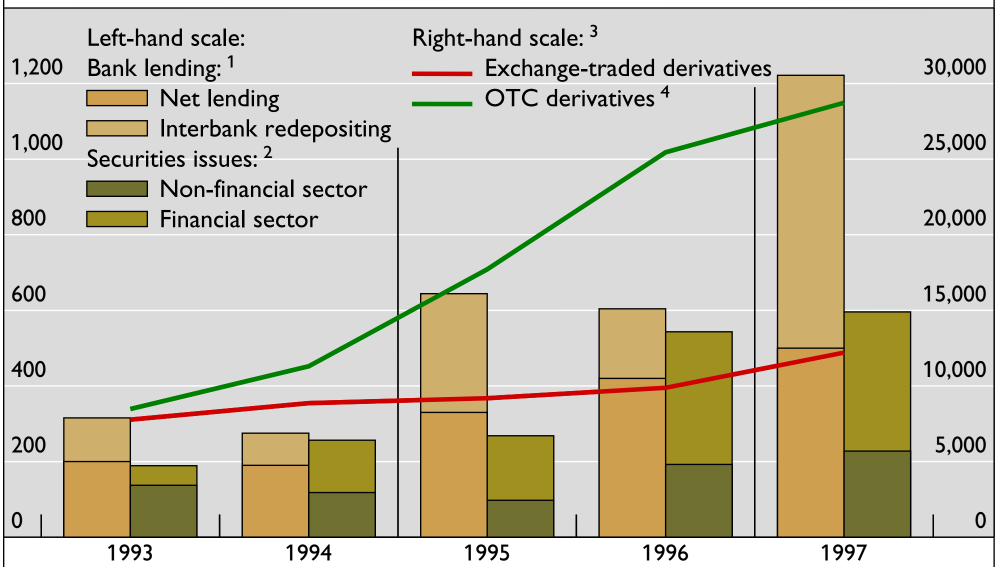
VIII. International financial markets

Highlights

Ample liquidity and subdued inflation provided a favourable climate for cross-border investment flows in 1997. Despite the Asian crisis, the international market-place remained a major channel through which banks and other investors pursued their search for higher returns, as illustrated by a growing willingness to consider new signatures and higher-risk instruments incorporating sophisticated payoff structures. The international financial markets also benefited from their competitive advantages relative to domestic markets, the underlying globalisation of finance and the growing demand for large and complex financing arrangements. The further lowering of regulatory barriers in some of the major centres and the forthcoming introduction of the single European currency gave additional impetus to the consolidation taking place within the financial industry, boosting cross-border flows. The turbulence in Asia led to an abrupt reassessment of lending and investment strategies, with a drying-up of securities flows to emerging market economies in the fourth quarter. While investors continued to shun Asian credits in the early part of 1998, the swift return to the market of other

Activity in international financial markets

In billions of US dollars



[1] Changes in amounts outstanding, excluding exchange rate valuation effects. [2] Net issues (excluding exchange rate valuation effects) of international money market instruments, bonds and notes. [3] Notional amounts outstanding at end-year. [4] For 1997, end-June.

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. Graph VIII.1

developing countries suggests that, in spite of the greater focus on credit risk, the integration of emerging economies into the world financial system has not been fundamentally called into question.

Against this background, total net international financing through bank lending and securities issues again grew at a vigorous pace in 1997. The expansion of international bank claims was particularly striking given the rapid development of securitisation worldwide. Thus, banks sharply increased their interbank activity and stepped up their involvement in securities markets. Together with other intermediaries, banks accounted for about two-thirds of the expansion in the outstanding stock of international securities. While the greater importance of securities in banks' balance sheets reflected their more active management of assets and liabilities, the large-scale recourse to the international capital market was a response to investors' reduced interest in traditional forms of saving. In turn, this large overlap between international bank credit and securities financing, together with the strong inroads made by banks into other segments of the financial industry, shows that commercial banks continue to play a leading role in the intermediation process.

Meanwhile, changing perceptions concerning EMU, renewed volatility in foreign exchange and equity markets and the repercussions of the Asian crisis provided fertile ground for the trading of derivatives. Turnover on exchanges expanded after two consecutive years of decline, while business in over-the-counter products continued to thrive. Intense competition from OTC markets, the increasing popularity of electronic trading systems and the prospective introduction of the single European currency accentuated the forces driving

Estimated net financing in international markets[1]

Components of net international financing	1992	1993	1994	1995	1996	1997	Stocks at end-1997
	in billions of US dollars						
Total cross-border bank claims[2]	185.5	316.4	274.9	680.1	532.7	1,156.7	9,038.3
Local claims in foreign currency	–39.8	–0.9	0.2	–36.0	71.4	65.1	1,344.4
minus: Interbank redepositing	*–19.4*	*115.5*	*85.1*	*314.1*	*184.1*	*721.8*	*5,097.7*
A = Net international bank lending[3]	165.0	200.0	190.0	330.0	420.0	500.0	5,285.0
B = Net money market instruments	12.1	–6.3	3.3	17.4	41.1	19.8	183.8
Total completed bond and note issues	..	..	507.2	541.3	865.9	1,033.2	
minus: Redemptions and repurchases	..	..	*253.9*	*290.4*	*363.6*	*457.1*	
C = Net bond and note financing	137.9	195.2	253.3	250.9	502.3	576.0	3,358.3
D = A + B + C = Total international financing	314.9	389.0	446.5	598.2	963.4	1,095.9	8,827.2
minus: Double-counting[4]	*69.9*	*114.0*	*41.5*	*53.2*	*213.4*	*230.9*	*1,242.2*
E = Total net international financing	245.0	275.0	405.0	545.0	770.0	865.0	7,585.0

[1] Changes in amounts outstanding, excluding exchange rate valuation effects, for banking data and euronote placements; flow data for bond financing. [2] Banks in the Group of Ten countries plus Luxembourg, Austria, Denmark, Finland, Ireland, Norway, Spain, the Bahamas, Bahrain, the Cayman Islands, Hong Kong, the Netherlands Antilles and Singapore, and the branches of US banks in Panama. [3] Excluding, on an estimated basis, redepositing between reporting banks. [4] International bonds purchased or issued by the reporting banks, to the extent that they are included in the banking statistics as claims on non-residents.

Sources: Bank of England, Euroclear, Euromoney, IFR, ISMA and BIS. Table VIII.1

the industry's restructuring. Moreover, the growing importance of repurchase agreements, along with other techniques of risk management, points to a further integration of cash and derivatives markets. These developments, combined with the increasing intertwining of commercial banking, investment banking, insurance and asset management, and the rapid advances in information technology, are adding to the complexity of worldwide financial intermediation and to pressures to adjust the regulatory infrastructure.

The international banking market

Record volume of syndicated loan facilities …

A record volume of international syndicated loan facilities was announced last year. With the BIS data now incorporating refinancing transactions, announcements surged from $901 billion in 1996 (revised from $530 billion) to $1,136 billion. Margins for prime borrowers reached very low levels, leading banks to attach their loans to the provision of ancillary services and to focus on more profitable operations, such as mergers and acquisitions. They also turned to transition and emerging market countries, where lending was buoyed in the early part of the year by strong domestic demand and project financing and, subsequently, by the less receptive attitude of the international securities markets to lower-rated names. The Asian crisis led to a tightening of lending conditions

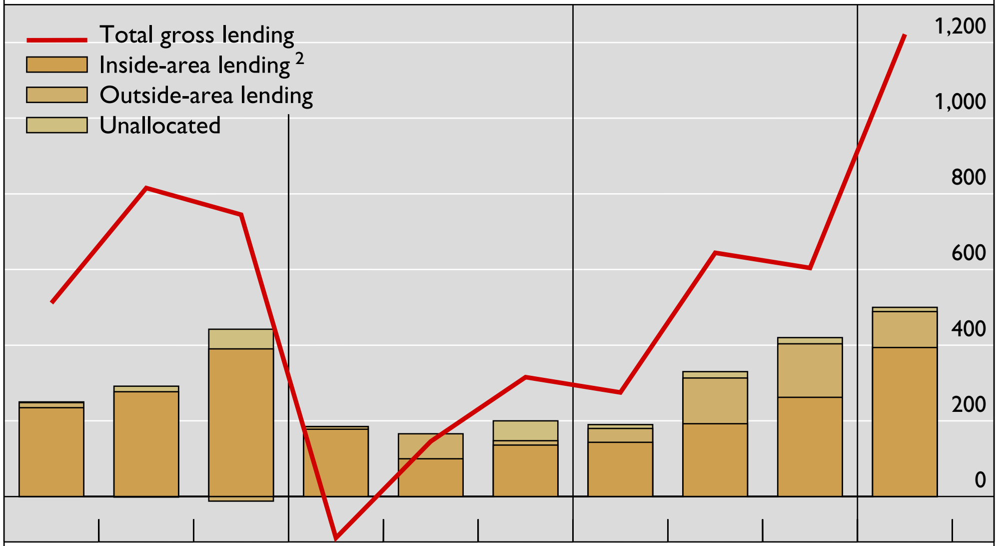
Main features of international banking activity[1]

Uses and sources of international bank credit	1992	1993	1994	1995	1996	1997	Stocks at end-1997
	in billions of US dollars						
A = Claims on outside-area countries	66.0	11.6	36.6	120.8	141.4	94.9	1,197.7
B = Claims on inside-area countries	80.4	251.4	228.3	506.5	446.2	1,115.7	8,935.0
(1) Claims on non-banks	*90.0*	*122.7*	*–49.3*	*189.5*	*302.2*	*262.9*	*2,778.6*
(2) International financing of domestic lending	*9.8*	*13.3*	*192.5*	*2.9*	*–40.1*	*131.0*	*1,058.7*
(3) Interbank redepositing	*–19.4*	*115.5*	*85.1*	*314.1*	*184.1*	*721.8*	*5,097.7*
C = Unallocated	– 0.8	52.5	10.1	16.8	16.4	11.2	250.0
D = A + B + C = Gross international bank lending	145.6	315.5	275.1	644.1	604.1	1,221.8	10,382.7
E = D – B*(3)* = Net international bank lending	165.0	200.0	190.0	330.0	420.0	500.0	5,285.0
A = Liabilities to outside-area countries	13.2	–14.8	74.6	96.4	101.8	75.7	1,043.1
B = Liabilities to inside-area countries	91.2	112.5	539.2	338.5	325.0	969.8	8,130.5
(1) Liabilities to non-banks	*104.4*	*86.2*	*132.8*	*116.7*	*225.7*	*223.7*	*1,959.6*
(2) Domestic funding of international lending	*40.7*	*85.6*	*–64.4*	*18.9*	*–31.7*	*–5.8*	*1,292.2*
(3) Interbank redepositing	*–53.9*	*–59.3*	*470.9*	*202.9*	*131.0*	*751.9*	*4,878.7*
C = Unallocated	6.7	43.0	47.1	98.0	124.1	206.4	990.1
D = A + B + C = Gross international bank borrowing	111.1	140.7	660.9	532.9	551.0	1,251.9	10,163.7
Memorandum item: Syndicated credits[2]	*194.1*	*279.4*	*477.1*	*697.7*	*900.9*	*1,136.3*	

[1] Changes in amounts outstanding, excluding exchange rate valuation effects. [2] Announced new facilities.
Sources: Euromoney and BIS. Table VIII.2

Total international bank lending[1]

In billions of US dollars



[1] Changes in amounts outstanding of banks' cross-border claims and local claims in foreign currency, excluding exchange rate valuation effects. [2] Net of interbank redepositing.

Source: BIS. Graph VIII.2

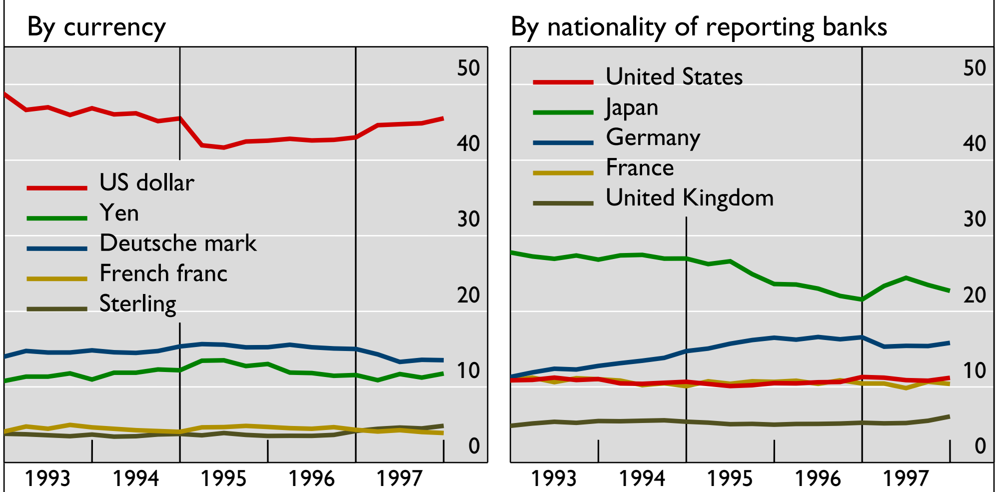
for such borrowers, with wider spreads as well as stricter collateral and material adverse change clauses. Finally, banks continued to broaden the range of their risk management techniques through secondary market trading of loans, asset securitisation and credit derivatives.

… and of interbank transactions …

At the same time, gross credit flows intermediated by the international banking market soared from $604 billion in 1996 to an all-time high of $1,222 billion. The upsurge was almost entirely accounted for by interbank business

Currency and nationality structure of international bank lending*

Percentage shares, at end of quarter



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

Source: BIS. Graph VIII.3

under the combined influence of a number of forces. First, although banks retreated massively from Asia in the fourth quarter, the need to fund or hedge existing positions and accommodate the abrupt change in the behaviour of investors and borrowers involved a major redistribution of liquidity worldwide. Secondly, the funding difficulties experienced by Japanese banks, especially towards the year-end, required a large supply of fresh capital from the head offices to their branches abroad. Thirdly, consolidation within the industry, especially among European groups, may have created temporary funding requirements. Finally, greater reliance on collateralised lending brought a broader spectrum of participants to the interbank market. In contrast to the buoyancy of interbank business, direct lending to non-bank entities moderated from the record level of 1996, possibly as a result of a cutback in leveraged transactions.

Business with countries inside the reporting area

Among the various reporting centres, the United States and the United Kingdom were the main beneficiaries of the reshuffling of interbank transactions last year. A large volume of interbank funds was also channelled to the Caribbean centres, where many hedge funds and other investment companies are located. In addition, banks stepped up their acquisitions of debt securities, using government paper denominated in the major trading currencies to raise cash on a collateralised basis for the purchase of high-yielding instruments. The abrupt reversal in banks' holdings of securities issued by offshore and emerging market entities in the fourth quarter, from an increase of about $30 billion in the first nine months of the year to a fall of $9 billion, suggests a significant amount of proprietary trading by banks. Excluding securities business, direct credit to the non-bank sector located inside the reporting area showed some weakening from

… but slightly reduced borrowing by non-banks …

Banks' external claims on countries outside the reporting area*

Country groups and countries	1995	1996	1997					Stocks at end-1997
	Year	Year	Year	Q1	Q2	Q3	Q4	
	in billions of US dollars							
Total outside area	120.8	141.4	94.9	41.6	31.0	25.1	– 2.8	1,197.7
Developed countries	24.6	22.8	24.8	4.1	8.8	7.9	4.1	211.5
Eastern Europe	3.3	10.8	18.3	4.3	3.2	8.2	2.4	105.2
Developing countries	93.0	107.9	51.8	33.2	19.0	9.1	– 9.4	880.9
Latin America	16.4	28.5	33.1	7.4	3.7	11.1	11.0	304.4
Argentina	*1.9*	*5.4*	*7.0*	*1.0*	*0.1*	*2.8*	*3.1*	*46.3*
Brazil	*12.0*	*16.7*	*11.5*	*3.2*	*2.7*	*4.8*	*0.8*	*101.2*
Mexico	*–4.2*	*0.1*	*1.7*	*0.8*	*–0.2*	*– 1.3*	*2.4*	*73.9*
Middle East	–7.5	–0.1	10.0	3.6	–0.6	0.3	6.7	80.1
Africa	–2.2	–0.4	2.6	0.8	0.9	0.7	0.2	50.7
Asia	86.3	79.8	6.1	21.4	15.0	– 3.0	–27.3	445.8
Indonesia	*6.9*	*9.4*	*5.6*	*1.8*	*2.8*	*3.2*	*– 2.2*	*62.7*
Korea	*22.5*	*26.6*	*– 4.2*	*4.3*	*4.0*	*– 2.2*	*–10.2*	*104.1*
Thailand	*38.8*	*9.5*	*–17.5*	*0.5*	*–0.3*	*–10.5*	*– 7.3*	*79.6*

* Changes in amounts outstanding, excluding exchange rate valuation effects.
Source: BIS. Table VIII.3

the record level of 1996, especially in the fourth quarter. The flight to quality resulting from the spillover of the Asian turbulence seems to have temporarily dampened the enthusiasm for leveraged investment strategies.

Business with countries outside the reporting area

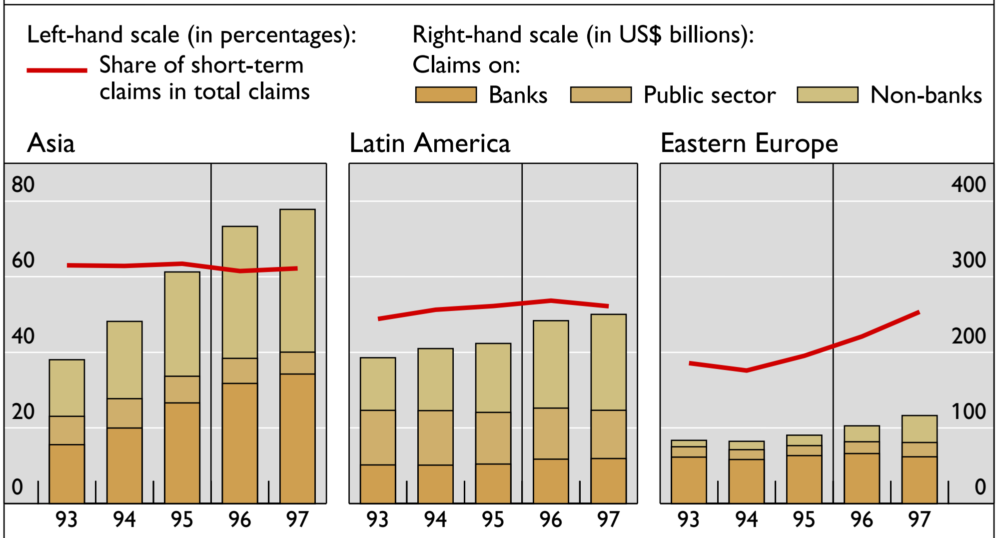
… and sudden retreat of banks from Asia

The drop in banking flows to emerging economies in Asia last year (from $80 billion in 1996 to $6 billion) provides an imperfect picture of the extent of the turnaround which took place in the course of the year. The quarterly BIS data show that banking flows were well sustained until the onset of the crisis. Flows to Thailand began to change direction in the second quarter, and in the case of Korea the reconsideration of exposure only became evident in the third quarter. The withdrawal of funds turned into a stampede in the fourth quarter, affecting most Asian countries and leading to a $27 billion reduction in outstanding claims on the region. Interestingly, the over-reliance on short-term banking debt had been recognised well before the first major assault on the Thai baht in February 1997. The national authorities themselves had made unsuccessful attempts to stem such inflows. But the ample availability of liquidity worldwide, together with strong competitive pressures among a broadening range of lenders to what was regarded as a high-growth and profitable region, appears to have made participants oblivious to the weakness of the financial infrastructure and deteriorating economic fundamentals. A notable factor in this process has been the strong increase in the Asian exposure of European banks in recent years, in the face of low returns in traditional markets and limited opportunities for expansion in North America. The resulting lending spree made the reversal all the more abrupt.

Contagion elsewhere is limited

In Latin America, ongoing structural reforms and some tightening of monetary conditions were fairly successful in stemming contagion in the fourth quarter. Indeed, nearly one-third of reporting banks' lending to the region last

International bank lending to various regions *



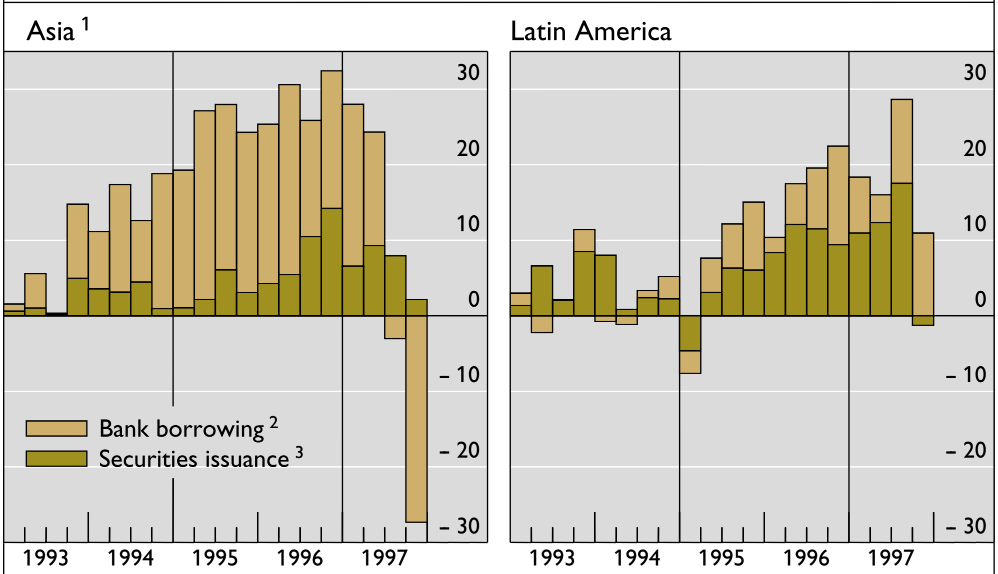
* Amounts outstanding at end-year. For 1997, end-June data, which include major breaks in series affecting inter alia the maturity distribution of claims.

Source: BIS.

Graph VIII.4

International bank and debt 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. [3] Net issues of international money market instruments, bonds and notes.

Sources: Bank of England, Euroclear, Euromoney, IFR, ISMA, national data and BIS. Graph VIII.5

year was recorded in this period. The major exception was Brazil, where banking inflows dropped from an average of $3.6 billion in the first three quarters to $0.8 billion in the fourth. Although the country was one of the main victims of the crisis outside Asia, policy resolve did much to rapidly restore market confidence (see Chapter III). At the same time, the slowdown in lending to Eastern Europe towards year-end did not prevent a record volume of credit to the region for the year as a whole ($18 billion). The Asian crisis had an uneven impact there in the fourth quarter. The Czech Republic and Hungary saw further sizable imports of banking funds, but the tightening of interest rates failed to maintain flows into Poland and Slovakia. In the case of Russia, the loss of momentum of inflows (from an average of $4.2 billion in the preceding two quarters to $0.9 billion) reflected some repayment of interbank credit, possibly as a result of the debt rescheduling agreement reached in October. The withdrawal of non-resident investors from the Russian Treasury bill market in the wake of the Asian crisis was more than offset by new lines of credit to the public sector.

Questions were raised on the lessons drawn

The events of 1997 raise questions regarding the lessons that have been drawn by market participants. Admittedly, these developments are likely to have prompted changes in risk management practices and to have led to a reconsideration of the narrow reliance on ratings in the pricing of credit. They also seem to have brought a recognition that, with the growing complexity of financial linkages, official actions to preserve systemic stability should not insulate creditors and debtors from the adverse consequences of poor investment and policy decisions. Nevertheless, the renewed decline of risk premia for non-Asian borrowers in 1998, despite the absence of marked improvements in external financial indicators and lingering uncertainty as to the actual impact of the Asian crisis, suggests a return to loose lending standards. It is at least to be hoped that current commitments by authorities in borrowing countries to more rigorous macroeconomic policies and financial market restructuring will be pursued, as well as efforts by intermediaries to develop better systems and strategies for managing credit exposures.

The international securities market

Impact of market turbulence offset by strong expansionary forces …

In spite of the record volume of announced new international debt securities in 1997, the sharp increase in repayments meant that growth in net issuance moderated substantially. Nevertheless, it remained significantly higher than that in domestic securities markets. The high volume of issues and their growing diversity suggest that expansionary factors were sufficiently powerful to offset the impact of recurring market turbulence. The search for higher returns remained a driving force, drawing new classes of investors and issuers to the

… such as the search for yields …

Main features of international debt securities issues[1]

By instrument, residence, currency and type of issuer	1992	1993	1994	1995	1996	1997	Stocks at end-1997
	in billions of US dollars						
Total net issues	149.9	189.0	256.5	268.2	543.4	595.9	3,542.2
Money market instruments[2]	12.1	– 6.3	3.3	17.4	41.1	19.8	183.8
Bonds and notes[2]	137.9	195.2	253.3	250.9	502.3	576.0	3,358.3
Developed countries	114.0	123.0	184.7	198.7	363.3	394.1	2,604.4
Europe[3]	*92.6*	*137.9*	*151.9*	*148.2*	*212.0*	*223.7*	*1,531.5*
Japan	*–3.4*	*–45.8*	*–27.7*	*–29.4*	*–17.6*	*–32.7*	*156.5*
United States	*16.9*	*10.2*	*37.2*	*62.2*	*144.9*	*185.4*	*614.2*
Canada	*10.5*	*19.0*	*16.8*	*9.1*	*9.8*	*9.1*	*187.9*
Offshore centres	0.0	5.2	35.3	33.8	74.6	91.6	323.7
Other countries	12.7	24.7	27.9	24.0	80.4	79.7	297.8
International institutions	23.1	36.1	8.6	11.7	25.0	30.4	316.4
US dollar	58.1	28.9	67.3	70.2	262.8	336.5	1,569.3
EU currencies	84.1	111.2	96.8	98.0	175.3	199.0	1,191.8
Yen	9.1	29.3	87.5	83.6	85.1	34.2	462.0
Other currencies	–1.4	19.6	4.9	16.4	20.2	26.2	319.1
Financial institutions[4]	42.9	51.8	138.5	170.7	351.0	368.2	1,605.5
Public sector[5]	82.7	130.8	103.3	74.0	121.4	101.8	1,067.0
Corporate issuers	24.4	6.5	14.7	23.6	71.0	125.9	869.7
Memorandum items:							
Stand-alone international bonds	109.5	116.8	116.3	75.8	278.3	292.8	2,469.0
Bonds issued under EMTN programmes	11.0	38.4	86.9	104.4	195.9	215.8	604.9

[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. Table VIII.4

market. Tolerance for risk was illustrated by the positive reception given to first-time sovereign borrowers and the widening spectrum of issuing currencies. Investors were also more willing to consider high-yielding instruments incorporating features such as junior capital status, derivatives-related payoffs or complex securitisation mechanisms.

The resilience of international financial activity also resulted from longer-term changes on the borrowing side. First, financial liberalisation in the principal economies has encouraged borrowers to obtain lower costs by tapping new pockets of investment demand elsewhere. Secondly, restructuring in the industrial and financial sectors has been accompanied by increasingly large and complex structures whose technical requirements are more often than not met more easily in the international market-place. Thirdly, innovation has facilitated market access by enabling intermediaries to unbundle and repackage underlying risks, as illustrated by the rapid development of asset-backed securities and credit-linked notes. Fourthly, the shift by investors away from traditional saving instruments has fuelled recourse by intermediaries to the market, while the improvement in the credit quality of North American and certain European banks has facilitated the marketing of their issues. Fifthly, the gradual integration of emerging market and transition economies into the global economy has seen a growing proportion of international business accounted for by borrowers from such countries. Lastly, the scheduled introduction of the single European currency has acted as a catalyst for cross-border European borrowing and investment.

… financial restructuring …

… market innovation …

… and the advent of the euro

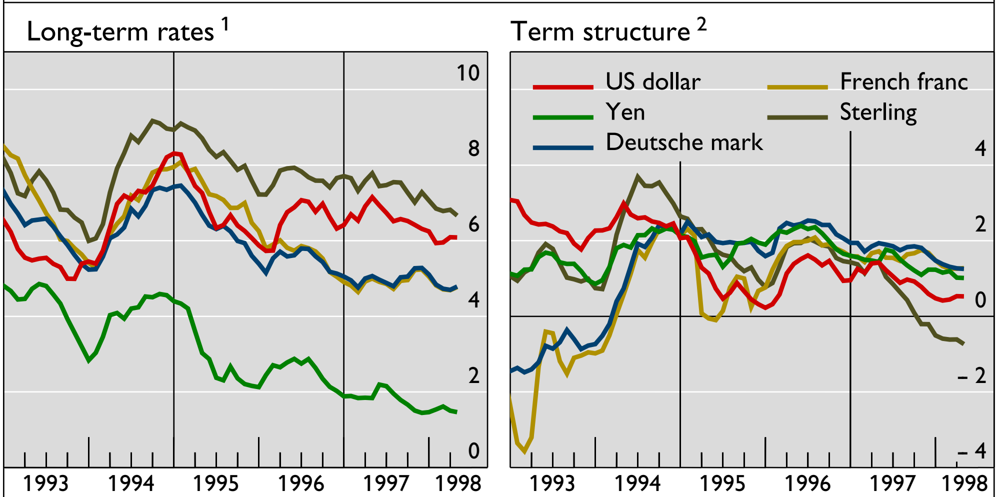
Type and nationality of issuers

Issuance by financial institutions accounted for nearly two-thirds of the growth of the international securities market in 1997, illustrating the importance of cross-border capital in the active management of assets and liabilities. While European

Borrowing by financial institutions predominates

International interest rates

Monthly averages, in percentages and percentage points



[1] Yields in annual terms on five-year interest rate swaps. [2] Five-year rates minus three-month euro-market interest rates.

Sources: DRI and BIS.

Graph VIII.6

banks often issued subordinated debt to capitalise their trading books or to finance acquisitions, many US-based institutions exploited existing discrepancies in the regulatory and tax treatment of such debt. The issuance of asset-backed securities through special-purpose vehicles accounted for a significant share of activity by financial institutions. At the same time, budget consolidation dampened sovereign issuance from industrial countries, providing room for new entrants, including recently privatised entities, semi-public financing agencies and local authorities. Meanwhile, borrowing by the corporate sector remained higher than in the early part of the decade.

Sizable issuance by US as well as emerging market entities

An analysis by nationality of borrower reveals that entities from the United States continued the return to the international market that had begun in 1995, accounting for 30% of the increase in the stock of issues. In spite of the Asian crisis, gross issuance from Eastern Europe and Latin America exceeded the record level of 1996. Sovereign borrowers, from Latin America in particular, conducted substantial refinancing operations to lengthen the maturity of their external debt. Argentina, Brazil, Panama and Venezuela brought to market large issues of 30-year uncollateralised global bonds in exchange for part of their outstanding Brady bonds. In addition to reducing financing costs, these transactions were aimed at creating long-term benchmarks to facilitate market access by the private sector. They also illustrated the perceived improvement in the creditworthiness of these countries, which was only briefly interrupted by the Asian crisis.

Types of instrument

The emphasis on liquidity …

Money market instruments (euro-commercial paper and other short-term euronotes) expanded at a slower pace in 1997. Investors' abrupt reassessment of liquidity and credit risks in the wake of the Asian crisis led to a drying-up of net issuance in the fourth quarter. This accentuated the contrast with the US commercial paper market, where expansion proceeded at a brisk rate. Differences in underlying economic conditions between Europe and the United States, and the more fragmented nature and smaller size of European money market funds, continued to hamper the growth of the ECP market. However, further liberalisation and the prospect of a unified pan-European CP market are likely to render ECP more competitive.

… hampers the growth of the ECP market

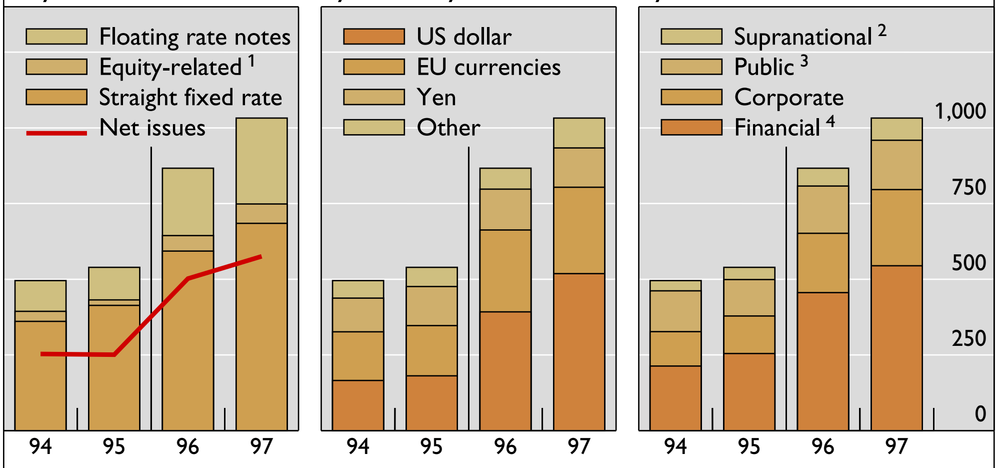
In the longer-term segments of the international securities market, *fixed rate paper* again accounted for the bulk of gross issuance. Although emerging market borrowers and securitisation vehicles launched some very large bond issues, the growing importance of smaller issues under euro-medium-term note facilities meant that the average size of transactions declined. In their search for higher yields, investors purchased longer-dated securities (including a few 100-year Yankee issues), bringing the average maturity back to the near-record length of 1993. While the fixed rate market continued to play a central role in the broadening of market access, announcements of *floating rate notes* reached a historical high. Investment demand for such defensive instruments was encouraged by anticipations of interest rate increases in the major currencies and the strong liquidity position of financial intermediaries. Meanwhile, investors showed renewed interest in *equity-related issues*, as uncertainty about the health

Search for higher yields …

… but strong demand for defensive instruments

Main features of the international bond and note markets

Announced issues, in billions of US dollars



[1] Convertible bonds and bonds with equity warrants. [2] International institutions. [3] Governments and state agencies. [4] Commercial banks and other financial institutions.

Sources: Bank of England, Euroclear, Euromoney, IFR, ISMA and BIS. Graph VIII.7

of Asian economies was more than offset by the favourable climate prevailing in the equity markets of North America and Europe. Although Japanese banks launched a few large convertible issues to bolster their capital structure, Japanese industrial firms, which until the early 1990s had been the main users of this financing vehicle, are no longer a driving force in this market segment.

Increasing popularity of ABSs …

In the particular area of *mortgage and other asset-backed securities* (ABSs), the rise in US and UK interest rates in the early part of the year slowed the origination of new mortgages, but there was a sharp pick-up in activity thereafter, with the issuance of several large collateralised loan obligations (CLOs). The CLO concept was introduced in the United States in the late 1980s and is becoming increasingly popular in the international market. While CLOs have traditionally been structured on the basis of portfolios of high-yielding corporate loans, intermediaries have become more adventurous, as witnessed by transactions that used credit-linked notes. There are also signs that the international ABS market is extending beyond the restructuring of bank or corporate balance sheets to include consumer and mortgage debt financing. This was illustrated by the introduction of new credit card securitisation facilities and the growing internationalisation of the Pfandbrief market. The recent popularity of ABSs results from a combination of factors. On the investors' side, these include the search for new sources of higher-yielding assets in a context of greater understanding of complex structures. On the issuers' side, an important element has been banks' desire to free the regulatory capital tied up in low-margin corporate loans. Moreover, the need for European banks to improve their competitiveness ahead of EMU has led them to put greater emphasis on the efficient management of their balance sheets. However, issuance remains hampered by the fragmentation of the underlying markets and, in some countries, an inadequate legal and regulatory infrastructure.

… reflects a more active management of balance sheets

Currency composition of issuance

The US currency segment benefits from its safe-haven status

Investment demand in the US dollar segment benefited throughout 1997 from favourable interest rate differentials and, in the first half of the year, from EMU-related uncertainties. The deepening of the Asian crisis and strong US economic fundamentals contributed thereafter to reinforcing the safe-haven status of the US currency. Issuance in core European currencies was generally subdued. However, that in higher-yielding currencies (such as sterling and the Italian lira) expanded appreciably, with emerging market borrowers diversifying in their favour. Activity in yen-denominated bonds declined by less than was suggested by market reports of falling investor demand for yen-denominated assets. Sustained demand for euroyen issues (most notably EMTNs) partly offset reduced interest from Japanese retail investors in dual-currency bonds, given the swings in the dollar/yen exchange rate. In addition, the Samurai market benefited from the positive impact of deregulation measures favouring issuance by lower-rated entities and non-resident commercial banks. Lastly, borrowers capitalised on strong investor demand for rand-denominated assets to launch an unprecedented volume of issues in that currency.

Impact of the Asian crisis

The Asian crisis …

… brings issuance by lower-rated names to a standstill …

… although contagion is contained

The deepening of financial problems in Asia had a marked impact on activity in the fourth quarter. Thus, spreads on the fixed income benchmarks of emerging markets sharply reversed their downward trend, rising in late October to levels not seen since the Mexican crisis in early 1995 (see Chapter VII). Amidst greater uncertainty, issuance by developing country and other lower-rated names came to a virtual halt, with a shift in favour of highly rated sovereign and supranational borrowers. Thereafter, the aversion of investors to market risk was reflected in a shortening of the maturity of lower-rated bonds and some movement into floating rate notes. In addition, renewed awareness of credit risk led to greater interest in structures linking coupon payments or redemption to the evolution of issuers' credit standing. However, the perception of an accommodative monetary stance in the major economies led to a rapid recovery of fixed income and equity markets in the industrial world (with the exception of Japan). The risk premia on Latin American and Eastern European countries' debt fell back quickly from their peaks, contagion to their currencies was muted and the process of financial convergence within Europe was essentially unaffected. By early 1998, non-Asian emerging market borrowers had regained access to the international capital market.

The influence of EMU

The euro acts as a catalyst for innovation …

… with fungible issues …

The forthcoming introduction of the single European currency led to a revival of the ECU market with a number of issues making explicit provision for redenomination at the outset of EMU. Such bonds were issued either specifically in ECUs/euros or in separate European currencies, with similar coupons and maturities, and consolidation upon conversion into large fungible domestic or offshore issues. Initially confined to European entities, they have become part of the strategy of a broader range of issuers aiming at establishing pricing benchmarks in the European market ahead of the introduction of the euro. These instruments, which have provided additional impetus to the convergence of interest rates in the core European countries, are precursors of a full-fledged bond market in euros. Supranational borrowers and state agencies also attempted to align their practices with those of European governments through large issues, regular issuing calendars and repurchase facilities. Moreover, some of the smaller European countries took initiatives aimed at broadening their investment bases. For example, Belgium launched a "domestic" ten-year multi-tranche issue in Belgian francs, French francs and Deutsche marks, which will be convertible into euros. However, growing recourse to euro-fungible issues might, as a by-product, reduce the liquidity of other European bond issues.

… and the introduction of high-yielding securities

With profit opportunities based on the convergence of European interest rates becoming limited, investors increasingly realised that credit risk would replace currency risk as the main tool for outperforming benchmarks. Thus, the year saw the emergence of a European market for high-yield ("junk") bonds. Such securities offer borrowers a number of advantages relative to bank loans, such as bullet repayment, which removes the financial pressures associated with gradual amortisation, and less constraining covenant clauses. The move by European investors to obtain incremental returns is likely to encourage further the use of securities by lower-rated companies that have so far relied on bank financing. Whereas euromarket securities have traditionally been the preserve of borrowers of high credit standing, the recent inroads made by lower-rated issuers are likely to present new challenges for investors.

Global derivatives markets

Fertile ground for the trading of derivatives …

Changing perceptions concerning EMU, renewed exchange rate volatility and the high levels reached by major equity indices provided fertile ground for the trading of derivatives in 1997. In addition, by revealing that some dealers and end-users had inadequately hedged their positions, the Asian crisis prompted a reconsideration of risk management strategies. Against this background, the growth of transactions on exchanges resumed, while there was a further rapid expansion of over-the-counter trading. The increasing sophistication of borrowers and investors, the progress made in the area of information technology and the prospective introduction of the single European currency added to pressures for a fundamental restructuring of the industry. In particular, the need for organised exchanges to reduce operating costs created strong interest in electronic trading systems, leading to a re-evaluation of the merits of open outcry and linkages based on such trading. Exchanges also continued to face competition from the OTC markets, as a result of the growing standardisation of rules and practices, but at the same time their greater flexibility in responding to market demand. Finally, the entry of new actors such as providers of electronic information services added another layer of competition.

… but intense pressures for the restructuring of the industry

Exchange-traded instruments

There was a return to growth in the turnover of exchange-traded contracts (by 11%, to $357 trillion), following two consecutive years of decline. Interest rate

Exchanges benefit from the demand for equity products …

products remained by far the most actively traded in value terms, but contracts on equity indices recorded the fastest expansion. Persistent expectations of US monetary tightening, recurring uncertainty with respect to EMU and the Asian crisis led on occasion to sharp surges in interest-rate-related transactions. Despite some increase in the volatility of Japanese interest rates, their low absolute levels reduced the need for yen-denominated hedging instruments. In the area of equity-related contracts, bouts of weakness in North American and European stock markets as well as growing investor interest in equity markets in Europe and certain emerging markets added to underlying demand. Options on single equities (which are not included in the reported figures) continued to grow more rapidly than those on large indices, reflecting the high trading cost of traditional contracts on indices and the increasing preference of institutional investors for instruments offering a more closely tailored exposure. Activity was much less buoyant in the area of currency contracts, with the impact of increased volatility in the major currency pairs being partly offset by reduced activity in European cross rates. The failure of exchanges to capitalise on the turbulence in currency markets reflects the strong competitive challenge from OTC instruments in this segment.

… with a preference for single equity instruments

LIFFE takes second place after the CBOT …

While the CBOT remained the busiest market-place (in terms of the number of contracts), LIFFE derived significant benefits from its wide range of European fixed income products, overtaking the CME as the second most active exchange in the world. Meanwhile, the DTB reached new trading records, enabling it to consolidate its second place in Europe. The exchange, which already occupied a dominant position in instruments on medium-term German government bonds, rapidly caught up with LIFFE in the trading of Bund futures, accounting for 41% of turnover in 1997 compared with 29% in 1996. Trading on the DTB was encouraged by the successful introduction of new products, the installation of

… but the DTB is catching up …

Markets for selected financial derivative instruments

Instruments	Notional amounts outstanding at end-year					
	1992	1993	1994	1995	1996	1997[1]
	in billions of US dollars					
Exchange-traded instruments	4,634.5	7,771.2	8,862.9	9,188.6	9,879.6	12,207.3
Interest rate futures	2,913.1	4,958.8	5,777.6	5,863.4	5,931.2	7,489.2
Interest rate options[2]	1,385.4	2,362.4	2,623.6	2,741.8	3,277.8	3,639.9
Currency futures	26.5	34.7	40.1	38.3	50.3	51.9
Currency options[2]	71.1	75.6	55.6	43.5	46.5	33.2
Stock market index futures	79.8	110.0	127.7	172.4	195.9	216.6
Stock market index options[2]	158.6	229.7	238.4	329.3	378.0	776.5
OTC instruments[3]	5,345.7	8,474.6	11,303.2	17,712.6	25,453.1	*28,733.4*
Interest rate swaps	3,850.8	6,177.3	8,815.6	12,810.7	19,170.9	*22,115.5*
Currency swaps[4]	860.4	899.6	914.8	1,197.4	1,559.6	*1,584.8*
Interest rate options[5]	634.5	1,397.6	1,572.8	3,704.5	4,722.6	*5,033.1*

[1] For OTC instruments, end-June 1997. [2] Calls and puts. [3] Data collected by ISDA only; the two sides of contracts between ISDA members are reported once only. [4] Adjusted for reporting of both currencies; including cross-currency interest rate swaps. [5] Caps, collars, floors and swaptions.

Sources: Futures Industry Association, various futures and options exchanges, ISDA and BIS calculations. Table VIII.5

additional terminals abroad and the partial abolition of reserve requirements on repos. The launching of a thriving futures contract on five-year French government bonds underpinned turnover on the MATIF, but activity there remains overshadowed by that of the DTB. Trading in Japan remained subdued. A few exchanges located in emerging market countries accounted for sizable fluctuations in the number of contracts traded (notably in Brazil), but their small size muted the impact of these swings on the total value of trading.

… overshadowing the MATIF

The battle for market share ahead of the introduction of the euro led to a flurry of initiatives, including changes in contract specifications, the creation of new products across yield curves, the reduction of trading fees and the extension of trading hours. The struggle to capture German interest rate business was particularly fierce, as illustrated by the introduction of several related contracts. However, with strategies structured around interest rate products reaching a stage of diminishing returns, there was a shift in the locus of innovation to cost-reducing mechanisms, equity products (which are expected to be less affected by the introduction of the euro), services catering to OTC markets and trading links. Mention may be made of the announcement of a trading alliance between

The battle for market share focuses on …

… DM interest rate contracts …

… equity products and alliances

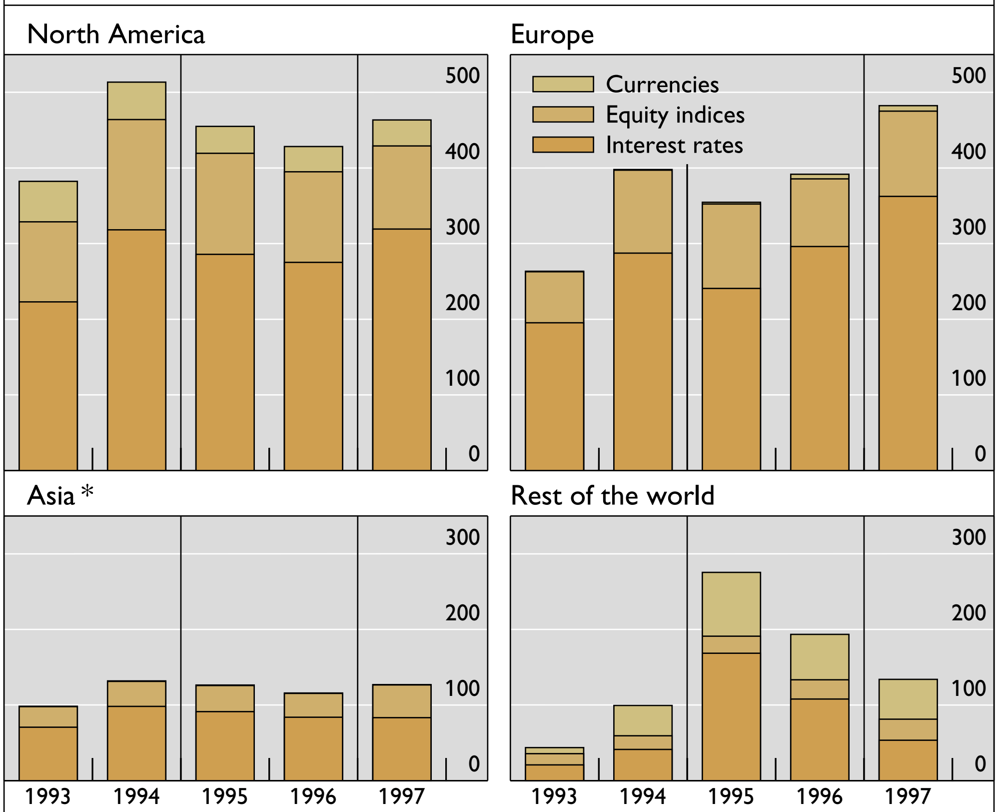
Financial derivative instruments traded on organised exchanges

Instruments	Turnover in notional amounts						Notional amounts outstanding at end-1997
	1992	1993	1994	1995	1996	1997	
	in trillions of US dollars						
Interest rate futures	141.0	177.3	271.7	266.3	253.5	274.6	7.5
On short-term instruments	113.3	138.9	222.1	218.2	204.8	223.2	7.1
of which: Three-month eurodollar rates	*66.9*	*70.2*	*113.6*	*104.1*	*97.1*	*107.2*	*2.6*
Three-month euroyen rates	*14.0*	*24.6*	*44.2*	*46.8*	*34.7*	*29.9*	*1.6*
Three-month euro-DM rates	*7.5*	*12.9*	*18.5*	*18.4*	*23.9*	*25.3*	*1.0*
Three-month PIBOR	*5.8*	*10.4*	*12.0*	*15.9*	*13.7*	*12.3*	*0.2*
On long-term instruments	27.7	38.5	49.6	48.2	48.7	51.4	0.4
of which: US Treasury bonds	*7.1*	*8.0*	*10.1*	*8.7*	*8.5*	*10.1*	*0.1*
Japanese government bonds	*9.7*	*14.2*	*13.8*	*16.2*	*12.3*	*10.6*	*0.1*
German government bonds	*3.2*	*5.1*	*8.9*	*9.3*	*12.3*	*14.5*	*0.1*
French government bonds	*2.8*	*3.2*	*4.6*	*3.4*	*3.4*	*3.1*	*0.0*
Interest rate options[1]	25.5	32.8	46.7	43.3	41.0	48.6	3.6
Currency futures	2.3	2.8	3.3	3.3	3.0	3.5	0.1
Currency options[1]	1.4	1.4	1.4	1.0	0.9	0.7	0.0
Stock market index futures	6.0	7.1	9.4	10.6	12.9	16.4	0.2
Stock market index options[1]	5.7	6.3	8.0	9.2	10.1	13.0	0.8
Total	181.9	227.8	340.5	333.9	321.5	356.8	12.2
In North America	*102.1*	*113.1*	*175.9*	*161.1*	*154.2*	*182.7*	*6.3*
In Europe	*42.8*	*61.4*	*83.9*	*87.5*	*100.1*	*114.9*	*3.6*
In Asia[2]	*36.9*	*53.0*	*77.8*	*81.1*	*63.8*	*56.3*	*2.2*
Other	*0.1*	*0.4*	*2.9*	*4.2*	*3.4*	*2.9*	*0.1*

[1] Calls and puts. [2] Including Australia and New Zealand.
Sources: Futures Industry Association, various futures and options exchanges and BIS calculations. Table VIII.6

Turnover in financial futures and options traded on organised exchanges

In millions of contracts



* Including Australia and New Zealand.

Sources: Futures Industry Association, national data and BIS. Graph VIII.8

the French, German and Swiss market-places in both underlyings and derivatives, and the gradual emergence of a unified Nordic platform for the trading of cash and derivative instruments.

The refocusing of innovative efforts was also evident in North America, with the introduction of small-sized contracts aimed at attracting retail demand for equity products, the listing of warrants and structured notes, the development of electronic facilities, including with wholesale market brokers, and moves in the direction of joint clearing.

Growth of pit trading lags that of electronic trading systems

The successful expansion of electronic platforms, as well as of out-of-hours automated systems on open outcry exchanges, led market-places that had aggressively promoted open outcry to fundamentally reconsider their strategies. While pit-trading exchanges are now surrounding themselves with new technologies for small orders and less active contracts, some, such as the CBOT and LIFFE, have announced that they will move further in the direction of electronic trading. These developments are having important repercussions on trading links. As illustrated by the DTB's strategy, which has been based primarily on inward remote access and extended trading hours, electronic trading systems now allow exchanges to expand their investor base directly and more cheaply than open outcry linkages. In fact, the approach adopted by the DTB is now being considered by other major exchanges, including the CBOT and LIFFE, which have agreed to terminate a recently introduced open outcry link. The development of exchanges' own facilities and bilateral electronic links may also explain the declining interest in the existing version of Globex, the multilateral electronic system which was designed as a standardised tool for cross-border after-hours trading.

Over-the-counter instruments

Despite the slowdown in OTC trading …

Data released by the International Swaps and Derivatives Association (ISDA) on activity in swaps and swap-related interest rate options show a deceleration in the growth of notional amounts outstanding in the first half of 1997. Preliminary information available for the second half of the year appears to confirm this loss of momentum, even though expansion continued to be well in excess of that of exchange-traded markets. The slowdown was evident in all major groups of contracts (interest rate swaps, currency swaps and swap-related interest rate options), but it was most pronounced in the area of currency swaps (from 20% in the second half of 1996 to 2%).

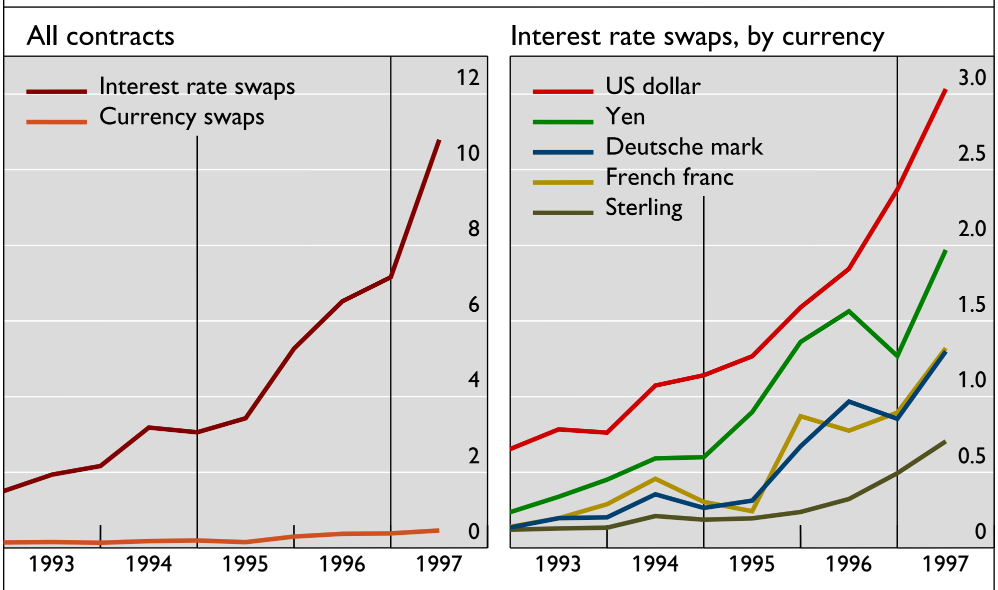
… activity is more dynamic than on exchanges

Subdued OTC currency business …

In the case of *currency products*, the sharp swings seen in the major currencies against the US dollar provided some support to currency hedging instruments, with intermediaries adjusting their strategies (particularly for products based on trading ranges) and offering premium-reducing structures. EMU uncertainty created occasional spikes of volatility, and therefore of trading activity in European core/periphery cross rates, but the overall stability of core European cross rates meant that such business was generally subdued. In the area of emerging market currencies, business in non-deliverable forwards expanded. Such synthetic foreign currency contracts permit the circumvention of foreign exchange restrictions by providing for compensatory payments in a

New interest rate and currency swaps

Notional amounts; half-yearly turnover, in trillions of US dollars



Sources: ISDA and BIS. Graph VIII.9

single base currency (usually the US dollar). The Asian crisis, however, disrupted activity in emerging market currencies, with the sharp rise in short-term interest rates and the temporary imposition of capital controls causing substantial losses on dealers' short positions.

… but still buoyant activity in interest rate products

In the area of *interest rate products*, the ISDA figures reveal that swaps and swap-related options grew by 14% in the first half of 1997. For the year as a whole, active swap trading in the major currencies seems to have compensated for a slackening of transactions in less liquid markets. The limited supply of US Treasury paper and the flattening of the US yield curve combined to widen dollar swap spreads, supporting swap-related issuance in that currency. In Europe, the periodic emergence of doubts concerning EMU stimulated convergence trades against German interest rates and between the higher-yielding currencies themselves. However, believing that the convergence of long-term rates had failed to capture adequately credit risk premia following the introduction of EMU, some dealers began to propose deals based on a subsequent widening of yield differentials. Perceptions of the United Kingdom's more favourable disposition towards EMU were also followed towards the end of the year by active trading involving UK and Irish rates. Aside from option products based on interest rate spreads, instruments based on anticipated interest rate volatility, such as forward-starting caps or swaptions, were increasingly popular. As in the area of currency products, the Asian crisis had negative repercussions for some dealers, with several banks holding short volatility positions in the debt securities of emerging market countries suffering heavy losses.

Sizable growth in equity instruments …

There was evidence of sizable growth in OTC *equity derivatives* (which are not covered by the ISDA survey) last year. The occasional but abrupt declines in indices created strong demand for hedging products. The turbulence in equity markets occurred against the background of a shift by retail investors out of traditional fixed income products. This additional source of underlying demand for equity products was reported to have exacerbated market volatility and pushed up the cost of protection. In response, investors sought lower-cost alternatives, such as "buy now/pay later" and "knock-out" options as well as average rate options and basket products. Warrants on established stock market indices and on narrower pools of stocks were reported to have been highly popular. There was particularly strong interest in warrants on European companies that are expected to face restructuring as well as a wide array of products based on indices of Eastern European stocks. Basket instruments remove the need for active stock selection and permit a rapid and low-cost entry into desired market segments. More complex instruments such as options and swaps on cross-border index spreads and swaps on the volatility of equity indices were also actively marketed.

… and further development of credit derivatives

Regulatory uncertainty, limited availability of information on defaults and the lack of adequate hedging instruments continued to hamper trading in *credit derivatives*, which remained restricted to a fairly narrow range of institutions. Nevertheless, such instruments were increasingly used in the arrangement of securities issues (such as asset-backed securities and synthetic equity-related issues) and in other areas where separation of the credit risk from the underlying exposure was actively sought (such as leasing and reinsurance). The growing interest in Europe in higher-yielding securities, financial strains in Asia and the increase in the size of counterparties resulting from global consolidation have done much to direct financial market participants' attention to the issue of credit risk. The development of new risk management instruments is encouraging a change in the lending culture, with emphasis on the efficient management of capital and a focus on risk-adjusted returns. While intermediaries have in recent years designed increasingly sophisticated systems for the management of market risk, that of credit risk has been much less developed. This explains the drive to launch a variety of software systems which allow credit risk to be measured across assets and enable intermediaries to evaluate changes in the aggregate value of portfolios caused by credit events. These efforts, if successfully pursued, should lead to greater market efficiency, more refined pricing and a better allocation of capital.

Globalisation and financial intermediation

Global market integration aided by …

In spite of the retrenchment caused by the Asian crisis, global market integration proceeded further in 1997. Longer-term trends continued to assert their influence. For example, the rapid development of trading and communication technologies posed new challenges to existing franchises in industry segments that had hitherto been protected. Market harmonisation was further enhanced by steps taken in Japan and the United States to dismantle the regulatory barriers between banking and securities business, while the forthcoming introduction of EMU acted as a catalyst for European harmonisation and consolidation.

… deregulation …

Conjunctural elements also played an important role. Ample liquidity and the search for higher yields boosted cross-border flows, accelerating the integration of emerging market economies into the global financial system. Moreover, the Asian crisis served as a painful reminder that adherence to the free working of market forces at the international level was not compatible with the maintenance of opaque, inefficient and loosely regulated local financial systems. Recent events could indeed, perhaps somewhat paradoxically, lead to a further integration of emerging market economies by encouraging adjustment in countries where infrastructures have been inadequate.

… adjustments to infrastructures …

Globalisation was again most evident last year in wholesale markets, with a lowering of the traditional barriers between commercial banking, investment banking, insurance and asset management. The gradual entry of other entities, such as providers of electronic information services, added a new group of competitors. In addition, progress made in the area of credit risk accentuated the convergence of practices in asset and liability management among the various categories of players. It also contributed to broadening the scope of intermediation through the unbundling and trading of the various risk components of exposures.

… and convergence of market practices

Notwithstanding these developments, commercial banks remained at the centre of the international intermediation process last year. First, they compensated for the stagnation in traditional deposits with large-scale financing in the capital markets. Secondly, buoyant demand for bank credit from non-bank entities located in offshore centres supports anecdotal evidence that a large

Commercial banks move into investment banking business …

volume of leveraged investment was funded by international bank credit. Thirdly, commercial banks expanded into the field of investment banking by purchasing securities operations. Strong motivations were the boom in equity and bond markets, which helped to create new markets in high-yielding instruments, and the wave of mergers and acquisitions, for which investment banks provide lucrative services. Fourthly, the entry of commercial banks into investment banking, by eroding the profits in some of that industry's traditional businesses (such as the underwriting and trading of securities), in turn created a strong impetus for both groups to diversify earnings sources and, therefore, to expand into the area of asset management.

… with both groups expanding into asset management …

As a result, there was last year a growing dichotomy between strategies aimed at providing fully integrated global financial services, on the one hand, and those focusing on core or niche business, on the other. However, the recent wave of acquisitions has raised questions as to whether the expansion of certain groups into areas in which they have little or no expertise might not represent a drain on their resources. It has also created concerns that cross-subsidising of business in the competition for global status could lead to distortions in the pricing of securities and derivative products. Indeed, the scaling-back of business by some banks last year may have reflected not only the failure to benefit from synergies between products and services, but also the inadequate pricing of instruments.

… raising a number of new issues

Conglomerates in particular …

… pose challenges for the regulatory framework …

The emergence of large international conglomerates in a world where regulation remains based on sectoral and national frameworks raises a number of issues on which there is as yet no clear consensus. In this increasingly complex environment, the regulatory framework needs to evolve in terms of both its methods and its scope. Two common trends seem to have emerged from recent market and official initiatives (see also "Activities of the Bank" at the end of this Report). The first is towards a greater market orientation of regulation, which is evident in the shift from an approach based on mechanical rules to reliance on market discipline. This was illustrated by the recent amendment to the Basle Capital Accord to permit the use of internal models for market risk, as well as the ongoing discussions on possible alternatives (including the pre-commitment approach, which would allow a self-determined ex ante allocation of capital, accompanied by ex post penalties if losses exceed the pre-committed amount). The second trend is for the official community to show greater tolerance for the failure of individual institutions but, at the same time, to put more emphasis on limiting the knock-on effects of financial distress. Current efforts to upgrade payment and settlement systems in wholesale markets go in this direction, as do initiatives to improve the architecture of the international financial system in areas such as transparency, infrastructure and burden-sharing between the public and private sectors. Determining the appropriate allocation of regulatory responsibilities, both within and across countries, is a necessary first step, but implementing it is the critical second one.

… in terms of methods …

… and scope