BANK FOR INTERNATIONAL SETTLEMENTS

Monetary and Economic Department

INTERNATIONAL BANKING AND FINANCIAL MARKET DEVELOPMENTS

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C O N T E N T S*

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I

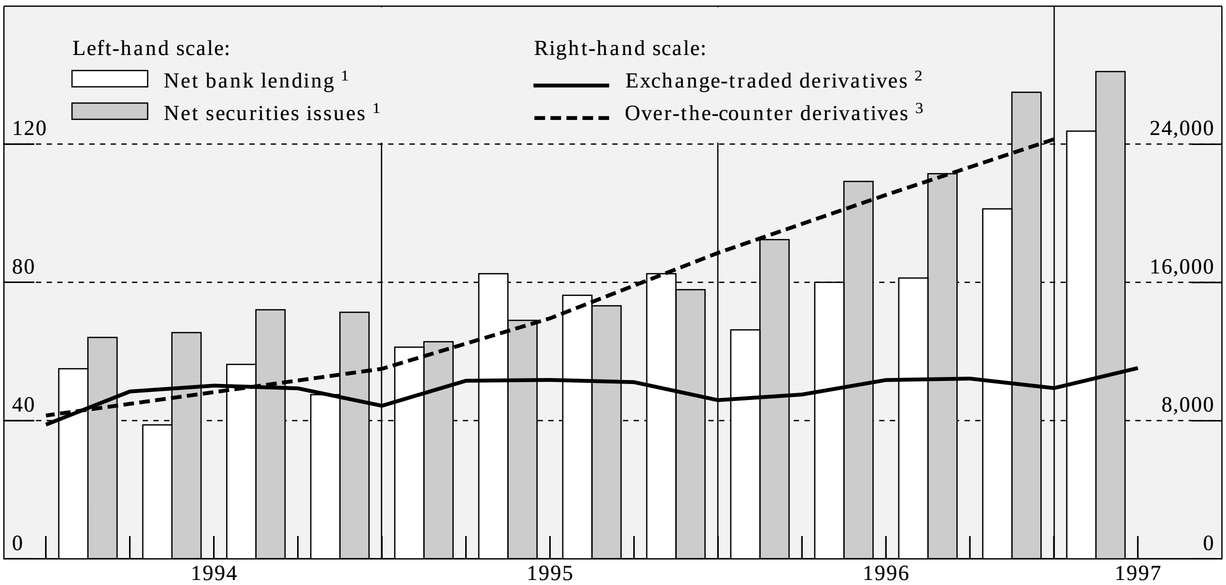
OVERVIEW OF RECENT INTERNATIONAL BANKING AND FINANCIAL MARKET DEVELOPMENTS

Activity in the international financial markets during the second quarter of 1997 continued to be supported by an accommodating monetary stance in the major economies as well as by subdued inflation. While equity indices in North America and Europe reached new peaks, pushing down risk premia over bond yields to record lows, global investment demand for debt securities remained strong. Although long-term rates in Japan and Europe were subjected at times to upward pressures, they remained at historically low levels, and US dollar bond yields fell back following a temporary upsurge in March. Currency and country risk factors were given greater consideration in the wake of the financial turbulence observed in certain Eastern European and Asian countries and the uncertainty surrounding the single European currency, but this failed to dampen the overall enthusiasm of market participants.

With total activity in the international securities markets showing no signs of abating, changes in market sentiment in the period under review were largely reflected in the composition of aggregate issuance. Of note was the shift in activity away from "core" continental European currencies and towards the US dollar. International investors were attracted to US dollar assets by favourable interest rate differentials and by renewed concerns with respect to the implementation of European economic and monetary union (EMU). These factors seem to have more than offset the unwinding of long dollar positions associated with the abrupt strengthening of the yen in May. The strong demand for dollar securities in turn supported borrowing in this currency by providing

Activity in international financial markets

In billions of US dollars

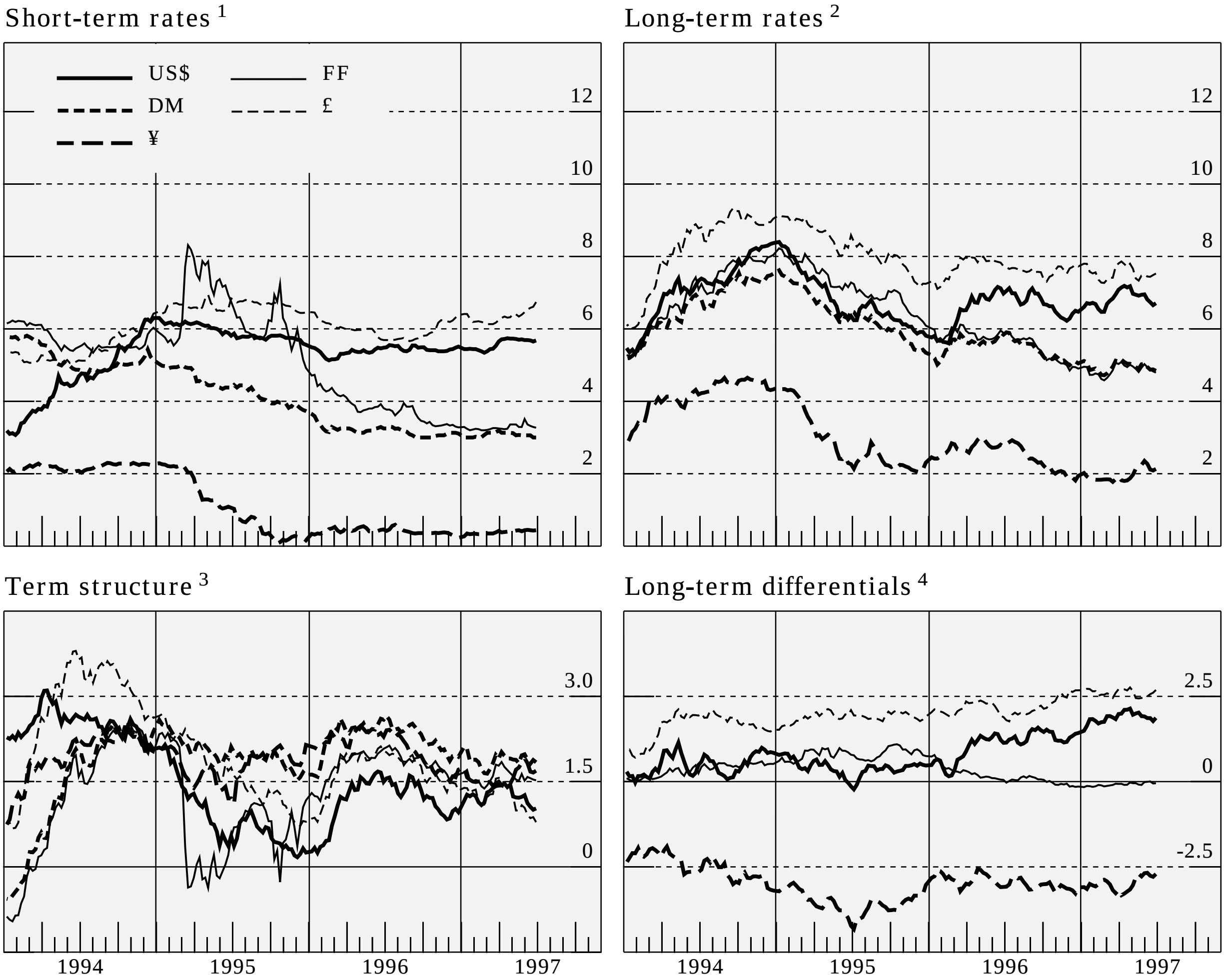


[1] Four-quarter moving averages. [2] Notional amounts outstanding of currency, interest rate and equity index futures and options. [3] Notional amounts outstanding of currency and interest rate swaps and other swap-related derivatives; semi-annual data only.

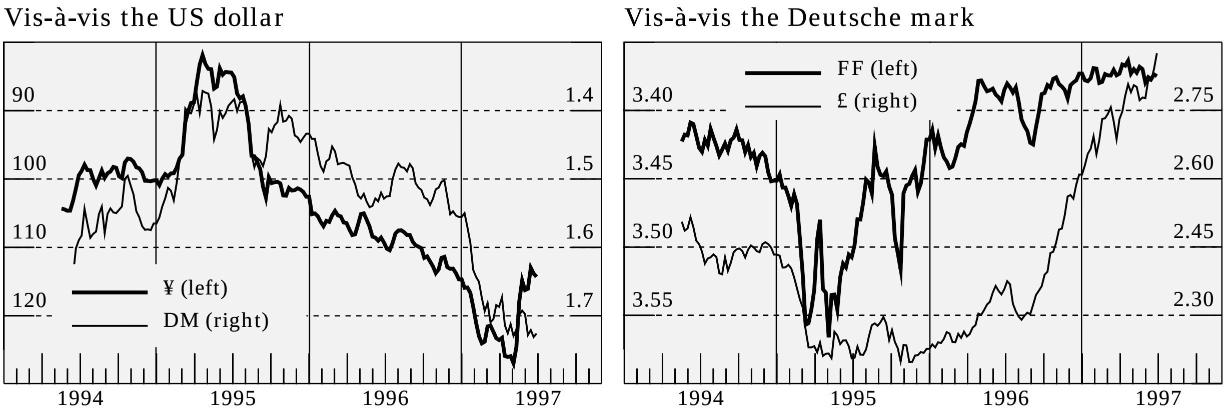
Sources: Bank of England, Euroclear, Euromoney, Futures Industry Association, International Financing Review (IFR), International Swaps and Derivatives Association (ISDA), International Securities Market Association (ISMA), national data and BIS.

International short and long-term interest rates

Weekly averages, in percentages and percentage points



Bilateral exchange rates



[1] Three-month euromarket interest rates. [2] Yields in annual terms on the basis of five-year interest rate swaps.
[3] Long-term rates minus short-term rates. [4] Vis-à-vis German long-term rates.
Source: BIS.

conditions not generally available in other market segments. Investors' search for yields also prompted the market to test new classes of instruments and signatures. This was illustrated in the period under review by the emergence of a junk bond market in Europe and the development of issues incorporating third-party credit risk characteristics.

At the same time, there were indications that the tilting of the balance in favour of borrowers may be reaching a limit. First, local economic fundamentals seem to be playing a greater role in investment strategies. Countries confronted with large domestic and/or external imbalances faced a drying-up of international financing, giving way to sudden outflows and to abrupt downward pressures on their currencies. Secondly, some lenders have become increasingly hesitant about participating in low-margin syndicated loan facilities unless these form part of broader structures involving ancillary services. Thirdly, while the rapid development of techniques for mitigating credit risk such as credit derivatives, collateralisation and loan trading may have contributed to a reduction in borrowers' overall costs through the redistribution of risk among lenders, there has also been growing awareness of the need to give such risk adequate consideration over the full business cycle. Fourthly, renewed volatility since the beginning of the year in currency and equity markets, as well as in a few debt market segments, seems to have reduced interest in certain structured products (such as dual-currency bonds), but has also revived demand for hedging instruments, as suggested by reports of a return of end-users and smaller financial institutions to derivatives markets. Finally, detailed international banking statistics available for the first quarter of 1997 show a slackening of international bank lending to non-bank entities located in major financial centres, which suggests that a lower proportion of international investment by such actors was funded by bank borrowing.

With the rapid transformation of the global financial industry increasing the potential for systemic problems transcending national borders, a number of recent documents and statements have addressed the issue of the adequacy of the regulatory framework. It is broadly recognised that the ultimate aim should be to reinforce systemic stability while enhancing market discipline, with the first line of defence being firms' own risk management systems. The latest initiatives intended to strengthen banking supervision worldwide and upgrade wholesale payment systems[1] are consistent with this approach. However, views continue to diverge as to the most effective means of achieving the proper balance between regulation and market discipline. The announcement in the United Kingdom in May of a transfer of banking supervision from the Bank of England to an enhanced

Estimated net financing in international markets[1]

In billions of US dollars

Components of net international financing	1995	1996				1997		Stocks at end-March 1997
	Year	Year	Q2	Q3	Q4	Q1	Q2	
Total international[2] bank claims[3]	644.0	586.6	50.2	200.2	220.8	348.0	..	9,688.3
minus: interbank redepositing	314.0	181.6	-74.8	140.2	90.8	168.0	..	4,638.3
A = Net bank lending[3]	**330.0**	**405.0**	**125.0**	**60.0**	**130.0**	**180.0**	**..**	**5,050.0**
B = Net money market instruments	**17.4**	**41.1**	**17.5**	**-3.9**	**18.5**	**7.1**	**5.3**	**174.6**
Total completed bond and note issues	587.4	871.2	208.6	203.1	263.0	240.8	247.8	
minus: redemptions and repurchases	293.3	372.3	84.6	91.0	105.2	110.1	101.0	
C = Net bond and note financing	**294.1**	**498.9**	**124.0**	**112.1**	**157.9**	**130.8**	**146.8**	**3,065.9**
D = Total financing[4]	**641.5**	**945.0**	**266.6**	**168.2**	**306.3**	**317.8**	**..**	**8,290.5**
minus: double-counting[5]	111.5	200.0	31.6	53.2	51.3	57.8	..	1,310.5
E = Total net financing	**530.0**	**745.0**	**235.0**	**115.0**	**255.0**	**260.0**	**..**	**6,980.0**

[1] Changes in amounts outstanding excluding exchange rate valuation effects for banking data and international money market instruments and notes; flow data for international bonds. [2] Cross-border claims in all currencies plus local claims in foreign currency. [3] See notes to Table 1 of the statistical annex. [4] A + B + C. [5] International debt securities purchased or issued by the reporting banks, to the extent that they are taken into account in item A.

[1] See: "Structural and regulatory developments" in Part II of this commentary for more detailed coverage of these initiatives.

Securities and Investments Board illustrates that the regulatory infrastructure must be adjusted periodically so as to better address the issues arising from the growing links between different actors and market segments. Another important area of consideration in the period under review was the impact of the forthcoming introduction of the single European currency, which raises numerous issues across market segments. Questions such as the determination of euro-based benchmark interest rates, adjustments to market practices and conventions and legal uncertainties were addressed in several forums.[2] Some of these issues are dealt with in greater detail in the various sections of this commentary.

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[2] See: "Structural and regulatory developments" in Part III of this commentary.

II

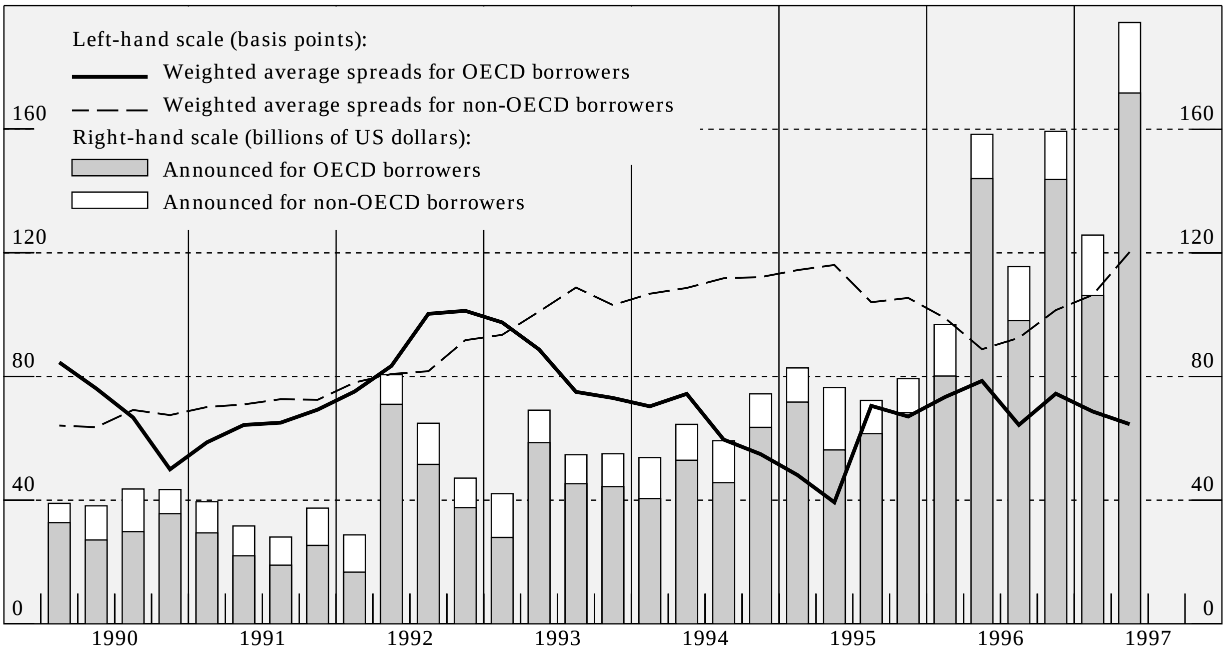
THE INTERNATIONAL BANKING MARKET

Main features

Activity in the international syndicated loan market reached a new record in the *second quarter of 1997*, with a sharp increase in facilities for North American, Eastern European and UK borrowers bringing announcements to a preliminary total of $194.5 billion. The industrial sector continued to account for the bulk of loans arranged (78%) but investment banks (from the United States in particular) increased their recourse to the market. With commercial banks in North America and the United Kingdom enjoying strong profits and with the entry of new types of lender into the market (such as investment banks, mutual funds and insurance companies), competitive pressures remained intense. A number of borrowers succeeded in obtaining terms that were considered to have tested the limits of lenders' tolerance, but there was also evidence of growing resistance to a further erosion of margins, with some banks even refusing to participate in low-return syndications. In spite of the relatively high margins attached to some merger-related facilities, average spreads over LIBOR paid by borrowers from the OECD area continued to decline. In contrast, a few large facilities arranged for Latin American and Russian entities contributed to a widening of the average spread paid by non-OECD borrowers.

With margins on traditional corporate business at low levels, banks are focusing increasingly on ancillary business and turning to more complex or riskier areas such as project financing, merger and acquisition financing and lending to borrowers from transition and emerging market countries. Meanwhile, investment banks have been expanding their loan syndication departments in the hope that merger-related financing will bring them lucrative advisory business. The greater emphasis on return to equity and shareholder value is also leading banks to adopt more sophisticated methods for evaluating the risk and return characteristics of loans, to manage their loan

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.

portfolios more actively and to incorporate techniques that have been used traditionally in the securities and derivatives markets. Examples of "innovative" arrangements during the second quarter include transferability clauses allowing lending banks to sell their claims in the secondary market without having to obtain the prior agreement of borrowers and the establishment of loan pricing schedules tied to the evolution of sovereign risk ratings. At the same time, the use of derivatives spread further, with, for example, a Chinese metals company succeeding in obtaining long-term funding through the arrangement of a complex swap structure providing it with protection against fluctuations in aluminium prices.

Detailed international banking statistics now available for the *first quarter of 1997* show a strong upsurge in activity during this period. Indeed, the increase in the international claims of BIS reporting banks was, at $348 billion, the largest ever recorded. Reversing an earlier contractionary trend, the share of interbank business between reporting centres expanded sharply. There was a significant reshuffling of the international books of continental banking groups (Dutch, French and Swiss in particular). At the same time, renewed currency and bond market volatility revived interbank transactions in a broad range of currencies, most notably the US dollar, sterling and the Deutsche mark. Foreign exchange developments were also responsible for the record volume of new identified official deposits in the market ($39.4 billion). The last movement may be seen partly in relation to the persistence of strong banking flows into emerging market economies in the first quarter (see the section on business with countries outside the reporting area below), a process which has since been reversed in several countries.

Banks in the United Kingdom accounted for more than one-third of the total market expansion, emphasising the lead taken in recent years by London in international banking intermediation. From 18% at the end of 1990, the UK share of international bank assets rose to 20% at the end of March 1997. At the same time, the importance of Japan receded, from 19% to 14%. The emergence of the "Japan premium" in the international interbank market in the summer of 1995 accentuated the cutback in the international books of Japanese banks. Meanwhile, the weight of other major reporting centres, namely France, Germany, Hong Kong and the United States (with shares between 5 and 8%), has varied only marginally since 1990, with the retrenchment by Japanese banks' foreign establishments being broadly spread among the major centres.

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

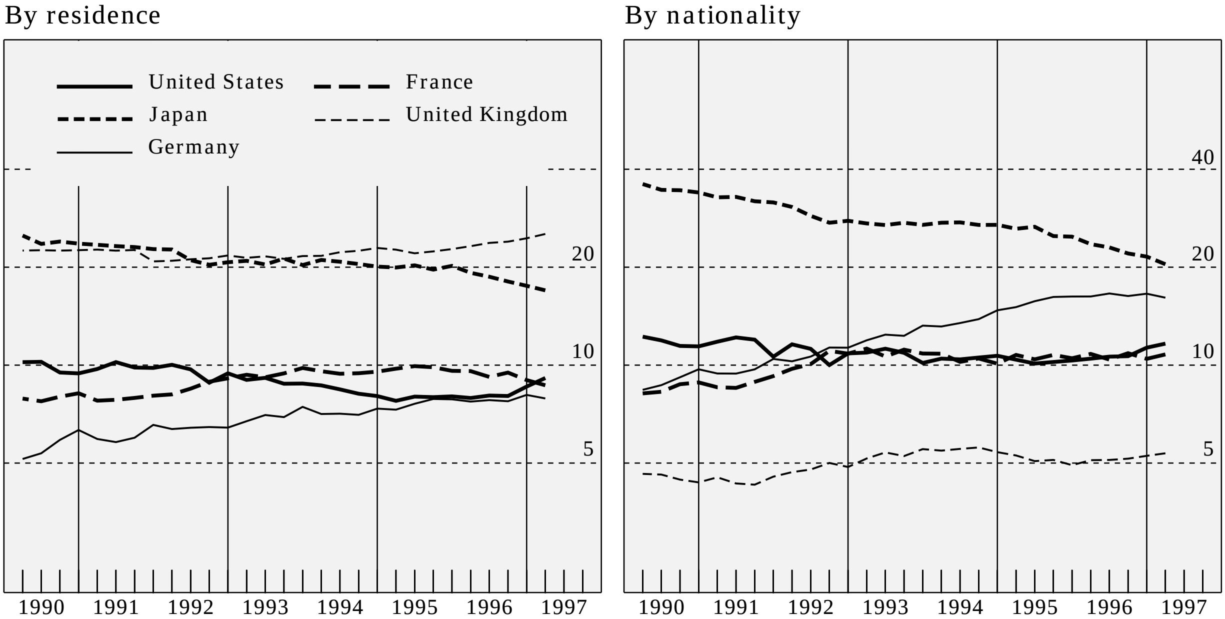
In billions of US dollars

Components of international bank lending	1995	1996					1997	Stocks at end-March 1997
	Year	Year	Q1	Q2	Q3	Q4	Q1	
Claims on outside-area countries	**120.8**	**124.1**	**21.4**	**28.2**	**35.1**	**39.4**	**39.1**	**1,136.9**
Claims on inside-area countries	**506.5**	**457.6**	**84.5**	**17.5**	**173.3**	**182.3**	**296.1**	**8,307.4**
Claims on non-banks	189.5	315.2	52.7	82.3	60.1	120.0	71.5	2,657.1
Banks' borrowing for local onlending[2]	3.0	-39.1	6.4	10.0	-27.0	-28.5	56.7	1,011.9
Interbank redepositing	314.0	181.6	25.5	-74.8	140.2	90.8	168.0	4,638.3
Unallocated	**16.7**	**4.9**	**9.5**	**4.5**	**-8.2**	**-0.9**	**12.8**	**244.1**
Gross international bank lending	**644.0**	**586.6**	**115.5**	**50.2**	**200.2**	**220.8**	**348.0**	**9,688.3**
Net international bank lending[3]	**330.0**	**405.0**	**90.0**	**125.0**	**60.0**	**130.0**	**180.0**	**5,050.0**
Memorandum item: Syndicated credits[4]	**310.8**	**530.0**	**96.8**	**158.3**	**115.6**	**159.3**	**125.8**	

[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.

International bank lending by residence and nationality of reporting banks *

Percentage shares, at end of quarter; semi-logarithmic scale



* Cross-border claims and local claims in foreign currency of banks located in industrial reporting countries.
Source: BIS.

Business with countries inside the reporting area

Renewed currency and bond market volatility stimulated international *interbank market activity* within the reporting area in the first quarter of this year. Shifts in the portfolio preferences of international investors gave rise to sizable transfers of funds, with an apparent movement in favour of bank deposits (see the next paragraph). In addition, several European banking groups undertook a major reshuffling of their international positions, with banks from France, the Netherlands and Switzerland being particularly active in expanding the books of their affiliates in the United Kingdom or in the United States. Another factor which strengthened the role of the interbank market was the supply of new funds by Japanese banks to their foreign establishments, which partly offset their retrenchment in other segments of the international banking market. The overall recovery in interbank business should also be seen in relation to the continuing buoyancy of cross-border repo transactions,[3] with both developments taken together suggesting a wider use of collateralised lending in the core segment of the international banking market. However, it remains to be seen whether this should be interpreted as evidence of greater awareness of credit risk or simply as a temporary refocusing of this market resulting from the uncertainty prevailing in the foreign exchange and securities markets during the period under review.

At the same time, developments in direct banking business with the *non-bank sector* inside the reporting area showed a shift from net lending to net deposit-taking. On the assets side, there were marked increases in international claims on entities located in the United Kingdom, the United States, Italy and France. In contrast, there were net repayments of loans by Japanese residents, following sizable borrowing in the last quarter of 1996. Indeed, movements vis-à-vis Japan were the most important single factor behind the reduced absorption of international banking funds by the non-

3 Although statistics on repurchase agreements (repos) are not directly available, the strong increase in reporting banks' holdings of domestic and foreign securities provides indirect evidence of the continuing buoyancy of the international repo market.

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]				
	1996				1997	1996				1997
	Q1	Q2	Q3	Q4	Q1	Q1	Q2	Q3	Q4	Q1
Total assets	**36.4**	**70.9**	**59.1**	**85.3**	**48.7**					
Canada	-0.7	0.8	0.4	-1.1	4.2	5.1	8.8	11.0	10.4	12.5
France	-3.2	4.5	0.9	0.0	12.4	26.1	16.4	15.2	5.6	20.1
Germany	4.5	3.3	8.9	5.5	-1.5	55.7	38.4	30.7	95.0	49.0
Italy	1.3	5.3	-2.3	3.8	10.6	3.8	6.0	-4.3	21.0	9.9
Japan	-10.8	-0.1	1.7	7.0	-16.4	-83.1	62.3	-21.2	116.0	-75.2
United Kingdom	3.9	12.5	4.1	8.7	6.8	21.2	12.5	8.9	-6.8	18.4
United States	25.2	13.5	33.5	25.4	20.2	30.2	71.9	64.6	81.2	80.2
Other countries ...	16.2	31.1	11.9	36.0	12.4					
Total liabilities	**59.1**	**30.6**	**22.0**	**17.2**	**96.7**					
Canada	0.2	2.8	-0.1	1.5	-0.3	0.2	4.8	2.9	10.8	3.3
France	9.0	-2.2	2.0	-1.6	2.5	-18.2	-11.6	-6.0	4.5	-11.0
Germany	3.2	0.8	-8.0	1.9	15.4	-3.0	11.4	11.8	92.0	-27.7
Italy	8.5	-0.3	0.3	-3.8	4.6	-40.4	4.5	9.2	45.2	-17.7
Japan	6.3	6.0	-1.3	1.9	6.0	7.8	63.9	-51.9	134.8	-43.7
United Kingdom	5.9	3.6	1.6	3.2	19.7	26.0	21.7	18.7	28.3	47.1
United States	8.3	-2.2	20.5	14.2	14.3	80.1	56.5	61.8	138.8	85.3
Other countries ...	17.7	22.1	7.0	-0.1	34.5					

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

bank sector inside the reporting area in the period under review. On the liabilities side, there was significant new depositing by non-bank entities located in the United Kingdom, Germany and the United States. The resulting swing from net borrowing to deposit-taking by the non-bank sector located in major financial centres may reflect greater caution on the part of international investors.

Business with countries outside the reporting area

Notwithstanding the deterioration in the domestic and/or external financial position of certain major borrowing countries, new bank lending to the group of outside-area countries was sustained in the first quarter of 1997. Asian countries were again the main recipients of funds, raising further their borrowing from reporting banks, from $16.3 billion in the fourth quarter of 1996 to $21.5 billion. However, the pattern of lending varies considerably within the Asian region, reflecting greater differentiation on the part of lenders (see Annex Table 5A). There was in particular a further decline in the volume of funds channelled to *Thailand*, where growing concerns over the country's large current account deficit and difficulties in the financial sector led the authorities to raise interest rates in order to support the currency. A less favourable domestic economic and financial environment also appears to have dampened credit flows to *Korea.* The slowdown there should be seen in relation to the very high volume of lending recorded in the fourth quarter of 1996 and the continuing strong local demand for foreign currency funds associated with a growing current account deficit. At the same time, measures taken in *Indonesia* to curb foreign borrowing, including a widening of the currency fluctuation band last year, may have helped moderate banking inflows. In contrast, strong economic activity supported bank lending to *China* and the *Philippines*, while the persistence of a tight monetary policy and earlier measures to boost the Labuan International Offshore Financial Centre led to an unprecedented inflow of new banking funds into *Malaysia*. The currency turbulence faced by some of these countries may have led to a more pronounced and widespread drying-up of banking flows to the region in the second quarter.

In Latin America, there was some moderation in the pace of new lending by reporting banks (to $4.7 billion) from the record level of the fourth quarter of 1996, which reflected the slackening of banking flows to *Brazil*. The continuing official policy of gradually reducing nominal interest rates, possibly together with new restrictive measures to discourage foreign borrowing, seems to have been effective in dampening short-term capital inflows without provoking an abrupt outflow in the first quarter. Meanwhile, strong inflows of banking funds were recorded by *Argentina*, *Chile* and *Mexico*. The bulk of the new financing continued to be channelled directly to the non-bank sector, a pattern which has been consistent over recent years in the region as a whole and which contrasts with the situation in Asia. This lower reliance of Latin American countries on their local banking system for intermediating funds from the international banking market reflects the higher degree of financial market liberalisation and of restructuring already achieved in the region in comparison with Asia. In addition, heavy government refinancing of debt through international bond issuance (especially by Argentina and Mexico) and the ongoing process of privatisation have indirectly facilitated access by the corporate sector in Latin America to the international banking market.

Elsewhere in the developing world, new international bank lending remained modest and heavily concentrated in a few countries. *South Africa* (which is now included in the group of developing countries in Africa) absorbed all the new funds channelled to Africa, and *Saudi Arabia* and the *United Arab Emirates* accounted for the bulk of lending to the Middle East. While the borrowing needs of oil-exporting countries have been alleviated by higher-than-expected oil receipts, other countries in these two regions continue to experience heavy debt burdens. Recent rescheduling agreements by Algeria and Côte d'Ivoire as well as new debt relief schemes initiated by international institutions should provide support for the return of voluntary capital flows.

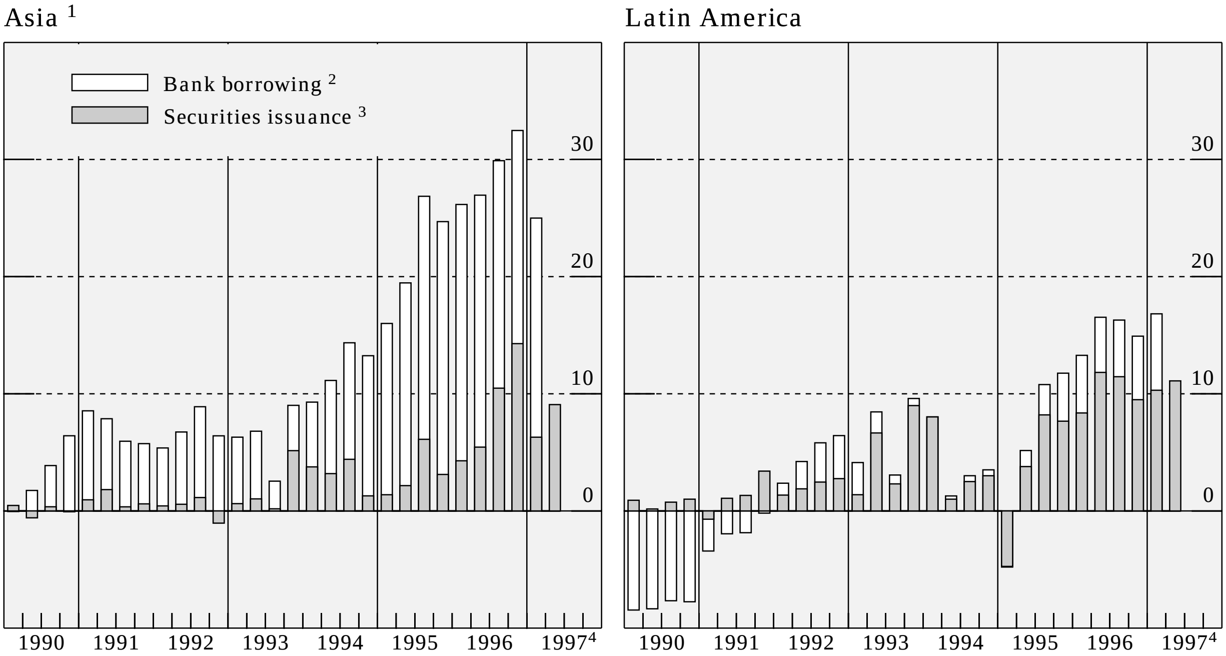
Banks' business with countries outside the reporting area*

In billions of US dollars

Outside-area country groups	1995	1996					1997	Stocks at end-March 1997
	Year	Year	Q1	Q2	Q3	Q4	Q1	
Total assets	**120.8**	**124.1**	**21.4**	**28.2**	**35.1**	**39.4**	**39.1**	**1,136.9**
Developed countries	24.6	19.3	4.2	0.1	8.8	6.1	4.3	191.0
Eastern Europe	3.3	10.9	2.7	0.2	1.5	6.5	4.3	94.7
Developing countries	93.0	93.9	14.5	27.8	24.8	26.8	30.6	851.2
Latin America	16.4	21.7	0.3	3.7	6.4	11.3	4.7	270.3
Middle East	-7.5	0.0	-4.0	0.5	5.7	-2.2	3.5	74.5
Africa	-2.2	-0.6	-1.2	0.2	-0.8	1.3	0.9	49.7
Asia	86.3	72.8	19.4	23.5	13.5	16.3	21.5	456.6
Total liabilities	**96.4**	**91.8**	**29.7**	**28.3**	**8.6**	**25.2**	**31.2**	**996.8**
Developed countries	18.8	18.5	5.8	6.3	4.9	1.5	6.2	183.3
Eastern Europe	9.2	2.7	-0.7	-0.1	-0.3	3.8	4.2	51.5
Developing countries	68.5	70.7	24.6	22.1	4.1	19.9	20.8	762.0
Latin America	43.0	21.9	3.7	17.7	1.8	-1.3	4.5	226.4
Middle East	8.1	16.6	9.2	-3.2	3.8	6.9	5.6	222.0
Africa	0.4	2.7	-0.6	2.0	0.1	1.2	2.7	50.8
Asia	17.0	29.5	12.3	5.6	-1.6	13.1	8.0	262.9

* Changes in amounts outstanding excluding exchange rate valuation effects.

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 international money market instruments, bonds and notes. [4] Data on bank borrowing are not yet available for the second quarter of 1997.
Sources: Bank of England, Euroclear, Euromoney, IFR, ISMA, national data and BIS.

At the same time, new bank financing provided to Eastern European countries showed no signs of abating. Although the increase in outstanding claims was, at $4.3 billion, well below the record of the preceding quarter, it remained significantly above the historical average. The rise occurred, moreover, despite the unwinding of the sizable interbank inflows recorded by the *Russian Federation* in the last quarter of 1996, possibly reflecting sales of foreign exchange by resident non-banks after heavy purchases in 1996. The most significant increase was recorded in reporting banks' outstanding claims on *Poland* (+$2 billion). Tight monetary policy aimed at slowing domestic credit expansion attracted a large volume of short-term capital, which more than financed the country's higher current account deficit. There were also significant inflows of primarily short-term banking funds motivated by interest rate differentials in *Slovakia* and *the Czech Republic*, as well as *Hungary*. In view of their large current account deficits and the partly related need to constrain domestic credit growth, the authorities in the first two countries had little leeway in reducing interest rates to stem the inflows and resist the upward pressure on their currencies, until the movement reversed itself abruptly in the second quarter.

Finally, bank lending to smaller developed countries included in the group of outside-area countries was heavily focused on *Greece*, where the credibility of the exchange rate policy combined with large interest rate differentials continued to attract a large volume of foreign capital. In response, the Bank of Greece took measures to increase the flexibility of its exchange rate and monetary policies. In contrast, banking flows into *Turkey* were cut from the high level of the fourth quarter of 1996, as political uncertainty raised borrowing costs for domestic banks in the international market.

Structural and regulatory developments

In March 1997, the Committee on Payment and Settlement Systems (CPSS) of the central banks of the Group of Ten countries published, under the aegis of the BIS, a report on real-time gross settlement (RTGS) in large-value interbank payment systems.[4] With RTGS, payment instructions between banks are processed and settled individually and continuously throughout the day. This contrasts with more traditional net settlement systems (such as paper-based clearing houses and their more modern electronic equivalents), where payment instructions are also processed ("cleared") continuously but interbank settlement takes place afterwards, typically at the end of the day. The report noted that, because of growing concerns related to the potential systemic risks of traditional payment systems, the implementation of RTGS systems is of increasing importance. In addition, the central banks of the European Union have collectively decided that all EU member states should have RTGS systems which should be linked together to form a pan-EU RTGS network (the TARGET system). The report describes some of the different forms that RTGS systems can take and the issues which can arise in designing and operating them. It also considers the relationship between RTGS systems and other settlement mechanisms, some possible monetary policy implications and differences and similarities between RTGS systems and net settlement systems. However, because the most appropriate way to tackle payment system risk varies from country to country, the report intentionally does not make specific recommendations.

This latest report is a continuation of the CPSS's earlier work on the payment and settlement infrastructure that underpins financial markets. Earlier work dealt with netting systems (on which reports were published in 1989 and 1990) and systems for the settlement of securities transactions (reports in 1992, 1995 and 1997), foreign exchange trades (reports in 1993 and 1996) and exchange-traded derivatives (in 1997; see the box in the last section of this commentary). The report on RTGS comes amidst ongoing efforts by market participants, most notably commercial banks, to develop schemes to reduce settlement risk in foreign exchange transactions, which account for a major share of large-value payments. Thus, following other industry initiatives to provide bilateral and multilateral netting facilities and recommendations made in the CPSS's report on "Settlement Risk in Foreign Exchange Transactions" in March 1996, the "Group of 20" banks announced in June the establishment of a joint company to develop a foreign exchange settlement system based on the principle of continuous linked settlements (whereby deals are concluded when payments on both sides are simultaneously made). Meanwhile, the Group of 20 and two netting systems, the Exchange Clearing House (ECHO) in Europe and the Multinet International Bank in the United States, continued discussions on forming an integrated foreign exchange venture. The private sector's efforts to find solutions to foreign exchange settlement risk were also illustrated by the proposal made by a large US bank to introduce contracts for difference (CFDs) in foreign exchange derivatives transactions.[5] Such derivative contracts, which are conceptually similar to non-deliverable forwards (NDFs), would eliminate the need for an exchange of underlying currencies between counterparties, and thus significantly reduce foreign exchange settlement flows.

In April 1997, the Basle Committee on Banking Supervision submitted to the Group of Seven Heads of State or Government for their June 1997 Summit in Denver a report summarising its recent work entitled "Strengthening Banking Supervision Worldwide". The Committee also published two separate documents: a comprehensive set of "Core Principles for Effective Banking Supervision" applicable in all countries and a Compendium of existing Basle Committee recommendations, guidelines and standards in support of the Core Principles. Both documents have been endorsed by the

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4 "Real-Time Gross Settlement Systems": Report prepared by the Committee on Payment and Settlement Systems of the central banks of the Group of Ten countries, Basle, March 1997.

5 In traditional foreign exchange transactions deals are settled by a two-way exchange of underlying currencies. In such transactions there is always a risk of failure by one of the counterparties to deliver his side of the bargain. In CFDs, however, counterparties receive or pay a one-way sum based on the difference between a contract rate initially agreed and a market reference rate at maturity. The profit or loss on the transaction is received or paid in a single base currency.

G-10 central bank Governors. The Core Principles have been released as a consultative paper and the document is expected to be finalised by September this year. The background to this document and its main features, together with a brief description of the contents of the three-volume Compendium, are presented in a separate box at the end of this section.

In May, the new British Chancellor of the Exchequer announced proposals which would transfer responsibility for banking supervision from the Bank of England to an enlarged Securities and Investments Board, which will become the single regulator for banking, securities and insurance and will subsume the three existing self-regulatory organisations. This follows the decision by the new UK Government at the beginning of the month to relinquish control over interest rates in favour of a recently created monetary policy committee at the central bank. The latter measure brings the responsibility of the Bank of England for conducting monetary policy into line with the situation in several other major countries. A similar development took place in Japan in June with the amendment of the Bank of Japan Law, which had been under review since summer 1996.[6] In contrast, the change in prudential regulation in the United Kingdom will fuel the debate surrounding the appropriate level of concentration or division of regulatory responsibility and the best means of addressing the interlinkage between micro and macro factors and between various market segments.

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6 Initiatives are also being taken in a number of emerging market countries to grant greater independence to the central bank for the purpose of conducting monetary policy.

Strengthening prudential standards for banking worldwide

In recent years, the Basle Committee on Banking Supervision has been actively expanding its links with supervisors outside the core group of G-10 member countries,* with a view to strengthening prudential supervisory standards worldwide. These efforts have included the dissemination of policy papers on a wide range of related matters, the development of international and regional cooperation between supervisory authorities and the provision of training. The credibility of standards established within the Committee's framework has been supported by the principle that proposals regarding supervisory policy are subject to a consultative process, providing scope for all interested parties both in developed countries and in emerging markets to make a contribution.

The international dimension of the Committee's work has been expressly recognised by the G-7 Heads of State or Government, initially at the Halifax Summit in 1995 and again at their Lyon Summit in 1996. The communiqué issued at the close of the latter invited the Committee to extend the focus of its efforts beyond the G-10 countries, emphasising in particular the need to promote effective regulatory and supervisory structures in emerging markets. Subsequent discussions with the International Monetary Fund (IMF) and the World Bank (IBRD) on the issue prompted the Committee to prepare (i) a comprehensive set of principles for effective banking supervision applicable in both G-10 and non-G-10 countries (the Basle Core Principles); and (ii) a package of existing Basle Committee recommendations, guidelines and standards in a reasonably compact form (the Compendium).

In developing the Core Principles, the Committee worked closely with non-G-10 supervisory authorities. The drafting also benefited from broad consultation with a large group of individual supervisors, both directly and through regional supervisory groups. The IMF and the IBRD commented on the work at various stages. The document sets out 25 basic or minimum principles that must be in place for a supervisory system to be effective, covering such topics as preconditions, regulatory requirements and the effective exercise of supervision at both the domestic and international level. The Core Principles were published in April 1997 as a consultative paper for comments from non-G-10 supervisory authorities in particular, but also from banks and other interested parties. The text is expected to be finalised by September 1997, if possible in advance of the IMF and IBRD annual meetings in Hong Kong at the end of that month. Supervisory authorities throughout the world will be encouraged to make a formal endorsement of the final version, knowing that the members of the Committee and supervisors from the fifteen countries** that participated in its drafting all agree with the contents of the document. Subsequently, the Committee will be ready to play a role, together with other interested organisations, in monitoring the progress made by individual countries in implementing the Principles.

The Compendium contains 33 key policy statements that have been issued over the years by the Committee. It has been prepared to supplement the Principles, which contain cross-references to the Compendium documents where appropriate. The first volume relates to basic supervisory methods, the second to more advanced topics and the third to international issues. Some of the documents are quite dated, but the Committee has decided that they may still have relevance for countries in transition. In general, the original texts have not been amended but some have been shortened to remove unnecessary repetition or overlap with other texts, and in one or two cases have been amalgamated into a single document. The Basle Capital Accord has been adapted to reflect subsequent published amendments to the credit risk framework. Both the Core Principles and the Compendium are available on the BIS Web site. The two sets of documents represent only one aspect of the recent initiatives taken by the Basle Committee for strengthening prudential standards in emerging markets. As outlined in the report simultaneously submitted to the G-7 Summit in Denver in June 1997, other steps in this area include the endorsement by representatives of about 140 countries at the 1996 International Conference of Banking Supervisors of a report on the supervision of cross-border banking prepared by a joint working group of the Basle Committee and members of the Offshore Group of Banking Supervisors, as well as the further progress made in building a truly worldwide network of banking supervisors.

These initiatives should also be seen in the broader context of the continuing efforts being made by the Committee to strengthen the international financial system at large. In particular, actions have recently been taken to enhance cooperation among banking, insurance and securities supervisors (including active participation in the work of the Joint Forum on Financial Conglomerates), to promote stronger risk management and market transparency*** and to give attention to supervisory issues arising from banks' participation in payment systems and electronic money and banking.

* Member countries currently are: Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Sweden, Switzerland, the United Kingdom and the United States. ** These are Brazil, Chile, China, the Czech Republic, Hong Kong, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Poland, Russia, Singapore and Thailand. *** This is illustrated by the ongoing implementation of the January 1996 amendment to the Capital Accord to incorporate market risk, which allows the use of internal models, and the issuance for consultation in January 1997 of a paper on banks' management of interest rate risk.

III

THE INTERNATIONAL SECURITIES MARKETS

Main features

In the second quarter of 1997, total announcements of international bonds and other medium and long-term paper issued under euronote facilities reached a new record of $264.7 billion. However, net of the reflows stemming from repayments of past debt but including paper launched under short-term issuance facilities (such as euro-commercial paper), new issuance of international securities was, at $152.1 billion, lower than the record of $176.3 billion posted in the fourth quarter of 1996. There was a significant rebound of financing by US and emerging market entities, but the activity of European borrowers moderated somewhat and that of Japanese fund-raisers continued to be characterised by net repayments. Although concerns related to the EMU process may have dampened issuance in European currencies, the financial turbulence that emerged in May in Eastern Europe and Asia did not apparently have a significant impact on gross issuance of debt securities by developing country entities (see the graph on page 20). Despite a further decline in net fund-raising by financial institutions from the peak of the fourth quarter of last year, such borrowers continued to

Main features of international debt securities issues[1]

In billions of US dollars

Instrument, nationality, currency and type of issuer	1995	1996	1996			1997		Stocks at end-June 1997
	Year	Year	Q2	Q3	Q4	Q1	Q2	
Total net issues	**311.5**	**540.0**	**141.6**	**108.2**	**176.3**	**137.8**	**152.1**	**3,404.7**
Money market instruments[2]	17.4	41.1	17.5	-3.9	18.5	7.1	5.3	179.5
Bonds and notes[2]	294.1	498.9	124.0	112.1	157.9	130.8	146.8	3,225.2
Developed countries	264.3	407.2	106.9	80.1	128.4	106.4	104.6	2,727.9
Europe[3]	*176.8*	*237.1*	*64.2*	*38.8*	*75.8*	*74.1*	*63.9*	*1,617.9*
Japan	*8.2*	*14.7*	*4.6*	*6.9*	*1.6*	*2.4*	*-2.1*	*355.0*
United States	*59.5*	*136.8*	*34.8*	*28.2*	*42.4*	*22.0*	*35.2*	*453.5*
Canada	*10.2*	*8.4*	*0.7*	*3.3*	*4.0*	*3.7*	*3.9*	*188.3*
Offshore centres	1.8	16.5	5.8	1.8	6.7	3.8	5.1	44.3
Other countries	30.1	91.5	21.1	23.4	30.6	19.1	28.1	307.8
International institutions	15.3	24.9	7.8	2.9	10.7	8.6	14.3	324.8
US dollar	74.1	262.1	81.6	46.6	86.4	55.5	82.9	1,384.2
Yen	108.4	81.2	22.4	24.5	19.0	14.2	9.9	550.6
Deutsche mark	55.1	54.9	9.7	10.6	12.6	14.0	11.3	334.0
Other currencies	74.0	141.8	27.9	26.5	58.4	54.2	48.0	1,135.9
Financial institutions[4]	183.9	342.6	78.1	72.6	113.8	89.8	80.4	1,462.9
Public sector[5]	93.8	123.5	35.1	24.3	42.0	32.3	43.8	1,110.9
Corporate issuers	33.8	73.8	28.3	11.3	20.5	15.8	27.9	830.9
Memorandum items:								
Stand-alone international bonds	**119.1**	**274.9**	**66.0**	**60.1**	**91.5**	**54.9**	**71.1**	**2,430.3**
Bonds issued under EMTN programmes	**61.3**	**199.2**	**51.1**	**45.3**	**55.6**	**52.4**	**41.4**	**435.8**

[1] Flow data for international bonds; for money market instruments and notes, changes in amounts outstanding excluding exchange rate valuation effects. [2] Excluding notes issued by non-residents in the domestic market. [3] Excluding Eastern Europe. [4] Commercial banks and other financial institutions. [5] Governments, state agencies and international institutions.

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

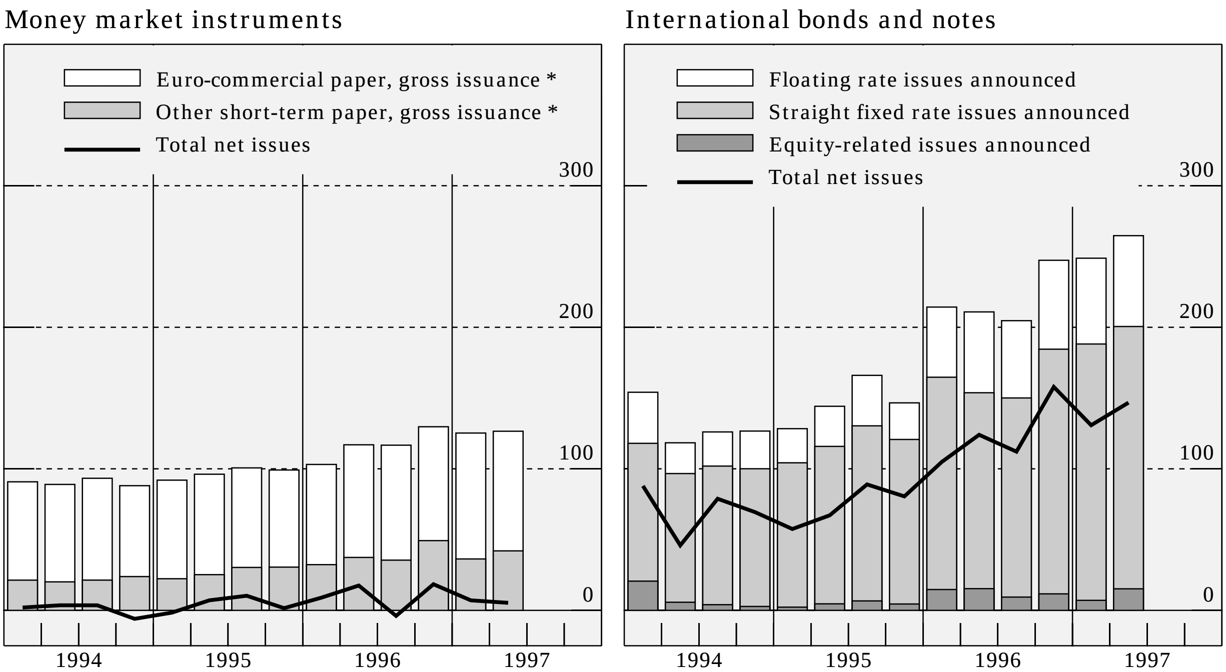
account for more than 50% of net flows. In contrast, there was a slight increase in the share of net financing accounted for by public sector entities (particularly central governments and local authorities) and a recovery in private sector issuance, to its highest level since the second quarter of 1996. Most significant, however, was the massive shift of investment demand in favour of securities denominated in US dollars and, to a lesser extent, certain emerging market currencies offering high yields and stabilised exchange rates, such as the South African rand.

Market conditions varied considerably over the course of the quarter, particularly in the US dollar segment. Despite persistent upward pressures on US long-term rates in April, investor demand for US assets continued to be supported by favourable interest rate differentials. From May onwards, the controversy surrounding the revaluation of German gold reserves, the outcome of the French elections (which created renewed uncertainty about the EMU process and the strength of the forthcoming single European currency) and the financial turbulence resulting from the Czech and Thai currency crises helped accentuate the shift in favour of US dollar securities. There was also evidence of a reweighting of international portfolios towards the US dollar stemming from more "fundamental" forces such as the United States' good overall performance in terms of growth and inflation. The decline in the country's budget deficit and the correspondingly reduced supply of Treasury paper were reported to have created a particularly supportive environment for the launch of large US dollar issues. In contrast, the weakening of most major European and Asian currencies against the dollar dampened issuance in those currencies. However, saturation in the eurodollar market towards the end of the quarter offered issuing opportunities in certain currencies, such as the Australian and New Zealand dollars and the Italian lira. Issuance of yen-denominated paper moderated slightly owing to upward pressures on longer yen rates and a drying-up of dual-currency bond issues (see the graph on page 22).

The sustained volume of international issues and their diversity suggest that expansionary forces were once again sufficiently powerful to offset the impact of market turbulence. Demand for international securities has been boosted in recent periods by ample global liquidity as

The international debt securities markets

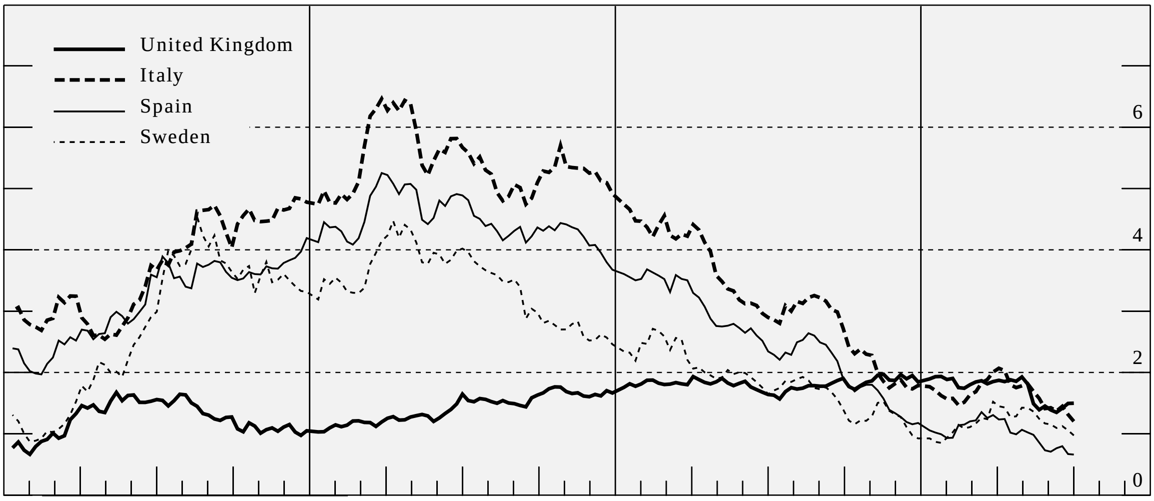
In billions of US dollars



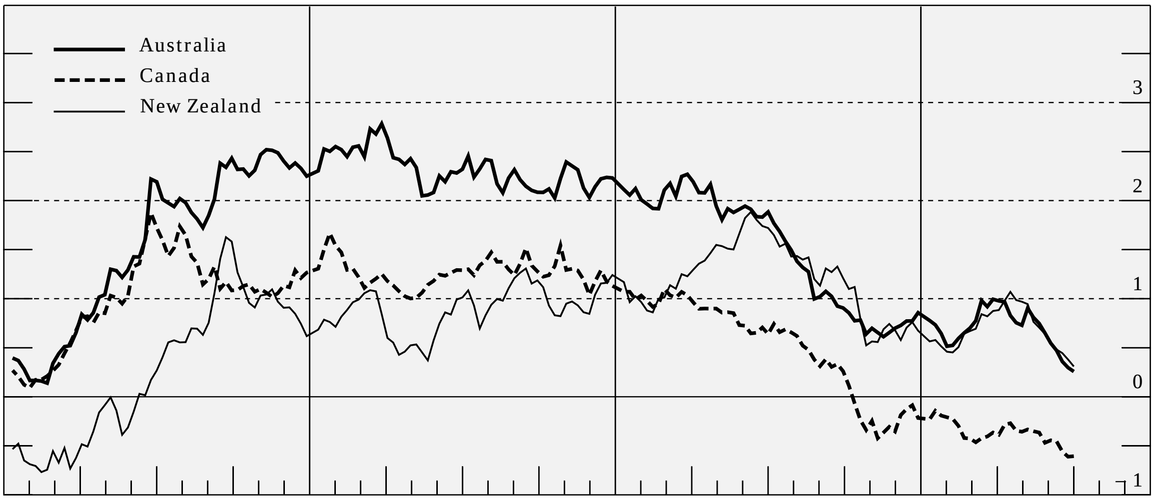
* Excludes issues redeemed in the same quarter.

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

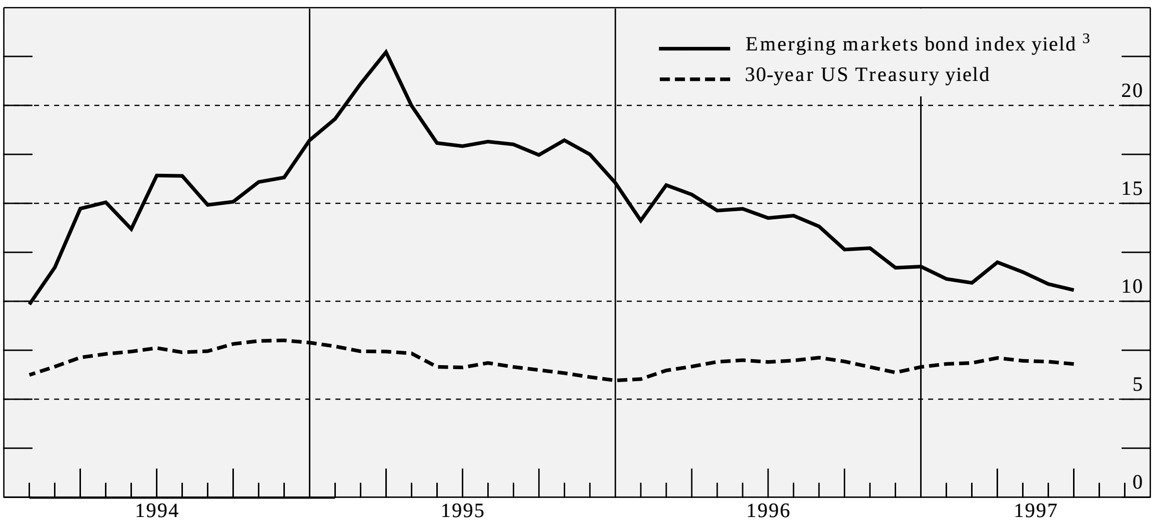
Yield differentials vis-à-vis long-term German government bonds [1]



Yield differentials vis-à-vis long-term US government bonds [1]



Emerging markets bond yields versus 30-year US Treasury yields [2]



[1] Weekly averages, in percentage points. [2] Monthly data, in percentage points. [3] Yield stripped of collateral backing.
Sources: Datastream and J.P. Morgan.

monetary policy has been used to bolster growth and support budgetary adjustment in Europe and to facilitate financial restructuring in Japan. Other factors, such as the search for higher returns in a context of low or declining nominal interest rates and subdued inflation, have drawn new classes of investor and issuer to the international market-place. Investors' continued appetite for risk was partly illustrated by the evolution of spreads relative to benchmark issues, which rapidly resumed their downward trend following bouts of upward pressure (see the graph on page 16). In addition, borrowers from Eastern Europe and Latin America appeared little affected by the Czech and Thai currency crises, with new issues reaching a monthly record in June. Recent upward revisions to credit ratings and announcements of debt swaps or early repayments have no doubt played an important role in the improved perception of a number of countries (such as Argentina and Brazil). Another indication of investors' tolerance for risk was the positive reception given to sovereign borrowers accessing the market for the first time (such as Cyprus) or which had been absent for many years (such as Ecuador and Jamaica), as well as the entry of lower levels of governments from a broad range of countries (such as the State of New Jersey and several municipalities or local authorities from Russia and Latin America). There was also a further widening in the spectrum of issuing currencies, with issues in Korean won and New Taiwan dollars.

The resilience of international issuance also results from the variety of forces that have acted to produce a qualitative change on the borrowing side. Contrary to what had been feared by euromarket participants some years ago, financial liberalisation in the core economies has not prompted a return of borrowers to domestic markets, but rather has encouraged them to reduce costs by seeking new pockets of investment demand in the international markets. At the same time, the restructuring taking place globally in the industrial and financial sectors has been accompanied by increasingly large and complex structures whose technical and financial requirements are more often than not met more easily in the international market-place. This was particularly evident in the second quarter of 1997 with substantial issues that were part of larger merger-related financing arrangements. Financial innovation has also facilitated market access by enabling intermediaries to unbundle and repackage underlying risks, as illustrated by the introduction of securities with coupons linked to the

Main features of the international bonds and notes market

In billions of US dollars

Instruments, currencies and type of issuer	1995	1996	1996			1997	
	Year	Year	Q2	Q3	Q4	Q1	Q2
Announced issues	**585.1**	**877.1**	**210.9**	**204.7**	**247.3**	**248.8**	**264.7**
Floating rate issues	113.9	224.1	57.1	54.6	62.8	60.6	64.2
Straight fixed rate issues	453.1	601.9	138.4	140.7	172.9	181.1	185.3
Equity-related issues[1]	18.1	51.1	15.3	9.4	11.7	7.1	15.2
US dollar	186.7	395.0	103.6	94.2	112.2	105.4	131.9
Yen	154.4	136.8	31.0	37.6	37.9	34.1	30.9
Deutsche Mark	80.5	86.8	17.1	18.9	18.5	20.1	18.4
Other currencies	163.6	258.5	59.2	53.9	78.8	89.2	83.5
Financial institutions[2]	270.0	455.1	103.5	101.8	137.0	133.1	132.2
Public sector[3]	180.3	221.4	45.8	59.1	57.7	67.6	74.4
Corporate issuers	134.8	200.6	61.6	43.8	52.6	48.1	58.0
Completed issues	**587.4**	**871.2**	**208.6**	**203.1**	**263.0**	**240.8**	**247.8**
Repayments	**293.3**	**372.3**	**84.6**	**91.0**	**105.2**	**110.1**	**101.0**

[1] Convertible bonds and bonds with equity warrants. [2] Commercial banks and other financial institutions. [3] Governments, state agencies and international institutions.

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

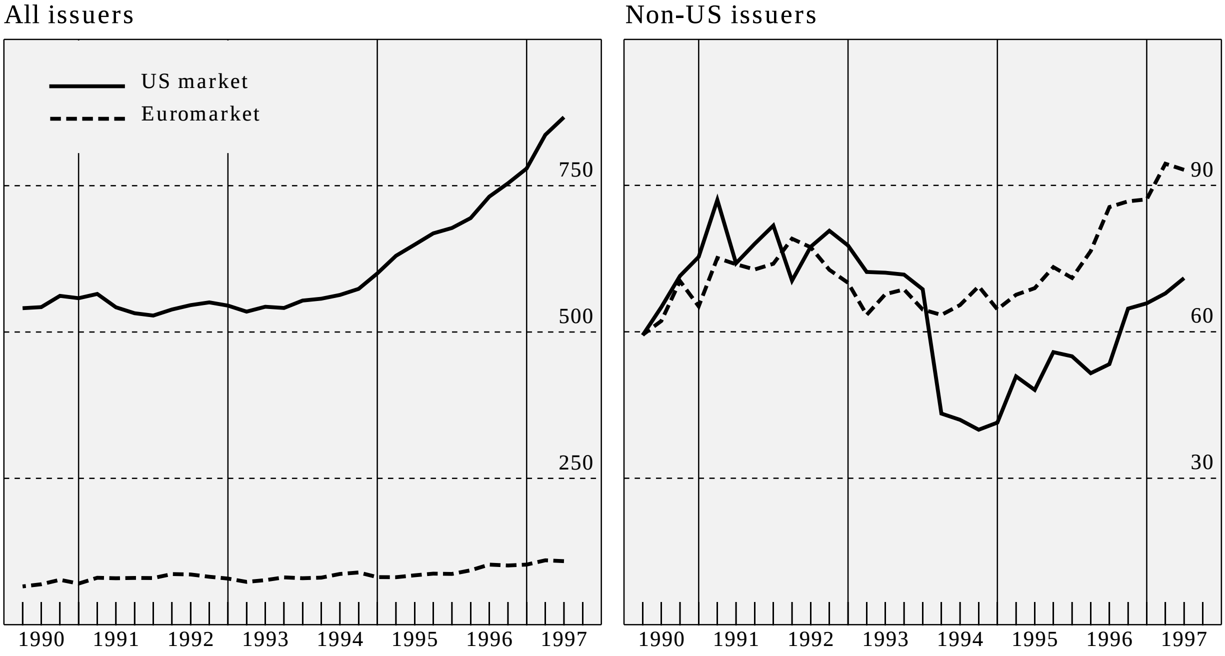
credit rating of issuers or "synthetically" based on baskets of outstanding emerging market issues. Meanwhile, the integration of emerging market and transition economies into the global economy has been paralleled by a growing proportion of international business accounted for by borrowers from such countries. Sovereign issuance from emerging and transition economies has been especially buoyant as governments have refinanced more expensive banking or securitised liabilities and sought to establish liquid benchmarks to facilitate access by private sector borrowers or to even out their debt repayment profiles. Lastly, the withdrawal of the state from economic activity and the greater emphasis placed on budgetary equilibrium is now beginning to find a reflection in the mix of borrowers accessing the international market. Sovereign issuance from developed countries is moderating, while privatisation has created a large number of new entities that are now raising funds under their own names.

Money market instruments/short-term euronotes

In the market for euro-commercial paper (ECP) and other short-term euronotes, there was a further decline in total net new issuance, from $7.1 billion in the first quarter to $5.3 billion. A small number of central governments based in Europe and Asia have cut back issuance sharply since the last quarter of 1996, leaving European financial institutions in the US dollar segment as the main engine of growth. The flight to the US dollar that developed during the second quarter benefited short-term US dollar instruments but, as can be seen from the graph below, activity in the short-term euronote market continues to pale in comparison with that in the US market, where the outstanding stock of commercial paper has expanded by about 60% since the end of 1993. It is notable that borrowers from emerging market and transition economies are now beginning to use short-term facilities, as illustrated by the establishment of an ECP programme for a Russian borrower. Lastly, the ECP Association was reported to have been holding talks with the International Securities Market Association (ISMA) concerning a possible affiliation to the latter. This would enable the ECP market to benefit from the removal of national restrictions currently limiting investment in non-regulated markets as well as providing a forum through which new market conventions could be discussed ahead of EMU.

Commercial paper outstanding

In billions of US dollars

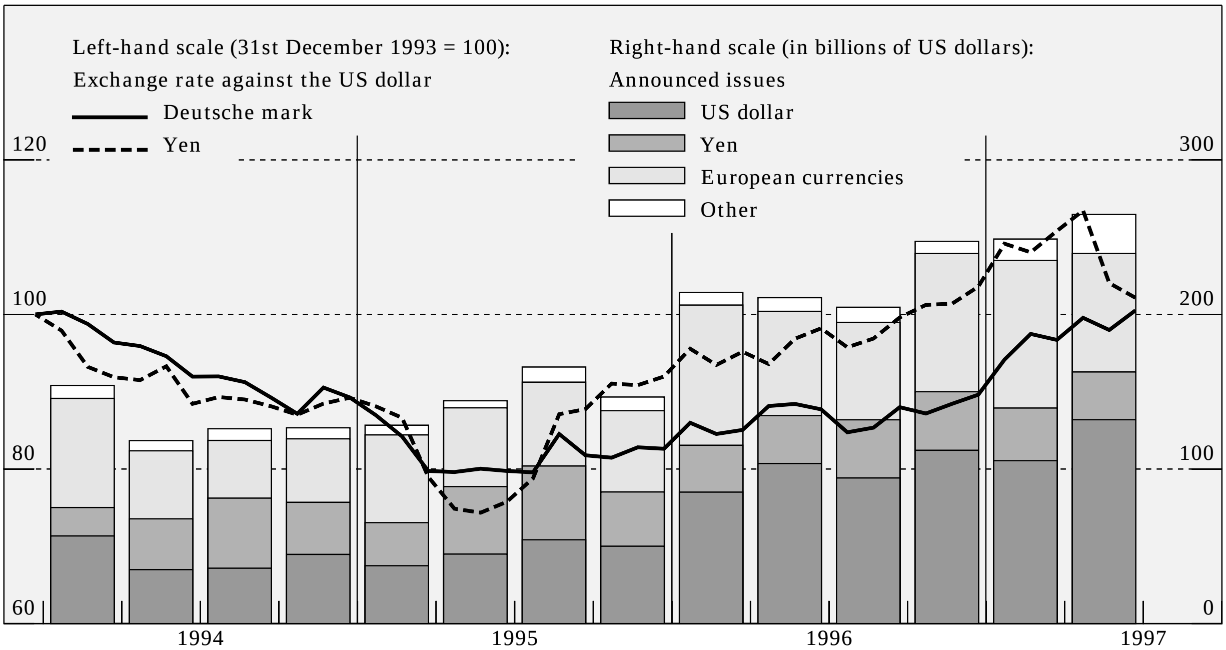


Sources: Federal Reserve Bank of New York, Euroclear and BIS.

Longer-term international securities issues

In the longer-term segments of the international securities market, aggregate statistics show that the financial turbulence which emerged in May caused a "flight to quality" that was largely confined to a shift into US dollar assets. As a result, the share of the US dollar in total announced international bonds and notes increased sharply (from 42% to 50%), while that of European currencies saw an equally marked decline (from 38% to 29%, the lowest seen in the 1990s). Concerns surrounding EMU were felt particularly strongly in the market for ECU and "euro-fungible" securities,[7] with issuance from highly rated names contracting sharply. The confidence of investors with respect to the performance of US dollar assets also meant that the duration of US dollar bonds was extended, while the ratio of floating rate to fixed rate dollar issues, at 23%, remained well below the peak of 28% reached in the volatile first quarter of 1994. At the same time, the cautious stance of investors regarding their holdings of bonds denominated in European currencies was illustrated by the maintenance of fairly short durations. The fact that emerging market borrowers were able to bring a record volume of (often large) dollar issues and that new types of high-risk structures were considered (see below) suggests that currency considerations had a more pervasive influence than credit risk during the quarter. Low interest rates and strong or accelerating economic growth in the industrial countries have generally helped keep corporate insolvencies at low levels so far this year. Default risk has not been entirely absent from investors' minds, however, as shown by the lower volume of mortgage and other asset-backed securities issued by US and UK-based entities since the beginning of 1997. While the rise in US and UK interest rates in the early part of the year has admittedly slowed the origination of new mortgages, sharply rising delinquency rates on credit card debt in the United States have probably made investors more cautious about securities backed by such claims. Securitisation is nevertheless expanding steadily in new areas such as Europe, Japan and a number of emerging market countries.

International bond and note issuance and the US dollar exchange rate



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

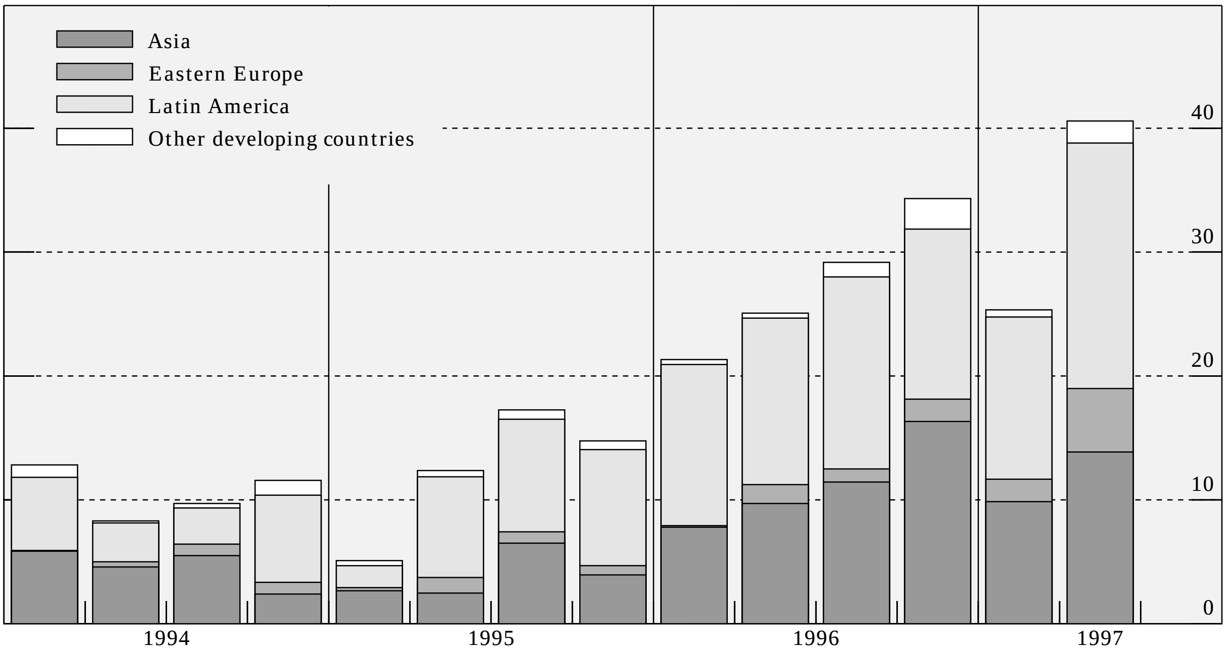
[7] Euro-fungible securities are issued in single-currency or multicurrency tranches and include provisions for redenomination in euros at the start of stage three of EMU on 1st January 1999.

In spite of the setback seen in European currency business, other developments showed further evidence of the growing deepening and sophistication of that market segment. For example, low overall volumes of euro-fungible issues did not prevent a widening use of such structures, with first issues for emerging market countries (Argentina and Brazil) and for US borrowers. A supranational institution introduced the first sterling issue with a euro convertibility clause and a German state development bank launched bonds whose characteristics are closely aligned with those of new benchmark German government bond issues. The quarter also saw the emergence of a market for high-yield (or "junk") securities, with issues launched by European companies in Deutsche marks, French francs and sterling. Intermediaries noted that high-yielding securities offer a number of advantages to borrowers compared with bank loans, such as bullet repayment (which removes the financial pressures associated with gradual amortisation) and less constraining covenants. Should spreads between European country benchmarks continue to narrow as a result of the EMU convergence process, investors are likely to turn in greater numbers to lower-rated instruments in order to obtain incremental returns. In a related development, the shift in emerging market funding to the US dollar segment did not prevent some Asian and Latin American borrowers from launching issues in European currencies (such as the lira and sterling), with the aim of diversifying their funding operations or building yield curves in those currencies.

Although the Czech and Thai currency crises had an unsettling impact, several favourable developments took place in the area of emerging market financing. Thus, in April one of the major rating agencies announced that sovereign risk ceilings would no longer restrain the ratings of non-sovereign issuers in highly "dollarised" economies such as Argentina and Panama. This was of immediate benefit to borrowers from Argentina, with their foreign currency ratings rising to the level of their local currency ones. In June, Brazil conducted an exchange of outstanding Brady bonds for $3 billion of uncollateralised 30-year securities, while Mexico announced that it would repay in August this year $6 billion of FRNs (collateralised by oil receipts) issued in the third quarter of 1996. These moves, which will enable the countries to reduce the cost of their liabilities as well as the risk on foreign currency refinancing through an extension of debt maturities, had a positive impact on the

International bond and note issuance by emerging market borrowers *

In billions of US dollars



* Announced issues based on the nationality of the borrower.

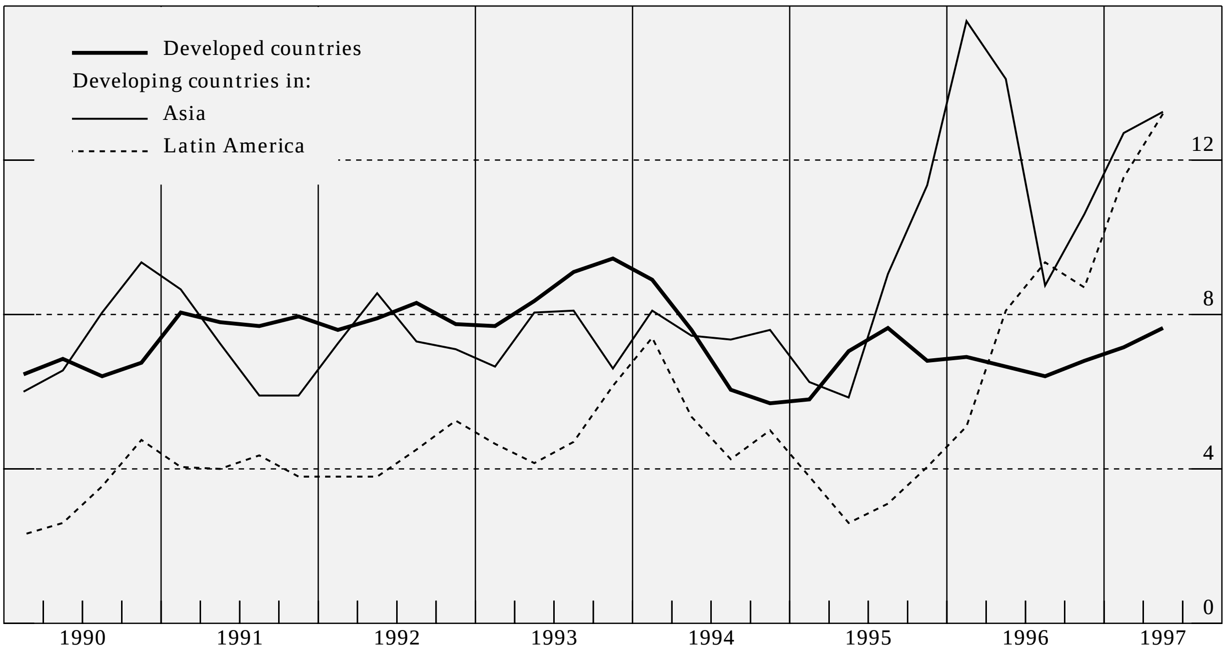
Sources: Bank of England, Euroclear, Euromoney, IFR, ISMA and BIS.

price of Brady bonds. The Brazilian swap, in particular, which follows earlier similar operations conducted by Mexico and the Philippines as well as less publicised buybacks by other countries, is likely to be followed by additional countries and thus accelerate the transition of emerging market sovereign debt from collateralised to conventional issues. The greater variety and liquidity of available emerging market instruments (including increasingly popular local currency assets) should help improve their resilience to exogenous developments such as a turnaround of financial market conditions in the major industrial countries.

Straight fixed rate issues. Announcements of straight fixed rate issues ($185.3 billion) increased modestly in the second quarter of 1997, but a lower volume of repayments led to a jump in net financing ($101.8 billion). The flood of longer-dated dollar issues that took place in June caused a temporary widening of secondary market spreads but swap rates remained sufficiently attractive to sustain issuance. As a result, dollar bonds accounted for 46% of total fixed rate issues for the quarter as a whole. The widespread narrowing of spreads between US Treasuries and domestic corporate issues made long-term emerging market debt highly attractive to US investors, leading to a further increase in the share of such issues in the Yankee market (to 65%). Meanwhile, the eurodollar market broadened its reach, with the further development of issuance for US and European local authorities, the stepping-up of the fund-raising activity of industrial borrowers (often as part of acquisition-related financing packages) and the introduction of new instruments such as the first Pfandbrief issue. Emerging market borrowers brought the largest issues (and their largest single fixed rate issues ever), with, for example, a $3 billion 30-year issue for Brazil and a $2 billion ten-year issue for Russia. Although a few large European currency-denominated issues were brought to market towards the end of the quarter, uncertainty over EMU generally deterred activity. European retail investors nevertheless remained receptive to higher-yielding European currency issues, with, as mentioned earlier, the introduction of junk bonds and the launch of securities by several emerging market and transition countries such as Croatia, Lebanon and Mexico. The strength of continental retail demand also encouraged intermediaries to introduce the first "synthetic" eurobond, an issue denominated in Deutsche marks and paying a coupon based on the spread of a basket of emerging market issues.

Weighted average maturity of announced straight fixed rate international bonds *

In years



* Two-quarter moving average of stand-alone bonds and bonds issued under medium-term notes programmes.

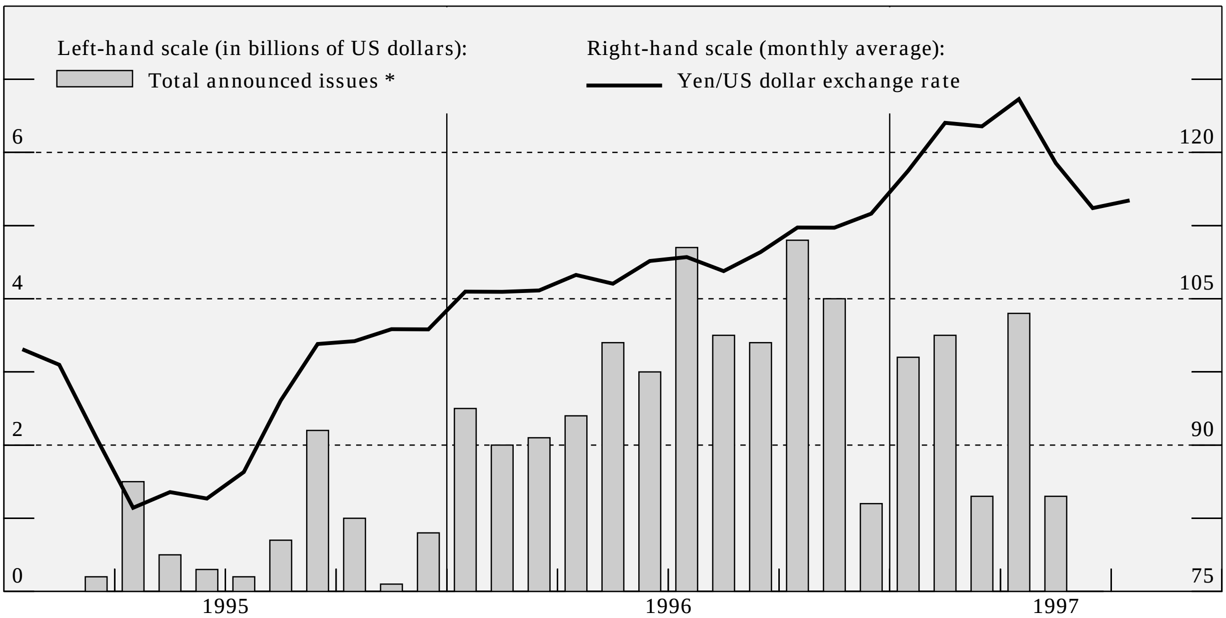
Sources: Bank of England, Euroclear, Euromoney, IFR, ISMA and BIS.

Despite a £750 million issue for the World Bank, business in sterling halved. This probably reflected widespread expectations of further increases in official interest rates and concerns that the currency might have become overvalued following a year-long rally.

In the market for yen-denominated bonds, issuance proceeded at a slightly weaker pace in spite of the further sharp reduction in the volume of dual-currency bonds targeted at Japanese retail investors. While the strength of the US dollar against the yen led in April to an upsurge in the issuance of short-term dual-currency bonds, the reversal in the dollar's fortunes against the yen thereafter reduced the enthusiasm of investors for such structures. Japanese investors and intermediaries were reported to have faced heavy losses on short-term issues featuring "knock-out" type options as the drop in the value of the US dollar relative to the yen in May triggered repayments in dollars instead of yen. At the same time, public sector borrowers from France and emerging market countries took advantage of low yen rates and recent deregulation measures to bring several issues onto the Samurai market. The further liberalisation of Samurai issuance to permit issues by foreign commercial banks was immediately followed by the launch of an issue by a US bank. Lastly, supranational and other borrowers made use of attractive swap opportunities in the rand market to launch an unprecedented volume of issues in that currency (equivalent to $11.5 billion).

Floating rate notes (FRNs). The slight increase in announcements of FRNs ($64.2 billion) in the second quarter of 1997 was matched by a higher volume of repayments, leaving net financing ($36.2 billion) somewhat lower than in the previous quarter. Financial institutions continued to account for the bulk of activity, with several step-up perpetual notes being used to bolster their capital bases. Investment demand was encouraged by anticipations of interest rate increases in the United Kingdom and the United States, the flatness of yield curves in their respective currencies, the generally strong liquidity position of financial intermediaries and the announcement by Mexico of the early repayment of a $6 billion FRN. While Italy was able to achieve its lowest-ever cost on a public issue, with a $1.5 billion five-year non-callable issue carrying a coupon of LIBOR minus 12.5 basis points, there was sustained demand for higher-yielding notes issued by a broad range of emerging market borrowers. Sovereign paper included a $1 billion note for Mexico and several smaller issues for Chinese and Korean state agencies. A number of deals attracted the attention of market participants, such as the launch by the European Investment Bank of the second

The yen/US dollar exchange rate and dual-currency bond issues



* Stand-alone bonds and bonds issued under medium-term notes programmes.

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

FRN in rand and the introduction by a Korean state agency of a ground-breaking note offering investors an early put option in the event of a downgrade in its credit rating. At the same time, repackagings of triple-A sovereign issues continued to surface in European currencies. There was also issuance in currencies that have not been used actively in recent years such as the Canadian dollar, the French franc and the Italian lira.

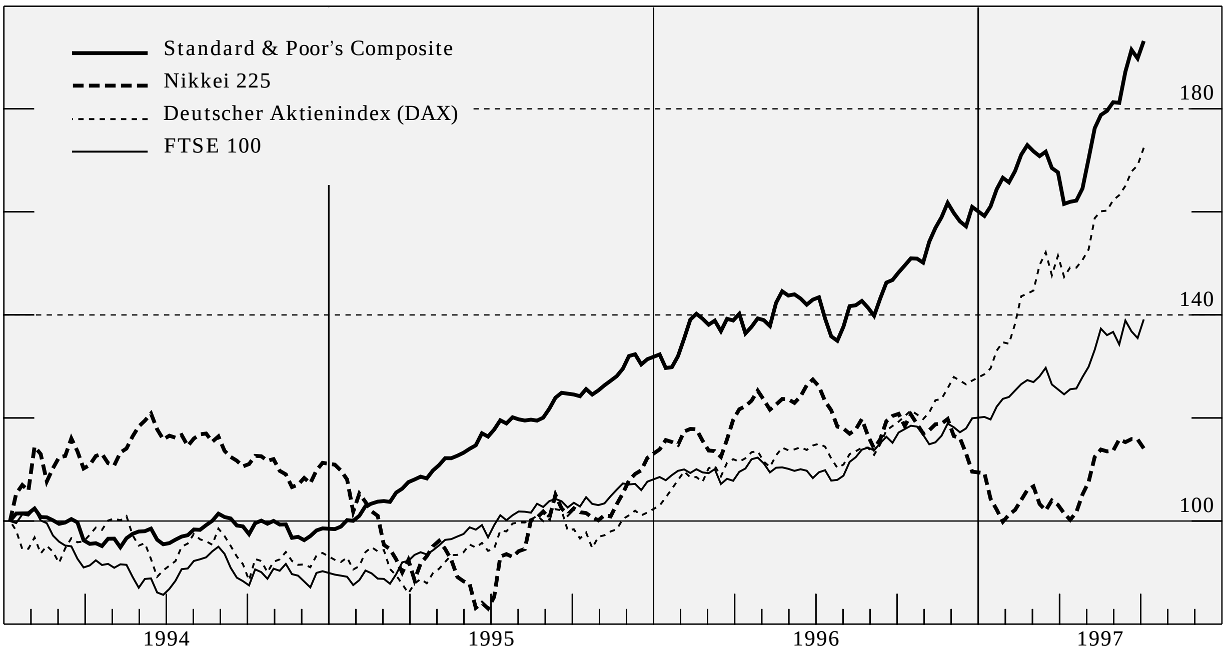
Equity-related issues. Gross and net issuance ($15.2 billion and $8.7 billion respectively) in the equity-related market rebounded sharply in the second quarter of 1997. As a result, the stock of issues expanded again, following a contraction in the first quarter. European companies accounted for about 60% of announced new issues, followed by those of Asian emerging market and offshore centres (20%) and those of Japanese borrowers (14%). The growing acceptance of zero coupon convertible structures in Europe led one large Swiss chemical company to raise $3 billion through the largest-ever single-tranche convertible launched by a European borrower. Japanese banks returned to the market with two convertible issues. If not converted or not called early, the largest one will become a perpetual FRN issue. Lastly, a few US and European intermediaries launched issues that were convertible into the stocks or baskets of stocks of third-party entities.

Structural and regulatory developments

One of the main challenges facing the international securities markets, and more generally the world financial industry, is the transition to the proposed single European currency. Questions related to the transition to the euro were the focus of several initiatives taken, both individually and collectively, by international trade associations in the second quarter of 1997. These centred largely on the determination of benchmark interest rates, the outcome of which will have important implications for cash and derivatives transactions. This issue is dealt with in greater detail in a separate box overleaf. In addition, recommendations were made jointly by several market

Equity market developments

Weekly averages (3rd January 1994 = 100)



Source: Datastream.

The determination of benchmark euro-denominated interest rates

Upon the introduction of the euro (scheduled for January 1999), a number of benchmark interest rates will be replaced by euro-denominated rates. This will be the case for the London-based LIBOR denominated in the national currencies of the member countries, which serves as an international benchmark, as well as domestic rates such as FIBOR (in Frankfurt) and PIBOR (in Paris). These money market rates play a central role in foreign exchange, securities and derivatives activities. As a result, issues such as the determination of euro rates, quotation conventions and the handling of the transition phase will be critical for the entire financial industry.

For the moment, two competing projects for short-term euro rates are being developed; one is based on international rates and the other on domestic rates. The first has been initiated by the British Bankers Association (BBA), which is the present source of published LIBOR rates. In early 1999 the BBA intends to replace its ECU LIBOR by a euro LIBOR measured daily from a panel of 16 London banks. The other plan is sponsored by the Association Cambiste Internationale (ACI) and the European Banking Federation (EBF), with a EURIBOR based on European domestic rates. The latter plan will allow adjustment to the list of banks whose countries adopt the euro (based on their share in the capital of the future European central bank) and use a formula for eliminating extreme values similar to that used for LIBOR. Pending issues such as quotations and settlement during national holidays and the continuing quotation of individual domestic currencies during the transition phase have yet to be resolved.

Monetary regulations, such as reserve requirements, and taxation within the group of countries participating in EMU, together with differences in the sample of banks used in the calculation, may cause "domestic" euro rates (EURIBOR) to differ from international euro LIBOR rates. In particular, the formula for calculating domestic rates might exclude a number of active banking institutions which are not from EU member countries or might cover a considerably broader range of intermediaries. In practice, therefore, this means that EURIBOR could diverge from euro LIBOR, as is presently the case, for instance, with FIBOR and DM LIBOR. Whether this would favour international rates is not entirely clear, as liquidity, including that of the underlying in the case of derivatives, is generally considered to be a more critical parameter. Indeed, the decisions within the derivatives industry as to the relevant benchmark may have a strong bearing on the acceptance of one or other of the two rates. Recent calls by the International Swaps and Derivatives Association for various providers of short-term interest rate data to clarify rapidly their policy after the introduction of the common European currency underline the importance of such benchmarks for the industry.

associations[8] to harmonise such market standards as the number of day counts, rate fixing periods, business holidays and value dates, as well as the drafting of appropriate prospectuses for new euro-denominated bond issues. Another euro-related initiative was the introduction of an online electronic information service for the prices of securities transactions matched and reported on the ISMA TRAX system. Despite the temporary bouts of uncertainty related to EMU, the prospect of a single currency also remains a powerful stimulus for the convergence of national rules and practices. This was illustrated by the decision taken by the Bank of England to introduce changes (as from next year) in certain conventions used in the gilt market, such as decimals for price quotes (as against fractions) and annual day counts (from 365 days to the actual number of days). Further changes under consideration include ex-dividend periods and pricing methods for the strips market. A strip market for gilts, whereby the principal and interest of the underlying are traded separately, is expected to be introduced later this year. The forthcoming introduction of strip markets in Germany and Spain illustrates the strategy adopted by national authorities to raise the competitive stance of their domestic markets ahead of EMU.

At the same time, the Japanese authorities took a number of liberalisation initiatives ranging from draft proposals to concrete action crossing over various market segments. A bill amending the Foreign Exchange and Foreign Trade Control Law was passed in May and will come into effect in April 1998. This revision, which will liberalise purchases and sales of foreign currencies and abolish the permission and prior notification requirements on capital transactions, is the first step of the "Big Bang" initiative announced last November. In addition, some of the bills reflecting the

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8 See the joint announcement made on 29th May by the following five international financial trade associations: Association Cambiste Internationale, International Paying Agents Association, International Primary Market Association, International Securities Market Association and International Swaps and Derivatives Association.

recommendations made in June by the councils set up by the Government to discuss financial system reform, such as a lifting of the ban on financial holding companies, will be submitted to the Diet this autumn. Deregulation measures not requiring parliamentary approval are being carried out sooner. For example, several concrete steps have been taken in the field of securities, with a potentially strong bearing on the international market. These included, in April:

- permission for foreign banks to issue yen-denominated bonds on the Samurai market (the last remaining restriction on issuance in that market);

- a further reduction in the settlement period (from seven to three business days) for transactions in Japanese government bonds;

- and, in June, authorisation for Japanese firms to launch medium-term note programmes on the domestic market.

Appendix: The euro and competition in the international primary debt markets[9]

This appendix analyses the potential effect of EMU on competition in the primary market for international bonds and loans. The focus is on the lead underwriter - the so-called bookrunner of a bond or arranger of a loan - which prices the offering, sets the distribution strategy and allocates the bond or loan among the other underwriters. We use data for 1996 from the Euromoney Bondware and Loanware databases, covering announced international bonds amounting to $725 billion and loans amounting to $1,514 billion.

Assuming that multiple currencies in Europe now segment supply and demand, the introduction of the euro is likely to result in keener competition. In the primary market, underwriters can derive competitive advantage from three sources: *relations with issuers* are important when the ultimate bearers of the credit risk look to the reputation of the underwriter; general *understanding* of markets, including the direction of rates and credit spreads, allows an underwriter to get the price right; and *relations with sub-underwriters and end-investors* make it possible to achieve the widest and most advantageous marketing of the paper. The importance of the first factor can be manifested in a relationship between the nationalities of the borrower and underwriter, while the importance of the second and third factors can be reflected in a relationship between the currency of denomination and the nationality of the underwriter.

If relations with issuers determine the choice of underwriter, the introduction of the euro would not substantially alter the terms of competition. For instance, a French company might continue to rely on its closest bank to send a signal of its financial health. If, however, borrowers choose underwriters for their general understanding of the market, or because of their relations with sub-underwriters and ultimate investors, the euro could heighten competition. For instance, after the introduction of the euro, a German bank would not enjoy a natural edge over its European rivals in understanding the monetary and fiscal policies influencing euro interest rates and spreads. Also, a German bank could no longer derive a unique advantage from its relations with smaller German banks and insurance companies - traditional buyers of Deutsche mark bonds.

One test of whether the euro will sharpen competition is to check whether the currency of denomination makes a difference in the choice of underwriter when taking into account the nationality of the borrower. The test is carried out on the international markets for reasons both of data availability and of relevance. A substantial fraction of international bonds might be denominated in euros: one-quarter of the outstanding issues at mid-1997 feature EU issuers in EU currencies, with EU institutions and individuals well-represented among the investors. An early study documented a decline of issuer-underwriter relations and a rise in the role of currency in the selection of underwriter.[10] A more recent study found a strong association between the nationality of the lead underwriter and the currency denomination of the bond for all but eurodollar issues, where customer relations seemed important.[11]

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[9] This appendix was contributed by Robert N. McCauley of the Monetary and Economic Department of the BIS. It draws heavily on sections 2.2.2 and 3.2 of Robert N. McCauley and William R. White, "The Euro and European Financial Markets," *BIS Working Paper No. 41*, Basle, May 1997.

[10] See Carol L. Courtadon, "The competitive structure of the eurobond underwriting industry", Salomon Brothers Center for the Study of Financial Institutions, New York, 1985.

[11] See John Balder, Jose A. Lopez and Lawrence M. Sweet, "Competitiveness in the eurocredit market", in *International competitiveness of US financial firms: products, markets, and conventional performance measures. Staff Study*, Federal Reserve Bank of New York, New York, May 1991, pp. 26-41. Most recently, Dermine pointed to the dominance of home-country lead managers in the league tables by currency sector, without distinguishing the influence of customer from that of currency. See Jean Dermine, "European banking with a single currency", in *Financial Markets, Institutions and Instruments*, San Diego, December 1996, pp. 62-102.

In most sectors of the international bond market, the currency denomination matters more than the nationality of issuer in the choice of underwriter.[12] The table below shows, for instance, that German banks lead 39% of all Deutsche mark issues, but only 4% of issues in other currencies, whereas, within the mark sector, they capture only slightly more of the business of German borrowers

Currency and home-country relationship
in the choice of bond bookrunner, 1996

Percentage market share won by bookrunners of indicated nationality

Dutch bookrunners				French bookrunners			
Borrower	Currency			Borrower	Currency		
	Guilder	Other	All		French franc	Other	All
Dutch	83	26	48	French	86	10	25
Other	85	2	3	Other	75	2	5
All	84	2	5	All	77	2	6
German bookrunners				**Japanese bookrunners**			
Borrower	Currency			Borrower	Currency		
	Deutsche mark	Other	All		Yen	Other	All
German	44	16	24	Japanese	75	46	59
Other	37	2	5	Other	87	6	14
All	39	4	8	All	84	8	17
UK bookrunners				**US bookrunners**			
Borrower	Currency			Borrower	Currency		
	Pound	Other	All		US Dollar	Other	All
UK	40	21	31	US	86	46	76
Other	48	3	5	Other	54	13	28
All	44	4	7	All	64	16	37

Note: Each entry shows market share of Dutch, French, German, Japanese, UK, or US bookrunners for issuers of the indicated nationality in the indicated currency. For example, the 83% in the upper left-hand corner means that Dutch underwriters ran the books for 83% of the bonds of Dutch issuers that were denominated in guilders. Data include all bonds in the Euromoney database, including international bonds issued under medium-term note programmes, that are not equity-related. Total amount of bond issuance by currency: Deutsche mark: $81 billion; French franc: $37 billion; guilder: $22 billion; pound: $54 billion; US dollar: $319 billion; yen: $91 billion; grand total: $725 billion.

Sources: Euromoney Bondware and BIS.

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[12] The association of currency of issue and nationality of underwriter, however, seems weaker in 1996 than it was in 1983 for the Deutsche mark, guilder and pound sterling sectors (see Courtadon, op. cit., pp. 40-41).

than of non-German issuers.[13] A similar pattern can be observed for Dutch, French, Japanese and UK underwriters.[14]

The influence of customer and currency is much more balanced for US bookrunners. This has been interpreted as a sign that the US dollar sector is the most competitive. From the standpoint of the sources of competitive advantage, the international role of the dollar implies that US underwriters have less of an edge from their access to US end-investors. Non-US portfolios tend to have more assets denominated in dollars than in any other foreign currency. As a result, the ability to place dollar bonds is more widely shared among underwriters of various nationalities than for other currencies.

The upshot of this analysis is that separate currencies in Europe have tended to segment the international bond market and that, over time, the currency denomination has had more bearing on competition than relations between customers and underwriters. The transition to the euro would be a double-edged sword for European financial firms. On one side, they would lose the protection of their traditional home currency.[15] On the other side, they would benefit from a much larger market. While underwriter competition could become sharper, greater liquidity and depth and cheaper issuance costs could increase the overall size of the market. The concentration of underwriting in the United States among the top six of "bulge bracket" firms, which has shown consistency over time despite changes

Choice of bookrunner for international bond issues in EU currencies, 1996

In billions of US dollars and as a percentage of issuance

Bookrunner	Borrower							
	EU		US		Other		Total	
	Amount	Percentage share	Amount	Percentage share	Amount	Percentage share	Amount	Percentage share
European Union ..	119	71	8	38	50	66	176	67
of which:								
Germany	*29*	*17*	*2*	*9*	*12*	*16*	*42*	*16*
France	*24*	*14*	*3*	*14*	*8*	*11*	*35*	*13*
Netherlands	*21*	*12*	*1*	*3*	*3*	*4*	*24*	*9*
United Kingdom	*19*	*12*	*1*	*5*	*8*	*10*	*28*	*11*
Other EU	*26*	*16*	*1*	*7*	*19*	*26*	*47*	*18*
United States	24	15	11	57	15	20	51	19
Other	24	14	1	5	11	14	35	14
Total	167	100	20	100	76	100	263	100

Sources: Euromoney Bondware and BIS.

13 For the purpose of this analysis, Deutsche Morgan Grenfell or Dresdner Kleinwort Benson are treated as German financial firms.

14 The partial exception here is Japanese firms competing in the non-yen sectors, where they led 46% of issues for Japanese borrowers but only 6% of issues for non-Japanese borrowers. The importance of equity-related issues by Japanese borrowers and of their purchase by home-country investors may favour Japanese underwriters.

15 Brown argues that the competitive challenge of the euro is not symmetrical: "The advantage German banks have had in the No. 2 international capital market, the Euro-DM market, will not carry over into the euro capital market". See Brendan Brown, "EMU: implications for the international debt market". Paper presented at a Euromoney seminar on *Implications of EMU for the international debt market*, London, 17th-18th October 1996, p. 4.

in the composition of the top firms, suggests that there might be fewer and larger survivors some years after the introduction of the euro.[16]

There is also discussion regarding whether US securities firms and banks would be well-placed to succeed in the euro market. Not only did US firms lead 37% of all international bonds in 1996, but also, more pointedly, they led 13% of all issues by non-US borrowers in non-dollar currencies. The table below examines the choice of underwriter by various issuers of bonds in EU currencies. US firms underwrote 15% of such bonds issued by EU borrowers and 20% of bonds issued by borrowers from outside the European Union and the United States. This latter group of borrowers, where home ties do not bind, should be the most contestable market segment, and here US financial firms underwrote more than any national group of competitors in Europe. Thus, US firms are already challenging European firms on the latter's home turf.

Turning to syndicated loans, the picture is different. The dollar is the currency of denomination for five-sixths of the syndicated loan market, giving US banks an advantage as market-leaders over their competitors. Still, the evidence is that home-country relations are generally more important to the choice of underwriter than they are in the international bond market (see the table below). It may well be that other participants in a syndicate prefer a lead manager with a close relationship with the borrower. A lead bank may possess non-public knowledge about the borrower,

Currency and home-country relationship
in the choice of loan arranger, 1996

Percentage market share won by arrangers of indicated nationality

French arranger banks				German arranger banks			
Borrower	Currency			Borrower	Currency		
	French franc	Other	All		Deutsche mark	Other	All
French	46	10	39	German	82	71	80
Other	56	2	2	Other	46	3	4
All	47	2	3	All	62	3	4
UK arranger banks				US arranger banks			
Borrower	Currency			Borrower	Currency		
	Pound	Other	All		US Dollar	Other	All
UK	56	39	53	US	83	28	82
Other	24	2	2	Other	27	13	20
All	53	3	6	All	71	13	61

Note: Each entry shows market share of French, German, UK or US banks as arrangers of loans for borrowers of the indicated nationality in the indicated currency. For example, the 46% in the upper left-hand corner means that French banks arranged 46% of the loans for French borrowers that were denominated in French francs. Data include all loans in the Euromoney database that were signed and for which amounts were given, and are therefore more inclusive than the usual data reported by the BIS, which exclude, inter alia, refinancing. Total syndicated loan amounts by currency: Deutsche mark: $25 billion; French franc: $31 billion; pound: $102 billion; US dollar: $1,254 billion; grand total: $1,514 billion.

Sources: Euromoney Loanware and BIS.

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[16] See Samuel Hayes, A. Michael Spence and David Marks, "Competition in the Investment Banking Industry", Harvard University Press, Cambridge, Mass., 1983 and Judith S. Ruud, "Excess Capacity in the Securities Industry", in *Studies on Excess Capacity in the Financial Sector, Vol. II,* Federal Reserve Bank of New York, New York, 1993, pp. 247-258.

and may be best placed to monitor and enforce any protective covenants in the loan agreement. Thus, while separate currencies serve to segment the market for bank credit in Europe, the home-country relation has proved a more enduring source of competitive advantage than in the bond market.

This analysis leads to the conclusion that the introduction of the euro would have a more immediate impact on competition in the primary international bond market than in the international syndicated loan market. When portfolio managers across the euro area sooner or later treat euro-denominated bonds as home-currency assets, the access to euro end-investors would not differentiate banks from different countries in Europe. Tougher competition on a broader playing-field should make for better terms for issuers, which should in turn promote more issuance and greater market depth. If over time the breadth, depth and liquidity of the euro bond market induces bond issuance by European corporations that currently borrow from banks, the euro could thereby serve to increase competition in European banking for the smaller set of bank loans.

IV

DERIVATIVES MARKETS[17]

Main features

In spite of the turbulence prevailing in financial markets in the second quarter of 1997, there was evidence of some moderation in the growth of exchange-traded contracts. Nevertheless, intense competition between exchanges and from the over-the-counter (OTC) market is maintaining the exchanges' drive to innovate. Although issues related to the introduction of the single European currency took precedence over regulatory matters during the period, there is evidence that, as in North America, European exchanges are now devoting greater attention to the development of products and services that compete with or complement those of the OTC market. Comprehensive data on OTC market activity are not yet available for the second quarter, but figures released by the US Office of the Comptroller of the Currency for the first quarter show a continued increase in the notional amount of contracts held by US banks. The healthy economic environment, the high credit quality of counterparties, the growing use of collateral and the correspondingly low level of credit losses all combined to support market growth. The data also reveal that a greater number of banks engaged in transactions, a development interpreted by some analysts as an indication that the backlash against derivatives that followed a series of corporate losses is waning. The use of derivatives is likely to continue to expand as new users are drawn to the market. Insurance companies, for example, are developing their expertise in the area and are forming joint ventures with investment banks to offer alternative insurance solutions including derivatives in the management of a variety of corporate risks.

Exchange-traded instruments

Although several exchanges in North America and Europe posted record daily or monthly volume and open interest figures, the aggregate turnover of exchange-traded financial contracts monitored by the BIS appears to have expanded only slightly in the second quarter of 1997. Complete data for US exchanges (i.e. up to June) show an expansion of 2.2% in activity in that country. US interest rate and equity index contracts increased by 2.8% and 1.9% respectively, while currency contracts declined by 1.8%. Fears of a possible rise in US interest rates prompted market participants to make greater use of contracts on short-term interest rates. Activity in longer-maturity instruments, on the other hand, failed to expand significantly. In the area of equity instruments, options on single equities continued to grow more rapidly than those on indices, perhaps reflecting the increasing preference of institutional investors for instruments offering a more closely tailored exposure.[18] With respect to US currency business, in spite of higher volatility since the beginning of the year and the recent introduction by the CME of new contracts or related trading services, turnover failed to build on the expansion recorded in the first quarter. Partial data for non-US exchanges[19] show a modest overall decline, with a mixed picture within and across the various geographical areas. The holding of elections in France and the United Kingdom and EMU-related uncertainty led to a strong increase in a number of European contracts on short-term interest rates (most notably on lira, sterling, Swiss franc and French franc rates), with the main exception being those on German short-term rates. These developments failed to have much of an impact on government bond contracts, however, with turnover in most major instruments being stable or declining (apart from the French government bond contract which experienced higher activity). In Japan, anticipations of monetary tightening led to a sharp rebound in the trading of euroyen contracts. In term of the total number of contracts traded on

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[17] The full names of the exchanges referred to in this section are listed on page 40.

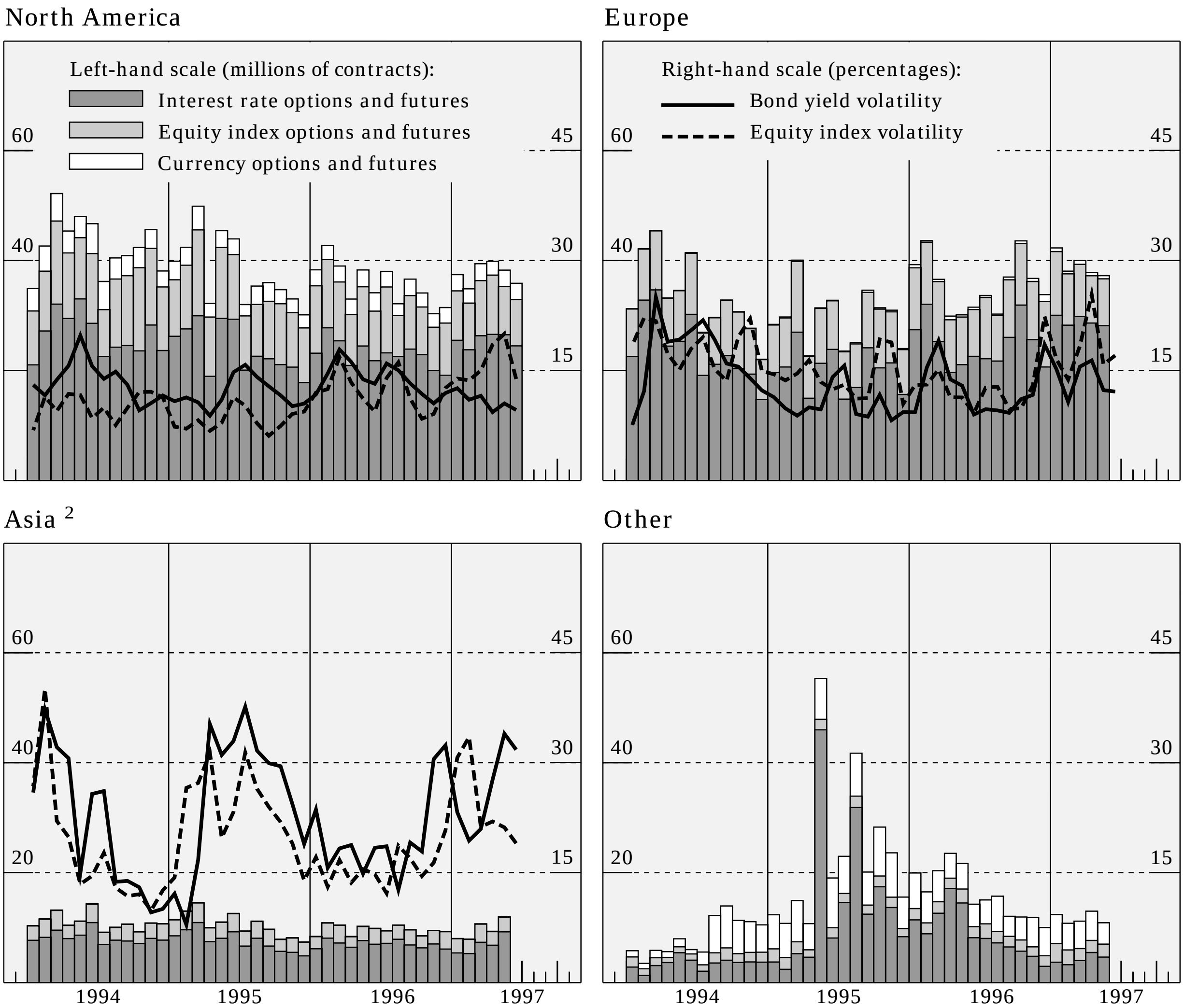
[18] The Futures Industry Association now includes the trading of options on single equities taking place outside the United States in its survey of global market activity. Such business is not yet included in data covered by this commentary.

[19] Detailed data for non-US exchanges are only available up to May.

exchanges (i.e. both financial and non-financial), the CBOT remained the most active exchange in the world, while further growth on the CME and slightly weaker activity on LIFFE enabled the former to recapture its position as the second most active exchange. Within Europe, one noteworthy development was the continuing increase in the market share of the DTB in German interest rate products. Although LIFFE continues to dominate activity in Deutsche mark instruments, the DTB accounted for 33% of turnover in Bund contracts during the second quarter compared with 31% in the previous one.

Although there were fewer path-breaking initiatives than in earlier periods, competition in exchange-traded markets remained intense during the second quarter of the year. While EMU was again the most important driving force for change in Europe, there was renewed listing activity in Japan, in North America and in emerging market countries. New contracts were introduced in all three broad market risk categories, with particularly strong innovation in the area of currency contracts. At the same time, the issue of conventions and rules for the determination of euro-denominated benchmarks was addressed in several forums (see the box on page 24).

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



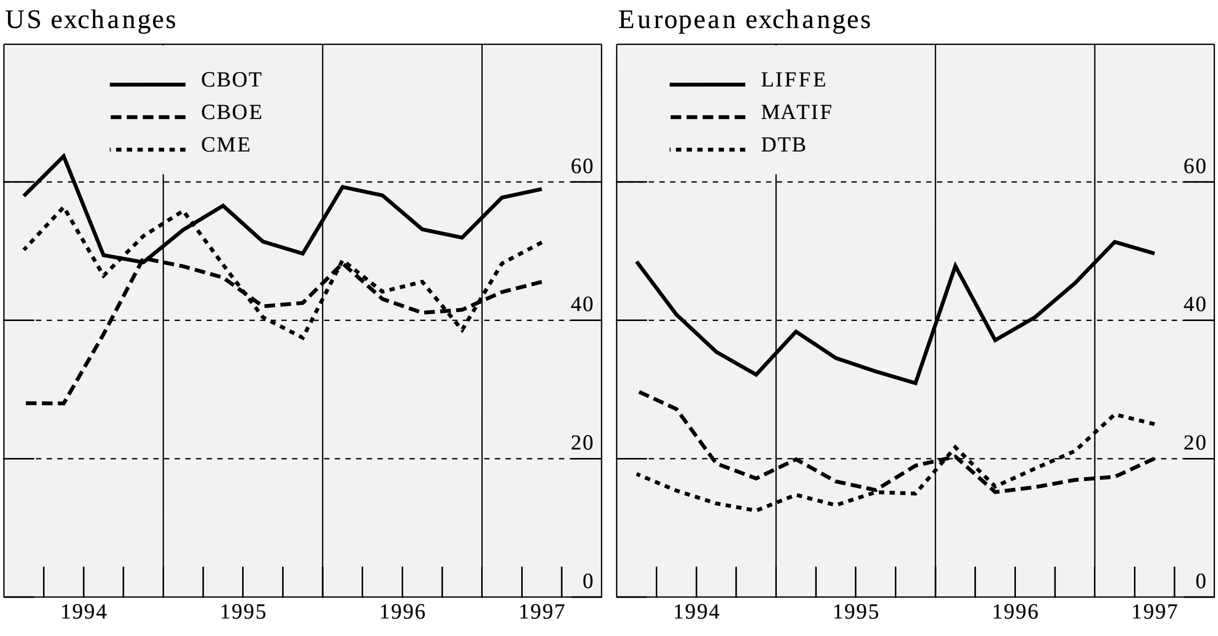
[1] Average rolling standard deviation of 20 previous daily percentage changes in benchmark yields and equity indices of US, German and Japanese markets for North America, Europe and Asia respectively. [2] Including Australia and New Zealand.
Sources: Datastream, Futures Industry Association and BIS.

In Western Europe, the main elements of exchanges' competitive strategy continued to be changes in specifications aimed at making contracts compatible with the single currency, the creation of new products across yield curves, and cross-border linkages and mergers between exchanges. The announcement or introduction of a number of contracts and products on German interest rates in the period under review illustrates the extent of the struggle to capture such business ahead of EMU. Thus, in April, LIFFE announced the forthcoming launch of futures and options on medium-term German government bonds ("Bobls"), while in May the MATIF effectively launched such instruments. Although Bobl contracts are already successfully traded on the DTB's screen-based system, both exchanges are banking on the perceived advantage of open outcry for options and the setting-up of liquidity-enhancing schemes with market-makers. LIFFE also hopes that its Bobl contracts will interact with its existing Deutsche mark instruments, with the simultaneous launch of a Bobl/Bund spread trading facility and the opportunity for margin offsets. LIFFE will, however, face a challenge from existing spread trading products on competing exchanges.[20] It is worth noting that although the five-year area of the Deutsche mark yield curve has undergone rapid growth and internationalisation in recent years, the creation of too many competitive contracts could potentially have a negative impact on market liquidity.

European listing activity in the other market risk categories was more modest. In the area of equity contracts, the AEX[21] attempted to strengthen its position as a centre for European equity contracts with the launch, in cooperation with FTSE International, of new contracts, one based on a revamped version of the Eurotop 100 index and a forthcoming one on a new Eurotop 300 index. The decision to launch the contracts reportedly resulted from a significant increase in the demand for European index products. In the area of currency contracts, the Dublin-based FINEX was one of the most aggressive exchanges, with the introduction of contracts on the Australian and New Zealand

Derivatives turnover on major US and European exchanges *

In millions of contracts, quarterly data



* Includes all types of derivative instruments traded on exchanges (i.e. including commodity products).

Sources: Futures Industry Association and BIS.

[20] Such instruments are already offered by the DTB, the MATIF and the MEFF RF.

[21] The AEX was formed at the beginning of the year by the merger of the European Options Exchange and the Amsterdam Stock Exchange.

Cross-border clearing linkages between organised exchanges

Alliances between exchanges in recent years have taken various forms, ranging from granting remote electronic access for trading via terminals to links between clearing houses. In between, various types of multilateral or bilateral trading arrangements have been developed involving either open outcry or electronic forms of trading or a combination of both.[*] The problem of securing clearing arrangements is compounded by the fact that an exchange's clearing house, which is responsible for the clearance and settlement of trades and the management of the risks associated with the resulting contracts (and is often the central counterparty to all trades on the exchange), is not always a department of the exchange but sometimes a separate legal entity. Moreover, in several instances, the clearing house may provide clearing services to more than one exchange. Finally, in all instances, other parties are involved since a bank (in some cases, the central bank) or a network of banks needs to be used for actual settlement.

Links between clearing houses take two major forms: clearing links and mutual offset systems, which differ in terms of the roles and responsibilities of the clearing houses.[**] A clearing link involves a "home" exchange which is the primary body responsible for the trading of the contract subject to the link (usually the exchange which introduced the contract) and an "away" exchange whose members may also trade the contract. The away clearing house acts as counterparty when a transaction is first initiated, but soon thereafter, generally at the end of each trading day, the positions are transferred to the home clearing house. Positions transferred are assigned to clearing members of the home clearing house according to prior agreement. Once a position has been transferred, the home clearing house calculates additional variation margin based on the difference between the price at which the transfer was made and the settlement price at the home exchange.[***] Positions are thereafter margined according to the normal requirements of the home clearing house.

In contrast to a clearing link, a mutual offset system allows participants to choose the clearing house with which they will hold the positions. Positions can (but need not) be transferred from one clearing house to another

[*] See also: "Issues raised by the development of trading links" on page 23 of the previous issue of this commentary (May 1997). [**] In practice, existing links are quite diverse and some cannot be related to either of the two types which are described here, but this distinction is generally retained for analytical purposes. [***] The variation margins represent the funds that are paid to (or received from) a counterparty (the clearing house or a clearing member) to settle any losses (gains) implied by marking open positions to market. In some markets, the term is also used to describe the transfer of collateral to (from) a counterparty to cover an initial margin deficit in a non-cash clearing or options-style margining system.

Selected links between clearing houses[1]

Clearing house	Type of link	Products covered
BOTCC-LCH	Clearing link	US Treasury bond futures and options, German government bond futures and options[2]
CME-SIMEX	Mutual offset	Eurodollar futures, euroyen futures
LCH-TIFFE	Clearing link	Euroyen futures
LCH-SIMEX	Mutual offset	Brent crude oil futures
OM-OMLX	Clearing link[3]	All products traded on both exchanges
OM-OMLX-NOS	Clearing link[3]	Futures and options on Norwegian equities index (OBX), options on certain Norwegian stocks[4]
OM-OMLX-SOM	Clearing link[3]	Finnish fixed income bond derivatives

[1] Abbreviations are listed at the end of this section, with the exception of BOTCC (Board of Trade Clearing Corporation) and NOS (Norwegian Futures and Options Clearing House). [2] In due course, the ten-year and five-year US Treasury note futures and options are to be introduced for trading in London, and long-term UK gilts and Italian government bond futures and options for trading in Chicago. [3] Trades in contracts covered by the link are cleared at the local clearing house of each counterparty to the trade and are therefore not returned to a single clearing house. [4] Swedish equity-based products are to be added at a later date.

and the transfer may result in each clearing house acting as a counterparty to a contract with one of its own members and to an offsetting contract with the other clearing house. This means that the two clearing houses typically maintain accounts with each other, holding equal but opposite positions, and must post mutual initial margin to cover the risks from holding these positions. The institutional arrangements may lead the clearing houses to become a special type of clearing member in each other's organisation.

Although clearing houses involved in cross-border arrangements face the same risks as in a domestic context, they are subject to additional risk factors. For instance, the away clearing house faces the risk of default by a clearing member until the transfer of positions. Moreover, in a mutual offset system, the clearing houses are exposed to each other, as well as to the risk of default of the bank that they rely upon for their mutual variation margin payments. Finally, in both types of link, clearing houses face operational risks related to the technology supporting the link, including potential incompatibilities between the respective systems used.

dollars and the announcement of a forthcoming link with an Asian exchange (see below). FINEX appears to have overcome some of the problems faced by exchanges in developing liquid currency contracts, as illustrated by the further growth this year in its currency-related activity.

European interest in trading links continued unabated, with attempts to gain dominance for forthcoming euro products leading to a proliferation of arrangements across time zones and currencies. While the well-publicised link for the trading of interest rate contracts between the CBOT and LIFFE became operational in May, the NYCE/FINEX signed a memorandum of understanding with the MME for the trading of its major currency pairs in the Asian time zone. Moreover, the DTB and SIMEX announced the forthcoming introduction of a link giving SIMEX the exclusive right to trade the DTB's German government bond contracts in Asia.[22] This last arrangement represents a significant departure from the DTB's strategy, which has been based thus far on inward remote access and longer trading hours.[23] Regulatory and technological developments, notably electronic trading, now allow exchanges to expand their investor base directly rather than through revolving linkage arrangements. Recent plans by the MATIF to allow existing members to trade from other financial centres show that this could become an important weapon in the competition for European trading supremacy. It is important to bear in mind, however, that few linkages or remote access agreements have been implemented so far (see the box) and that cross-border demand for existing ones has not been particularly substantial.

One tangible effect of the rivalry between exchanges has been the decline seen in trading fees. While this has been to the relative advantage of the most cost-efficient exchanges (especially those that are based on electronic trading), there has been continued pressure on most exchanges to reduce costs through mergers. This was illustrated once again in late June by the announcement that the SOM is to merge with the Helsinki Stock Exchange to form the Helsinki Stock and Derivatives Exchange.

Aside from the above-mentioned initiatives, other efforts made by European exchanges centred around adjustments to conventions, maturities, trading hours and deposit margins. Among the main measures, LIFFE, the MIF and the MEFF RF modified their notional coupons to bring them more into line with prevailing benchmark yields, and the DTB lengthened the maturity of its most liquid stock options to a maximum of two years, while the MATIF cut the initial margins and daily fluctuation limits on its interest rate products. European exchanges also began to put greater emphasis on the development of services catering to the OTC market. Examples of this trend included the setting-up of a facility for the clearing of DAX OTC options by the DTB and the establishment by the LCH of a feasibility study for the clearing of FRAs and interest rate swaps. While the first facilities

[22] The contracts will be fungible and traded via open outcry on the SIMEX floor, transferring to the DTB's clearing house at the end of each trading day.

[23] The DTB announced an extension from 1st August of the trading hours of its interest rate contracts from 17:30 to 19:00 (Frankfurt time). Trading will then end at the same time as on LIFFE, while starting earlier. The move will enable the exchange to capture more US business.

established in this area have been limited to collateral management, exchanges are now willing to consider more complex systems involving the clearing of contracts.

In North America, the CME was particularly active, with the introduction of a number of industrial country currency contracts, including those on the US dollar/New Zealand dollar parity and a series of cross rates involving European currencies. The CME's innovation in interest rate products was limited to the introduction of options on existing euroyen futures and the reduction in the price tick for euroyen futures. At the same time, the exchange continued its push into emerging market instruments with the introduction in May of contracts on two short-term Mexican interest rates and on the US dollar/rand rate. Strong demand in recent periods for non-deliverable forwards (NDFs) on Asian currencies also led the CME to announce the forthcoming introduction of futures on the Chinese renminbi. Although some of the exchange's emerging market instruments have experienced a lukewarm reception (such as those on Brady bonds and on the Taiwan equity index), the Mexican peso contract has seen a stellar performance. Mention may also be made of the NYCE's launch from July of futures and options trading in the baht, ringgit and rupiah. Meanwhile, in spite of the low volume of secondary market activity on the new inflation-indexed US Treasury bonds, the CBOT began to offer contracts on such instruments. Following the success of trading on its after-hours electronic system ("Project A") the exchange also decided to close its evening open outcry session. Lastly, reflecting its increasing involvement in structured product business, the CBOE listed warrants on a Japanese export index that had been underwritten by a group of investment banks.

The spread of derivatives on emerging market instruments was not limited to the United States. Thus, following the successful launch of contracts based on a Hungarian equity index, the ÖTOB launched new instruments based on an index of Czech equities in May and Polish index contracts in July; in May the SAFEX introduced a contract on the US dollar/rand rate; and the MME announced plans to launch contracts on the ringgit and other Asian emerging market currencies. With exchanges in industrial countries turning to emerging market products, emerging market countries are under strong pressure to introduce contracts on their financial assets. As an example, the SAFEX's dollar/rand contract was launched simultaneously with that of the CME, with both contracts already facing competition from a contract launched earlier by FINEX. This pressure also partly explains the recent adoption of liberalisation measures in a number of countries. For instance, in the second quarter the Taiwanese Securities and Futures Commission lifted a ban on residents' use of contracts on Taiwanese equity indices recently introduced in the US and Singapore.

Meanwhile, Japanese derivatives markets showed new signs of life following a long period of lethargy. Screen-based spread trading was launched in May between the TSE's and the OSE's stock index contracts, and single stock options were introduced on the two exchanges in July. Trading on Japanese exchanges has been hampered by a number of regulatory restrictions, the high level of transactions taxes and low Japanese interest rates, but the "Big Bang" initiative has made local exchanges more optimistic about the industry's prospects.

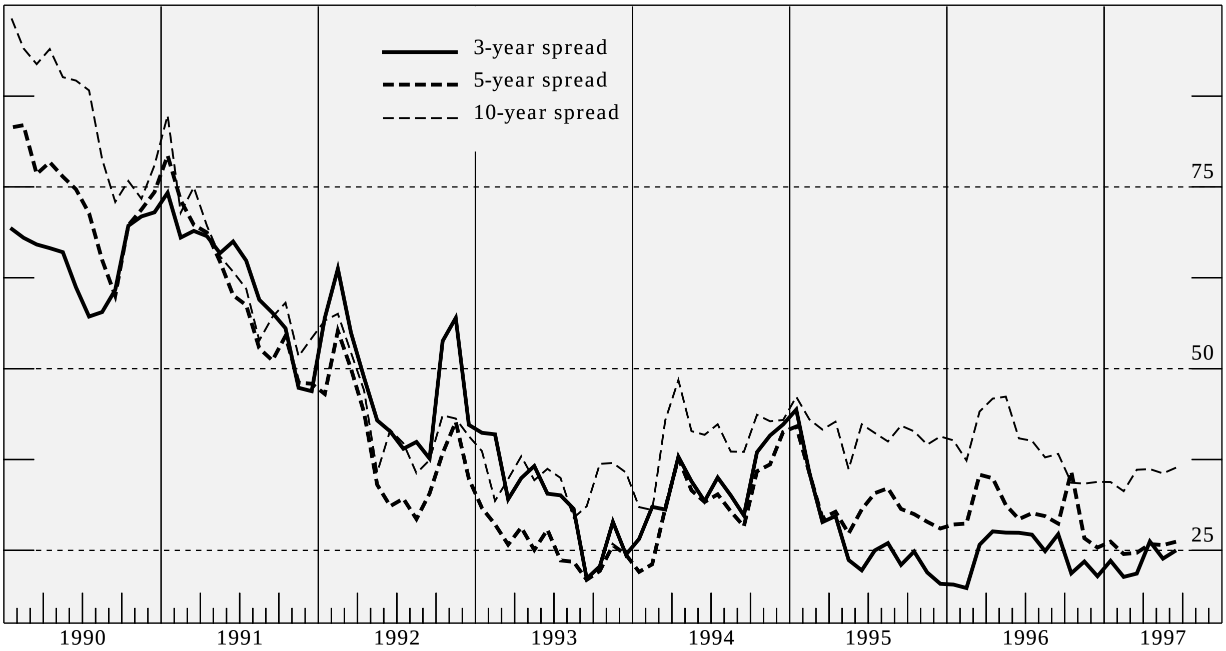
Over-the-counter instruments

Although comprehensive data on over-the-counter market activity are not yet available for the second quarter, a number of developments provided fertile ground for the active trading of OTC financial derivative products. There were, for example, changing perceptions concerning the implementation of EMU (including the impact of the French elections); there was renewed exchange rate volatility (with the weakening of the US dollar against the yen and the currency crises faced by several emerging market economies); and, finally, major equity indices reached new records. Competition between intermediaries intensified, not least as a result of the growing sophistication of borrowers and investors and the rapid development of information technology. This put further downward pressure on margins, which in turn attracted new customers.

In the area of interest rate products, the announcement that two auctions of ten-year US Treasury bonds would be cancelled led to a widening of swap spreads over benchmark rates, thus

US dollar interest rate swap spreads over US Treasury yields

Monthly averages, in basis points



Source: Datastream.

opening new opportunities for fixed rate borrowers. Although large-scale trading of call options embedded in capital market issues was reflected in bouts of volatility in the longer-term area of the US dollar yield curve, the lack of major surprises in new US economic data meant that volatility remained at historically low levels. In Europe, the steepness of yield curves sustained interest in paying short or medium-term rates and receiving long-term rates, while convergence or deconvergence plays were reflected in a continuing flow of yield curve spread swap trading. In the early part of the quarter, a number of intermediaries were seen offering low-cost strategies protecting investors against a delay to EMU. From May, uncertainties surrounding the French elections led to a temporary narrowing of the negative differential between French and German long-term interest rates as well as to sharp fluctuations in the spreads between German and Southern European rates. This provided dealers with the opportunity to introduce a range of option products based on interest rate spreads. There was also evidence of growing use of "quanto" techniques in transactions in European fixed income market products.[24] Finally, recurrent fears of a tightening of Japanese monetary policy acted as an incentive to play the yield curve or to lock in at current conditions in the yen segment of the swap market. The month of June also saw the announcement of plans for an overnight interest rate swap (OIS) market in Japan. Such an instrument should cut firms' short-term borrowing costs since they will be charged lower risk premiums over the benchmark rates.

In the area of cross-currency derivatives, with yields on French franc long-term securities remaining below those on Deutsche mark bonds throughout the quarter, some intermediaries were reported to have been keen to pay very long-term French franc rates to receive equivalent Deutsche mark rates. In the short-term area of the yield curve, by contrast, French corporations took advantage of lower Deutsche mark rates by swapping out of PIBOR into Deutsche mark LIBOR. In May, moreover, the sharp drop of the US dollar against the yen had a major impact on the price of options, particularly those paying out in the event of further yen appreciation. At the same time, EMU uncertainty created spikes of volatility in European cross rates, while the Czech and Thai currency crises reverberated through several other emerging market countries (particularly in Asia). The

[24] Quantos offer investors an exposure to a non-domestic cash or derivative interest rate (such as forward swap rates) but without the accompanying exchange rate exposure.

response of the Thai authorities to the baht crisis[25] was reported to have precipitated substantial losses on traders' short baht positions and a drying-up of derivatives transactions. Nevertheless, in spite of the turbulence in emerging market currencies, the demand for NDFs was reported to have continued to rise, while non-deliverable options were beginning to find acceptance among investors. NDFs permit the circumvention of foreign exchange restrictions by providing for compensatory payments in a single base currency (usually the US dollar). They are sold as substitutes for local currency instruments, with their lower yields reflecting the partial removal of the country risk element. Baskets of emerging market currencies and structured notes based on such currencies have also become increasingly popular. More generally, although the swings in exchange rates reportedly generated demand for plain vanilla products, heavier corporate usage and greater investor participation sustained business in exotic products such as range and barrier options, including variations on the latter.[26] While investors are increasingly familiar with such instruments, intermediaries now have a better ability to separate out the risk characteristics of exotic options into plain vanilla and specific risk elements and trade them independently.

In the equity market, the new record levels reached by European and North American indices generated further investor interest in a broad range of equity-related products, including options or warrants on single stocks and indices, as well as more complex instruments such as cross-border index spread options and swaps, and average rate index options. Dealers in the United States offered volatility swaps on equity indices with payoffs tied to the difference between the implied and realised volatility. With some investors perceiving industrial country equity markets to be increasingly overvalued, demand for instruments on emerging market equities continued to be strong. Intermediaries capitalised on the lack of specialised knowledge of many investors to introduce regional basket products (such as warrants and structured notes) offering some degree of downward protection.

Finally, declining credit spreads were reported to have led investors to turn to credit derivatives to leverage their exposures to particular names. Credit derivatives were also increasingly used in securitisation, through credit-linked notes, the arrangement of synthetic convertible issues (discussed in Part III) or swap enhancements involving counterparty replacement agreements. Notwithstanding these developments, data released by the US Office of the Comptroller of the Currency for the first quarter of 1997 show that the use of credit derivatives by US banks remains modest, with a notional stock of $19 billion (less than 1% of the total value of US banks' derivatives positions).

Structural and regulatory developments

In the area of credit derivatives, the Bank of England announced in June changes to their initial proposals. Credit derivatives held on banks' trading books, and in particular credit default swaps, will now be subject to the same capital requirements as other derivatives in the trading books. This will enable banks to use internal models (with an extra add-on to account for counterparty risk) for capital adequacy purposes. In the same month, the US Federal Reserve Board (FRB) supplemented the guidelines issued in August 1996 concerning the capital treatment of credit derivatives. The additional guidance defines the types of risks to which such transactions are deemed to be exposed and their capital treatment. Credit derivatives held in the trading account of a bank are exposed to general market risk, to specific risk of the underlying reference asset and to counterparty credit risk. The FRB also describes three types of positions against which capital should be held (open, matched and offsetting). From 1998 the regulator will allow the use of internal models for the calculation of charges on general market risk, with the possibility, under certain conditions, to reduce

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[25] Including a sharp increase in local interest rates and the prohibition of local banks' offering of local currency funds to offshore entities and writing of NDFs with non-residents.

[26] Recent popular variations on barrier options have included timing barriers (which come into existence after a certain period of time) and average rate barriers (which are cheaper but offer less leverage).

it for specific risk. The authorities thus explicitly recognise the tradable nature of these new instruments, even though the market for credit derivatives remains in its infancy.

In March 1997, the Committee on Payment and Settlement Systems (CPSS) published a report on "Clearing Arrangements for Exchange-Traded Derivatives".[27] The report notes that the financial integrity of organised exchanges, which play a critical role for both exchange-traded and OTC derivatives business, depends on the robustness of clearing and settlement arrangements, which are under the responsibility of their clearing houses. The report then discusses the sources and types of risks faced by clearing houses in the G-10 countries, including the potential inadequacy of resources in the event of default by clearing members, as well as the lack of intraday controls on members' positions and of payment procedures for timely intraday settlement. The report suggests possible ways of dealing with these weaknesses, such as the use of stress testing, more timely trade matching and the use of RTGS systems for payments and securities transfers. Finally, the report looks at the implications of the internationalisation of markets and of their clearing arrangements. It considers in particular the risks attached to cross-border links, which have recently been a major feature of exchanges' strategies in their attempt to attract business. This issue is the subject of the box on pages 34-35, which draws primarily on Section 8.4 (pp. 40-42) of the CPSS report.

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27 "Clearing Arrangements for Exchange-Traded Derivatives": Report prepared by the Committee on Payment and Settlement Systems of the central banks of the Group of Ten countries, Basle, March 1997.

ABBREVIATIONS USED FOR EXCHANGES

AEX	Amsterdam Exchanges
CBOE	Chicago Board Options Exchange
CBOT	Chicago Board of Trade
CME	Chicago Mercantile Exchange
DTB	Deutsche Terminbörse (Frankfurt)
FINEX	Financial Instruments Exchange (Dublin)
LCH	London Clearing House
LIFFE	London International Financial Futures and Options Exchange
MATIF	Marché à Terme International de France
MEFF RF	Mercado Español de Futuros Financieros de Renta Fija (Barcelona)
MIF	Mercato Italiano dei Futures
MME	Malaysia Monetary Exchange
NYCE	New York Cotton Exchange
OM	Optionsmarknad Stockholm AB
OMLX	The London Securities and Derivatives Exchange
OSE	Osaka Securities Exchange
ÖTOB	Austrian Futures and Options Exchange (Vienna)
SAFEX	South African Futures Exchange
SIMEX	Singapore International Monetary Exchange
SOM	Finnish Securities and Derivatives Exchange Clearing House
TIFFE	Tokyo International Financial Futures Exchange
TSE	Tokyo Stock Exchange