign Exchange Transactions", BIS, Basle, March 1996.

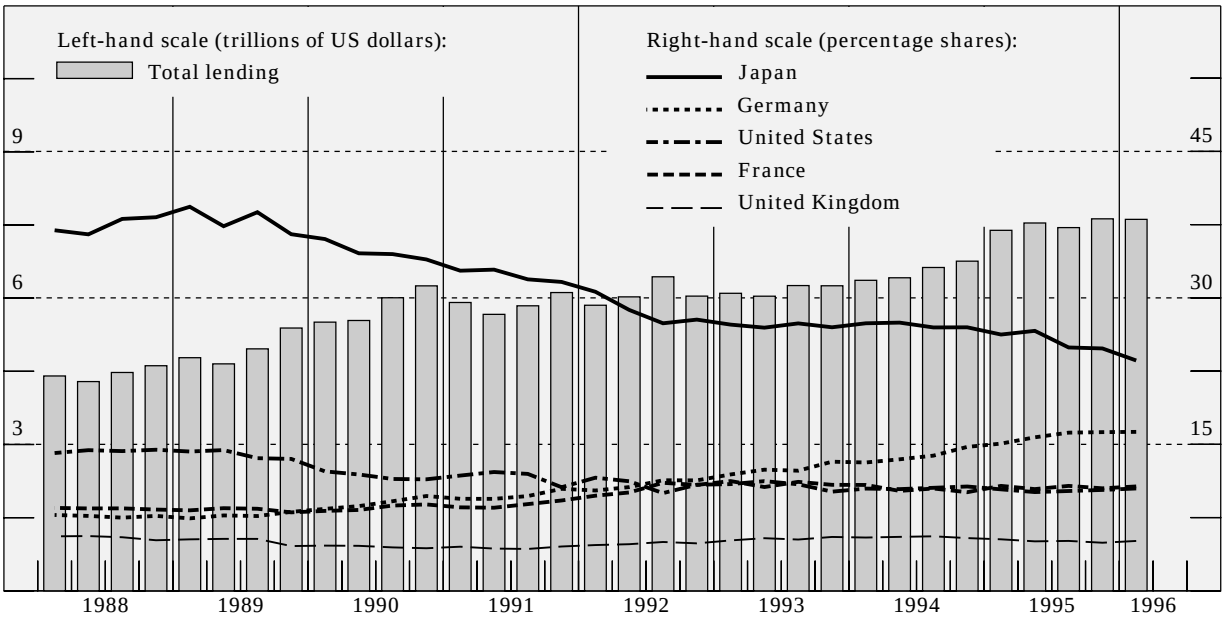
8 In Korea, the authorities introduced a package of measures liberalising the country's foreign exchange market and lifted the ceilings on overseas deposits held by domestic corporations, institutional investors and individuals.

9 See "The Maturity, Sectoral and Nationality Distribution of International Bank Lending", BIS, Basle, June 1996.

Appendix 1: The changing role of major national banking groups in international lending, 1985-95

After leading the expansion of international bank lending in the second half of the 1980s, Japanese banks were more than fully responsible for the contraction recorded by the market in 1991. By contrast, the pull-back resulting from the so-called "Japan premium" in the summer of 1995 did not prevent international banking activity from increasing further. The sustained growth in the most recent period can be explained by three main factors. Firstly, the retrenchment of Japanese banks was less substantial than in 1991-92.[10] There was in particular an important temporary supply of new funds by Japanese banks' head offices to their foreign affiliates in the second half of the year, which helped to alleviate the higher cost of interbank funds made available to such entities.[11] Secondly, major European banking groups appear to have stepped up their cross-border activity within Europe, reflecting the rapid build-up in the external presence of German banks, occasional heavy hedging and speculative demand for weaker currencies, and the growing popularity of lending against securities (repos). Thirdly, US banks have made a strong comeback in the international market in recent years, capitalising on their renewed financial strength to rebuild their foreign presence.

Total international bank lending by nationality of reporting banks *



* Amounts outstanding at end of period of banks' total cross-border claims and local claims in foreign currency.
Source: BIS.

The share of Japanese banks in international bank credit has receded almost continuously since its peak in 1988 (38%). At the end of 1995 it stood at 25%, which was one percentage point lower than reported ten years earlier, when the first consistent series on the structure of international banking activity by nationality of ownership were made available.[12] There has also been a change in

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[10] For a more detailed assessment of this issue, see pp. 11-13 of the February 1996 issue of this commentary.

[11] Data on foreign offices include only those of affiliates located in other industrial reporting countries. The contraction recorded by the latter group may somewhat overestimate Japanese banks' overall retrenchment in foreign centres, since additional funding provided by head offices appears to have been more heavily biased in favour of affiliates located in Asian centres (Thailand in particular).

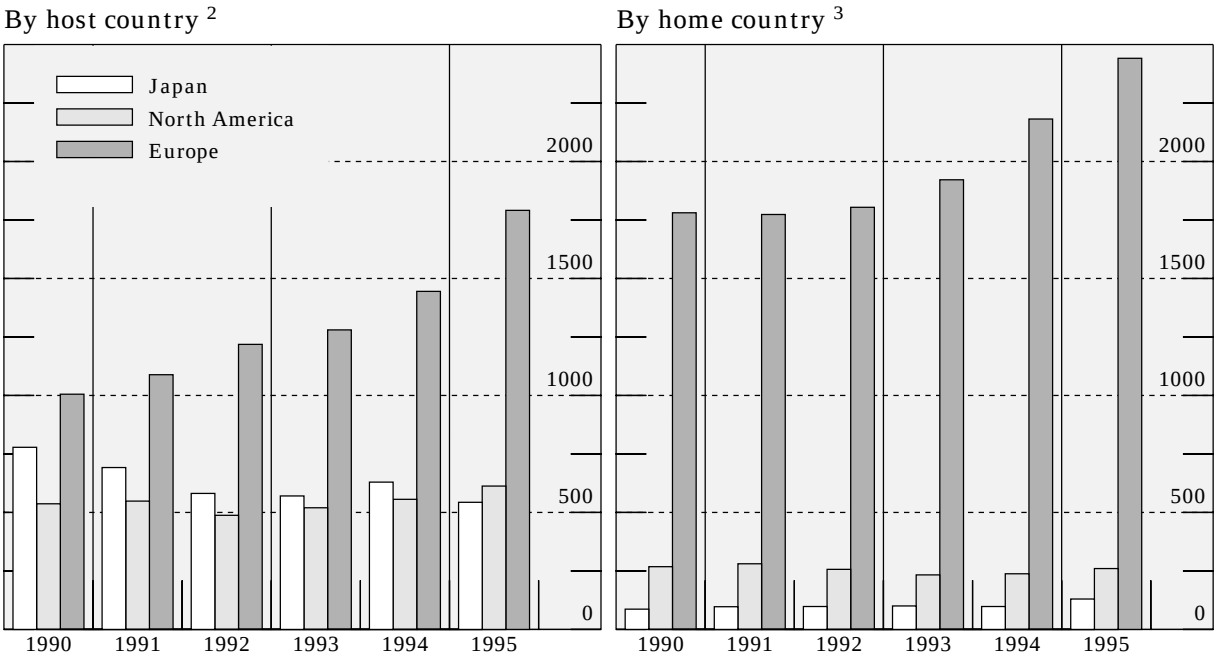
[12] Although such data had been recorded from end-June 1983, the reporting system was subsequently progressively enhanced, leading to several important breaks in series.

Japanese banks' lending over the period as a whole, with business increasingly booked onshore (including through the Japan Offshore Market set up in December 1986 to repatriate offshore business) rather than offshore. Despite their reduced role, at the end of 1995 Japanese banks remained the largest single nationality group amongst reporting institutions, ahead of German, French and US banks (16%, 11% and 10% respectively).

At the same time, the combined share of European banks has risen almost continuously, from 41% at end-1985 to 58% at end-1995. Expansion by European banks was led by German institutions, which at the end of 1995 accounted alone for 28% of the claims reported by this group, well ahead of French banks (18%), Swiss banks (12%) and UK and Italian banks (9% each). The European ranking has altered significantly since 1985, when French banks were the most important European group (with 22% of the total accounted for by European banks), followed by UK and German banks (17% each), and Italian and Swiss banks (10% each). Over the period German banks built up the highest foreign presence of all reporting nationality groups within the industrialised world (overtaking in the process their US and Japanese competitors, as measured by the international claims in the books of such foreign affiliates). The lead taken by German banks can be explained by a number of factors, including their role in recycling Germany's current account surpluses of the 1980s and in satisfying foreign demand for German mark assets, as well as their strong capital position. More recently, it has also been related to attempts to circumvent domestic regulations (especially reserve requirements and taxation). However, the impact of the latter factor tended to subside in 1995, whereas the growth of the international balance sheets of German banks, including in particular their affiliates in London and Luxembourg, gathered pace. This is consistent with other evidence pointing to the internationalisation of the German financial system.

International claims of reporting banks' foreign offices by host and home country

In billions of US dollars [1]



[1] Amounts outstanding at end-year. [2] Country of location of the foreign office.

[3] Country of location of the head office.

Source: BIS.

More generally, European banking groups have built up a strong European presence since 1990, more than compensating for the retreat of Japanese banks. In addition to the factors mentioned above in connection with German banks, underlying forces included strong foreign demand for individual European currencies facing bouts of downward pressure, the internationalisation of repo markets in domestic government debt and the perceived need to establish a London platform in order to compete successfully in global securities and derivatives markets.

There has been a marked erosion of the relative importance of US banks over the decade, with their weight in the total slipping from 22% at end-1985 to 10% at end-1995. This group has been the most handicapped by the 1981-82 LDC debt crisis, owing to its high exposure to Latin America. There was some rebound in US banks' activity in 1993-94, with an improvement in creditworthiness allowing them to rebuild their presence in foreign financial centres, at the expense of international business directly booked at home. At the end of 1995, assets booked in the United States represented 31% of the international claims reported by US banks (compared with 36% in 1985), while Asian, Caribbean and London offices together accounted for 53% of that total. The concentration of business in these offshore centres also suggests that US banks have pursued a strategy more focused on euro-currency business than other banking groups. Thus, while Caribbean centres are used in large measure to channel funds to and from the US economy (including through specialised financial institutions, insurance groups, pension funds, mutual funds and hedge funds set up in these centres), US banks' strong presence in London points to their particular emphasis on eurocurrency banking and securities transactions, as opposed to local or trade-related business. Moreover, such a development appears to have relied heavily upon banks' inter-office networks, since, in contrast to other banking groups, the bulk of US banks' international claims (or 57%) now consist of lines between offices of the same banking group. This compares with 38% for Japanese banks and 22% for European banks.

It should be stressed that the statistics available provide a somewhat distorted picture of the importance of various nationality groups and centres, for two main reasons. One is linked to the development of off-balance-sheet business, for which no adequate cross-border data are available but in which US banks have taken a leading role. Another reason is the limited coverage of the BIS reporting system, which only provides information on foreign affiliates located in industrial reporting countries, but not on non-US banks' affiliates located in offshore centres. Given that European banks' affiliates are predominantly located in London and Luxembourg, the role of Japanese banks (whose retrenchment in other industrial reporting countries has been partly compensated for by an increased presence in Asia) tends to be underestimated. Nonetheless, with four-fifths of international bank lending covered by this reporting system, it is clear that European banks have played an overwhelming role in the expansion of international banking aggregates during the last ten years, and especially since 1990.

The message of this brief survey is clear. Firstly, Japanese banks remain the most important group of reporting institutions in terms of on-balance-sheet positions, with their retrenchment in the 1990s largely representing a correction of the strong growth seen in the late 1980s. Secondly, the recent return of US banks to the international banking market appears to have been more selective. Thirdly, German banks have emerged over a relatively short period of time as the dominant European group in cross-border lending, even though part of their expansion in neighbouring centres is due to domestic regulatory factors. Finally, and more generally, the fact that the buoyancy of cross-border activity between European centres has been a major driving force in market expansion since the beginning of this decade means that the planned introduction of the single European currency may entail significant changes in the structure of the international banking market.

III

THE INTERNATIONAL SECURITIES MARKETS

Main features

Total net new issuance of international debt securities (international bonds and euronotes) set a new record in the second quarter of 1996. At $127.7 billion, this corresponded to an annualised expansion of 18% in the stock outstanding. While internationally active financial institutions continued to tap the market on a large scale, ample international liquidity facilitated the absorption of a record volume of developing country debt and a more significant flow of European public sector issues. In contrast, borrowing by the corporate sector in the OECD countries remained subdued.

Market activity was supported by a number of influences. Firstly, competition between intermediaries to attract business intensified further in the wake of the recent wave of acquisitions of securities houses by European commercial banks. Secondly, US dollar paper benefited from the renewed interest of European investors in assets denominated in that currency. Thirdly, the steady

Main features of international securities issues[1]

In billions of US dollars

Country of residence, currency and type of issuer	1994	1995				1996		Stocks at end-June 1996
	Year	Year	Q2	Q3	Q4	Q1	Q2	
Total net issues	**285.7**	**313.2**	**74.4**	**99.3**	**83.6**	**112.1**	**127.7**	**2,960.2**
International bonds	145.5	120.8	21.7	41.5	37.8	55.5	53.4	2,251.0
Euronotes	140.2	192.4	52.6	57.8	45.9	56.6	74.3	709.3
of which: bonds issued under EMTN programmes	*58.1*	*59.9*	*12.8*	*13.7*	*16.1*	*44.4*	*35.9*	*236.2*
Developed countries	209.9	232.6	52.6	70.5	60.3	81.2	81.0	2,248.3
Europe[2]	*167.2*	*170.5*	*45.1*	*45.8*	*44.2*	*48.9*	*53.1*	*1,361.5*
Japan	*-26.9*	*-26.8*	*-6.4*	*-11.7*	*-3.1*	*-3.3*	*-2.7*	*222.3*
United States	*41.6*	*65.4*	*11.1*	*24.7*	*17.2*	*32.7*	*28.0*	*369.9*
Canada	*18.2*	*10.8*	*1.9*	*6.6*	*0.0*	*0.4*	*-0.1*	*179.2*
Offshore centres	37.2	37.3	11.3	8.8	9.2	14.7	18.3	216.1
Other countries	28.6	27.3	6.0	15.0	10.9	12.8	19.5	185.4
International institutions	9.9	15.8	4.5	5.1	3.1	3.3	8.8	310.2
US dollar	73.8	74.9	18.4	25.3	25.4	44.9	66.2	1,095.8
Japanese yen	106.8	108.3	31.1	37.5	22.8	15.5	23.6	503.3
German mark	27.4	55.9	15.0	14.9	15.8	22.2	9.9	332.8
Other currencies	77.6	74.0	9.9	21.7	19.5	29.5	27.9	1,028.3
Financial institutions[3]	154.2	186.2	37.1	57.3	51.1	79.0	77.1	1,166.2
Public sector[4]	109.9	87.3	21.8	35.0	12.9	23.3	38.9	1,020.2
Corporate issuers	21.5	39.7	15.4	7.0	19.7	9.8	11.7	773.8

[1] International bonds and euronotes. Flow data for international bonds; for euronotes, changes in amounts outstanding excluding exchange rate valuation effects. [2] Excluding eastern Europe. [3] Commercial banks and other financial institutions. [4] Governments, state agencies and international institutions.

Sources: Bank of England, Euroclear, Euromoney, IFR, ISMA and BIS.

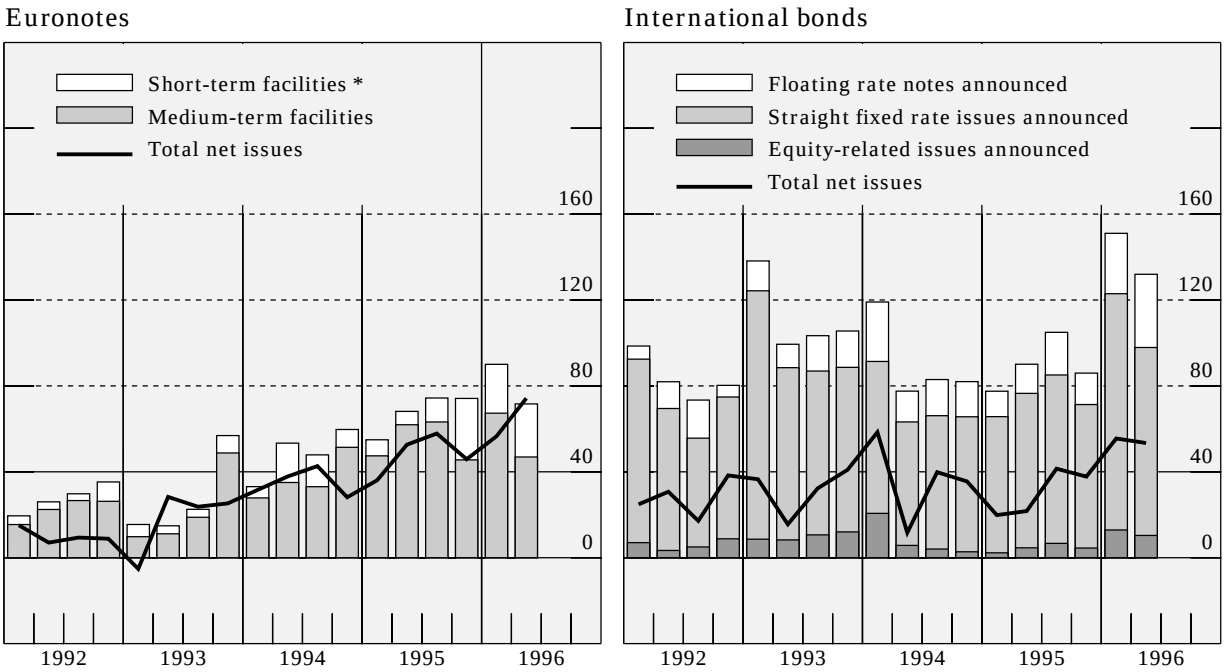
increase in the volume of repayments created greater reinvestment flows. Fourthly, although Japanese investors continued to demonstrate an aversion for currency risk, the persistence of low returns at home acted to enhance their appetite for lower-rated foreign names. Finally, and more generally, in spite of rising interest rates there was reduced bond and currency market volatility, and therefore lower market risk. This proved particularly beneficial to emerging market sovereign borrowers, many of whose credit ratings have been upgraded recently, and to a lesser extent to issuers in non-core European currencies. The latter currency segment was also buoyed indirectly by the strength of the dollar against the German mark and a more favourable outlook for EMU.

At the same time, the international securities market maintained its competitive edge through the use of instruments not available in many domestic markets. There was in particular a further expansion in the use of complex structures, such as asset-backed securities and dual-currency issues, as well as a broadening of issuing options available under euronote facilities, to incorporate techniques already well tested in the more traditional international bond market. The increasing use of shelf-type facilities to issue individual bonds partly reflects growing sophistication on the part of borrowers and helps to explain why 58% of total net new international securities issuance during the second quarter took place through the euronote market. However, if pursued, the trend towards the establishment of borrowing programmes, for which less information on actual flows tends to be available, will considerably reduce the information content of standard bond data.

As a result of its competitive advantages, the international securities market has been able to attract a wide variety of borrowers. In addition to US government-sponsored agencies and German Pfandbrief issuers, which have made strong inroads into the market since 1995, new domestic public institutions have accessed the market, including the French entity created recently to finance the outstanding debt of the French social security system (with a Fr.fr. 140 billion - $28 billion - global financing programme). New sovereign names have appeared in the eurobond market, or returned to it for the first time since the early 1980s, while the market opened further to financial institutions from

The international securities markets

In billions of US dollars



* Including euro-commercial paper facilities.

Sources: Bank of England, Euroclear, Euromoney, IFR, ISMA and BIS.

developing countries. At some $20 billion, total net new issues by developing country borrowers (including eastern Europe) were the highest ever recorded; of this, two-thirds was accounted for by Latin American entities. While illustrating in part a recovery of confidence on the part of international investors, active borrowing by lower-rated or non-rated names may also reflect a more general loosening of credit risk standards. This development, which originated in the syndicated loan market, and which recently appears to have spread to the securities market, is not without risks, as evidenced by the recent default of a Bulgarian state-owned bank on a yen-denominated private placement and the increase in the delinquency rate in assets underlying asset-backed securities originated in the United States.

The euronote market

Uncertainty concerning the near-term evolution of interest rates encouraged borrowers to set up new euronote programmes. A continuing high proportion (63%) of drawings made under euro-medium-term note (EMTN) programmes consists of standard international bonds (see the following section for a more comprehensive assessment of international bond issuance). In addition, the dealer-placed segment of the market is gaining broader recognition among investors, with greater price transparency attracting growing demand from retail investors.

In the short-term segment of the market, mention may be made of the $3.3 billion of multi-currency euro-commercial paper (ECP) placed by CADES under an ECU 15 billion ($18.9 billion) global commercial paper facility. The issuance by CADES of paper in several currencies and its rapid absorption by the market is illustrative of the increasing popularity of ECP in Europe, with a total stock outstanding now exceeding the $100 billion mark (see Annex Table 11A). On the supply side, some national authorities have become somewhat less restrictive with respect to short-term instruments (the introduction of six-month Treasury bills in Germany being a recent example), while others have actively contributed to their development (as shown by the CADES issue and Belgium's decision to set up a multi-currency Treasury bill programme). On the demand side, the recent revival of interest in ECP reflects the needs of the growing European money market mutual funds industry, which has been handicapped so far by the limited availability of domestic short-term paper.

The international bond market

Announcements of new international bonds fell by 13% from the record level seen in the first quarter of the year, to $132 billion, while net issues declined marginally, to $53.5 billion. The contraction in activity was concentrated in the fixed rate segment of the market, with floating rate notes expanding further to reach a new record level. In the equity-linked market, issuance declined slightly, with most new issues launched in convertible form rather than with equity warrants attached. There was a lower volume of global issues (down by 14% to $26.9 billion) but more than 40% of these issues were composed of floating rate asset-backed structures. The reduced recourse to the international bond market by financial institutions and public sector entities reflected in part more active funding through euronote programmes.

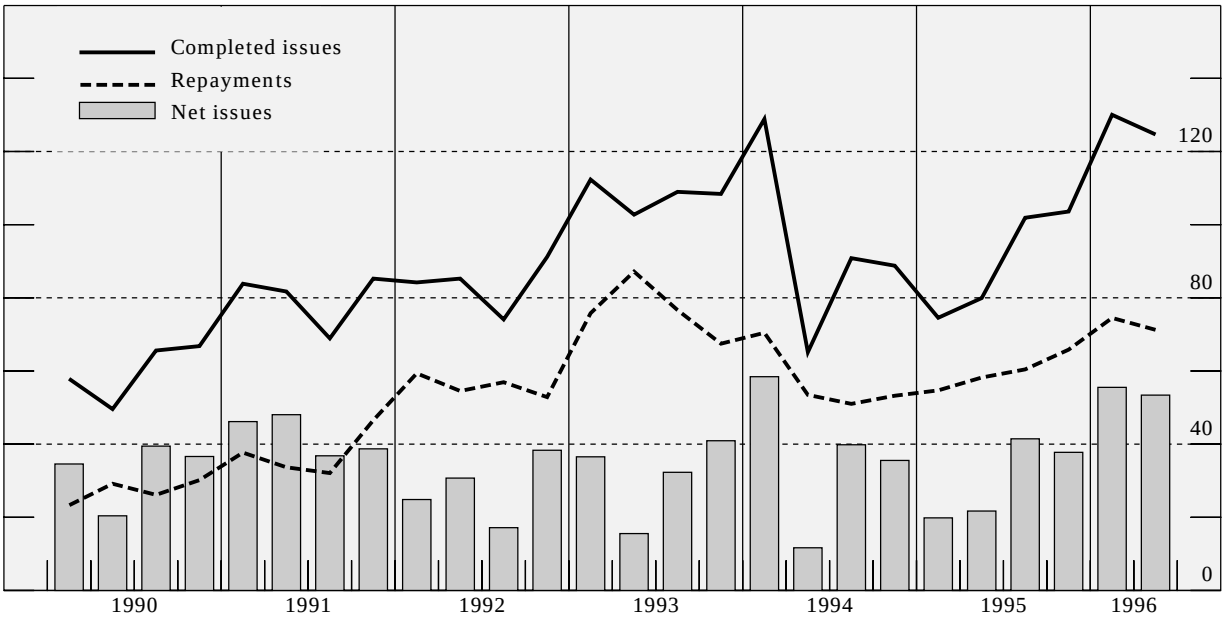
In spite of a slightly lower volume of financing conducted in US dollars, the further improvement in market sentiment towards that currency and lower US interest rate volatility than in the previous quarter meant that dollar-denominated issuance proceeded at a historically high level (46% of total issues, the largest share since the third quarter of 1992). The fact that all of the reduction in dollar business resulted from a 42% decline in Yankee issuance seems to indicate that a prime motivation behind investment in the dollar market was non-US residents' expectations of further currency appreciation. However, concerns related to a potential tightening of US monetary policy led many investors to move to defensive instruments such as short-term euronotes and floating rate notes. By contrast, the weakness of the German mark on the exchange markets and perceptions of a bias towards monetary easing in Germany appeared to lead to a broad waning of interest in assets denominated in "core" European currencies, with German mark, French franc, Dutch guilder and Swiss franc issues all contracting noticeably. New financing in ECUs continued to be negatively

affected by uncertainty over the conversion of financial contracts into the new single European currency. In spite of the strong performance of fixed income markets in "peripheral" European countries, the rebound in business denominated in lire and pesetas largely reflected the issuance of equity-related or asset-backed securities. The improvement in the US dollar's fortunes reportedly led Japanese investors to show greater interest in dollar-denominated securities, a development perhaps explaining why yen issuance was almost 40% lower than in the same period last year. However, the search for higher yields by Japanese investors was once again very much in evidence, with a large number of high-coupon issues made in the Samurai market. As a result, the Samurai sector further increased its market share, accounting for two-thirds of international activity in yen.

There was a small decline in the weighted average maturity and size of fixed rate issues (see the graph on page 20), which illustrated the more defensive posture of international investors with respect to market risk. In contrast, other indicators provided evidence of a greater tolerance for credit risk. There was strong demand throughout the quarter for high-coupon paper, often leading emerging market borrowers to launch larger issues than initially announced and to progressively extend the duration of their offerings. The trend towards longer maturities for emerging market issues culminated in Mexico's exchange of $1.75 billion of Brady bonds for 30-year uncollateralised securities.

Activity in the international bond market

In billions of US dollars



Sources: Bank of England, Euroclear, Euromoney, IFR, ISMA and BIS.

Investors' increased appetite for risk also encouraged them to further diversify their asset holdings in terms of borrowers, currencies and structures. New borrowers included sovereign names such as Estonia and Israel[13] as well as developed country entities such as a US municipality. In addition, US financial institutions continued to avail themselves of the attractive funding opportunities created by strong European retail demand for US financial sector paper, while specialised financing institutions in Germany pursued the process of international diversification that had begun in 1994. Some developing country borrowers tested established currency sectors, such as the guilder, while new market segments, such as the foreign escudo and Czech koruna markets, saw further activity. With respect to new structures, the most important trend was the continued strong

[13] With the first issue not guaranteed by the United States government.

volume of financing through asset-backed securities ($19.1 billion). While investors have been attracted by the above-market returns attached to these generally highly rated structures, US-based issuers, which have recently accounted for the bulk of issues, have stepped up their marketing efforts in Europe through global dollar transactions. A few structures backed by US dollar assets have also been denominated in European currencies and the market is beginning to see European-originated deals.

In spite of a slight decline in secondary market turnover, the high volume of new issues, combined with strong revenues generated by merger and acquisition activity, boosted profitability in the investment banking industry. Nevertheless, market conditions remained highly competitive. Although US investment banks returned to a dominant position in the underwriting league tables in the first half of the year, the subsidiaries of European commercial banks demonstrated a strong willingness to improve their market standing. The pronounced erosion in the ranking of Japanese securities firms in the league tables largely reflects the lower volume of yen business relative to 1995.

Main features of the international bond market[1]

In billions of US dollars

Instruments, currencies and type of issuer	1994	1995				1996	
	Year	Year	Q2	Q3	Q4	Q1	Q2
Announced issues	**361.6**	**358.5**	**90.1**	**104.9**	**86.0**	**151.0**	**132.0**
Straight fixed rate issues	253.2	280.6	71.9	78.4	66.8	110.0	87.5
Floating rate notes	75.2	59.9	13.6	19.8	14.6	28.1	34.1
Equity-related issues[2]	33.2	18.1	4.6	6.7	4.5	12.9	10.4
US dollar	115.5	118.6	26.2	39.8	30.7	64.5	60.7
Japanese yen	69.6	76.6	23.4	23.5	17.2	13.8	14.3
German mark	37.8	55.9	17.4	11.7	14.8	24.8	15.0
Other currencies	138.6	107.5	23.0	29.9	23.3	48.1	42.0
Financial institutions[3]	155.2	160.7	35.5	45.9	39.5	80.4	66.0
Public sector[4]	122.9	111.3	31.6	32.5	22.7	41.5	35.4
Corporate issuers	83.4	86.5	22.9	26.5	23.7	29.1	30.5
Completed issues	**373.6**	**359.9**	**79.9**	**101.9**	**103.6**	**130.0**	**124.7**
Repayments	**228.1**	**239.2**	**58.2**	**60.4**	**65.8**	**74.5**	**71.2**
Memorandum item: Bonds announced under EMTN programmes	**59.4**	**69.7**	**13.5**	**15.3**	**20.8**	**51.4**	**34.3**

[1] Excluding bonds issued under EMTN programmes, which are considered as euronote issues. [2] Convertible bonds and bonds with equity warrants. [3] Commercial banks and other financial institutions. [4] Governments, state agencies and international institutions.

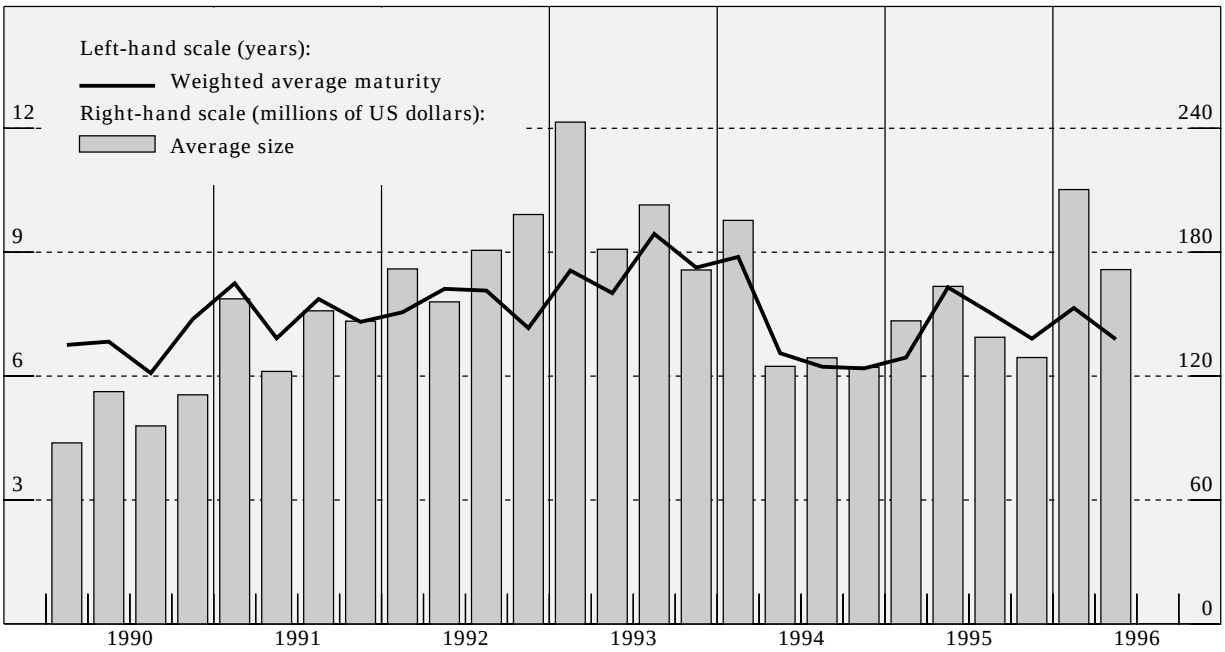
Sources: Bank of England, Euroclear, Euromoney, IFR, ISMA and BIS.

Straight fixed rate issues. Announcements of straight fixed rate issues dropped by 20% in the second quarter from the near-record seen in the previous quarter. Although public sector entities and international institutions reduced their recourse to fixed rate structures, banks accounted for much of the contraction in issuance in this market segment (from $42.4 billion to $26.3 billion), partly by moving to other instruments such as floating rate notes and shorter-term euronotes. The smaller number of large issues brought down their average size (from $210 million to $172 million), but this nevertheless remained higher than at any time since the second quarter of 1994. Issues of $1 billion or more included deals for the governments of Canada and Mexico, the World Bank and a German Pfandbrief issuer (with a DM 2 billion global structure). Except in the US dollar segment, where lower-rated names and asset-backed issuers tested longer maturities, there was a small but widespread

reduction in the average maturity of issues, with this shortening being most pronounced in the sterling and yen sectors.

In spite of the upward movement of US dollar interest rates, activity in the eurodollar segment was sustained, with the 12% decline in new dollar business being the result of a decrease in Yankee issuance, following the record volume seen in the first quarter. By contrast, the comparatively benign or favourable interest rate climate prevailing in most European countries was not associated with increased issuance. In fact, there was a particularly pronounced contraction in the German mark sector, with new offerings dropping by 50% from the high level of the first quarter. This apparently reflected a confluence of factors, including currency weakness, reduced swap opportunities and some saturation of international investors with German bank paper. Save for the sterling market, where business picked up sharply in June on the back of a strengthening pound, activity in most other major European currency segments also contracted. Euroyen issuance was inhibited by currency weakness and expectations of Japanese monetary policy tightening. This was offset to a large extent by an upsurge in Samurai issues launched largely by developing country borrowers and issuers of dual-currency bonds (offering high yen coupons but with repayment in US dollars or other higher-yielding currencies).

Average size and maturity of announced straight fixed rate international bond issues



Sources: Bank of England, Euroclear, Euromoney, IFR, ISMA and BIS.

Floating rate notes (FRNs). Uncertainty with respect to the evolution of interest rates and the strong liquidity position of financial institutions and fund managers continued to generate heavy demand for floating rate assets, leading to a new record volume of announced FRNs in the second quarter ($34.1 billion). As in the first quarter, the strength of this demand enabled borrowers to launch larger and longer-dated offerings than had been the case for most of 1995. The tightening of secondary and primary market spreads encouraged investors to move to lower-rated or new structures, thus benefiting a widening range of borrowers. While financial institutions once again launched the bulk of new offerings, there was a rebound in issuance by non-financial private entities. However, public sector issuers and international institutions continued to maintain a low profile. The dearth of highly rated sovereign paper combined with the increased volume of maturing issues seen in recent quarters enabled such issuers to obtain substantially more attractive financing terms than in earlier

periods. For example, Italy was able to refinance a $2 billion issue launched in June 1993 and offering a coupon of LIBOR plus 25 basis points with a new deal bearing a coupon of LIBOR minus 6.25 basis points. Terms on the new Italian FRN were also highly competitive with those available in the syndicated loan sector, where an ECU 5 billion credit arranged for Spain in the second quarter of 1995 carried a margin of LIBOR plus 4 basis points.

Issuers of asset-backed securities continued to be highly active, accounting for more than 60% of new deals launched by financial sector entities. The greater popularity of such structures in the euromarket allowed borrowers to finance themselves more cheaply in this sector than in the past. In spite of US data showing that defaults on credit card payments had reached their highest level since the early 1980s, there was a further expansion in structures backed by US-originated credit card receivables, including the first such offering in German marks and an issue with the longest maturity yet seen (17 years). Intermediaries also brought new structures in other asset markets, including a $1.5 billion US agency multi-tranche issue pegged to US Treasury bill rates and a Pts. 215 billion ($1.7 billion) Spanish issue securitising debt related to the country's nuclear moratorium. Although the issuance of European asset-backed securities has been hampered by several factors (including the lack of large, homogeneous pools of assets as well as widely differing regulatory and tax regimes), the number of countries where such transactions are taking place is gradually increasing.

Equity-related bonds. In spite of the positive tone prevailing in most equity markets, gross issuance in the equity-related sector declined in the second quarter (to $10.4 billion). As in the previous quarter, borrowers continued to favour convertible issues. Except for a ¥100 billion issue incorporating a mandatory conversion clause launched by a trading company, activity by Japanese entities was modest. Similarly, a few large transactions largely accounted for the higher profile of European-based names, including a $1.9 billion dollar equivalent two-tranche convertible issue related to the privatisation of a state-owned Italian insurance company and a DM 1.2 billion issue of "quasi-" convertible notes for a large German industrial concern. Although a lower volume of issues was launched by non-Japanese Asian borrowers, the larger size and volume of Korean offerings appeared to illustrate greater market acceptance of such issues. With net issuance of convertible bonds increasing, the stock of equity-related paper stabilised somewhat following a long period of contraction.

Structural and regulatory developments

In May, a working party set up by the Deputies of the Group of Ten countries to examine issues related to the resolution of sovereign liquidity crises submitted its report to the G-10 Ministers and Governors.[14] The report notes, among a number of issues, the rising importance of securitised debt and the growing likelihood that some such debt may be subject to renegotiation in the future. Although investors in international debt securities have usually been shielded from payment suspensions or restructurings (because of the implicit senior treatment given by borrowers), current principles and procedures for handling sovereign liquidity crises may no longer be adequate. The report concludes that, while the official community may be able to facilitate dialogue between debtors and creditors in the event of a liquidity crisis, and may assist in the collection of relevant economic and financial data, the establishment of a formal international bankruptcy procedure would not be feasible or appropriate. It stresses, on the other hand, that neither debtor countries nor their creditors should expect to be insulated from adverse financial consequences by the provision of large-scale official financial assistance in the event of a crisis. Market participants are therefore expected to make the appropriate decisions regarding any innovations in contractual provisions that would facilitate consultation and cooperation between debtors and creditors were such an event to occur.

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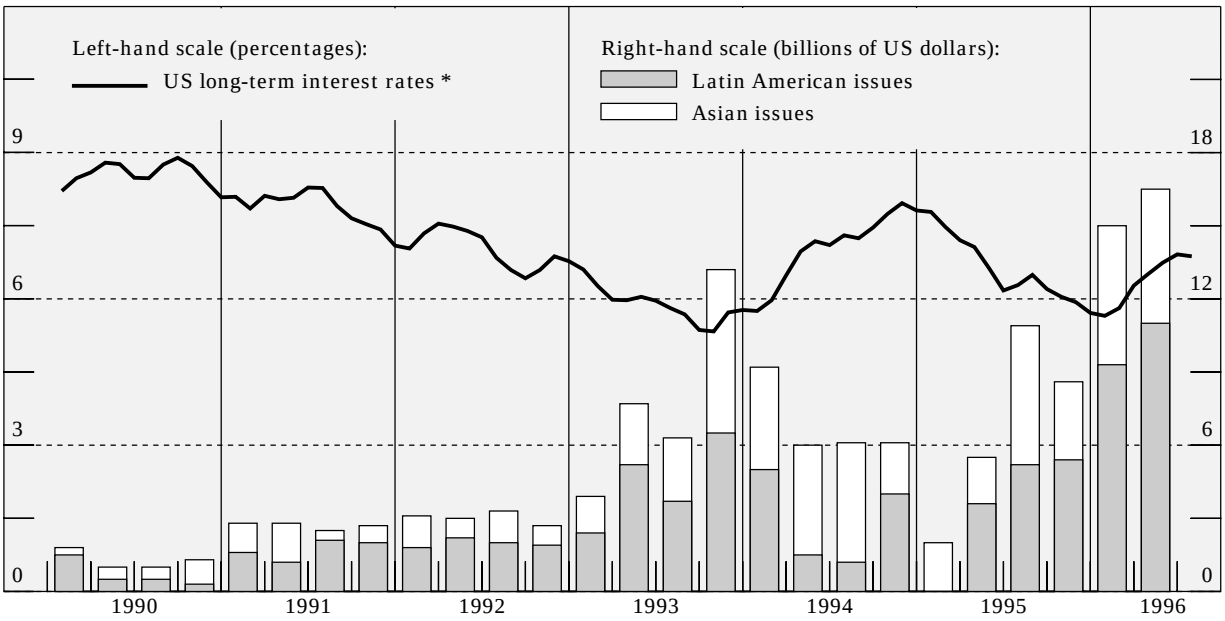
[14] "The Resolution of Sovereign Liquidity Crises", a report to the Ministers and Governors prepared under the auspices of the Deputies, May 1996. Copies of the publication can be obtained from the central banks and finance ministries of the G-10 countries, as well as from the BIS and the IMF.

On 1st April the Japanese Ministry of Finance announced a further easing of seasoning restrictions on the domestic sale of euroyen bonds issued by Japanese resident borrowers, and their complete abolition in 1998 (those applying to non-resident issues of euroyen bonds were abolished in August 1995). April also saw the launch in Japan of a new market for lending with cash collateral. The new market represents a modified version of an existing securities lending system (the taishaku market), whereby limits on the interest paid by borrowers for cash collateral will no longer apply. It aims at providing greater liquidity to the Japanese government bond market and should allow traders to meet the requirements created by the introduction next October of a rolling settlement period, bringing the Japanese financial system into line with practices existing in other major countries. From 1st July the Korean authorities allowed all non-resident borrowers with at least a triple-B rating to issue domestic won-denominated bonds. The liberalisation allows up to 50% of won-denominated bonds launched by foreign borrowers to be sold to non-resident investors. Lastly, the Bank of England further liberalised issuance in the sterling securities market by allowing commercial and investment banks satisfying EU "passport" requirements to carry out the lead management of sterling issues anywhere in the single market.

Appendix 2: Recent developments in international securities issuance by borrowers from developing countries

In spite of less favourable market conditions since the beginning of 1994, net issuance of international securities by borrowers in developing countries[15] has been highly resilient. The global bond market reversal of early 1994, the Mexican crisis and the turbulence seen in financial markets at the beginning of 1996 have had no more than a temporary and localised influence on issuance. Whereas in recent years there has been a close inverse correlation between the level of interest rates in major industrialised countries and the volume of new international bond issues by developing country borrowers, the sharp increase in US interest rates and in their volatility in the first quarter of 1996 failed to have any major impact on such issuance (see the graph below). Thus, in the first half of 1996 net issues of securities by entities from these countries already exceeded the previous annual record set in 1994. This suggests that broader forces have been at play recently, including a more widespread search for higher returns by international investors, a sharper differentiation between countries in credit risk assessment, the implementation of sounder economic policies by developing countries, and improved economic conditions in countries affected by the "tequila effect". This appendix highlights the main trends in developing country financing since 1990, focusing on the geographical, currency, instrument and sectoral distribution of activity, as well as on overall financing conditions.

Announced international bond issues by borrowers in Asia and Latin America and US long-term interest rates



* Secondary market yield on ten-year US Treasury notes, monthly average.

Sources: Bank of England, Euroclear, Euromoney, IFR, ISMA and BIS.

Volume and geographical distribution of issuance

Analysis of developing country financing flows often focuses on the international bond market. However, the inclusion of securities issued under the umbrella of euronote facilities provides a more accurate picture of total financing conducted in the international debt securities market.[16]

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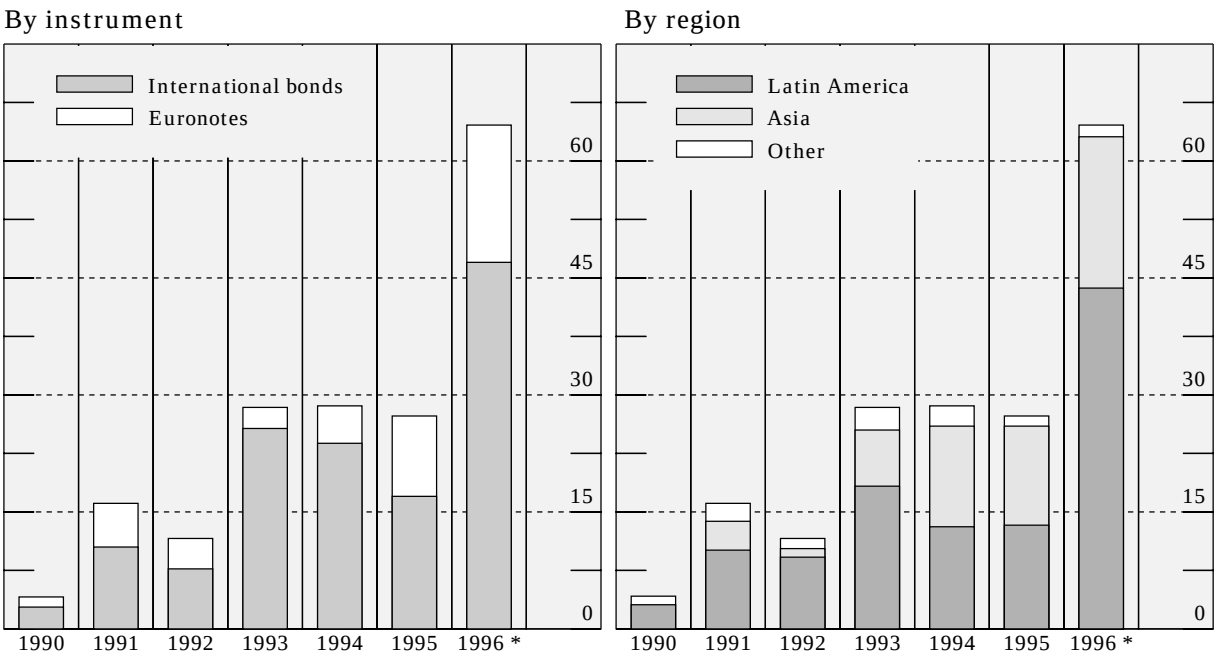
15 Including borrowers from eastern Europe.

16 A comparison of international financing through the eurobond and euronote markets can only be made on a net basis because there are no comprehensive data on gross issues of euronotes.

Thus, in spite of the sharp contraction in international bond issues in 1995 relative to 1993 and 1994, a rapid expansion in the use of euronotes supported overall financing at a steady pace, with a full-year peak of $28.6 billion in 1994. Borrowers from Latin America have consistently been the largest single group of issuers, but those from Asia have also become very active since 1994. Entities from other parts of the world have maintained a low profile. Although the market reversal of early 1994 and the Mexican crisis had a much less pronounced impact on Asian borrowers than on Latin American ones, developments since the second quarter of 1995 do not indicate any major reorientation of investment flows towards Asia (see the following graph).

Net issues of international debt securities by borrowers in developing countries and eastern Europe

In billions of US dollars



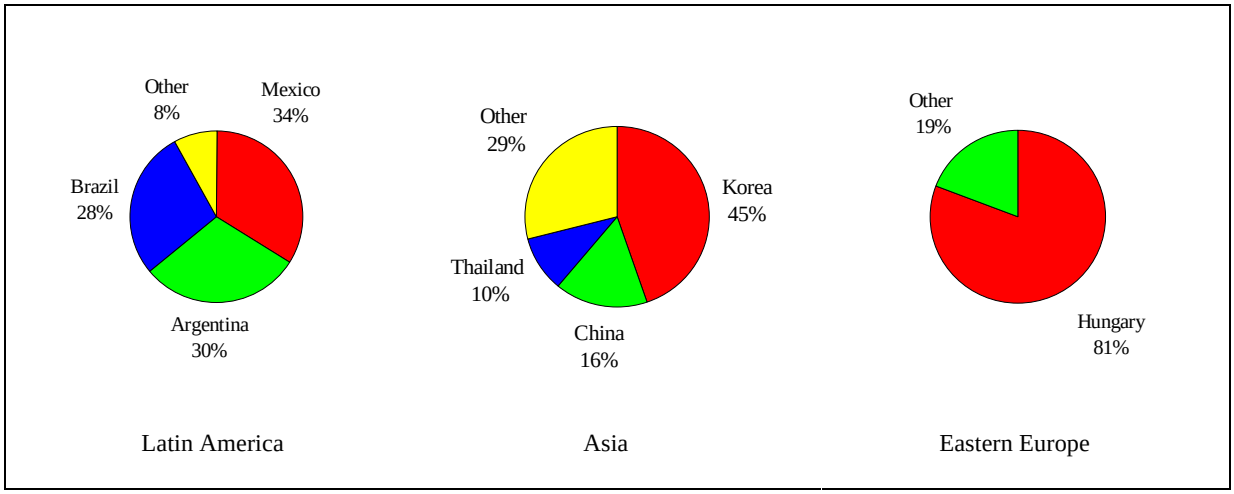
* First two quarters annualised.

Sources: Bank of England, Euroclear, Euromoney, IFR, ISMA and BIS.

There were, however, significant intra-regional shifts in business in 1995. In Latin America, net issuance by entities in Argentina and Brazil rose strongly, while Mexican borrowers all but withdrew from the market. In Asia, reduced use of the market by a wide range of borrowers (particularly in China, where limits on external borrowing were implemented) was offset by a more than doubling of business by Korean names. In this context, it is important to bear in mind that total borrowing remains heavily concentrated in a narrow group of countries (see the chart on the next page). More than 90% of the stock of Latin American issues outstanding at end-June 1996 ($91 billion) was accounted for by Argentina, Brazil and Mexico. The stock of issues launched by borrowers in China, Korea and Thailand amounted to 71% of the total Asian stock ($70.8 billion). Hungary accounted for 81% of outstanding issues from eastern Europe ($18.4 billion). Nevertheless, market liberalisation and the development of local securities markets, combined with the entry of new names to the international market (from countries such as Latvia, Lithuania, Poland and Slovakia) or the re-entry of sovereign borrowers (such as Brazil) following the satisfactory conclusion of debt negotiations and recent upgrades in credit ratings, should contribute to diversifying the issuer base in the coming years.

International debt securities issued by borrowers in Latin America, Asia and eastern Europe

Percentage shares in terms of amounts outstanding at end-June 1996



Sources: Bank of England, Euroclear, Euromoney, IFR, ISMA and BIS.

Instrument and currency diversification

In contrast to developed countries, where financing through euronote programmes has been predominant since 1995 (with about 60% of net issuance), developing countries continue to rely more heavily on traditional international bonds. Nevertheless, financing through euronotes has expanded strongly since 1993, and accounted for almost 40% of developing countries' net international debt securities issuance in 1995. Latin American entities have issued three-quarters of the outstanding stock of euronotes brought to market by developing countries. A lack of detailed information on euronote issues prevents an analysis of the types of instrument used, but available data on international bonds reveal that since 1990 fixed rate bonds have accounted for between 61% and 85% of yearly issuance, a proportion similar to that of developed country borrowers.

Perhaps the most important recent trend in the composition of developing country financing has been the currency diversification of issuance. In the international bond market, non-dollar issues began to expand noticeably in 1993 and by 1995 accounted for 59% of all announced deals (although this proportion declined to 41% in the first half of 1996). While the German mark and the yen have both seen a marked expansion in market share, this has been more pronounced for the latter currency. In spite of Japanese investors' sustained aversion to currency risk, low yen interest rates have encouraged them to seek higher yields through the acquisition of lower-rated issues. This process has been supported by a further liberalisation of the Samurai market, which now allows issuance by lower-rated entities. While Asian borrowers have actively used the yen market since 1993, they have not made intensive use of other non-dollar currencies. In the case of Latin American entities, recourse to the non-dollar markets is more recent, with sharp increases in yen and German mark issues since 1995. Other major currencies such as the Swiss franc and the Italian lira have also gained in importance recently, as well as a number of emerging market currencies such as the South African rand and the Czech koruna. There is no publicly available and consistent information on the extent to which the proceeds from developing country borrowings have been swapped. To the extent that counterparty credit risk has limited the use of currency swaps, some borrowers could face potentially large liabilities should exchange rates move unfavourably. Another notable innovation has been the recent introduction of asset-backed structures. Such issues are proving particularly advantageous to borrowers in developing countries, where the securitisation of foreign exchange receipts (from tourism or commodity exports, for example) through offshore trusts reduces convertibility and transfer risk problems and permits lower issuing costs.

The aftermath of the Mexican crisis

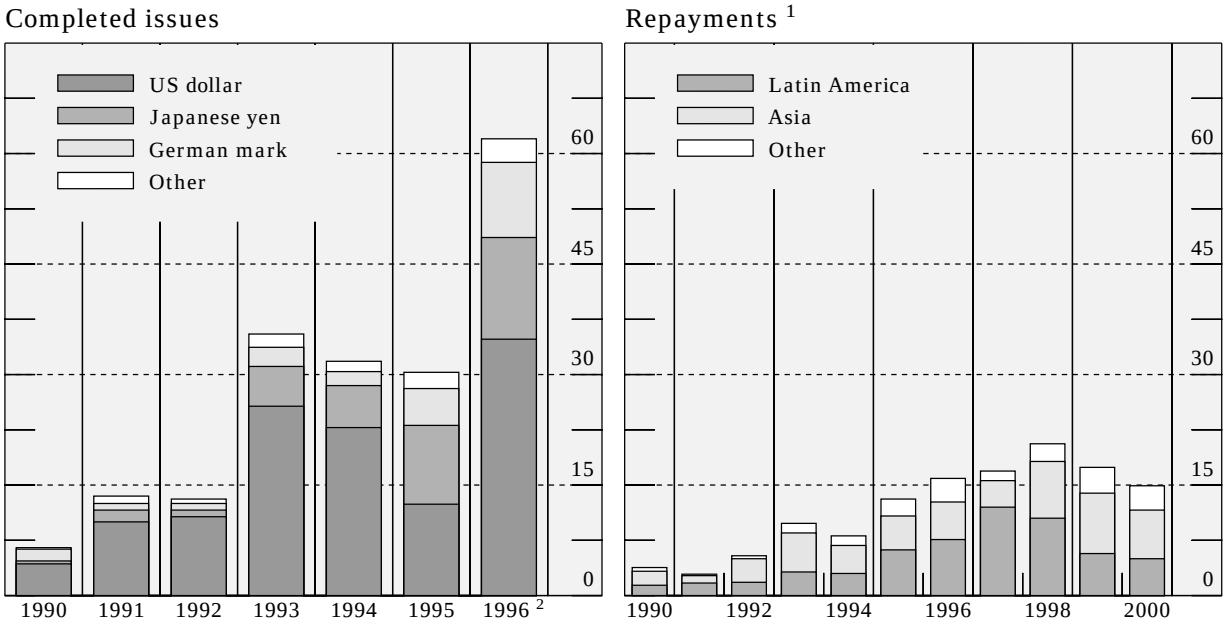
Looking at the sectoral composition of borrowing, there has been little to differentiate Latin America from Asia in overall issuing patterns. The Mexican crisis, however, did have an impact on the sectoral composition of Latin American issues. Although Latin American net issuance increased slightly between 1994 and 1995, this masked a sharp increase in state sector financing, which more than offset a drying-up of non-financial private sector issuance. Concerns about Mexican firms' ability to repay foreign currency debt in the context of a sharply lower value of the domestic currency, higher domestic interest rates and recessionary conditions meant that the withdrawal of non-financial private sector entities was particularly pronounced there, with a move from net issuance of $4.8 billion in 1994 to net repayments of $0.3 billion in 1995. While state sector issuance rose slightly in Mexico in 1995, the increase was much more marked in Argentina, where issues made to replenish foreign exchange reserves helped to account for a near-tripling of net volume, to $7.2 billion. Concerns about the strength of the financial system in Mexico and Argentina also caused a swing towards repayments by financial institutions located in those countries. Issuance by Brazilian financial institutions was apparently little affected by the "tequila effect", with these entities continuing to actively seek arbitrage opportunities between local and foreign interest rates.

As mentioned above, the Mexican crisis had little impact on the volume of Asian issues. The pattern of issuance in this area was influenced rather by policy and regulatory factors. The significant reduction in Chinese government and financial sector financing resulted from a policy decision to limit external borrowing, while sharply expanded Korean financial sector issuance is explained mainly by the partial liberalisation of local banks' international issuance and by the continued high cost of local financing faced by Korean firms.

In common with developments in the international bond market at large, the market reversal of early 1994 and the Mexican crisis led to a significant reduction in the average maturity of fixed rate issues (from 8.2 years in the first quarter of 1994 to a low of 4.4 years in the second quarter

International bonds issued by borrowers in developing countries and eastern Europe

In billions of US dollars



[1] From the third quarter of 1996 onwards, scheduled repayments on the basis of amounts outstanding at end-June 1996.

[2] First two quarters annualised.

Sources: Bank of England, Euroclear, Euromoney, IFR, ISMA and BIS.

of 1995) and a marked widening in secondary and primary market spreads. However, this chiefly affected Latin American securities. A return of investor confidence and the need to even out the repayment profile of maturing debt (resulting from heavy issuance in 1993; see the graph on the preceding page) have prompted Latin American issuers to lengthen the maturity structure of new offerings. Market spreads on Latin American issues with similar maturities have narrowed considerably since the first quarter of 1995 and are now comparable to the low levels prevailing in late 1993.

The Mexican crisis also alerted the authorities of recipient countries to the risks implied by heavy reliance on short-term capital inflows, leading a large number of countries to impose temporary restrictive measures on banking and securities inflows. However, in addition to structural reforms favouring the development of local capital markets, there has more recently been a tendency to favour market-oriented measures (such as greater flexibility in exchange rate management) rather than administrative restrictions. Although individually none can offer full protection against an abrupt change in market conditions, a combination of such measures should together contribute to creating an environment more favourable to sustained long-term capital imports, thus contributing to reducing the threat of disruption resulting from a tightening of monetary conditions in industrial countries.

Appendix 3: Prospects for an integrated European government bond market[17]

A single European currency area could change European bond markets profoundly. Derivatives markets have already begun to accommodate the prospect of a single private sector yield curve. For instance, the London International Financial Futures and Options Exchange (LIFFE) announced in March 1996 that March 1999 short-term eurocurrency contracts for the German mark, sterling and the lira would provide for settlement in euros if these currencies were irrevocably converted to the euro.[18] Such moves foresee a market in which prime names throughout the single currency area would be able to fund themselves and manage their interest rate exposure in euros at rates that would be determined area-wide. However, some analysts expect that underneath this single private euro yield curve would lie a variety of government yield curves. The following paragraphs provide some new insight into the prospects for a unified European government bond market on the basis of current market indicators.

Current market indicators

With the single European currency, exchange rate and inflation risks would no longer distinguish between various government bonds, but separate assessments of governments' creditworthiness would continue to be made. Observers often draw analogies with the way markets price provincial or state debt in federal systems. Another possibility is that the bonds of some or all of the governments participating in the monetary union could trade interchangeably. As described below, credit ratings, single market bond yield spreads and swap spreads all reveal very slight differences between the countries judged by market participants to be likely candidates for early entry.

Sovereign credit ratings and EMU membership poll results

Country	Rating		Poll results: expected participation in EMU at outset (in %)
	Moody's	S&P	
Germany	Aaa	AAA	100
France	Aaa	AAA	97
Austria	Aaa	AAA	79
Belgium	Aa1	AA+	79
Netherlands	Aaa	AAA	76
Ireland	Aa2	AA	60
Denmark	Aa1	AA+	50
Finland	Aa2	AA-	36
UK	Aaa	AAA	22
Sweden	Aa3	AA+	7
Spain	Aa2	AA	7
Italy	A1*	AA	2
Portugal	A1	AA-	0
Greece	Baa3	BBB-	0

Note: Ratings on foreign currency issues. The poll was conducted by *Consensus Economics* and indicates the percentage of respondents predicting that countries will join EMU at the outset. Luxembourg, rated Aaa and AAA, was not included in the poll.

* Rating under review for possible upgrade.

Sources: *Consensus Economics*, January 1996, p. 26, Moody's and Standard and Poor's.

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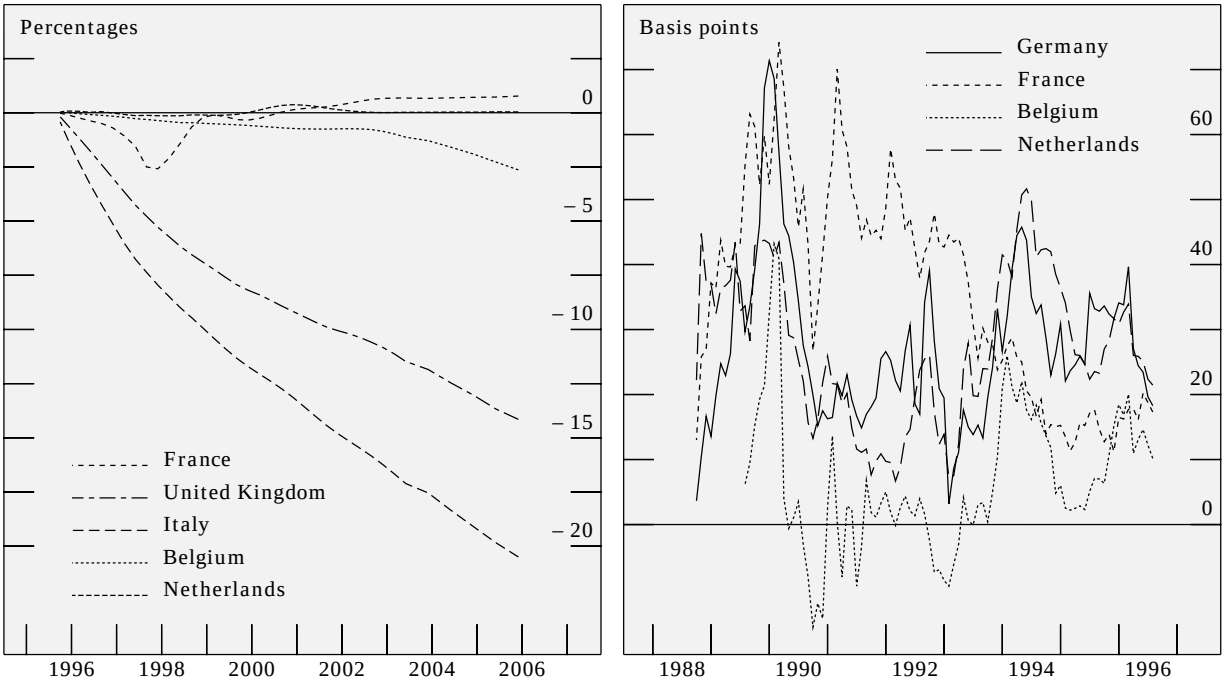
17 This appendix was contributed by Robert N. McCauley of the Monetary and Economic Department of the BIS.

18 See "EMU-LIFFE's Response", *LIFFE Market Monitor*, No. 7, 3rd April 1996.

Credit ratings: Identical credit standing is a necessary condition for a fully integrated government bond market. A poll of market participants taken in January 1996 indicates that the countries which are thought most likely to participate in EMU from the outset are those which already enjoy high ratings (see the table on the preceding page). This observation in part reflects the similarities between the factors determining ratings and those required for compliance with the Maastricht convergence criteria.[19] The results of the poll have since found an echo in market interest rates, as interest rate swap differentials have narrowed, signalling expectations of stable exchange rates between the German mark and the French franc, Dutch guilder and Belgian franc (see the left-hand panel of the graph).

Forward exchange rates against the German mark and swap spreads over ten-year government bond yields

Forward exchange rates against the mark [1] Swap spreads over ten-year government yields [2]



[1] As at 19th July 1996. Forward exchange rate are derived from differentials on eurodeposit interest rates and, for longer horizons, on interest rate swap (midpoint) yields in the respective currencies.

[2] Data for Belgium available only from June 1989; monthly averages.

Sources: Datastream, Reuters and BIS.

Single market spreads. Current yields on large outstanding sovereign issues in a common currency, such as euro-issues, could indicate how government bonds of prospective EMU members might trade against each other in the absence of currency risk. However, of the first five countries in the table, only Austria and Belgium have such outstanding issues. Both pay very small premia over German government yields. Austria launched its ten-year DM 2 billion issue in January 1996 at an 18 basis point spread over the January 2006 Bund and introduced its Fl. 1.5 billion issue in April at about a 10 basis point spread over a comparable Dutch government bond. Belgium's issue in German marks suggests that euro-denominated Belgian debt would trade close to par with that of the German government. At launch in September 1993, a DM 1 billion Belgian issue offered a coupon only a

[19] Consistent with Maastricht's provision stipulating that governments facing financial difficulties will not have access to central bank funds, the table shows foreign currency rather than domestic currency ratings. See R. Cantor and F. Packer, "Determinants and Impacts of Sovereign Credit Ratings", Federal Reserve Bank of New York Research Paper No. 9608.

quarter point above the German Bund, and has since yielded a 15 basis point premium. Liquidity is likely to account in large measure for these narrow spreads. The comparable German government bond amounts to DM 12 billion and enjoys the "home advantage" of numerous and committed market-makers.

Comparative swap spreads. Another way of isolating differences in credit from those arising from inflation and currency risks is to consider single-currency spreads between government and prime private sector yields. In particular, one can compare the difference between the high-quality private risk represented by swap yields and the public risks priced into government yields. A key assumption of such an exercise is that the swap rates reflect the credit risk of prime banks or corporations and do not vary greatly from currency to currency. Indeed, major banks post interest rate swap yields in a variety of currencies. Also, while macroeconomic conditions influence swap spreads,[20] close economic integration of the core economies renders their cycles fairly synchronous.[21] Thus the gaps between public sector risks that vary across national markets and similar private sector risks indicate the credit risk attached to government debt. This interpretation reverses the usual perspective, which treats government debt as the "risk-free" asset and the spread as a measure of private sector risk. Under this proposed interpretation, narrower spreads would indicate more risky government debt.

Government bonds of some of the countries judged likely by market participants to unite their currencies in a few years' time trade fairly similarly against prime names in the private sector. The right-hand panel of the graph plots selected spreads between ten-year benchmark government bonds and swap rates. It shows that between 1989 and 1995 these spreads all traded within a 70 basis point range. So far in 1996, the French, Dutch and German spreads have traded within 10 basis points, while the Belgian spread has tended to be noticeably narrower than the others. This clustering suggests that the market would make only very fine distinctions between these governments' bonds.

Fungibility and liquidity

In designing futures contracts there is a trade-off between providing a solid grounding to the cash market and promoting a basis for homogeneous trading. Solid grounding argues for making a broad array of bonds deliverable into the futures contract. Homogeneity argues for excluding bonds with different coupons and maturities. In practice, contracts permit delivery of bonds of different maturities and coupons through valuation adjustments of varying complexity.

One can imagine three different ways, in ascending order of integration, in which futures markets could relate to cash markets in the prospective monetary union. Firstly, a futures contract could trade against a basket of bonds. This approach would accommodate large, persistent and varying credit differences among governments. Its disadvantage is the complexity and loss of precision involved in trading against such a basket. For instance, among recently launched US contracts on Brady bonds, trading has favoured those based on single issues rather than on a basket. A basket might fail to displace the German government bond contracts, currently the most actively traded European bond futures. Secondly, the contract could itself incorporate any fairly consistent credit differences. Thus the bonds of one country could be delivered into the futures with price adjustments capturing their "normal" spread against another country's bonds. In practice, therefore, fungibility could accommodate the persistence of credit differences. Thirdly, the debt of some governments could trade interchangeably in the cash and futures markets, that is, it could trade "on a run". For example, in the 1980s certificates of deposit of major US banks were delivered interchangeably into a futures contract.

Prospective interest savings through higher liquidity might encourage cooperative debt management. Governments could auction issues jointly with identical coupons and maturities or they

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[20] See J. S. Alworth, "The Valuation of US Dollar Interest Rate Swaps", BIS Economic Papers, No. 35, January 1993.

[21] See M. de Cecco and F. Perri, "L'integrazione europea: un'analisi empirica", BNL *Moneta e Credito*, No. 193, March 1996.

could simply match each other's coupons and maturities, in effect "reopening" each other's issues. Such cooperation might make possible the creation of successful futures contracts at more than one node on the yield curve, as in the United States.[22] Were the similarities to prove sufficiently strong that the bonds were covered by a single set of exchange-traded futures contracts, then Europe's main bond market would join those of the United States and Japan in terms of size and liquidity.

* * *

In an integrated European government bond market, investors might be more willing to buy large quantities of bonds if they could sell them without encountering reduced liquidity and any associated increase in volatility.[23] On the issuing side, bond underwriters need to sell short large amounts of underlying government bonds in order to hedge new issues. The availability of very large benchmark bonds would facilitate this hedging and thus permit a finer pricing of issues.

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[22] See the article by Serge Jeanneau, "Interest Rate Futures: Characteristics and Market Development", in the November 1995 and February 1996 issues of this commentary.

[23] See D. Domanski and H. Neuhaus, "Bond market volatility in Germany", in *Financial Market Volatility*, BIS Conference papers, Vol. 1 (March 1996), pp. 119-22, and C.E.V. Borio and R. N. McCauley, "The anatomy of the bond market turbulence of 1994", *loc. cit.*, pp. 6-9, and "The Economics of Recent Bond Yield Volatility", BIS Economic Papers, No. 45 (July 1996), pp. 66-72.

IV

DERIVATIVES MARKETS

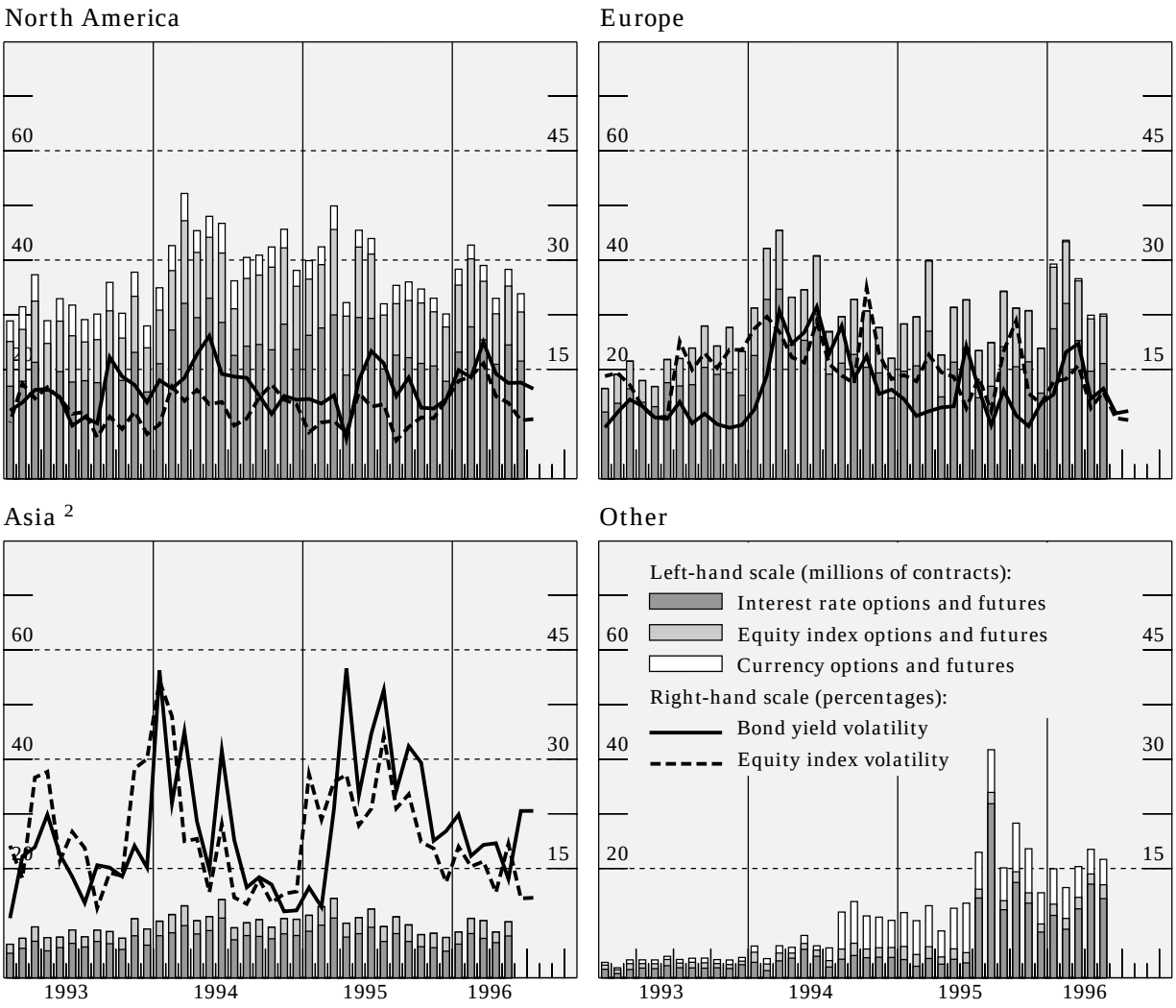
Exchange-traded instruments

The aggregate turnover of exchange-traded financial contracts monitored by the BIS declined by 13% in the second quarter of 1996, to 284.9 million contracts. The return to generally calmer financial market conditions in the countries where the major exchanges are located was accompanied by a lower volume of business in all three broad instrument groups (interest rates, equities and currencies). There were, however, some regional exceptions to this general pattern, including a rebound in Brazilian interest rate contracts and a modest expansion in North American and European currency products. Activity in Brazilian interest rate contracts was boosted by strong inflows of foreign capital and the related easing of domestic interest rates. The higher level of currency-related activity in North America reflected a sharp increase in the trading of options on the dollar/sterling rate on the Chicago Mercantile Exchange (CME), while the pick-up in European business resulted from a notable increase in the small-sized futures contracts introduced recently on the Budapest Commodity Exchange. Nevertheless, the global volume of exchange-traded currency contracts has failed to increase appreciably in recent years, with exchanges having to contend with some moderation in corporate hedging, intense competition from the over-the-counter (OTC) market and structural changes which have reportedly affected liquidity in the cash foreign exchange market (such as the growth of electronic trading and the consolidation taking place in the global financial industry). Exchanges have responded to the challenge by encouraging retail and corporate participation, by developing instruments which mimic some of the features of OTC instruments and by listing contracts on developing country currencies, measures which have met with varying degrees of success. Looking at trading on the main exchanges, buoyant activity in agricultural commodity contracts (not included in the BIS statistics) meant that the decline of activity on the Chicago Board of Trade (CBOT) was less pronounced than on the CME and the Chicago Board Options Exchange (CBOE), allowing it to maintain its position as the largest in the United States and indeed the world. The London International Financial Futures and Options Exchange (LIFFE) continued to dominate European activity by a wide margin, while activity on the Deutsche Terminbörse (DTB) is gradually catching up with that on the Marché à Terme International de France (MATIF). At the same time, the Brazilian Bolsa de Mercadorias y Futuros remained the fourth-largest exchange in the world (in terms of the number of contracts traded rather than the value) after the CBOT, the CME and and the CBOE.

Responding to continuing competitive pressures, exchanges introduced a number of measures. For example, the range of products offered was modified to adapt to changing demand conditions (such as those for equity options traded on LIFFE); joint trading systems were developed further (such as the jointly owned trade processing entities proposed by US derivatives exchanges and the common cash/derivatives platforms being considered in Germany and Switzerland); new, lower fee structures were introduced (by the clearing body of the CBOT and the Mid-America Commodity Exchange - MIDAM); and there was a tendency for firms to centralise trading. The last trend is best illustrated by the decision of certain members of the DTB to avail themselves of the new remote screen-trading facilities offered by the exchange to centralise their trading in London. For the DTB, the loss of physical presence in Frankfurt should be offset by an improved opportunity to compete with similar contracts traded on LIFFE.

The erosion of profitability in well-established interest rate products and the difficulty of attracting currency business away from the OTC market have led exchanges to place greater emphasis on the development of equity and emerging market instruments (this was also helped by the buoyancy of their underlying markets). New instruments on developed country equities included the extension in April of the flexible option concept to the Nasdaq 100 share index by the CBOE and the planned introduction by the DTB of futures based on an index of medium-sized companies. In the area of emerging market products, the quarter saw the introduction at the end of May of instruments based on

Turnover of derivative financial instruments traded on organised exchanges and bond yield and equity index volatilities [1]



[1] Rolling standard deviation of 20 previous daily percentage changes in benchmark yields and equity indices of US, German and Japanese markets for North America, Europe and Asia respectively. [2] Including Australia and New Zealand.
Sources: Datastream, Futures Industry Association and BIS.

Mexico's IPC stock index by the CBOE and the CME, the planned listing of futures and options contracts on a newly created Taiwan 100 index by the CME, and the signature of an agreement between the CBOT and the Taiwan Stock Exchange to jointly develop a derivatives exchange in Taipei.

The major US exchanges have tended to follow different competitive strategies with respect to emerging market derivatives. The CME has generally tended to introduce its own contracts, while the CBOT has assisted in the development of local exchanges (with a participation in future revenues). In the short to medium term, the CME's products are likely to enjoy a competitive edge in emerging market products owing to the existence in the United States of a well-established regulatory structure and a greater degree of confidence on the part of market participants in existing mechanisms for the management of credit risk. But these advantages could dissipate once countries have developed the necessary technical and regulatory infrastructure and begin introducing their own contracts. In the case of the CBOT, although cooperative arrangements do not provide higher trading volume for the exchange, participation in local exchanges could supply it with an expanding source of income given the importance attached by national authorities to the development of local exchanges. This last point was illustrated during the period under review by the launch of several new market-places, for

instance in Malaysia, Portugal and Korea. It may be worth mentioning in this connection that the CBOT is also a member of the Central European Clearing House and Exchanges (CECE), a group established in 1995 with a number of European exchanges to help develop electronic trading platforms and clearing facilities for new central European exchanges. During the second quarter, the CECE began to establish cooperative projects in central Europe, including the introduction of contracts on newly created equity indices listed on Austrian exchanges.

In Europe, the perceived need to establish a strong position ahead of the launch of the single European currency led exchanges to introduce new products based on European interest rates and currencies. An innovative feature in the interest rate risk category was the launch at the end of June by the Meff Renta Fija (the Barcelona-based fixed income derivatives exchange) of "Diff" futures contracts based on the price differentials between German, French and UK bond futures contracts on the one hand, and the ten-year Spanish government bond contract on the other. The contracts will allow spread trading to be carried out through a single rather than separate transactions. The DTB announced in the course of the quarter that it would introduce its first currency option (on the US dollar/German mark exchange rate) at the beginning of 1997.

Over-the-counter (OTC) instruments

With major stock market indices reaching new records, activity in the warrants market was dominated in the second quarter by new issues on equities. In parallel with developments in exchange-traded markets, a large number of issues were based on emerging market shares and indices. Innovative features included the introduction by one US bank of "Index Return Certificates" based on the composite indices of central European stock markets, denominated in German marks and listed on German exchanges, as well as an extension of range-type structures from packages based on currency pairs to packages based on a variety of underlying assets (including currencies, equities and interest rates). Lower volatility in currency markets meant that fewer currency warrants were introduced.

At the same time, the debate over the most appropriate structure for conducting intermediation in the OTC market intensified. Following several unsuccessful attempts by US commercial banks to obtain regulatory approval, in May the US authorities allowed the first triple-A derivatives product subsidiary. The market's verdict on these structures remains mixed. Firstly, full immunisation in the case of bankruptcy of the parent company has not been tested. Secondly, the acquisition of a triple-A rating can involve considerable capital and other costs, which are difficult to justify for infrequent users. Thirdly, the need for a triple-A rating is questioned, especially given the significant improvement in the creditworthiness of US banks in recent years. Fourthly, some alternatives to the standard continuation and termination structures[24] appear to offer more flexible or cheaper routes for participation in the core segment of the swap market. These include, among others, continuation structures with flexible capital (based on the size of the derivatives book), the establishment of specific credit-enhanced internal programmes (backed by head office collateral) or third-party facilities (offered by triple-A names).

Detailed data on swap market activity in 1995 released in July by the International Swaps and Derivatives Association (ISDA) showed that outstandings in the swaps and related interest rate options markets soared by 57% over the year, to $17.7 trillion at end-1995. The survey emphasised that non-US dollar interest rate swap business continued to grow more rapidly than US dollar transactions (51% versus 35%). In addition to the US dollar (which accounts for 34% of interest rate contracts outstanding), there is now a deep market in the yen (23%) and the German mark (11%). Smaller European currency segments have also shown strong expansion. The survey revealed that there was a sharp increase in the use of interest rate options covered by ISDA (caps, collars, floors and swaptions), which the Association related to market volatility and the need to hedge mortgage-backed

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[24] Following a triggering event, continuation vehicles cease to engage in new transactions but continue to meet their payment obligations until all outstanding contracts have come to maturity. In contrast, termination vehicles are required to close all existing contracts at market value within a given period.

assets. Moreover, there appears to have been a recovery in the growth of currency swaps (31%), following several years of lethargic activity. Open positions in the segments of the OTC market covered by ISDA have grown significantly more rapidly than those of exchange-traded products (see the table below).[25]

Markets for selected financial derivative instruments

In billions of US dollars

Instruments	Notional amounts outstanding					
	1990	1991	1992	1993	1994	1995
Exchange-traded instruments	**2,290.4**	**3,519.3**	**4,634.4**	**7,771.1**	**8,862.5**	**9,185.3**
Interest rate futures	1,454.5	2,156.7	2,913.0	4,958.7	5,777.6	5,863.4
Interest rate options[1]	599.5	1,072.6	1,385.4	2,362.4	2,623.6	2,741.7
Currency futures	17.0	18.3	26.5	34.7	40.1	37.9
Currency options[1]	56.5	62.9	71.1	75.6	55.6	43.2
Stock market index futures	69.1	76.0	79.8	110.0	127.3	172.2
Stock market index options[1]	93.7	132.8	158.6	229.7	238.3	326.9
Over-the-counter instruments[2]	**3,450.3**	**4,449.4**	**5,345.7**	**8,474.6**	**11,303.2**	**17,712.6**
Interest rate swaps	2,311.5	3,065.1	3,850.8	6,177.3	8,815.6	12,810.7
Currency swaps[3]	577.5	807.2	860.4	899.6	914.8	1,197.4
Other swap-related derivatives[4]	561.3	577.2	634.5	1,397.6	1,572.8	3,704.5

[1] Calls and puts. [2] Data collected by the International Swaps and Derivatives Association (ISDA) only; the two sides of contracts between ISDA members are reported once only. [3] Adjusted for reporting of both currencies; including cross-currency interest rate swaps. [4] Caps, collars, floors and swaptions.

Sources: Futures Industry Association, various futures and options exchanges, ISDA and BIS calculations.

Structural and regulatory developments

Several market and official initiatives with respect to derivatives markets were taken during the second quarter of 1996. At the market level, an additional group of six organisations joined in June the international Memorandum of Understanding (MoU) originally signed in March 1996 by 49 exchanges, clearing houses, industry groups and regulatory agencies (also called the "Windsor Declaration"). The MoU was developed in the wake of the collapse of Barings to foster the sharing of market and financial information among exchanges and clearing houses in order to improve the integrity of the global futures and options industry.[26] At the official level, the US Financial Accounting Standards Board released in June for public comment a draft proposal specifying the accounting framework for derivatives. However, in requiring derivatives to be carried on the balance sheet at market value, and in imposing certain restrictions on the treatment of transactions used for hedging purposes (whereby gains or losses arising out of the hedging of planned transactions would be deferred and included in earnings upon completion of the underlying transactions), the proposal created concerns that it could lead to a greater volatility of income statements and distortions in market practices. In May, a US federal court set a legal precedent by ruling that a US corporate entity involved in swap transactions could not require any special duties of care on the part of its counterparty since both were acting as sophisticated participants in the transaction, thus potentially reducing the threat of litigation and new legislation against intermediaries in comparable deals.

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[25] For a more detailed analysis of recent trends in exchange-traded and OTC derivatives markets, see the 66th BIS Annual Report.

[26] Large cumulative losses revealed in June by a major Japanese trading company involved in copper cash and derivatives markets served as a reminder that greater efforts are needed to improve the market and regulatory structures of global derivatives activity.

Appendix 4: The market for credit derivatives

The concept of credit derivatives appeared in the early 1990s and represents an attempt by financial institutions to apply in this area the sophisticated techniques already used for the management of market risks. While a number of traditional methods (such as operational limits on credit lines, loan provisioning, portfolio diversification and collateralisation) and "novel" methods (such as loan securitisation and separately capitalised derivatives vehicles) are already available to manage credit risk, these are considered to be significantly less flexible on their own than the techniques available in the area of market risk. Capital adequacy guidelines have also encouraged financial institutions to put greater emphasis on the risk and return characteristics of their assets and liabilities. The promotion of credit derivatives may also reflect the desire of financial intermediaries to exploit new market niches at a time when origination and dealing margins on plain vanilla or even some more complex OTC derivatives are declining.

What are credit derivatives?

In its broadest sense, a credit derivative is a customised agreement between two counterparties in which the payout is linked solely to some measure of the creditworthiness of a particular reference credit, and is thus largely independent of the market or other risks attached to the underlying.[27] Contracts specify an exchange of payments in which at least one of the two legs is determined by the performance of the reference credit. Payouts can be triggered by a number of events, including a default,[28] a rating downgrade or a stipulated change in the credit spread of the reference asset.

Credit derivatives share several characteristics with other more traditional derivative products, enabling users to single out the (credit) risk of any given asset and transfer it to another party while retaining ownership of the underlying. In unbundling risks, derivatives enable users to tailor their risk exposures more closely to their preferences or constraints. It is important to note, however, that although intermediaries promoting such instruments couch them in derivatives terminology, contracts that provide for payments in the event of default or a deterioration in credit quality are not new. Traditional banking and securities market instruments involving contingent third-party default payments, such as standby letters of credit, revolving credits, bond insurance and financial guarantees, have existed for many years. What is new perhaps is the systematic attempt to quantify such risk and break it down into fundamental building blocks.

Main types of contract

As is the case with any derivative instrument, credit derivatives can be divided into forward (including swaps) and option-type contracts. However, market terminology is not always clear when it comes to describing instruments' payout characteristics. For example, one of the most popular structures - the credit event or credit default swap - appears to share more similarities with options than with swaps.

Credit spread forwards/options. Credit spread forwards and options allow users to take positions on the future spread between two financial assets, with one of the reference rates generally being that of an interbank or government liability. As is the case with interest rate forward contracts, credit spread forwards involve a cash payment at maturity which depends on the difference between a spread agreed at contract initiation and that prevailing at settlement. Credit spread options also allow the taking of positions on a given spread (i.e. the strike price), but the payout profile is asymmetric. In the event of a (usually negative) credit development, the buyer exercises his option and is compensated by the option seller. For example, an investor seeking protection against a decline in the

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[27] This isolation of risk is, however, never complete because changes in market risks (such as increases in interest rates) often have important repercussions on credit quality.

[28] Or other related credit events such as bankruptcy, insolvency or a failure to meet payment obligations.

creditworthiness of a corporate bond could purchase a one-year put option on the bond at a strike level of 200 basis points (its spread over the relevant benchmark rate). Any widening in the spread beyond this level would be paid by the option seller. The net payout to the buyer would consist of the difference between the seller's payment and the premium paid for the option. The maximum loss resulting from non-exercise of the option would be the premium paid.

Credit event/default swaps. Credit event swaps offer users protection against specified events affecting the credit quality of the reference credit. These instruments are generally marketed as swaps under standard ISDA documentation, but they share many of the characteristics of options. Under a typical structure the holder of a given risk exposure (i.e. the protection buyer) would pay a counterparty a periodic fee (usually expressed in basis points on the notional amount) in exchange for a payment contingent on a default event or any other agreed change in the credit quality of the reference asset. For example, a credit swap could be referenced on the senior loan of a company, providing for a payment based on the difference between par and the asset recovery rate in the event of a bankruptcy. If this recovery rate were 70 cents on the dollar, the protection seller would then have to make a payment of 30 cents. Other payment arrangements could include a predetermined cash amount, a formula for payout based on the current market price of reference liabilities issued by the defaulted entity, or physical delivery of the reference liabilities against receipt of a payment equal to their par amount.

Total return swaps. Total return swaps enable buyers to transfer the total economic performance of a financial asset (defined to include all cash flows associated with the asset, fees and any capital appreciation or depreciation) for a given period generally in return for a floating rate (usually LIBOR plus a spread reflecting the creditworthiness of the counterparty as well as the credit rating and liquidity of the underlying asset).[29] For example, a bank owning a fixed rate loan would pay all of the loan's cash flows (fixed interest payments plus fees) to a counterparty in exchange for LIBOR plus the spread. The swap would be settled at predetermined intervals on the basis of the market value of the loan, with any positive change being paid by the bank to the counterparty and any negative change being paid to the bank.

Credit-linked notes. For investors who cannot or prefer not to engage in swaps or other derivatives transactions, intermediaries offer credit-linked notes as an alternative means of achieving the risk profile created by credit derivatives. Typical instruments combine the features of a standard fixed income security with a credit option. Interest and principal are paid, as is the case with regular fixed income securities, but the credit option allows the issuer to reduce interest payments if a key financial variable specified by the note's documentation deteriorates.[30] Such instruments provide the issuer with the opportunity to purchase credit insurance from investors. Many structures are based on pools of assets and give investors returns that are equivalent to purchasing a diversified portfolio of loans.[31]

Uses of credit derivatives

To the extent that they provide a more systematic way of evaluating and transferring credit risk, credit derivatives offer banks and other financial institutions a new tool for the management and optimisation of asset risk profiles. Several potential benefits can be mentioned.

Firstly, the creation of an active market for credit derivatives would allow users to dynamically manage credit risk exposure to specific counterparties or groups of counterparties in targeted economic sectors depending on their expectations of economic and financial developments. Credit derivatives can also be used to reduce excessive concentration in particular credits or to

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29 There is, however, no transfer of legal commitments.

30 This is a simplified example. Most credit-linked notes are issued by special purpose vehicles and are therefore remote from the underlying borrowers.

31 See Kerrin Howard, "An Introduction to Credit Derivatives", *Derivatives Quarterly*, Winter 1995, pp. 28-37.

diversify exposure into sectors with promising risk/return profiles. By easing credit constraints through the reduction of overly concentrated exposures, they can enable financial institutions to free up credit lines or utilise them more fully, thus enabling them to make more efficient use of their balance sheets.

Secondly, credit derivatives can be used in conjunction with other financial derivatives (interest rate or currency) to lock-in returns ahead of planned investments in non-government securities or to fix the costs of future borrowings.

Thirdly, credit derivatives can be used to avoid some of the disadvantages of cash market transactions, such as transaction costs, unfavourable tax treatment or the costly unwinding of associated market risk exposure (such as that on interest rates or foreign currency). This ability to modify exposures without engaging in potentially unfavourable transactions in the underlying market should therefore prove useful to any financial institution holding illiquid assets, such as commercial banks, investment banks, mutual funds and insurance companies. The adjustment of credit risk profiles without the need to transfer the ownership of underlying assets is particularly valuable for commercial banks, whose exposure to particular borrowers or counterparties can be reduced without endangering business relationships.

Fourthly, credit derivatives can enable users to gain access to market segments previously closed owing to a variety of structural or market impediments. For example, institutional investors are often obliged to invest in assets having a minimum credit rating or to hold them for a certain period; many non-bank financial institutions have limited access to the bank loan market; and some intermediaries are excluded from the OTC derivatives markets because of their low credit ratings.

Fifthly, credit derivatives can increase the ability of market participants to arbitrage differences in the pricing of credit risk between various underlying asset classes (such as loans and bonds) and investment horizons (which can vary significantly from one credit instrument to another). They can also enable financial institutions of different credit quality to engage in mutually beneficial transactions, therefore helping reduce sectoral and maturity gaps in the availability of credit.

Lastly, the transfer of credit risk associated with such derivatives enables market participants less familiar with the analysis of credit risk to concentrate more on the management of risks that they are more comfortable with. Moreover, by enabling bank and non-bank investors to unbundle and hedge the credit risk components of their assets, credit derivatives also reduce the risks associated with the extension of credit, which should translate into lower borrowing costs for end-users.

Overall, credit derivatives have the potential to play a useful role in "completing" markets to the extent that, in addition to supplementing traditional hedging tools, they can be used to create synthetic exposures tailored to match the needs of investors in the event that no cash market alternatives (primary or secondary) are available.[32]

Market structure and size

In spite of the publicity given to credit derivatives, the market appears to remain fairly modest, with intermediation capabilities concentrated in a small group of primarily North American commercial and investment banks. No hard data exist at present to quantify activity in these instruments. However, the size of transactions is reported to vary between $30 and 50 million, and the total of outstanding contracts, according to a recent informal survey, is not much more than $40 billion.[33] The majority of transactions are reported to have fairly short maturities (between three

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[32] This ability to create instruments with payout characteristics not otherwise on offer in the market-place is referred to as market completion in economic theory. This notion describes a world in which there exist instruments with a unique payout for each and every state (event) of the world. In such a world, all states can be insured.

[33] See Charles Smithson, Credit Derivatives (II), *Risk*, June 1996, page 47.

and five years). Credit default swaps (or default puts) and total return swaps seem to be the most actively used structures, but credit spread options also appear to be popular.

The customised nature of transactions and the resultant lack of standardisation mean that the initial arrangement of contracts remains labour-intensive (see the following section). Moreover, secondary market trading has not yet developed in any significant way, and premiums for settling contracts prior to expiration can be high. This lack of liquidity is explained by a number of factors, including the lack of liquidity of some underlying assets (loans in particular), the limited transferability of most structures,[34] the heterogeneity of the instruments offered, and the small number of market participants possessing the expertise and technology required for the dynamic management and pricing of credit risk.

Outstanding issues

Because of its novelty the market is facing a number of quandaries relating to pricing, market practices and regulation. A key difficulty concerns the lack of data necessary for the evaluation and pricing of credit risk. While banks have at their disposal internal data on borrowers and their default experience, the information is often fragmentary, being limited to a subgroup of credits and counterparties. Rating agencies release credit information to the public at large, but their coverage is also partial since the bulk of their analytical work focuses on securities. More generally, historical data on actual defaults remain negligible. Currently, credit derivatives' pricing methodology is comparative, drawing from a number of market alternatives such as asset swaps, bank loans and other financial instruments. It is important to note that the availability of adequate public data is crucial, since any information asymmetries resulting from uneven access to data could deter usage by potential market participants.

Another important issue is the need for standardised documentation. Market practice is at present somewhat heterogeneous, with most intermediaries using ISDA's Master Agreement (MA) complemented by customised comfirmations. ISDA is addressing the issue by drafting a series of instrument-specific confirmations (with the first concerning credit default swaps) that should eventually be incorporated into its standard definitions.

Since payments are contingent upon the occurrence of defaults or other credit events, the drafting of sound legal language defining precisely the type of event and the subsequent contingent payout is crucial. For example, credit default swaps are often structured on the basis of a twin requirement. The first is the occurrence of a significant credit event (payment default, declaration of bankruptcy or insolvency), which is not always easy to identify precisely. The second is a "materiality" test criterion requiring a significant downward movement in the price of a reference security.[35] However, such a twin-requirement structure is generally only applicable to traded assets, therefore complicating the determination of a true credit event in cases where traded assets do not exist.

The documentation must also clearly specify how the protection buyer will be compensated upon the occurrence of a credit event. There are at least four settlement methods. The first provides for the protection seller to pay a pre-established fraction of the contract's notional amount in the event of a default. Under the second (and most common) method, the protection seller would agree to pay the difference between the initial price of a reference security and its post-default price (based on an average of prices collected from a panel of commercial or investment banks).[36,37]

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[34] As is the case with interest rate and currency swaps, contracts can only be transferred by assignment. However, economic exposure can be neutralised by writing an equal and opposite contract with a new counterparty.

[35] For example, a default arising from a dispute over the legality of a claim could unnecessarily trigger payment on a swap which did not include a materiality clause, in spite of the absence of a real credit event.

[36] The equivalent of cash settlement in other derivatives markets, as is the case with the third method.

The third method provides for payment based on the difference between the initial price and the actual asset recovery rate multiplied by the applicable notional amount. Under the fourth method, the protection seller would receive the defaulted reference loan or security against payment of its par value.[38] In the event that some or all of the reference asset amount cannot be obtained for delivery, the shortfall can be met by a payment based on the second or third methods.

Thus, in spite of efforts made towards more standardised documentation, the number of variables that are open for negotiation makes such transactions substantially more complex than for standard derivatives. Credit derivatives also raise new regulatory issues, including whether the shift of economic exposure results in a corresponding transfer for legal and regulatory purposes. Such a transfer gives rise to a counterparty credit risk that is akin to replacement risk in the more traditional financial derivatives.[39] Another important issue is whether some of these instruments should be treated as derivative or credit instruments for capital adequacy purposes, as no formal guidelines have yet been published.

Future of the market

It is difficult at this juncture to make definite statements about the potential for growth of credit derivatives. Although the documentary and regulatory complexities are, at this early stage, restraining their widespread use, several elements point to further expansion. Firstly, with the greater sophistication of interest rate and currency risk management techniques, their application to credit risk is likely to spread further. Secondly, market segmentation (resulting from regulatory, structural, institutional or credit factors), by giving rise to mispricing between instruments, should provide numerous arbitrage opportunities. Thirdly, recent failures of large financial institutions and the growing popularity of asset-backed securities are creating greater interest in the broad issue of active credit risk management. Fourthly, success in reducing inflation, and therefore in maintaining interest rates at low levels, is likely to heighten the search for yield, and consequently give greater importance to credit risk trading. However, much will depend on the extent to which products, pricing and documentation can be standardised and regulatory issues resolved.

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[37] While obtaining objective prices for securities following a credit event can pose significant problems, the difficulties can be even greater in the case of loans or privately placed securities because of the lack of transparent pricing. The development of a more liquid secondary market in distressed securities might help to alleviate this problem.

[38] This is the equivalent of physical settlement.

[39] The protection buyer in a credit swap is exposed to a default by the swap counterparty (albeit only in the event of default of the reference credit).