Bank for International Settlements

67th Annual Report

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67th Annual Report

submitted to the Annual General Meeting
of the Bank for International Settlements
held in Basle on 9th June 1997

Ladies and Gentlemen,

It is my pleasure to submit to you the 67th Annual Report of the Bank for International Settlements for the financial year which began on 1st April 1996 and ended on 31st March 1997.

The net profit for the year amounted to 194,289,449 gold francs, after transfer of 3,000,000 gold francs to the provision for exceptional costs of administration and 6,000,000 gold francs to the provision for modernisation of premises and renewal of equipment. This compares with a net profit for the preceding year of 181,333,300 gold francs.

The Board of Directors recommends that, in application of Article 51 of the Bank's Statutes, the present General Meeting should apply the sum of 48,780,923 gold francs in payment of a dividend of 280 Swiss francs per share. It may be noted that the dividend payable in respect of the 44,000 new shares which were issued during the latter half of the financial year will be settled on a pro rata basis according to the relevant date of subscription.

The Board further recommends that 41,018,778 gold francs be transferred to the general reserve fund, 3,000,000 gold francs to the special dividend reserve fund and the remainder of 101,489,748 gold francs to the free reserve fund.

If these proposals are approved, the Bank's dividend for the financial year 1996/97 will be payable to shareholders on 1st July 1997.

Basle, 23rd May 1997

ANDREW CROCKETT
General Manager

I. Introduction: clear objectives but unclear indicators

While plausible explanations can be suggested for many of the economic and financial developments in 1996, they were nevertheless surprising in a number of respects. Equity markets in many countries rose sharply, often in the face of stagnant levels of economic activity and continuing low levels of inflation. European bond yield differentials narrowed as US bond rates increased, in marked contrast to patterns observed in 1994 and 1995. The dollar rose in tandem with the continued strength of the US economy, in spite of persistent and growing trade deficits. In Japan and the major continental European countries, investment spending failed to strengthen as normal in the wake of rising exports. In some parts of Latin America and Africa, prospects for sustained growth took a turn for the better, while in parts of Asia imbalances became more evident. And private capital flows to emerging markets exceeded previous records by wide margins, with international bond issues playing a prominent role. Were these surprising developments the product of fundamental economic forces or, rather, will they be reversed by such forces in the future?

One part of an honest answer is that we simply do not know. Rapid technological change and deregulation, which today profoundly affect all aspects of the global economy, increasingly cloud our sense of what is possible and reasonable. On the one hand, they hold out the positive prospect of faster productivity growth, improving living standards and rising profits. On the other, they may bring transitional difficulties and unexpected side-effects stemming from the interaction of many shifting forces: real, financial and even social. Cycles of excessive optimism and pessimism are a feature of human nature that may also have played a role in 1996. Moreover, the ability to explain and predict must also be constrained by the limits of our knowledge. There are many economic processes that we do not fully understand, particularly in the financial area.

Yet there is one thing that we do know with certainty. Inflation, excessive monetary expansion and fiscal laxity contribute to misconceptions and bad judgement in a variety of forms. These obviously include the resource misallocations likely in a world where both the standard of value and relative prices are fluctuating excessively. However, it is only as inflation recedes that other, more deep-seated damage done to the economy becomes more clearly evident. Indeed, some of the developments referred to above undoubtedly have their origins in the excesses of much earlier periods, the associated accumulation of debt stocks and the ongoing process of re-establishing macroeconomic balance. Governments, banks and financial markets each continue to be affected in important ways.

In the industrial countries, the very role of the state is now having to be reassessed in the light of a sound money standard and revealed limits to

government borrowing. The governments of many countries, struggling with debts incurred at a time when all seemed manageable, had to cut their fiscal deficits further in 1996 despite generally slack economic conditions and low inflation. In this historical context, the exigencies of the Maastricht criteria must be judged to have played only a secondary role, though clearly an important one in terms of timing. More fundamentally, many governments in industrial countries began to question seriously whether they could still maintain all the regulations and honour all the promises made earlier to protect workers, pensioners and other beneficiaries of the social safety net. And the resulting uncertainties on the part of both consumers and investors are stretching out this process of fiscal consolidation by holding back spending, reducing tax revenues and thus further increasing the need for fiscal restraint to meet deficit targets.

What also became more evident in 1996 is that some banking systems have still not completely recovered from earlier periods of excessive credit growth. Most prominently, a full seven years after the bursting of the asset price bubble in Japan, several financial institutions went into receivership, the number and scale of company failures rose to record levels, and banking shares led a further decline in stock prices. While the Japanese economy showed some encouraging signs of recovery in 1996, concerns remain that "headwinds" arising in the financial sector, together with necessary fiscal restraint, will continue to dampen growth for some time. Considerations of a similar nature also led to increasing concerns about recent developments in a number of emerging markets, where the rate of credit expansion for the purchase of both securities and property has been very high in recent years, often against a backdrop of inflationary pressures and widening trade deficits.

Financial markets may also bear the lingering imprint of a period of high inflation. One possibility is that it gives rise to "money illusion", so that high nominal rates of return on investment become confused with real ones. Thus, when nominal rates decline in response to lower inflation, as in 1995 and 1996, a misconception arises that "real" rates have fallen as well. A second and complementary possibility is that market participants become habituated to the high real rates of return associated with the early stages of disinflation. In contrast, the rates which can emerge as central banks try to revive stagnant economies can seem unacceptably low.

Whatever the reason, the upshot in 1996 seems to have been a determined effort on the part of market participants to reconstitute yields by taking on higher levels of both credit risk and market risk. As noted above, there were record inflows of capital into emerging markets, generally at declining risk spreads. Bond yield differentials between higher and lower-quality sovereign debt dropped dramatically in both Europe and North America, in spite of there being only a very short history of fiscal probity. And finally, in international securities markets, investors accepted narrower margins, made loans to previously unknown borrowers, extended duration and experimented with new currencies and ever more complex instruments.

Two principal lessons can be learned from all of this. The first is already generally accepted: establishing price stability and a sustainable fiscal position must be given high priority. Unsound macroeconomic policies not only inflict

damage at the time, but have long-lasting effects as well. The second lesson is that the health of the economy and that of the financial system are intimately intertwined. Macroeconomic instability, such as excessive credit creation and inflation, can lead to weakness in the financial system. Conversely, weakness in the financial system, whatever its origin, can also have macroeconomic implications.

This last point has always been well understood by monetary and supervisory authorities. Indeed, Chapter VIII of this Annual Report considers the efforts made by the official community over the last 25 years to identify policy anchors and institutional arrangements that will ensure both price and financial stability. The fact that the Basle Committee on Banking Supervision, the Euro-currency Standing Committee and the Committee on Payment and Settlement Systems were founded by and continue to report to the Group of Ten central bank Governors also attests to the belief that financial sector fragility has important implications for the conduct of monetary policy. It is nonetheless true that, in the light of more measured reflection on the Mexican crisis, the links between price and financial sector stability came to be more widely appreciated in 1996, as did the interdependencies between the industrial countries and the emerging economies. This recognition constitutes a major step forward in the conduct of public policies. Yet, as is noted in the Conclusion of the Report, many more steps will be required before all the outstanding problems arising from these interdependencies have been adequately addressed.

Economic developments and conflicting policy signals

The average level of inflation fell further in the industrial countries in 1996. This was to be expected in countries where significant output gaps continue to exist, but inflationary pressures were also less evident than might have been expected in the United States and other countries where capacity limits were being tested. In this environment, and confronted as well with uncertainty as to how best to respond to fiscal restraint, an upsurge in the price of financial assets and sometimes large exchange rate movements, monetary policy in the major industrial countries was not much changed during the year.

In the United States, the need to balance conflicting indicators was particularly acute. Furthermore, the interpretation problem was exacerbated by a pronounced inventory cycle and a quarterly pattern of growth that made it difficult to discern underlying trends. The fact that the unemployment rate was very low, and tending more to fall than to rise, argued for higher policy rates to counter incipient price pressures. On the other hand, the fact that similar arguments had been heard for at least two years, without any obvious signs of accelerating inflation, raised the issue of whether there had not been some fundamental change in the inflation process.

Various financial market developments also had conflicting implications for monetary policy in the United States. The continued rise in the value of the dollar, which had a disinflationary effect, weakened the case for higher rates, even if the associated deterioration in the trade account implied that this support could not be relied upon forever. In contrast, the continued rise in the US stock

market, which in principle could be expected to spur both consumption and investment, led to calls for tighter policy, whereas the upturn in bond rates in early 1996 was interpreted by some as meaning that the work of the Federal Reserve had already been done for it. In the event, it was only after evidence of stronger economic growth and increased labour cost pressures emerged around the turn of the year that the Federal Reserve decided to raise the federal funds rate in March 1997.

Similar problems of interpretation and balance were observed in the United Kingdom. Growth quickened, unemployment fell, credit expanded and asset prices rose; yet inflation remained relatively stable. A related complication for policy formulation was the sharp appreciation in the value of sterling against the Deutsche mark, and even against the dollar. While its immediate disinflationary implications were welcomed, the UK authorities discounted its importance as an indicator for monetary policy, noting that the higher value of sterling might be only temporary and that it provided no relief from accelerating inflationary pressures in the domestic (non-traded) sector. In contrast, the strengthening of the Canadian dollar during most of 1996 was interpreted by the Bank of Canada, albeit against the background of considerably more economic slack than in the case of the United Kingdom, as a potential tightening of monetary conditions which warranted a policy response.

On the European continent the policy puzzles in 1996 had a structural as well as a macroeconomic component. Only in some of the smaller European economies were inflationary pressures evident. More generally in continental Europe, weak demand in 1996 was exacerbated by the need for fiscal restraint and uncertainties related to anticipated policy changes and the prospects for economic and monetary union. While export orders were relatively buoyant, investment spending failed to respond as normal. At the same time, European economies were also being subjected to significant supply-side shocks. The process of industrial restructuring in response to globalisation and technological change gathered pace and, in a context of inflexible labour markets, this contributed to a rise in unemployment in France and Germany to the highest levels of the postwar period.

Given all these influences, and with policy rates already at low levels, monetary policy in Germany was eased only slightly in mid-1996. The judgement made was that the problems being faced were fundamentally structural rather than demand-driven, and that a slight reduction in short rates could do little to alleviate them. Nevertheless, demand growth in continental Europe did receive some encouragement from the stronger dollar, rising equity prices, lower long-term interest rates in core countries and even larger declines in both short and long-term interest rates in other countries.

In Asia, the substantial strengthening of the dollar was an important aspect of the policy conflicts confronting that region. The effect of the lower yen on Japanese exports has helped support output growth in the face of such negative forces as weak confidence, the prospect of significant fiscal retrenchment over the next year or two, and the fact that short-term policy rates can hardly be lowered further. However, it has also brought to a halt the previous decline in the Japanese current account surplus and generated renewed concerns about

the possibility of trade tensions with the United States. Elsewhere in Asia, the effective value of many currencies has risen with the dollar and as a result of continuing capital inflows. Competitiveness has thus suffered at the same time as both the volume and prices of exports of electronic goods have been falling sharply. While these developments have helped reduce overheating in many countries in the region, they have also in some cases raised the question of the sustainability of external deficits.

The potential for conflict between internal and external balance is relatively new for many Asian countries, particularly those that have relied on exports as the principal engine of growth. In contrast, this problem has been endemic in Latin America. Policies directed at reducing inflation in the 1990s often relied on the use of the exchange rate as a nominal anchor, usually implying a marked degree of real exchange rate appreciation as domestic inflation responded only with a lag. This had adverse implications for the external balance, exposing countries to a potential loss of confidence both at home and abroad. A similar dilemma is also confronting a number of countries in Eastern Europe. Possible ways to mitigate conflicts of this sort are discussed in the Conclusion of the Report.

Financial developments and measures to strengthen the financial system

There was a sharper focus in 1996 on the implications of the more competitive environment facing financial institutions around the world. Large increases in asset prices and the pervasive search for higher returns in international securities markets drew most attention, raising concerns about exposure to sudden shifts in market sentiment. Moreover, long-standing concerns about the health of banks in some industrial countries were accompanied by a growing awareness of the even greater problems confronting emerging and transition economies.

These recent developments have taken place against the backdrop of rapidly changing technology and continuing deregulation, both of which allowed newcomers (and particularly non-banks) to mount a strong challenge to established financial firms. For similar reasons, the demarcation line between loans and securities became still more blurred, as did the distinction between banks and other kinds of financial institution. The announcement in November 1996 of a prospective Japanese "Big Bang", the further regulatory erosion of Glass-Steagall restrictions in the United States, and the efforts of financial institutions in Europe to position themselves for the introduction of the euro all imply that competitive pressures will intensify further and that financial restructuring is far from over.

In these circumstances, much consideration was given last year to ways of improving the resilience of each of the main structural components of the international financial system – institutional participants, markets, and market infrastructures – with a view to limiting any harmful repercussions from potential shocks. As in previous years, a significant contribution to these efforts was made by committees of national experts meeting at the BIS, each with a focus on one main component of the international financial system. Recommendations made

by these committees have a moral (rather than legal) authority arising from the participation of national experts representing domestic constituencies of those most likely to be affected. In this context, a new and welcome development in 1996 was the increasing involvement of representatives of emerging markets in these deliberations and the decisions to which they have led.

Sound financial institutions are at the heart of a sound financial system. To this end, the Basle Committee on Banking Supervision launched a number of new initiatives aimed at refining traditional regulatory instruments last year. In addition, financial institutions were encouraged to disclose more openly their activities with respect to securities trading and derivative instruments. The fundamental premise is that a better-informed market will impose appropriate discipline on its participants. In thus promoting prudent behaviour, it is hoped that the market will increasingly act as a complement to more traditional supervisory practices.

A further major accomplishment in the period under review was the release in April 1997 of a consultative document containing a set of 25 Core Principles for Effective Banking Supervision, supplemented by a three-volume compendium of all the Basle Committee's main publications to date. These principles are a landmark development in at least four respects: they are comprehensive and cover all aspects of supervision; they are addressed to all banks, and not just those that are internationally active; they were drawn up in close consultation with banking supervisors from outside the Group of Ten; and they were designed to provide a checklist of good practice for use by both national supervisors and other interested parties.

It has also been recognised for some time that failures in payment and settlement systems for large-value transactions constitute a potential source of systemic fragility. In 1996 the Committee on Payment and Settlement Systems drew attention to the fact that financial institutions were incurring much more foreign exchange exposure than had previously been supposed and put forward a strategy for dealing with the problem. The Committee also published documents concerning the safety of clearing arrangements for derivative instruments, real-time gross settlement systems and current disclosure practices in securities settlement systems. Finally, in association with other Basle-based committees, the Committee completed a study on the systemic and other implications of the introduction of electronic money and undertook to monitor closely global developments in this area.

The Euro-currency Standing Committee has traditionally focused on the development of new markets and their implications for macro-prudential stability. In addition to introducing a number of refinements to the data it collects on international banking activity, in 1996 the Committee drew up a framework for the regular collection of statistics on over-the-counter derivatives markets. This was accepted by the G-10 Governors in January 1997 for implementation by end-June 1998. Finally, two study groups set up by the Committee began examining the implications for systemic risk of recent structural changes in G-10 financial markets and changes in portfolio management practices. Such topics are obviously very much in the tradition of the earlier work of the Committee and, as in the past, the intention will be not only to identify problems but also to propose potential solutions.

II. Developments in the industrial countries

Highlights

Forecasts made near the end of 1995 had envisaged that both output growth and inflation in the industrial countries, as traditionally defined, would converge towards an average of 2½% in 1996. In the event, growth was lower, and notably so in the Group of Seven countries which expanded by less than 2% on average. The rate of inflation was also lower than predicted, indicating that disinflationary forces were generally more powerful than had been expected. This was particularly evident in global goods markets whereas in several countries there was a partial reversal of earlier declines in unit labour costs.

While the average difference between the predicted and realised growth rates in 1996 may not seem large, it must be seen against the background of generally less restrictive policies and financial conditions than had been foreseen. Many countries benefited from lower short and long-term interest rates, and the appreciation of the US dollar against most other currencies generally helped to shift global demand towards regions and countries with excess capacities. Both the United States and the United Kingdom, where inflationary pressures were stronger, benefited from this process.

Macroeconomic policies also affected the pattern of growth last year. Due to differences in the lags with which fiscal and monetary policies influence demand, efforts to reduce fiscal imbalances generally constrained output growth during the first half of 1996, while the resulting more favourable financial conditions only affected demand towards the end of the year. As a result, destocking was widespread early in the year but, in most countries, the rise in business fixed investment remained disappointingly low at year-end. Sluggish growth, as well as continuing structural rigidities, also meant that the unemployment rate in the continental European Union countries rose to over 12%.

Due to the generally weaker cyclical conditions, trade between the industrial countries slowed substantially in 1996. Combined with more restrictive policies in a number of Asian countries, this reduced the growth of world trade in goods and services to only half the rate recorded in 1995. Nonetheless, the trend towards globalisation of output and employment via foreign direct investment seems to have continued unabated; foreign sales by international companies through their foreign affiliates now exceed direct trade in goods and services, and their job growth abroad commonly outstrips employment growth in the parent countries by wide margins.

Developments in the three major economies

Continuing non-inflationary expansion in the United States …

The expansion in the *United States* entered its seventh year early in 1997,

displaying remarkable resilience considering that the recovery started with a comparatively small output gap. The rate of growth of GDP in 1996 was actually higher than in 1995, although staying broadly in line with potential growth (Graph II.1). Only in early 1997 did inflation clearly begin to threaten. Several factors seem to have complemented and reinforced each other in preventing the accumulation of inflationary imbalances like those commonly seen in earlier recoveries of this length. First, the fiscal deficit was reduced, with most of the decline being structural; the federal government deficit is now at the lowest level since 1981. Second, increasingly conditioned to believe that the Federal Reserve would resist inflationary pressures, the bond market has served as an important built-in stabiliser. Thus, rates have tended to move up in response to perceived excess demand pressures but have then fallen back as these concerns have receded. In part, this reaction has alleviated the need for discretionary changes in monetary instruments. Third, despite some tightening of labour market conditions which caused the rate of unemployment to decline to a level (5¼% towards the end of the year) which used to be associated with accelerating inflation, there were only occasional signs of upward pressures on prices. Labour costs were contained through 1996 by decelerating or even falling non-wage benefits as well as by workers' concern about future job prospects. Fourth, intense competition in both domestic and world markets, combined with a growing resistance to price increases among consumers, has forced firms to reduce costs. Fifth, with the United States leading the business cycle, imports from countries with excess capacity have helped to contain the risk of bottlenecks in the US economy. Finally, over the last 12 months, an appreciation of the dollar has amplified the disinflationary forces already present.

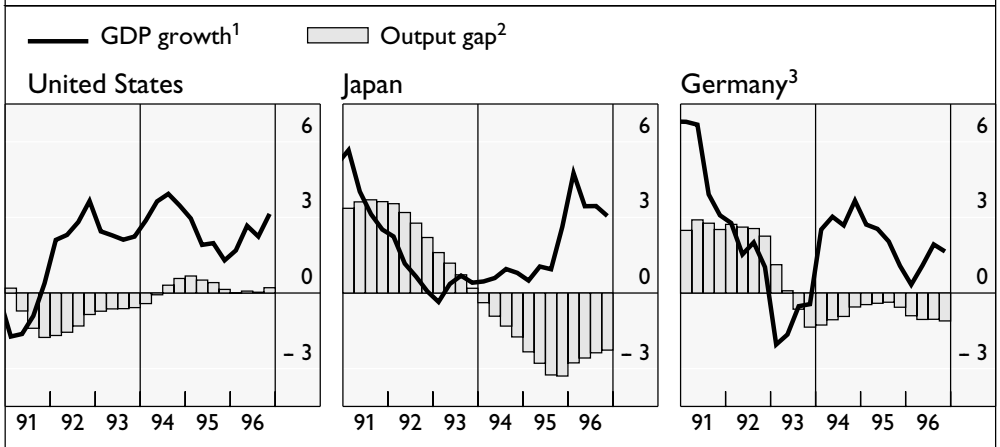
… with several stabilising factors

Boosted by higher real income, the growth of household spending accelerated last year and business fixed investment was a continuing source of strength. Indeed, the most unusual feature of this expansion has been its dependence on the increased output of the "high-tech" sector, which is estimated

Impact of "high-tech" sector

GDP growth and the output gap

In percentages



[1] Changes over four quarters. [2] As a percentage of potential GDP. Positive figures indicate excess demand. [3] Prior to 1992, western Germany only.

Sources: OECD Economic Outlook, national data and BIS estimates. Graph II.1

to have contributed over 25% to overall growth during the last three years, compared with, for instance, only 4% for the automobile sector. Moreover, falling prices for high-tech products and faster productivity growth stemming from the use of new computer-based technologies have helped to keep inflation low. However, being highly dependent on the continuous development of new technologies, the high-tech sector is not immune to cyclical swings or to the accumulation of imbalances. As past experience shows, output changes in this sector are as volatile as in most durable goods industries and can be accompanied by even larger multiplier effects on the rest of the economy.

Hesitant and uneven upturn in Japan …

The economic picture in *Japan* seemed to brighten in 1996 as output growth accelerated sharply. However, the overall figures are deceiving with respect to the strength of the upturn. Growth was highly uneven during the year and there were substantial shifts in the contribution of major demand components, indicating the absence of clear underlying trends. Despite an export-led strengthening of the economy towards the end of the year, the impetus to economic activity can mainly be attributed to developments in the first half. Moreover, almost one-third of the output growth during this period can be ascribed to fiscal measures which seem to have generated only weak multiplier effects; final domestic demand declined in the second half when the fiscal stimulus started to be withdrawn. In contrast, the depreciation of the exchange rate has provided growing support to net exports.

… with uncertain impact of financial conditions

The impact of monetary policy and domestic financial market developments is difficult to judge. On the one hand, bank credit growth remained weak, partly because large enterprises covered their funding needs by issuing bonds, but also reflecting banks' reluctance to lend to small and medium-sized companies whose collateral is commonly linked to real property. On the other hand, historically low interest rates, combined with the depreciating exchange rate, boosted the profits of large enterprises who have used some of their additional funds to repay bank debt or finance a modest increase in fixed investment. The strength of residential investment, allied with the fact that households supported consumption by reducing their saving rate, may be seen as further evidence of the stimulatory effects of monetary forces.

Hesitant recovery in Germany too

Germany also experienced a very uneven growth pattern in 1996, especially during the first half when weather-related factors had a significant adverse influence on activity in the construction sector. Although less pronounced than in Japan, growth was supported by easier monetary and fiscal policies and by a depreciating exchange rate. However, in sharper contrast to the Japanese case, GDP growth decelerated in Germany last year as the result of a large inventory correction and falling capital spending in both the public and private sectors. Moreover, reflecting the overall deceleration of output growth, as well as the effects of continued efforts by firms to reduce costs, employment declined and the rate of unemployment rose to a postwar high early this year. These developments depressed household income as well as consumer confidence and the growth of private consumption fell far short of earlier predictions. At the same time, with falling unit labour costs reinforcing the effects of a nominal depreciation of the exchange rate, about one-half of total growth was attributable to net exports.

Developments in the other major European economies

Growth also weakened in France …

The deceleration of output growth in *France* was rather similar to that in Germany, as were some of the immediate causes; in particular, the need to correct a large inventory overhang and falling government investment. Net export growth accelerated but mainly as the result of sluggish import demand; in fact, export growth actually declined to a rate somewhat below that of export markets. Business fixed investment was also weak, in spite of favourable cash flows. This may have reflected the overall weakening of demand but was also influenced by the need of both banks and non-financial corporations to recognise earlier losses on property investment.

… but employment stabilised

In other respects, however, trends in France and Germany differed last year. Stimulated by fiscal measures, but also owing to a rebound from the strike-influenced fourth quarter of 1995, household spending was a main engine of growth early in 1996 in France. Labour market developments differed as well, even though unemployment increased almost as much as in Germany. Reflecting policy incentives to hire low-income workers and the long-term unemployed, employment stabilised in France. However, because the employment measures and wage moderation also seem to have lessened firms' incentives to lower costs, the rate of productivity growth decelerated and unit labour costs rose more than in Germany.

Cyclical downswing in Italy …

Starting with a progressive weakening of export demand, *Italy* experienced a cyclical downswing last year, as a major inventory correction in the industrial sector caused an actual decline in output. Tighter monetary conditions and fiscal consolidation, leading to lower government consumption and falling household real income, reinforced the downswing even though the effect on consumption was "cushioned" by a 1 percentage point fall in the household saving rate. Investment in machinery and equipment also weakened, partly influenced by narrower profit margins, as the appreciation of the lira made it difficult for firms to shift higher costs into prices. In contrast, residential and non-residential construction spending seems to have strengthened in the course of the year, possibly due to the marked decline in bond rates. Furthermore, as imports were cut sharply in response to the weakening of domestic demand, net export growth remained positive despite the appreciation of the currency.

… contrasts with stronger growth in the United Kingdom

The slow growth which had characterised the *UK* economy during most of 1995 continued into the first half of 1996. Falling net exports, a large inventory correction, further cutbacks in public sector investment and declining residential construction all played a role. However, business fixed investment in machinery and equipment grew strongly and combined with other expansionary forces to rekindle growth in the second half of 1996. Net exports turned positive and growth in residential construction resumed as the period of correcting an excess housing stock came to an end. Household consumption alone contributed almost 2½% to the rise in output in spite of continuing sluggish employment growth. Even though part-time work grew sharply in response to a shift of overall demand towards services, employment increased by only ¾% last year and the total number of hours worked may have been constant. On the other hand, the effect of this low employment growth, combined with a faster

expansion of output than in most other major countries, was relatively high productivity gains.

Developments in smaller European economies

Growth in the smaller European economies averaged 3% last year, higher than for the G-7 countries. There were, however, significant differences across countries which seem mainly attributable to domestic factors and policies. The contribution of domestic demand was substantially higher in countries with GDP growth exceeding 2½% than in most of the countries experiencing lower output growth (Table II.1). In addition, those countries which expanded significantly faster than their potential rate of growth saw clear or emerging signs of inflationary imbalances.

Inflationary imbalances in Turkey …

This latter effect was most pronounced in *Turkey*, where domestic demand has been expanding at an unsustainably high rate and monetary financing of the public sector deficit (which may have reached 10% of GDP last year) combined with entrenched inflationary expectations to keep the rate of inflation at about 80%. Reflecting growing financial market uncertainty, domestic real interest rates rose to around 30% last year, prompting the Government to issue bonds denominated in US dollars. In the other countries with rapid growth, the monetary authorities responded pre-emptively when faced with potential imbalances. In *Ireland*, short-term interest rates were raised and the exchange rate was allowed to strengthen due to concerns about rapid credit growth and rising house prices. Similarly, the monetary authorities in *Norway* and *Iceland* tightened monetary conditions in response to signs of eroding wage restraint and, in the case of Norway, a less restrictive fiscal policy than initially intended.

… but pre-emptive policies in other countries

Rebound in the Netherlands and Portugal; slowdown in Finland

In the *Netherlands*, activity rebounded early last year from the relatively mild downturn in 1995 and, by the end of the year, the output gap had virtually been eliminated. Although continued fiscal consolidation slowed the growth of real disposable income, private consumption was the principal force behind the

Contributions to changes in real GDP in 1996

In percentages

	Growth >2½%							
	Turkey	Ireland	Iceland	Norway	Finland	Portugal	Nether-lands	Average
Domestic demand	12.1	5.2	7.6	2.0	3.2	3.5	3.4	6.3
Net exports	−4.6	1.5	−2.1	2.8	0.1	−0.5	−0.7	−1.5
GDP	7.5	6.7	5.5	4.8	3.3	3.0	2.7	4.8
	Growth ≤2½%							
	Greece	Den-mark	Spain	Belgium	Sweden	Austria	Switzer-land	Average
Domestic demand	4.5	2.1	1.6	1.4	0.0	1.2	−1.0	1.2
Net exports	−2.0	0.3	0.6	0.0	1.1	−0.1	0.3	0.3
GDP	2.5	2.4	2.2	1.4	1.1	1.1	−0.7	1.5

Sources: OECD Economic Outlook and national data. Table II.1

upturn. With improving confidence, perhaps reflecting the success of long-standing efforts to restructure the economy and rising house prices, households appear to have used additional mortgages to finance consumption. Employment also increased as the share of part-time workers in total employment (already the highest in Europe) rose further. *Portugal's* recovery started only in the second half of last year, reflecting an overhang of inventories and relatively tight policies which, however, contributed to reducing inflation to 3%. In *Finland*, falling exports of forestry products led to a marked deceleration of output growth. Nonetheless, business investment expanded at a high rate and household spending was as buoyant as in 1995, notwithstanding a continuing high rate of unemployment (16–17%).

Continuing wage restraint in Spain …

In the other smaller European economies, developments with respect to output and employment were even less satisfactory although inflationary pressures were generally more restrained. Supported by a resumption of export growth and more buoyant household consumption, the *Spanish* economy started a modest recovery during the first half of last year. However, private fixed investment slowed in spite of moderate real wage growth and public investment was cut or deferred. Against the background of a tight monetary policy, this meant that unemployment remained close to 22%, even though employment growth was considerably above the EU average. Unemployment also remained high in *Greece* but, unlike in Spain, real wages rose. While this temporarily boosted consumption and residential construction, it reinforced the adverse effects of upward pressures on the nominal exchange rate on the competitiveness of Greek enterprises. *Denmark* remained slightly ahead of the European business cycle in 1996 due, in part, to stronger export growth to other Nordic countries and an early restoration of fiscal balance. Household spending also strengthened, stimulated by relatively large real wage and employment gains, low interest rates and growing real wealth associated with a recovering property market. Business investment, however, weakened, possibly responding to a falling profit share. In *Sweden,* on the other hand, vigorous investment and a resumption of export growth were both instrumental in reversing the decline in overall GDP growth towards the end of 1995, despite a large nominal appreciation and a 15% deterioration in the competitive position of Swedish enterprises. Consumption, however, remained sluggish even though households reduced their saving rate in response to continuing weak growth of real disposable income.

… but some wage pressures in Greece, Denmark and Sweden

Low growth in Belgium and Austria and stagnation in Switzerland

Lower household saving to partly compensate for stagnating real income growth was also a typical feature of developments in Belgium, Austria and Switzerland last year. Moreover, export growth weakened as the result of exchange rate movements and the general slowdown in continental Europe. With exports accounting for 75% of GDP, the latter influence was particularly pronounced in *Belgium* where the output gap widened to 3%. In *Austria*, output growth recovered only slowly from the downturn in late 1995, as fiscal tightening reinforced the unfavourable effects of an earlier exchange rate appreciation on total demand. In *Switzerland*, the stagnation since 1990 continued last year and the output gap widened to almost 4%, the highest in the OECD area. A number of forces seem to have contributed to this unprecedented weakness: fiscal retrenchment, a 20% effective appreciation of the exchange rate between 1992

and 1995, restructuring and downsizing to improve the competitiveness of Swiss enterprises and lagged effects (both real and financial) of an earlier building boom. As in the past, companies' restructuring efforts generated a marked rise in capital deepening which, however, was largely met through imports.

Developments in other industrial countries

Delayed recovery in Canada …

In *Canada*, the slow growth of 1995 continued into the first half of last year as government consumption declined and firms ran down a large overhang of inventories. However, in response to a substantial easing of financial conditions, output growth accelerated in the second half. Rising unemployment, mainly reflecting continuing cuts in public sector employment (to almost 10% below the 1993 level) helped to contain inflation and also contributed to an improvement of the competitive position. Since import growth was moderate and lower international interest rates reduced the foreign debt service burden, Canada registered its smallest current account deficit for more than a decade.

… along with expansion in Australia

Australia is one of the few countries where output growth last year exceeded predictions. In part, this resulted from a recovery of agricultural output and exports following the 1994–95 drought, but it was also due to an unexpectedly strong expansion of investment in machinery and equipment and higher exports of manufactured goods. Consumption growth was a further source of strength whereas residential investment declined despite lower mortgage rates. In contrast to developments in Canada, the second half of last year saw a substantial weakening of activity, though with large differences between sectors and demand components. While several investment projects amplified growth in the primary sectors and in business fixed investment, the implementation of a more restrictive fiscal policy from mid-1996 already seems to have had a significant effect on household spending. In *New Zealand*, the downturn of 1995 deepened further last year, mainly due to the impact of higher interest rates on investment as well as house prices and a continued appreciation of the exchange rate (some 30% in real effective terms in just four years), with a consequent weakening of net export growth.

Macroeconomic policies and other factors affecting demand

Change in policy mix affecting demand patterns

Various factors influenced the slowdown in demand generally observed in 1996. Many countries changed their policy mix towards further fiscal tightening and monetary easing. Given the different lags with which monetary and fiscal policies affect aggregate demand, this shift is likely to have restrained growth early in the year but provided a net stimulus towards the end of 1996 and early this year. Inventory corrections also tended to restrain growth during the first half and business fixed investment remained particularly weak in continental Europe despite lower interest rates and generally higher profits; uncertainty with respect to future demand prospects as well government policies may have played an additional role. Residential investment was also sluggish in continental Europe but it supported growth in North America and the United Kingdom. The influence on spending of the real wealth gains associated with the recent rise in the prices

of financial assets is particularly difficult to judge. In several countries, lower household saving rates would suggest that wealth gains helped to cushion the effects of declining real incomes. However, it also appears that households and firms responded more cautiously to wealth gains than in the 1980s.

Macroeconomic policies

Fiscal restraint in 1996 …

As discussed in Chapter IV, monetary policies were eased slightly in some countries in 1996. Moreover, for several European countries and Japan, a partial reversal of earlier exchange rate appreciations was an additional source of stimulus. In contrast, with Japan and Germany as the major exceptions, fiscal policies have exerted a contractionary effect as structural deficits have been reduced significantly over the last two years (Table II.2). Even though automatic stabilisers were commonly allowed to absorb part of the slowdown in growth, the fact that actual budget deficits rose only in three countries (Japan, Germany and Switzerland) serves as a further indicator of the determined efforts to strengthen fiscal balances. The first signs of reversal in the relentless rise in public sector debt ratios also emerged in 1996 although, so far, only the most highly indebted countries have achieved any significant reduction in their debt burden. When unfunded pension liabilities are taken into account, most countries still remain far removed from the medium-term target of fiscal sustainability.

General government financial balances and debt

As a percentage of actual or potential GDP

Countries	Net financial balances				Structural balances				Gross financial liabilities			
	1990	1994	1995	1996[1]	1990	1994	1995	1996[1]	1990	1994	1995	1996[1]
United States	– 2.7	– 2.3	–2.0	–1.6	– 3.3	– 2.5	–2.0	–1.7	55.6	63.7	64.3	65.0
Japan	2.9	– 2.3	–3.7	–4.4	1.7	– 1.3	–1.8	–2.9	65.1	73.2	80.7	88.0
Germany	– 2.0	– 2.4	–3.5	–3.9	– 3.1	– 2.2	–3.3	–3.5	43.8	50.4	58.1	60.5
France	– 1.6	– 5.6	–4.8	–4.1	– 2.3	– 4.1	–3.5	–2.4	35.4	48.4	52.8	56.5
Italy	–11.0	– 9.0	–7.0	–6.8	–11.7	– 8.3	–6.8	–6.1	98.0	125.5	124.9	124.5
United Kingdom	– 1.2	– 6.8	–5.5	–4.8	– 3.1	– 5.7	–4.7	–3.9	35.3	50.3	53.9	56.0
Canada	– 4.1	– 5.3	–4.1	–1.8	– 4.8	– 4.1	–2.9	–1.1	72.5	97.2	99.6	100.0
Australia[2]	0.6	– 4.0	–2.0	–0.7	0.5	– 3.7	–2.1	–0.7	21.3	42.7	43.5	43.5
Austria	– 2.2	– 4.4	–5.3	–3.9	– 3.2	– 4.2	–5.8	–3.7	58.3	65.1	69.3	70.0
Belgium	– 5.6	– 5.1	–4.1	–3.4	– 6.7	– 3.7	–2.8	–1.5	129.7	134.8	133.5	130.0
Denmark	– 1.5	– 3.5	–1.9	–1.7	– 1.2	– 2.4	–0.9	–0.3	59.6	76.0	71.9	70.5
Finland	5.4	– 6.2	–5.1	–2.5	2.7	– 2.6	–3.5	–1.5	14.5	59.5	59.2	59.0
Greece	–16.1	–12.1	–9.1	–7.5	–16.2	–11.0	–8.0	–7.1	90.2	110.4	111.8	112.0
Ireland	– 2.3	– 2.0	–2.3	–1.0	– 2.4	0.3	–2.1	–1.8	95.2	87.9	81.6	73.0
Netherlands	– 5.1	– 3.4	–4.0	–2.4	– 6.5	– 3.4	–3.9	–2.4	78.8	77.6	80.0	78.5
New Zealand[2]	– 2.3	2.2	3.7	3.2	– 6.7	2.2	3.2	3.2	62.4	56.7	50.8	46.5
Norway[3]	2.6	0.3	3.3	6.3	– 0.7	– 4.8	–2.0	0.8	31.6	43.7	42.8	40.0
Portugal	– 5.5	– 5.7	–4.9	–3.8	– 7.3	– 4.6	–3.7	–2.6	65.5	71.5	74.0	72.5
Spain	– 4.1	– 6.3	–6.6	–4.5	– 6.8	– 4.7	–5.2	–3.2	45.1	63.0	65.8	70.0
Sweden	4.2	–10.3	–7.7	–3.6	1.5	– 8.3	–7.2	–3.1	43.5	79.0	78.5	76.5
Switzerland	0.0	– 2.9	–1.8	–2.2	– 1.0	– 2.3	–0.7	–1.4	31.2	45.7	47.0	48.5

[1] Preliminary. [2] Debt data refer to financial years ending 30th June. [3] Structural balance excluding oil sector production and revenue.

Sources: European Commission European Economy, OECD Economic Outlook and national data. Table II.2

… but further consolidation necessary

Looking ahead, there is clearly a need to reduce structural deficits over the medium term, given the ageing of populations and the growing burden of unfunded pension and other social benefit schemes. The obvious risk in further tightening, particularly if conducted simultaneously by many countries, would be of a slowdown of demand and a further widening of actual as opposed to structural deficits, even allowing for offsetting influences (see Chapter IV). As stressed in last year's Annual Report, policies to reduce structural unemployment by removing various obstacles to firms' increasing their demand for labour could play an important complementary role to fiscal restraint. If unemployed workers on state-financed benefits find jobs and spend more, the fiscal framework would gain in obvious ways. Moreover the associated increase in output potential would allow less demand restraint without posing a risk to maintaining low inflation. Such a combination of structural and fiscal reform should be given a particularly high priority in Europe where structural unemployment now exceeds 9% of the labour force in eight EU countries and the introduction of a single currency will remove a potential channel of adjustment to economic shocks.

Other factors affecting demand

Inventory corrections restrain demand

Changes in inventories had a major impact on both the pattern and level of output growth last year, despite the increasing use of computer-based systems to keep inventories in line with actual and expected demand. During the first half, inventory corrections reduced output by ½% in the G-7 countries, with particularly large reductions in France and Canada. Conversely, in the second half inventories had a positive effect although, in some cases, the renewed build-up of stocks may have been involuntary. Lower-than-expected growth of business fixed investment also contributed to the disappointing output performance in continental Europe, whereas in the United States, Japan, the United Kingdom and Canada, capital spending on machinery and equipment was, or progressively became, a source of strength. Developments in residential construction provide a similar contrast, with relatively high growth in the aforementioned four countries and low or negative growth rates dominating in continental Europe.

Large real wealth gains with uncertain spending effects

A remarkable feature of developments in recent years has been the sharp rise in bond and equity prices in many countries (see Chapter IV). Whether the associated increases in private sector wealth, as measured by total returns on bonds and equities (Table II.3), have affected private spending remains an open question. The saving rate did decline substantially in France, Denmark, Ireland and the Netherlands last year and also in Italy, Canada, Austria, Sweden and Switzerland. In the latter five cases, and in a number of other countries as well, the obvious interpretation is that wealth gains enabled households to cushion the effects of weak or negative real disposable income growth. While in France, temporary fiscal measures to boost consumption seem more likely to have been the main cause of the fall in the saving rate, the marked change in the household saving rate in the Netherlands last year seems to reflect the parallel rise in equity and house prices and the use of additional mortgages to finance current consumption. Similar developments may have taken place in Denmark and Ireland.

Evaluating wealth effects on spending is more difficult for the United States and the United Kingdom. In those countries households hold a major share of their financial assets in equities but the propensity to save actually rose slightly in both countries. In the United Kingdom, the acceleration of consumption growth could still be seen as indicating a response to the substantial improvement in net financial wealth, as well as a series of windfall payments by building societies. However, the parallel rise in the saving rate points to a more cautious response than in the 1980s when property prices were also rising sharply.

More cautious response in the United Kingdom …

Developments in the United States are also indicative of a behavioural change. According to historical estimates, spending increases by about 5% of a rise in household financial wealth within the same year. However, this seems to overstate the impact of recent gains since it would imply that as much as three-quarters of the actual rise in consumption over the last two years would be attributable to higher equity prices. The fact that consumption growth was not even stronger may indicate that some households have preferred debt reduction to more consumption or that wealth gains have been increasingly isolated in retirement funds. At the same time, aggregate changes in consumption may reflect offsetting behaviour among different income groups. High-income households which gained most from the rise in equity prices have rather low debt ratios and thus little incentive to reduce debt. In contrast, low and medium-income households tend to have higher debt/income ratios and may have used wealth gains to repay debt. In addition, this group could have been more affected by the recent tightening of credit standards for households.

… and the United States

It is also relevant to note that, except in Australia and some of the smaller European countries, the recent boom in equity and bond prices has generally not

Moderate changes in property prices

Equity and bond returns, saving rate and consumption

In percentages or percentage points

Countries	Equities[1]	Bonds[1]	Saving rate[2]	Consumption[2]
	1995–96			
Sweden	65.2	49.3	–1.5	0.8
United States	60.1	23.8	0.2	0.1
Netherlands	57.5	29.9	–1.0	0.8
Switzerland	47.7	20.7	–0.8	–0.5
Ireland	47.3	22.0	–1.7	2.3
Canada	46.0	36.4	–2.3	1.0
United Kingdom	40.4	25.4	0.7	1.1
Denmark	38.0	35.4	–2.3	0.4
Germany	34.9	26.0	0.1	–0.8
France	34.6	32.3	–1.8	0.5
Australia	34.1	38.4	0.8	–0.9
Austria	8.6	28.1	–1.4	–0.5
Italy	8.4	53.0	–1.2	–1.1
Japan	–2.6	23.0	–1.2	0.9

[1] Cumulative return. [2] Change in, respectively, the household saving rate and the growth of real private consumption.

Sources: Goldman Sachs, The International Economics Analyst, OECD Economic Outlook and national data. Table II.3

Nominal and inflation-adjusted real estate prices

Countries and cities	Nominal prices				Inflation-adjusted prices			
	1993	1994	1995	1996	1993	1994	1995	1996
	indices, 1992 = 100							
	Residential property prices							
United States	102	104	106	110	99	99	98	99
Japan[1]	95	94	91	90	94	92	90	88
Germany[2]	99	101	100	100	95	94	92	90
France	98	97	97	98	96	93	91	91
United Kingdom	97	99	99	102	96	95	92	93
Canada	102	105	100	100	100	103	96	94
Netherlands	103	106	110	111	101	100	102	101
Australia	102	110	113	118	100	106	104	106
Switzerland	98	97	94	83	95	93	88	78
Belgium	107	115	120	125	104	109	113	114
Sweden	89	93	93	94	85	87	85	85
Denmark	99	109	118	130	97	106	112	121
Norway	101	111	120	130	99	107	113	120
Finland	93	99	95	101	91	96	91	96
Ireland	101	105	113	126	99	101	106	116
	Commercial property prices: major cities							
New York	110	120	120	130	107	114	110	116
Tokyo[1]	82	69	57	50	81	68	56	49
Frankfurt	88	77	75	75	85	72	69	68
Paris	88	83	74	69	86	79	70	64
Milan	85	72	72	66	81	67	63	56
London	106	133	141	150	104	127	131	136
Toronto[3]	81	72	65	63	80	70	63	60
Madrid	63	64	67	73	61	59	58	62
Amsterdam	93	101	111	118	90	96	103	107
Sydney	90	109	117	119	89	105	108	106
Zurich	85	82	78	72	82	78	73	67
Brussels	86	81	81	86	84	77	76	79
Stockholm	81	106	137	145	77	99	125	131
Copenhagen	91	91	97	106	90	88	92	98
Oslo	102	110	119	127	99	106	112	118
Helsinki	97	109	114	116	95	105	109	111

[1] Land prices. [2] Four major cities. [3] Price index for offices in Ontario.

Sources: Frank Russell Canada Limited, Jones Lang Wootton, Ministère de l'Équipement, du Logement, des Transports et du Tourisme, National Association of Realtors, OPAK (Oslo), Sadolin & Albæk (Copenhagen), Wüest & Partner (Zurich), various private real estate associations and national data. Table II.4

been accompanied by rising property prices (Table II.4). Moreover, in real terms commercial property prices remain mostly below their 1985–86 levels although, in some countries, signs have emerged that the previous excess supply of commercial buildings has been eliminated and that price declines have come to an end.

Recent trends in wage and price inflation

Further decline in price inflation …

Average inflation in the industrial countries edged down further last year, even though the two-year decline in unit labour costs in manufacturing was partially reversed and energy and food prices rose more quickly. The improvement in inflation performance was particularly noticeable in Italy, Australia, Sweden, New Zealand and Spain, though in some cases this was partly the result of special factors or reflected a return to lower rates following adverse price level shifts (Table II.5). In Italy, the reduction in inflation can mainly be attributed to monetary policy and a consequent appreciation of the exchange rate since nominal wages actually grew faster in response to past price increases. Similarly in Sweden, the appreciation of the exchange rate served as a major offset to the acceleration of wages and unit labour costs. While a softening of manufactured goods prices in international markets was an important element in keeping inflation low, there are also signs, notably in the United States, that more intensive competition has made it increasingly difficult for firms to pass on higher costs into prices. By contrast, in countries with less competitive output markets and a more regulated services sector, mark-ups on costs have remained the typical form of price

… owing to restrained goods markets …

Consumer prices and unit labour costs

Countries	Consumer prices					Unit labour costs[1]				
	1980–89	1993	1994	1995	1996	1980–89	1993	1994	1995	1996
	annual percentage changes									
United States	5.5	3.0	2.6	2.8	2.9	2.9	0.3	−1.2	0.3	−0.4
Japan	2.5	1.2	0.7	−0.1	0.1	1.0	5.4	−0.2	−2.3	−2.0
Germany[2]	2.9	4.5	2.7	1.8	1.5	2.4	3.4	−6.1	−1.1	−0.9
France	7.3	2.1	1.7	1.8	2.0	4.6	3.6	−4.8	−0.2	1.3
Italy	11.2	4.2	3.9	5.4	3.8	8.4	3.3	−3.5	−0.5	5.0
United Kingdom	7.4	1.6	2.5	3.4	2.4	6.0	−0.4	0.0	3.1	4.1
Canada	6.5	1.8	0.2	2.2	1.6	4.9	−2.5	−2.4	0.2	3.4
Belgium	4.9	2.8	2.4	1.5	2.1	1.7	0.7	−1.5	−0.2	−0.2
Netherlands	2.8	2.6	2.8	1.9	2.1	0.5	1.6	−4.4	−1.2	−0.2
Sweden	7.9	4.6	2.2	2.5	0.5	6.6	−6.3	−2.2	−0.4	5.2
Switzerland	3.3	3.3	0.9	1.8	0.8	1.8	1.2	−2.3	−1.6	−0.7
Group of Ten[3]	*5.4*	*2.7*	*2.2*	*2.3*	*2.2*	*3.3*	*1.7*	*−2.0*	*−0.3*	*0.4*
Australia	8.4	1.8	1.9	4.6	2.6	6.7	0.0	−0.3	5.1	0.6
Austria	3.8	3.6	3.0	2.2	1.9	1.6	0.4	−3.6	−1.7	0.3
Denmark	6.8	1.3	2.0	2.1	2.1	5.5	−4.1	2.1	4.5	2.5
Finland	7.2	2.2	1.1	1.0	0.6	4.8	−6.3	−4.9	4.3	0.5
New Zealand	11.8	1.3	1.8	3.8	2.3	8.1	0.1	0.7	3.0	3.2
Norway	8.3	2.3	1.4	2.5	1.3	6.7	1.3	1.6	3.6	3.8
Portugal	17.5	6.5	5.2	4.1	3.1	16.8	7.3	3.6	3.3	3.1
Spain	10.2	4.6	4.7	4.7	3.6	7.9	1.2	−4.9	1.0	6.7
All countries[3]	*5.7*	*2.8*	*2.3*	*2.4*	*2.2*	*3.6*	*1.6*	*−2.0*	*−0.1*	*0.6*

[1] In the manufacturing sector; definitions of series differ across countries. [2] Prior to 1993, western Germany only. [3] Calculated using weights based on 1990 GDP and PPP exchange rates.

Sources: OECD Economic Outlook, national data and BIS estimates. Table II.5

determination, even though the highest mark-ups seem to have been reduced somewhat.

Profit margins and profit shares generally increased further last year. This could still be observed in the United States despite the advanced phase of the business cycle. In Japan, low interest rates and the sharp depreciation of the yen helped to reverse a three-year decline in profits. However, in some countries, including Italy, Canada, Denmark and Sweden, profit shares appear to have weakened. This could foreshadow upward pressures on prices in the future if firms attempt to restore margins.

… and continuing wage moderation in most countries

Even though unit labour costs stopped falling last year, wage moderation has continued to be one of the main reasons for the favourable inflation performance. The reasons for this vary across countries, though the influence of persistent slack in labour markets is generally pervasive. While this is not true in the United States, a series of one-time reductions in non-wage labour costs, allied with employee uncertainty with respect to future job prospects, has led to the same outcome. In the Netherlands, a social consensus approach has been instrumental in creating a general acceptance of real wage moderation as a principal condition for employment growth. In several other countries, tripartite agreements between governments, employers and employees still play a role in setting wages. For example, in some of the Nordic countries, a promise of low wage growth has variously required tax concessions or a commitment by the monetary authorities to keep the exchange rate stable. In Belgium, the Government imposed a real wage freeze when wage growth threatened to exceed that of its main trading partners, while in Australia the acceleration of nominal wage growth last year followed the expiration of an earlier incomes policy agreement (the Accord).

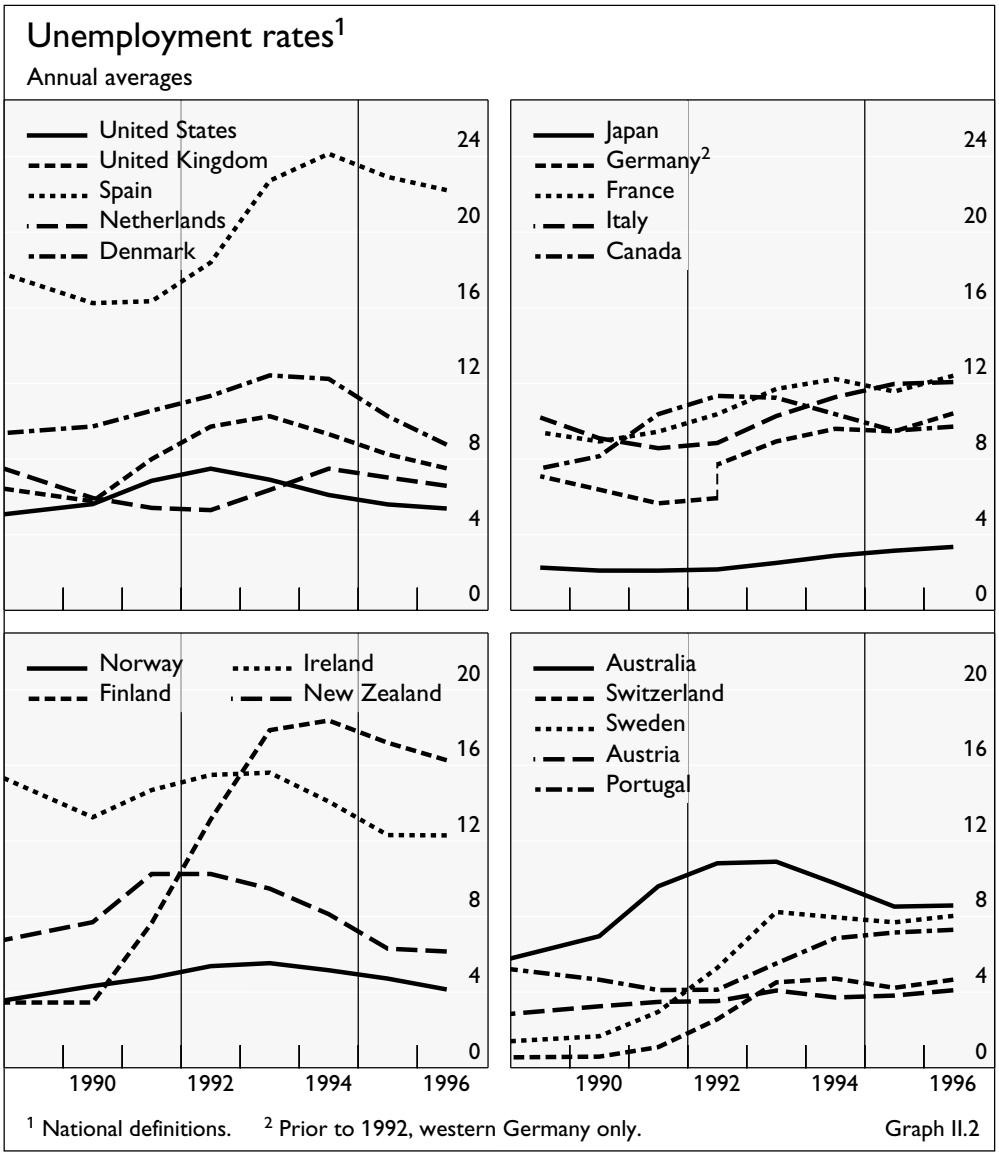
Developments in labour markets

Divergent labour market trends reflecting …

With output expanding at less than the potential rate of growth last year, the number of unemployed in the industrial countries rose to 35 million (of which about one-half are in the EU countries), equivalent to 7¾% of the labour force. Despite sizable differences between regions and countries, high unemployment thus remained a major policy problem. While the unemployment rate declined to around 5½% in the United States in 1996, it rose to 11½% in EU countries. Unemployment also increased in Canada and Switzerland but fell in New Zealand and Norway. Within the European Union, there were also several countries that managed to lower unemployment, including the United Kingdom, Denmark, the Netherlands and Ireland. By contrast, in the major continental European countries, the rate of unemployment worsened to over 12%, the highest level since the 1930s (Graph II.2).

… cyclical factors …

What explains these differences in performance? One obvious factor is the stage of the business cycle and the growth of output. Indeed, most of the countries with rising unemployment are lagging in the current business cycle and their recovery has, in any event, been fragile, with growth averaging only 1¾% during the last two years. Conversely, countries with falling unemployment are generally well advanced in the cycle. Growth in these countries averaged nearly



3% during 1995–96, with Norway, Ireland, the United States and the United Kingdom all showing improvements in labour markets which were primarily demand-driven.

Developments in employment and non-employment

… but above all structural reforms …

It is, however, generally recognised that the long-term rise in unemployment in continental Europe, as well as in Canada and Australia, mainly reflects structural problems. While it is less clear which specific structural measures are needed to deal with the problem, country experiences may still be instructive. The United Kingdom, the Netherlands, Denmark and Portugal do seem to have benefited from structural reforms, even if their reform policies differed and the benefits have taken many years to emerge.

Policies which enhance the influence of market forces and remove disincentives to work are rightly seen as means of lowering unemployment. Over the last decade or more, the United Kingdom has gone further down this road

than most other European countries by curtailing the power of trade unions, decentralising the wage bargaining process, tightening eligibility rules for social benefits while lowering benefit rates, and virtually abolishing minimum wages. Partly as a result, the United Kingdom has witnessed a much faster reduction in unemployment than in the last recovery, when unemployment continued rising. Moreover, real earnings per hour have increased less than in the 1980s in spite of the current relatively low rate of unemployment. However, to assess fully the UK experience it is important to add that the fall in unemployment seems to have been entirely the result of a growing proportion of "non-active" persons (i.e. persons who either leave or do not join the labour force). Employment, measured as a share of the total population, has been stagnant in the 1990s. A more equal regional distribution of unemployment has probably helped to contain wage pressures.

… in the United Kingdom …

Unemployment in the United Kingdom has also been reduced by the continuing increase in the proportion of part-time workers, a response to both deregulation and a shift of demand from industry to services. The Netherlands has gone even further in this respect (see below) and the share of part-time workers in total employment has risen to over 37%, compared with 24% in the United Kingdom. The UK and Dutch voluntary approach to working hours seems to have been more successful than compulsory cuts in weekly working hours. In Germany, for instance, the reduction in average annual working hours to a level 10% below that of the United Kingdom, seems to have had only a marginal effect on the total number of persons employed. In part, this is because wages did not fall commensurately and employers have taken compensatory steps to raise output per hour. It is also the case that more than 40% of all jobs in Germany are still in industry which is less suitable for part-time work than services.

… the Netherlands and Denmark …

The experiences of Denmark and the Netherlands provide additional policy lessons. A key policy change dating back to the early 1980s has been a greater emphasis on real wage moderation. In Denmark, wage indexation was eliminated while the Netherlands initiated policies to promote real wage moderation in sectoral settlements. More recently, in addition to measures encouraging part-time and/or temporary work, the major policy initiatives in the Netherlands have included a marked cut in employers' social security taxes, enhanced product market competition, and schemes allowing older or disabled workers to leave the labour force, albeit at recently reduced benefit rates. In Denmark, the reduction in unemployment has also been facilitated by a relatively competitive product market dominated by small to medium-sized firms and a traditionally low burden of non-wage labour costs. Yet additional support has been provided by active labour market measures and decentralisation of the wage bargaining system. Lay-off costs are also very low although, as compensation, unemployed workers are entitled to rather high unemployment benefits for up to five years. However, as in the Netherlands and the United Kingdom, it must be added that an important reason for Denmark's success in reducing unemployment has also been a rising number of non-active persons.

… as well as in Portugal

With an unemployment rate of just over 7%, Portugal compares favourably with most other EU countries and, in particular, with neighbouring Spain. The principal policy changes in Portugal also date from the 1980s when, faced with

the problem of absorbing a sharp rise in the labour force, the Government implemented a wide range of market-oriented policies. These were instrumental in lowering unemployment to only 4¼% early this decade while, at the same time, inflation was being reduced from 20% to 7%. A gradual approach to disinflation is likely to have eased the adjustment burden, but the process was further helped by a high degree of real and relative wage flexibility and comparatively low unemployment benefits. Portugal also continues to have the highest number of average annual working hours among EU countries. In addition, a series of tripartite agreements, supported by a high degree of consensus, seems to have contained nominal wage pressures in recent years.

Employment, foreign trade and foreign direct investment

Fears of trade-induced job losses …

Fears are often expressed that trade leads to jobs being "siphoned" out of the industrial countries, and that the wages of less skilled workers tend to be depressed by the rising share of emerging market countries in world exports of manufactured goods. Because capital is more mobile than labour, such trends may have been exacerbated by the outsourcing of production through foreign direct investment in emerging market economies. If these allegations were true, the repercussions would be likely to differ between countries depending on institutional and other factors, not least relative wage flexibility. If relative wages are rigid, the main effect would be felt in higher unemployment, notably among those with less skills. In contrast, with flexible relative wages, employment should remain constant, while the dispersion of earnings widens. This issue is returned to below.

… are not confirmed by the evidence and …

While there is some evidence that growing trade with emerging market countries has had adverse effects on unskilled workers in some sectors (notably textiles, clothing and footwear), the general consensus among economists is that the overall impact on both employment and relative wages has been small (Graph II.3, right-hand panel). Even in the United States, where the NAFTA agreement with Canada and Mexico caused fears of job losses, a recent study points to a small net gain after three years. Indeed, adjusting for the impact on US exports of the 1995 recession in Mexico, the number of job gains in the United States resulting from the NAFTA would have been twice the number of job losses.

… there are obvious reasons for this

For several reasons, this consensus is not very surprising. First, although imports from the emerging market countries have grown rapidly, they still amount to only a small share of total output in the industrial countries (in most cases less than 4%) and relative wages are still largely determined by national factors rather than in a world market. Second, while emerging market countries have substantially increased their exports to the industrial world, their imports have risen even more; as a group, the industrial countries have a significant trade surplus with emerging market countries. Third, most unskilled and low-income workers are found in the wholesale and retail trade sectors which, so far, have been little exposed to international competition. A final and central reason is that trade is not about job losses and gains; it is about resource allocation and long-run real income growth.

Against this background, it would appear that technological changes favouring skilled workers have been the main cause of changes in relative

The employment effects of technological changes …

employment and wages. A US study has found that 30–50% of the rise in the demand for skilled workers can be attributed to the spread of computer technology. Moreover, survey evidence for Canada suggests that, even if the wider use of computer-based technologies has increased overall employment, it has reduced firms' demand for unskilled workers. Even so, this does not exhaust possible international influences. Skill-biased technological changes could, in part, be induced by international competitive pressures or by the threat of such competition. In addition, direct trade is not the only channel by which international competition is felt; an equally important channel is foreign direct investment and the outsourcing of output and of work primarily done by the unskilled.

… and of foreign direct investment

It is frequently argued, notably in Europe, that foreign direct investment outflows from industrial countries tend to be accompanied by a parallel loss of jobs. Econometric evidence for Germany, the United Kingdom and Sweden suggests that relatively high domestic labour costs tend to increase foreign direct investment outflows and job growth abroad, while reducing the demand for labour in the parent countries. By way of example, Swedish companies have expanded employment abroad by 19% this decade when employment in Sweden fell steeply. Swiss multinational firms' employment abroad has doubled during the last ten years, whereas total employment in Switzerland has actually declined slightly (Table II.6). Similarly, German companies abroad have increased their workforce by over 50% since 1985, whereas total employment in Germany has grown by only 4½%. Furthermore, investment by German car manufacturers in eastern Germany and in Eastern Europe, has often been directly accompanied by employment cuts in western Germany. Among the cited motives have been lower wage costs outside Germany, together with the possibility of implementing new and more efficient production methods without being constrained by existing labour market agreements.

Need for cautious interpretation

However, for several reasons, concerns based on these observations can be overstated. As discussed below, the bulk of foreign direct investment represents flows between industrial countries which have, in most cases, been motivated by factors other than differences in labour costs. A growing share of foreign direct

Employment and foreign direct investment

Countries	1985		1985–95		1995		
	FDI/GDP	EMF/EMD	dFDI/dGFI	dEMF	FDI/GDP	EMF/EMD	FDI/EMF
United States	5.5	6.0	7.5	8.4[1]	9.8	5.7[1]	89,250[1]
Germany[2]	8.1	6.8	14.6	49.4	11.5	9.4	92,700
Switzerland	23.0	21.1[3]	12.8	98.2[3]	45.4	38.0	99,300

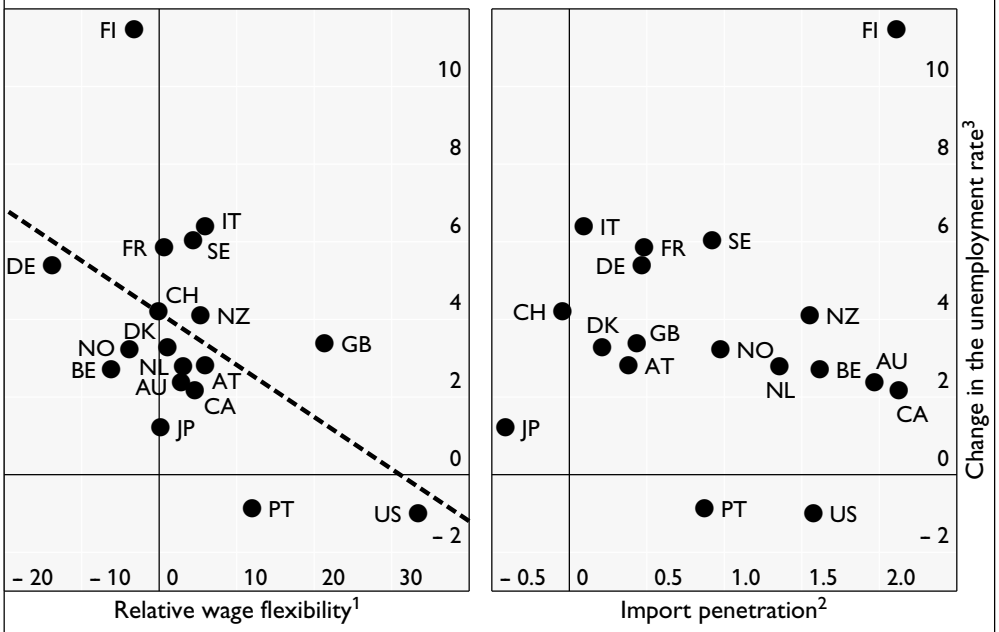
Note: FDI = stock of foreign direct investment; EMF = employment abroad; EMD = total domestic employment; dFDI = cumulated FDI outflows; dGFI = cumulated domestic non-residential gross fixed investment (for the United States, excluding government investment; for Switzerland, including residential investment); dEMF = cumulated percentage growth of EMF; FDI/EMF is expressed in US dollars.

[1] 1985–94 and 1994 respectively. [2] Western Germany only. [3] 1986 and 1986–95 respectively.

Sources: OECD International Direct Investment Statistics, US Department of Commerce Survey of Current Business, Deutsche Bundesbank and Swiss National Bank. Table II.6

Relative wage flexibility, import penetration and unemployment

In percentage points



AT = Austria; AU = Australia; BE = Belgium; CA = Canada; CH = Switzerland; DE = Germany; DK= Denmark; FI = Finland; FR = France; GB = United Kingdom; IT = Italy; JP = Japan; NZ = New Zealand; NL = Netherlands; NO = Norway; PT = Portugal; SE = Sweden; US = United States.

[1] Change in earnings dispersion (defined as the ratio of the highest decile to the lowest) between the 1980s and 1990s. [2] Change in non-oil goods imports from emerging market countries (as a percentage of GDP) between 1979 and 1995. [3] Between 1979-80 and 1995-96.

Sources: OECD Employment Outlook, OECD National Accounts, OECD Trade Series A and national data. Graph II.3

investment is also directed to the services sector, frequently to facilitate the sale and distribution of exports from the home country. What is more, funds invested abroad are not necessarily "lost" to the domestic economy as foreign investment projects are commonly financed in the host country itself, or from retained earnings, and not by funds from the parent company. Finally, goods produced by foreign affiliates are mainly for local or third markets, and in many cases complement rather than replace exports from the home country. For instance, the setting-up of German car plants in Eastern Europe has also been prompted by high import duties on automobiles and by firms' expectations of rapidly growing demand in the new markets.

Employment and relative wage flexibility

Relative wage flexibility helps to reduce unemployment …

Another factor frequently mentioned as having contributed to high and persistent unemployment in continental Europe is the absence of the relative wage flexibility needed to adapt to technological and other changes. Indeed, from Graph II.3 (left-hand panel), a trade-off between wage inequality and unemployment seems to exist, with a widening wage dispersion and falling unemployment in the United States standing in marked contrast to narrowing wage differentials and rising unemployment in Germany and France.

… but needs for flexibility differ

However, country-specific experiences should also be taken into account in assessing the policy implications. For instance, countries with apprentice systems

and other arrangements that ease the transition from school to work tend to have a more equal distribution of skills. This may enable workers to accommodate new technologies with less change in relative wages than is required elsewhere. Moreover, the experience of Denmark and the Netherlands demonstrates that it is possible to decentralise wage bargaining systems and reduce unemployment with rather stable relative wages. It is also noticeable that unemployment rates for the unskilled are not particularly low in countries with widening wage differentials such as the United States and the United Kingdom. In sum, greater wage flexibility is important but may not be a sufficient condition to ensure lower unemployment and more jobs for the unskilled.

Wage dispersions and social equity

On the other hand, the notion that greater relative wage flexibility is inconsistent with maintaining social equity also appears overly simplistic. When income is measured per household rather than as earnings per worker, one striking feature of recent developments is that countries with the largest widening of earnings differentials have actually witnessed some reduction in the inequality of household income. The main reason for this is that unemployment has been lower than in countries which have prevented labour markets from adapting to shifts in labour demand.

Concluding remarks

Significant progress has been made towards liberalising labour markets and removing disincentives to work, but much remains to be done. For instance, when taking account of unemployment-related subsidies and social benefits, unemployed workers can still face marginal tax rates of up to 80–90% should they accept a job. Progress in reforming social benefit schemes to reduce non-wage labour costs has also been slow as employees seem to more readily accept real wage moderation than changes in social benefits. Indeed, strikes today are more frequently about preserving entitlements than about future wage gains.

It is generally recognised that comprehensive reforms are more effective than piecemeal reforms and that both require supportive macroeconomic policies to yield positive results. It is, however, often overlooked that a key condition for effective labour market reforms is liberalisation and deregulation of product markets. In particular, given that globalisation frequently generates a need to shift resources from tradable to non-tradable sectors, deregulation of the services sector is of principal importance in preventing employment from falling. However, in several cases, high minimum wages relative to labour productivity or concerns about equity prevent the services sector from absorbing redundant resources. In this context, many countries also seem to disregard the fact that, while a wider dispersion of earnings may widen inequalities among individuals and households, faster employment growth tends to be the most equitable and effective way of improving the prospects for low-income households.

A final point to note is that, in some countries, success in reducing structural unemployment has been achieved in part by encouraging the unemployed (or even the employed) to leave the labour force. Such measures may well increase individual welfare in the short run, but they run a grave risk of aggravating future problems, given the ageing of the population and the associated need to finance pension liabilities.

World trade, current accounts and foreign direct investment

Developments in world trade and prices

Slower growth in world trade …

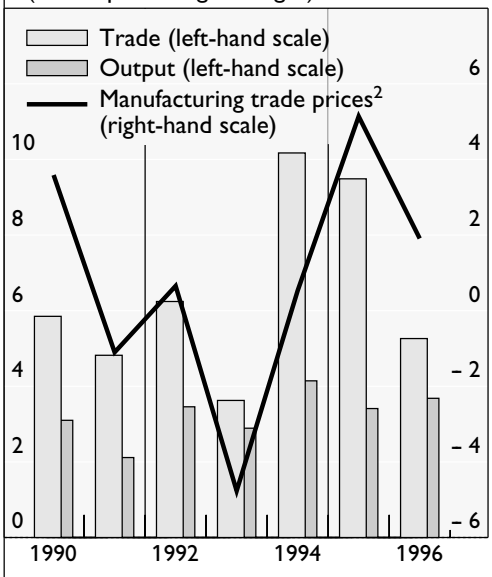
The growth of world trade decelerated last year, despite a slight pick-up in world GDP growth (Graph II.4). One reason for the slowdown was that trade between the industrial countries increased at only half the rate of 1995. In addition, more restrictive macroeconomic policies in some of the fast-growing Asian countries reduced their imports from industrial countries while their exports were severely affected by worldwide overcapacity problems in the electronics industry as well as by other factors (Chapter III). In contrast, with domestic demand growth accelerating in the Latin American countries, their import demand also expanded, which benefited exporters in the United States and Canada in particular. Moreover, the effects on trade of the slowdown in Western Europe were partly offset by a marked rise in import demand in Eastern European countries. Germany appears to have gained most from this development, and trade with Eastern Europe now accounts for almost 10% of its total trade. These changes in the regional composition of growth, together with exchange rate movements and cyclical differences, also led to some small changes in the major countries' share of world trade. The United States consolidated its leading position while the trade shares of Japan, Germany and France declined slightly.

… but slightly faster rise in prices

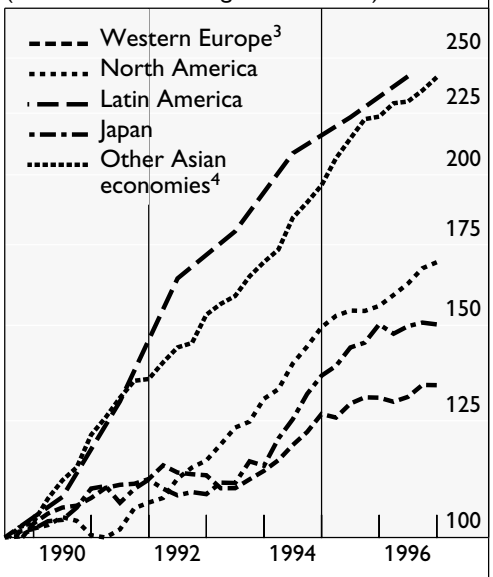
World trade prices (in SDRs) increased somewhat faster last year but this was almost entirely because of higher prices for oil and agricultural raw materials and inputs. Prices for manufactured goods increased at a lower rate than in 1995 and actually declined when measured in US dollars. This development may to

Indicators of world trade

World trade volumes and prices[1]
(annual percentage changes)



Import volumes
(1989 = 100; semi-logarithmic scale)



[1] Excluding Eastern Europe and the former Soviet Union. Output growth as measured by percentage changes in real GDP. [2] In SDR terms. [3] Belgium, France, Germany, Italy, the Netherlands, Spain, Sweden, Switzerland and the United Kingdom. [4] Hong Kong, Indonesia, Korea, Malaysia, Singapore, Taiwan and Thailand.

Sources: IMF, OECD, national data and BIS estimates. Graph II.4

some extent be the result of more intense competition in world markets, though it mainly seems to reflect the unexpected slowdown in demand growth in both 1995 and 1996. Non-oil commodity prices rose at a slightly faster rate than in 1995. Nonetheless, the terms of trade of the non-oil developing countries deteriorated while those of the industrialised countries rose moderately.

Developments in current account positions

Deterioration of the US external position …

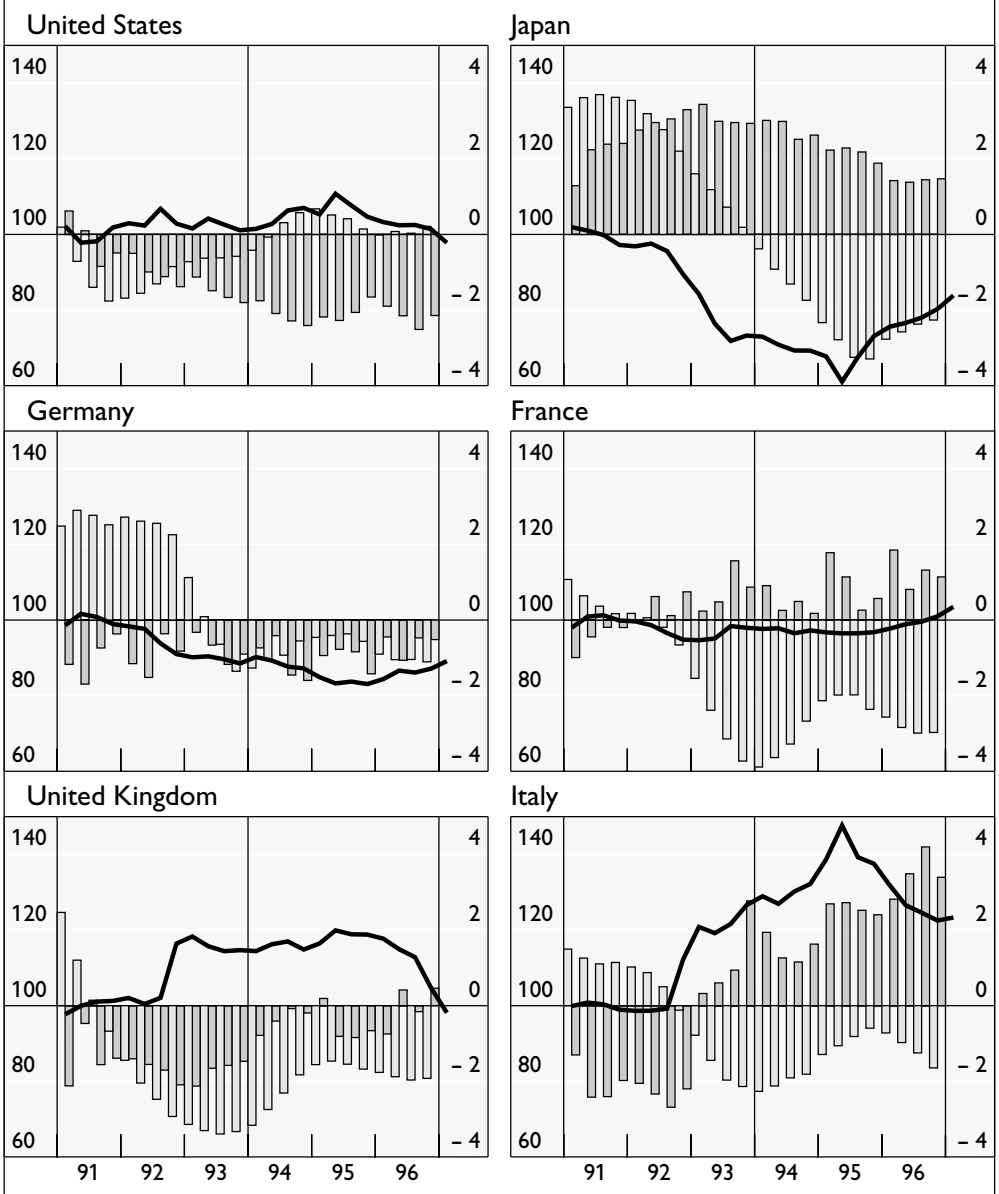
As in earlier years, divergent cyclical positions and the lagged effects of exchange rate movements had an important impact on changes in current account positions, not only in the United States and Japan, but also in Western Europe (Graph II.5). Reflecting the relatively advanced stage of the US business cycle and the strengthening of the dollar, the US current account deficit rose almost to the record level of 1987 (Table II.7) although, relative to GDP, the deficit was only slightly higher than in 1995. The deterioration was mainly accounted for by the continued surge in imports and a widening of the trade deficit to an historical peak. Because the US economy was virtually at full capacity in 1996, implying that stronger demand for US exports could not have been met without rising domestic inflation or macro-restraint, the underlying cause of the deteriorating external position seems to have been the high rate of domestic absorption.

Current account balances of the industrial countries

Countries and areas	Current account balance			of which					
				Trade balance			Balance on investment income		
	1992	1994	1996	1992	1994	1996	1992	1994	1996
	in billions of US dollars								
Industrial countries	−46.0	− 7.8	− 1.8	26.9	83.8	79.7	−15.7	−22.9	−11.4
United States	−62.6	−148.4	−165.1	−96.1	−166.1	−187.7	11.2	− 4.2	− 8.4
Japan	112.6	130.2	65.9	124.7	144.2	83.6	36.4	40.9	53.6
Western Europe	−62.9	46.0	115.8	−10.1	96.8	158.4	−34.3	−23.9	−17.1
of which:									
France	4.9	5.9	19.8	2.4	6.6	14.3	− 7.4	− 9.9	− 6.5
Germany	−19.7	− 21.7	− 14.6	28.7	51.7	72.6	16.8	6.7	− 3.8
Italy	−28.7	15.2	42.0	3.0	35.6	60.7	−21.9	−16.6	−15.6
United Kingdom	−18.4	− 3.5	0.0	−23.0	− 16.6	− 19.0	5.5	13.3	16.1
Belgium-Luxembourg	6.5	12.6	15.4	4.9	7.7	10.0	1.0	3.4	7.8
Finland	− 4.9	1.3	4.4	3.8	7.5	11.1	− 5.5	− 4.3	− 4.0
Netherlands	7.3	18.0	20.3	12.3	18.8	21.8	− 0.4	3.3	4.1
Norway	4.8	3.0	10.9	8.3	6.8	13.8	− 3.4	− 1.7	− 1.7
Spain	−21.5	− 6.9	2.9	−30.4	− 14.8	− 13.8	− 6.0	− 8.2	− 5.9
Sweden	− 8.8	0.7	5.7	5.9	8.7	17.4	− 9.9	− 5.8	− 8.0
Switzerland	15.1	17.8	20.3	− 1.0	1.6	0.8	13.7	12.9	16.9
Turkey	− 1.0	2.6	− 5.0	− 8.2	− 4.2	− 19.2	− 2.6	− 3.3	0.5
Other industrial countries	−33.1	− 35.5	− 18.3	8.4	9.0	25.4	−29.0	−35.8	−39.5
Australia	−10.1	− 16.9	− 14.7	1.7	− 3.3	− 0.5	−10.2	−12.2	−14.7
Canada	−21.6	− 16.3	− 1.2	5.1	10.9	25.3	−16.6	−20.1	−20.5
New Zealand	− 1.4	− 2.4	− 2.4	1.6	1.3	0.6	− 2.2	− 3.5	− 4.3

Sources: IMF Balance of Payments Statistics, OECD Economic Outlook, national data and BIS estimates. Table II.7

Competitiveness, cyclical positions and current account balances



* Measured as the real effective exchange rate (in terms of relative unit labour costs); an increase indicates an improvement.

Sources: OECD Economic Outlook, national data and BIS calculations. Graph II.5

… with Japan's surplus stabilising …

While changes in the US external position can be related primarily to cyclical forces, the fall in the Japanese current account surplus to the lowest level since 1990 reflected a number of different forces, including "J-curve" effects. Changes in trade volumes were not the cause of the decline; indeed, the growth of imports in 1996 slowed substantially more than that of exports. Rather, because the terms of trade deteriorated by over 9%, owing to higher oil prices and the depreciation of the yen, the trade surplus actually fell by US$ 50 billion. At the same time, the investment income balance improved, partly as a result of the high proportion

of US securities in foreign assets, and this limited the decrease in the current account surplus. With the rate of export growth strengthening in response to the depreciation of the yen, and given a prospective fiscal tightening, Japan's surplus appears unlikely to shrink much further.

… and Western Europe seeing a record surplus …

In contrast to the experience of the United States and Japan, Western Europe saw a further improvement in its aggregate current account position last year. Indeed, at more than US$ 100 billion, the surplus is the highest ever recorded even though Germany is still running a deficit. Western Europe has now replaced Japan as the main counterpart to the US deficit. With respect to contributions by country, the largest improvements have been recorded by France and Italy which together account for over 70% of the overall rise since 1994. The current account positions of Spain and Sweden have also strengthened, whereas that of Turkey has weakened substantially; at almost 4% of GDP, Turkey's current account deficit is approaching the level which triggered problems in 1993.

… due to lower domestic absorption

In terms of underlying forces, a large part of the current external strength of Western Europe as a whole can be attributed to its relatively weak cyclical position. The reduction of fiscal imbalances, together with a rise in private sector net saving, has reduced internal demand growth while strengthening the external position. An additional factor has been a growing export surplus with Eastern Europe, whereas the recent depreciation of most European currencies only began to affect the trade accounts towards the end of 1996.

Effects of fiscal restraint also in Canada …

Among other industrial countries, the principal change last year was the marked reduction in Canada's current account deficit to the lowest level since 1984. The improvement can be ascribed mainly to the trade account which was favourably influenced by fiscal restraint, a cyclically induced decline in import growth and a slight terms-of-trade gain as commodity prices rose. However, the better external position of Canada is not entirely cyclical as wage moderation and relatively high productivity growth have helped to improve the competitive position of Canadian enterprises. In New Zealand, a tight fiscal stance has also helped to prevent the current account deficit from rising in spite of a marked appreciation of the currency (30% since 1992). Australia's current account deficit fell somewhat last year, primarily reflecting a strong recovery of exports after the 1995 drought and increasing terms of trade. The external improvement was matched by a rise in government saving and a higher household saving rate. Nonetheless, at just over 3%, the latter remained one of the lowest among the industrial countries.

… and New Zealand

Foreign direct investment (FDI)

Marked rise in foreign direct investment …

Although increases in international trade typically exceed output growth, trade is no longer the sole form of interaction between countries. In fact, a main feature of this decade has been the growing role of multinational firms. Intra-firm trade now accounts for one-third of global trade in goods and services, and foreign sales by their foreign affiliates are higher than total direct trade (Table II.8). Furthermore, following a resumption of the growth of foreign direct investment flows, the expansion of FDI stocks abroad has, by far, outpaced that of domestic capital stocks and even the growth of foreign trade. Although not without

Diversification of international transactions

	World	United States	Japan	Germany
FDI stocks (a)	2,500	712	298	248
Affiliate sales (b)	5,355	1,636	626	532
Intra-firm exports (c)	1,646	163	86	208
Total exports (d)	4,940	448	374	623
b/(d-c)	1.6	5.7	2.2	1.3
c/d	0.33	0.36	0.23	0.33

Note: FDI stocks refer to end-1995, the other items to 1992. FDI, sales and exports are expressed in billions of US dollars.

Sources: OECD International Direct Investment Statistics and UN World Investment Report.

Table II.8

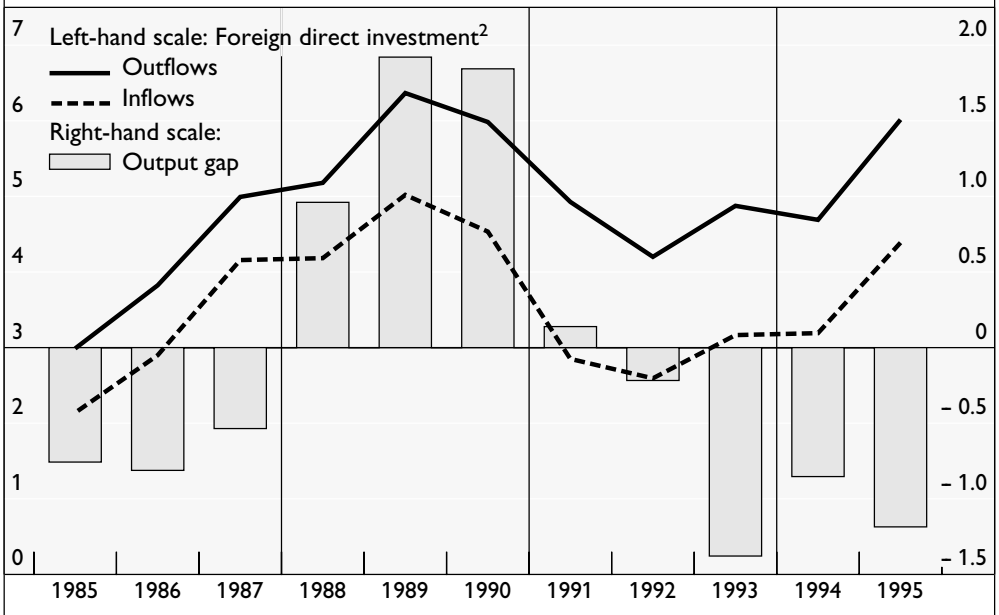
associated drawbacks, this increasing diversification of international transactions has probably helped to reduce the exposure to specific shocks of both countries and firms.

… reflecting cyclical factors …

Taking a longer perspective, the growth of FDI has trended upwards, if not always smoothly (Graph II.6). Indeed, there is a distinct and dual cyclical pattern, with developments in both parent and host countries having an influence. Strong growth in the investing countries provides cash flow to finance FDI while strong growth in host countries attracts investment. In some periods, this dual influence may give rise to asymmetries. For instance, with the United States leading the business cycle in the industrial world during the 1990s, it has again become the largest foreign investor. In contrast, investment outflows from Japan, which is just

Foreign direct investment and the output gap in OECD countries[1]

In percentages



[1] Excluding Greece, Ireland, Mexico, the Czech Republic, Hungary, Poland and Korea. [2] As a percentage of total fixed investment.

Sources: OECD Economic Outlook and OECD International Direct Investment Statistics. Graph II.6

emerging from recession, are still only half their 1990 peak. Outflows from continental European countries have also remained low during most of this decade of sluggish growth, although they increased markedly in 1994–95 in response to buoyant trends in the United States and in the emerging market countries. The continued slow growth in continental Europe has, however, kept investment inflows to a relatively low level.

… but above all several underlying trends

The strong upward trend in FDI which underlies these cyclical swings has been driven by several factors. These include technological progress which has lowered the costs of international communication and transport, growing international competition in both goods and services, the partial or complete removal of regulations on capital flows in general and on FDI in particular, and the trend towards privatising state enterprises in many countries. Despite these changes, the regional pattern of FDI stocks has remained remarkably stable. Thus, even though emerging market countries (in Latin America and Asia as well as in Eastern Europe) receive a rising share of investment outflows, a dominant part still reflects FDI among industrial countries and particularly among EU countries. Moreover, because of the long slump in FDI outflows to emerging market countries in the 1980s, especially to Latin America, the distribution of FDI stocks is even more dominated by investment in industrial countries (Table II.9).

Implications for sectoral distribution

In contrast, the sectoral distribution of FDI has changed significantly over the last 25 years, reflecting not only sectoral shifts seen in the parent economies but also changes in underlying investment motives. Traditionally, the principal motive for FDI was to gain access to a secure source of primary materials. However, since the 1970s, the share of FDI going to the primary sectors has fallen by one-half. Attempts to overcome restrictions on direct trade have also been a major factor and these efforts generated large foreign investment in the secondary sectors. More recently, motives have shifted again in step with the

Foreign direct investment abroad

In percentages

	United States	United Kingdom	Japan	Germany	Nether-lands	Switzer-land	OECD
Position at end-1995							
As a percentage of OECD FDI	29.4	12.5	12.3	10.3	6.4	5.9	100.0
As a percentage of GDP	9.8	27.9	6.3	10.3	39.3	45.4	10.9
Distribution by region (1994)							
North America[1]	12.1	34.3	43.7	23.0	28.2	24.5	24.6
European Union	42.0	34.7	18.1	50.5	45.9	45.4	40.0
Latin America and Asia[2]	23.2	15.6	27.7	10.1	12.5	17.8	17.8
Distribution by sector (1994)							
Primary	11.8	19.9	5.0	1.2	1.7	..	9.0
Secondary	35.0	38.9	27.8	32.9	49.8	47.8	37.0
Tertiary	53.2	41.2	65.5	65.8	48.4	52.2	53.8
of which: Financial[3]	*36.5*	*27.5*	*18.9*	*23.8*	*36.0*	*22.0*	*29.2*

[1] United States and Canada. [2] Excluding Japan. [3] Banking and other financial and business services.

Sources: OECD International Direct Investment Statistics and national data. Table II.9

Location and sales of US and Japanese foreign affiliates

In percentages

Destination	US affiliates located in		Japanese affiliates located in	
	EU and Asia	other NAFTA	EU and US	other Asia
Home country	6	26	4	16
Local markets	64	71	79	66
Third markets	30	3	17	18

Source: OECD Economic Outlook, December 1996. Table II.10

general trend towards globalisation and this has led to a further change in the sectoral distribution of FDI towards the tertiary sectors, with the latter often dominated by financial services broadly defined.

Different motives …

Within these broad trends there have also been significant differences between the forces and motives underlying FDI outflows from individual countries. Depending on whether the production structures of the host countries are complementary to, or competing with, those of the investing countries, these idiosyncratic forces have influenced trade patterns in several ways. As illustrated by the experiences of the United States and Japan (Table II.10), US FDI has mostly been undertaken to serve local and third markets. The main exception to this is FDI in Canada and Mexico where inter-industry and inter-firm links have led to complementarities in production structures and significant sales back into the United States. In the case of Mexico, lower costs have also contributed to the high share of sales in the US market. Overall, Japanese affiliates sell an even higher share in local and third markets. However, since 1990 the proportion of FDI outflows from Japan going to Asia has grown from about 10 to over 23% and Japanese affiliates are increasingly exporting back into Japan. According to preliminary estimates, this change in the pattern of FDI, together with deregulation in Japan, has already begun to affect Japanese foreign trade in manufactured goods. Thus, compared with the 1980s, the income elasticity of Japanese exports has declined as demand can be met by Japanese affiliates abroad. In contrast, FDI outflows seem to have significantly increased Japan's import propensity, as seen from the rapid growth of imports of manufactured goods from Japanese affiliates in Asia. Taken together, these estimates suggest that the previous tendency for Japan to accumulate large trade surpluses in a worldwide cyclical upturn may have been substantially reduced. Moreover, even though the net impact of recent changes on price elasticities is difficult to judge, it could be that smaller exchange rate movements will now be required to keep the Japanese trade account broadly balanced.

… have influenced trade patterns

III. Economic policies and developments in the rest of the world

Highlights

Economic growth remained buoyant and inflation fell further in the emerging economies last year. Average growth in Latin America rose on the strength of the recovery in Argentina and Mexico, while stabilisation and reform policies in Africa promoted the fastest growth in two decades. In several Asian countries policies shifted to restraint to deal with incipient overheating. Weak export markets contributed to the moderation of growth in Asia from its earlier rapid pace and also prevented large external imbalances from narrowing much last year. In a number of Eastern European countries more advanced in the transition process, solid growth was maintained. However, the recovery of output in Russia has yet to become firmly established, even though inflation has continued to trend downwards.

As in many industrial countries, financial globalisation and liberalisation are transforming the task of pursuing both internal and external balance in the emerging economies. Limited capital mobility in the past made it relatively easy for monetary policy to address inflation while exchange rates could be set to maintain competitiveness. In the current environment of high capital mobility, pursuing separate monetary and exchange rate policies has become much more problematic. Raising interest rates to contain inflation will induce capital inflows that push up the exchange rate, diminish competitiveness and weaken external balance. Conversely, maintaining a highly competitive exchange rate may raise import costs, increase demand for domestic output and heighten inflationary pressures. While the real exchange rate cannot be kept above or below its equilibrium level in the long run, the experience of Mexico in 1994–95 indicates that financial markets can react strongly and abruptly to a marked deterioration in competitiveness and external balance in the short and medium term.

Conflicts between internal and external objectives have been more pronounced in some countries than in others. In many Latin American countries, tight monetary policies and/or fixed exchange rates led to significant reductions in inflation in the 1990s, but at the price of real exchange rate appreciation and widening current account deficits. On the other hand, several Asian countries have been able to maintain competitive exchange rates without unduly fuelling inflation. More recently, however, overheating in much of the region has called for greater monetary restraint and real appreciation has emerged. It remains to be seen whether the Eastern European countries will succeed in reducing inflation further without sacrificing external balance.

Recent developments in Latin America

Anti-inflation strategies in Latin America in the 1990s include …

Efforts towards greater price stability have been much in evidence in the Latin American region in recent years. Various strategies have been tried, some based

Growth and inflation

	Real GDP				Consumer prices			
	1980–89	1990–94	1995	1996	1980–89	1990–94	1995	1996
	annual percentage changes							
China	9.5	10.5	10.2	9.7	7.9	11.6	16.8	8.3
India	5.9	4.6	7.1	6.8	8.1[1]	10.5[1]	9.3[1]	5.9[1]
Other Asia[2]	6.5	7.0	7.8	6.8	7.8	6.9	6.4	5.9
Hong Kong	7.5	5.2	4.7	4.7	8.6	9.5	9.2	6.3
Korea	8.0	7.6	8.9	7.1	8.1	7.0	4.5	5.0
Singapore	7.4	8.6	8.8	7.0	2.7	2.9	1.7	1.4
Taiwan	8.1	6.5	6.1	5.7	4.4	3.8	3.7	3.1
Indonesia	5.8	6.9	8.5	7.5	9.6	8.6	9.4	7.9
Malaysia	5.7	8.7	9.5	8.2	3.6	3.8	3.4	3.5
Philippines	1.8	1.9	4.8	5.5	14.4	11.6	8.1	8.4
Thailand	7.2	9.0	8.6	6.7	5.7	4.8	5.8	5.8
Latin America[2]	2.3	3.1	0.5	3.5	120.5	256.8	42.5	24.7
Argentina	−0.8	6.8	−4.6	4.4	319.2	148.3	3.4	0.2
Brazil	2.9	0.9	4.2	2.9	226.0	1,425.9	66.0	15.5
Chile	3.4	6.4	8.5	7.2	21.2	17.4	8.2	7.4
Colombia	3.4	4.3	5.2	2.1	23.4	26.3	20.9	20.9
Mexico	2.2	3.9	−6.2	5.1	65.1	16.1	35.0	34.4
Venezuela	0.1	3.9	3.4	−1.6	21.4	40.7	59.9	99.9
Eastern Europe[2]	0.9	−2.5	5.5	4.7	29.7[3]	62.1	23.2	17.8
Czech Republic[4]	2.1	−4.2	4.8	4.4	1.3[3]	20.5	9.1	8.8
Hungary	1.5	−3.3	1.5	1.0	8.9	25.4	28.3	23.6
Poland	0.2	−1.6	7.0	6.0	43.0	97.6	27.7	19.9
Russian Federation[5]	3.3	−8.7	−4.2	−6.0	1.4[6]	347.0	197.5	47.7
Israel	3.2	5.8	7.1	4.4	104.7	14.2	10.0	11.3
Saudi Arabia	0.3	4.1	1.6	2.4	0.0	1.7	4.9	1.2
Africa	2.6	1.4	2.7	5.1	17.5	37.2	38.4	25.0
South Africa	2.2	0.1	3.3	3.1	14.6	12.4	8.6	7.4

Note: Data for 1996 are partly estimated.

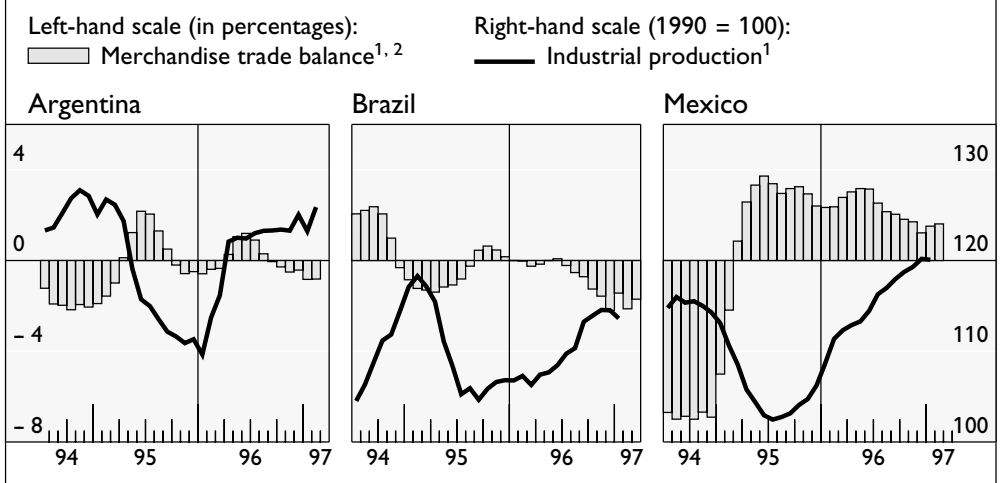
[1] Wholesale prices. [2] Average of countries shown, calculated using weights based on 1990 GDP and PPP exchange rates. [3] Average 1982–89. [4] Prior to 1985, Czechoslovakia. [5] Prior to 1986, the Soviet Union. [6] Average 1986–89. Table III.1

on explicit or implicit exchange rate anchors, others depending more generally on tight domestic policies. While success in reducing inflation has been almost universal, in a number of cases it has been associated with a major appreciation of the real exchange rate and a significant widening of external imbalances. The issue of reconciling internal and external objectives is discussed in a separate section below.

… Argentina's currency-board-like scheme …

The Convertibility Plan adopted by *Argentina* in 1991 was put to a severe test in 1995 when there was a run on domestic currency assets following the Mexican peso crisis. The currency-board-like arrangement left the authorities little scope other than to allow interest rates to rise sharply and to maintain, in a cyclical context, a tight fiscal policy stance. A severe economic contraction

Trade balances and industrial output in Latin America



[1] Three-month moving averages. [2] As a percentage of 1995 GDP. Graph III.1

followed that helped to improve the trade account (Graph III.1). This, together with substantial foreign borrowing by the public sector, halted the drop in international reserves. The rapid policy response to the crisis helped to boost confidence and support the subsequent recovery. GDP growth strengthened progressively last year, reaching over 4% in the second half.

The maintenance of Argentina's exchange rate policy has been aided by the partial reversal of the erosion of competitiveness during the early phases of inflation reduction. As annual inflation fell from over 500% to about 10% in the first two years of the Convertibility Plan, real appreciation reached about 33%. Subsequently, inflation was brought down well below that of major competitors such as Brazil and Chile and part of the loss of competitiveness was regained, limiting the real appreciation for the period as a whole to 25%.

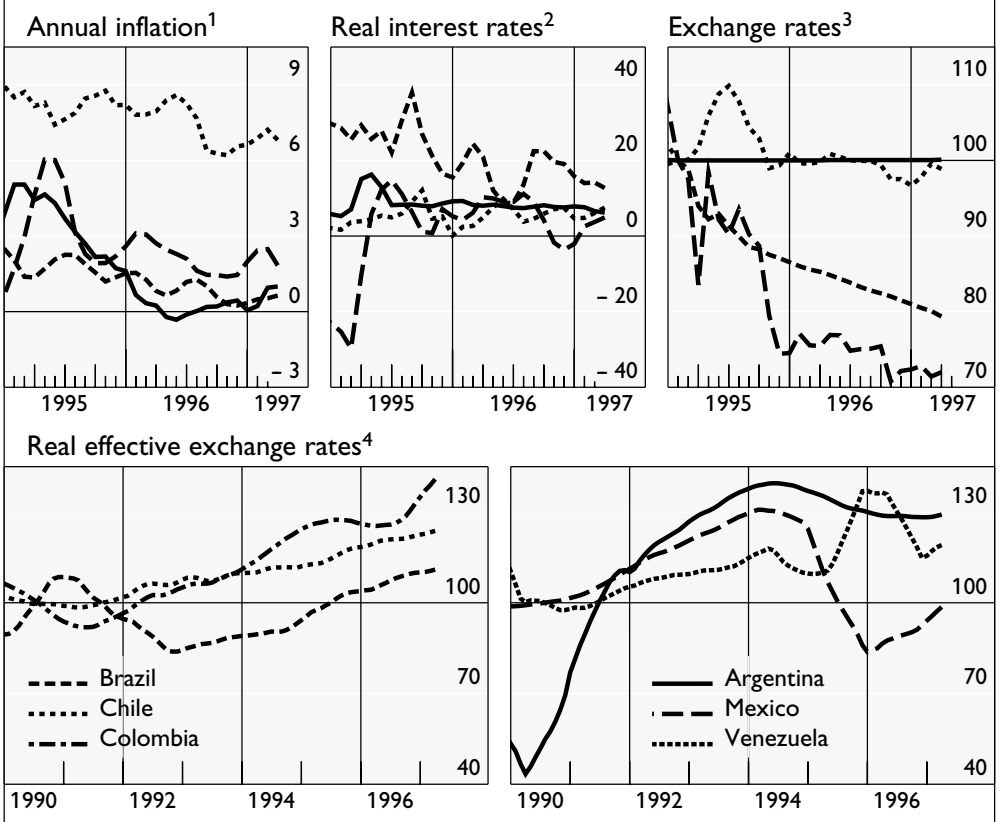
… Brazil's Real Plan aimed at greater exchange rate stability …

Brazil's Real Plan introduced in mid-1994 has also sought to reduce inflation through greater exchange rate stability supported by tight monetary policy. Given that the exchange rate tended to appreciate initially and, since early 1995, has depreciated at a slow and gradual rate somewhat below that of consumer price inflation, a real appreciation of 20% has taken place since mid-1994.

Inflation has declined steadily from a monthly rate of over 40% just prior to the implementation of the Real Plan to well below 1% in late 1996 and early 1997. However, economic activity and trade performance have fluctuated widely, largely in response to adjustments in the stance of monetary policy (Graph III.1). As the economy had reacted quickly to the monetary restraint imposed in the first half of 1995, monetary policy was eased subsequently (Graph III.2). Activity rebounded sharply, with annual GDP growth accelerating to more than 6% in the second half of 1996. In combination with the loss of competitiveness, renewed growth in Brazil soon spilled over into a widening of the trade deficit as imports rose rapidly in late 1996 and exports performed poorly.

Only modest support for stabilisation has come from fiscal policy. Last year's operational public sector deficit was 4% of GDP, somewhat below the preceding year's gap (5%) but well above the initial target (2½%). Moreover, the reduction

Inflation, interest rates and exchange rates in Latin America



[1] For Brazil and Mexico, three-month moving average of monthly increases. [2] Short-term rates deflated by the annual rate of inflation (for Brazil and Mexico, by annualised inflation in subsequent months). [3] US dollars per unit of domestic currency, January 1995 = 100. [4] In terms of relative consumer prices; 12-month moving averages, 1990 = 100 (for Argentina, 1991, the year of introduction of the Convertibility Plan). An increase indicates an appreciation. Graph III.2

reflected lower interest rates, rather than sustained reforms in the social security and tax area and in public sector administration. In late 1996, however, a package of measures was announced aimed at revenue enhancements and a cutback in public sector employment and benefit entitlements.

… and, since 1995, money growth targeting in Mexico

Since the peso crisis of late 1994, *Mexico* has cast its monetary policy in a framework radically different from that of Argentina or Brazil, as well as from the one applied prior to the crisis. Instead of relying on an exchange rate anchor, inflation reduction has been pursued through money growth targets, and the exchange rate has been allowed to move in response to basic market conditions. Fiscal policy has remained restrictive.

In the second half of 1995, the economy started recovering as the authorities' determined policy stance, along with significant official international support, boosted confidence at home and abroad. At the same time, annual inflation moderated from a peak of 52% at the end of 1995 to 25% in early 1997. Exports continued to rise strongly, reflecting both higher oil prices and buoyant exports of manufactured goods, offsetting vigorous import growth and preserving external balance.

Except for some weakening in October, the peso was relatively stable against the US dollar for most of 1996, depreciating by just 3% in nominal terms in the

course of the year. In part, the relative stability reflected attempts – through reductions in money market liquidity or, since February 1997, through sales of a fixed amount of dollars if the peso fell by more than 2% in a single day – to avoid excessive speculative pressures. Moreover, exchange rate options were used to reconstitute foreign exchange reserves during periods of peso strength, an approach designed to allow reserve growth without signalling an official exchange rate target. Given continued large inflation differentials vis-à-vis trading partners, nominal stability implied a real appreciation that has reversed about half of the real depreciation that occurred in late 1994 and early 1995.

Monetary policy dilemma in Colombia

Policy challenges intensified in *Colombia* last year. With the central government deficit widening to about 4% of GDP and a political crisis triggering capital outflows in early 1996, monetary policy was kept tight even as the economy slowed significantly. The stricter stance attracted renewed capital inflows that pushed the exchange rate to the top of its preset sliding band, effectively limiting monetary policy tightening. As inflation failed to decline, the real exchange rate appreciated by nearly 20%. Special measures were proposed in early 1997, including spending cuts and a tax on foreign credits, to slow capital inflows, bolster public finances and alleviate the monetary policy dilemma.

Chile's approach

Arguably, *Chile's* approach to curbing inflation and maintaining competitiveness has met with most success. Monetary policy has been rather tight in recent years with real interest rates – most financial instruments are still indexed so that yields are expressed in real terms – being set in accordance with a rigorously pursued target of gradual inflation reduction. As the economy threatened to overheat in early 1996, real interest rates were increased. Together with a major decline in copper prices, monetary policy restraint cooled the economy and slowed inflation to 6½% in late 1996. The exchange rate has been managed so as to avoid volatility and undue appreciation, as well as depreciation, in real terms. Monetary and exchange rate policies, however, would not have been able to address the twin policy objectives as harmoniously had they not been supported by two additional policy elements. One is the strength of public sector finances – surpluses of between 1 and 3% of GDP have been achieved in recent years; the other is the use of selective controls on shorter-term capital inflows attracted by high Chilean interest rates, and the promotion of capital outflows.

Policy adjustment in Venezuela

The April 1996 adjustment programme implemented to correct *Venezuela's* severe external and internal imbalances heralded the abandonment of earlier interventionist policies. Its success received a significant boost from the sizable rise in oil prices last year. Despite a 1½% contraction in GDP, central government finances improved sharply, returning to surplus following a deficit of 5% of GDP in 1995. Monthly inflation fell from a peak of over 12% in May 1996 to below 2% in early 1997. Controls on both exchange rates and interest rates were eliminated and a new sliding-band exchange rate regime was introduced in July 1996. Although a depreciation of the central rate had been envisaged to partially offset inflation differentials, the exchange rate, buoyed by substantial inflows of short-term capital, had, by late 1996, hardly moved. In January 1997, the central rate was reset at about the same level as that chosen in mid-1996.

Recent developments in Asia

Two common elements have featured in recent economic developments in much of Asia. First, export growth has weakened sharply in much of the region as a result of a variety of factors. Secondly, a majority of countries have relied on monetary restraint to support a process of adjustment after years of very rapid growth which had caused a number of imbalances to emerge in the form of capacity shortages, inflationary pressures or widening external deficits.

Slowing export growth

Rapid export growth in the past …

Since the mid-1980s, many emerging Asian economies have taken advantage of the globalisation of the world economy to achieve rates of export growth well in excess of the expansion of world trade. The boom was associated with clear gains in market shares in industrial countries as well as with a significant shift towards higher value added products – an area of trade traditionally dominated by the advanced economies. Not infrequently, these gains provoked protectionist sentiment in industrial countries, despite the fact that strong export growth in Asia also generated rapid income growth, and hence import growth, that provided a significant boost to activity in the rest of the world.

… contrasts with sluggishness last year

Unlike the period of economic downturn in the major industrial countries in 1990–93, which barely dented Asian export growth, the much less pronounced slowdown of world trade last year appeared to hit Asian exports particularly hard (Table III.2). The weakening of exports has raised concerns that the large current account deficits which had emerged in the region in recent years might be more difficult to sustain than previously thought.

Causes include weakening intra-regional trade …

Three factors have contributed importantly to the drop in export growth. First, intra-regional trade, which now accounts for well over one-third of (emerging) Asia's total trade and which in the past had increased resilience to slack demand in industrial countries, had a dampening impact last year as activity slowed almost throughout the region. Moreover, little offset could be found elsewhere, as import demand in the United States and Europe also weakened.

… a slump in the electronics market …

Secondly, the market for electronic products, in particular for semi-conductors, experienced a severe slump last year as continuing strong supply increases met sluggish demand and depressed prices. US dollar prices of semi-conductors, for instance, are estimated to have plunged by up to 80% last year, putting downward pressure on the price of other electronic products as well. Many countries in Asia have become highly specialised in the manufacture of these products, which now account for between one-quarter (Hong Kong, Taiwan and Thailand) and one-half (Singapore) of exports; in Korea, Malaysia and Singapore, semi-conductors alone account for more than 10%. Although it led to excess supply last year, Asia's dynamic presence in the world electronics market (in which it now has a market share of close to 30%) has in general served to enlarge capacity, intensify competition and reduce prices, benefiting consumers worldwide.

Finally, emerging Asian economies have become direct competitors of Japan in export markets and/or host countries for cost-driven Japanese foreign investment. Because many countries stabilise their exchange rates against the

Current account balances and external trade

	Current account balance			Export volume growth[1]			Import volume growth[1]		
	Average 1990–94	1995	1996	Average 1990–94	1995	1996	Average 1990–94	1995	1996
	as a percentage of GDP			in percentages					
China	1.1	0.2	0.2	17.2	15.3	8.3	13.6	15.1	16.4
India	– 1.2	–1.4	–1.4	12.9	22.4	16.9	5.8	23.6	18.9
Other Asia	0.2	–1.6	–3.4	7.6	11.5	3.0	12.9	15.2	6.7
Hong Kong[2]	5.3	–3.5	–1.0	–1.4	1.9	–8.6	15.8	13.6	4.0
Korea	– 1.1	–1.9	–4.4	8.8	24.0	19.1	11.7	21.2	11.9
Singapore	11.2	16.9	15.0	15.2	15.7	6.3	12.4	13.0	6.4
Taiwan	4.3	1.9	3.8	5.2	5.8	–4.8	7.8	8.6	0.8
Indonesia	– 2.2	–3.5	–4.0	11.1	10.3	4.8	13.8	17.4	10.7
Malaysia	– 5.0	–8.4	–7.5	13.9	15.6	13.6	17.9	23.4	17.7
Philippines	– 4.1	–2.7	–4.3	9.1	17.0	18.8	13.4	14.6	24.2
Thailand	– 6.2	–8.1	–8.0	14.8	14.2	–0.7	13.5	15.9	–3.6
Latin America	– 2.0	–1.5	–1.4	6.6	9.5	8.4	13.9	9.5	10.4
Argentina	– 1.7	–0.9	–1.4	9.9	17.8	3.2	35.4	–17.5	25.2
Brazil	0.0	–2.5	–3.3	6.0	–5.5	2.5	14.4	36.7	4.5
Chile	– 1.9	0.2	–4.1	9.0	7.6	17.4	8.8	24.7	11.1
Colombia	– 0.6	–5.4	–5.5	8.1	11.4	11.3	23.7	12.5	2.5
Mexico	– 5.9	–0.2	–0.6	5.4	24.5	14.7	13.3	–14.9	20.8
Venezuela	2.4	2.9	10.9	6.6	5.7	3.5	0.5	36.4	–5.1
Eastern Europe	– 1.3	–3.0	–6.4	18.8	15.7	4.3	22.3	16.3	15.0
Czech Republic	0.8	–3.4	–8.6	25.9	5.4	0.6	30.2	23.7	10.1
Hungary	– 3.6	–5.6	–3.9	7.9	8.4	5.8	17.3	– 4.0	2.1
Poland	– 1.1	–1.9	–6.3	19.9	30.8	6.9	18.7	24.5	28.9
Russian Federation	1.1	3.2	2.7	21.2[3]	7.4	2.2	11.9[3]	– 4.5	3.1
Israel	– 2.4	–6.1	–5.1	7.5	7.6	6.5	12.0	8.9	9.3
Saudi Arabia	–13.2	–4.2	0.1	9.2	1.7	1.8	2.9	12.0	4.8
South Africa	1.3	–2.1	–1.6	1.9	2.4	7.8	2.4	10.6	10.5

Note: Data for 1996 are partly estimated.

[1] Merchandise trade. For the regions, average of the countries shown, calculated using weights based on the dollar value of trade in 1990. [2] Current account data refer to the balance of goods and non-factor services and export volume growth to domestic exports only. [3] Average 1991–94.

Table III.2

… and US dollar appreciation against the yen

US dollar, the marked strengthening of the dollar against the Japanese yen since mid-1995 has contributed to a significant real appreciation that has diminished export competitiveness. Table III.3 shows that the currencies of several economies, in particular Hong Kong, the Philippines, Taiwan and Thailand, have shown less long-term movement against the dollar over the 1990s, as well as less short-term volatility, than many industrial country currencies.

Some caveats

Many of the forces leading to last year's export slowdown are not likely to remain as influential. The scope for further dollar strengthening is not without limit; the downturn in the market for electronics appeared to bottom out in late 1996; and the process of adjusting to overheating is well advanced in several

Stability of US dollar exchange rates,[1] January 1990–February 1997													
	HK	ID	KR	MY	PH	SG	TH	TW	*AU*	*CA*	*DE*	*GB*	*JP*
Monthly trend change[2]	–0.01	0.32	0.16	–0.11	0.04	–0.35	–0.02	0.03	*0.02*	*0.27*	*–0.12*	*0.20*	*–0.50*
Coefficient of variation[3]	0.2	0.7	3.2	2.5	5.4	2.3	1.0	2.9	*5.4*	*3.2*	*5.7*	*6.5*	*8.7*

AU = Australia; CA = Canada; DE = Germany; GB = United Kingdom; HK = Hong Kong; ID = Indonesia; JP = Japan; KR = Korea; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; TW = Taiwan.

[1] Calculated on the basis of average monthly exchange rates (domestic currency units per US dollar). [2] Based on regressing exchange rates on a constant and a time trend. A minus sign indicates an appreciation. [3] Around trend. Table III.3

Asian economies. Nevertheless, last year's development indicates that Asia's rapid industrialisation and export drive – in some cases under government guidance – may have created excess capacity in some sectors and industries, which at times stands in sharp contrast with bottlenecks elsewhere. It may also have made those financial institutions that are heavily exposed to sectors characterised by excess supply correspondingly vulnerable (see Chapter VI).

China and India

Moderate inflation and appreciable growth in China …

Inflation in China moderated to 7% by the end of last year, while economic growth was maintained at around 10%. Against the background of falling inflation, administered interest rates were reduced in May and again in August. Yet monetary policy remained cautious as real interest rates were kept positive. Major progress was also made last year in modernising the monetary policy framework, including the establishment of an interbank market no longer subject to interest rate ceilings, the promotion of more competitive sales of Treasury securities and a trial launching of open market operations. In early 1997, the scope for re-discount operations was widened.

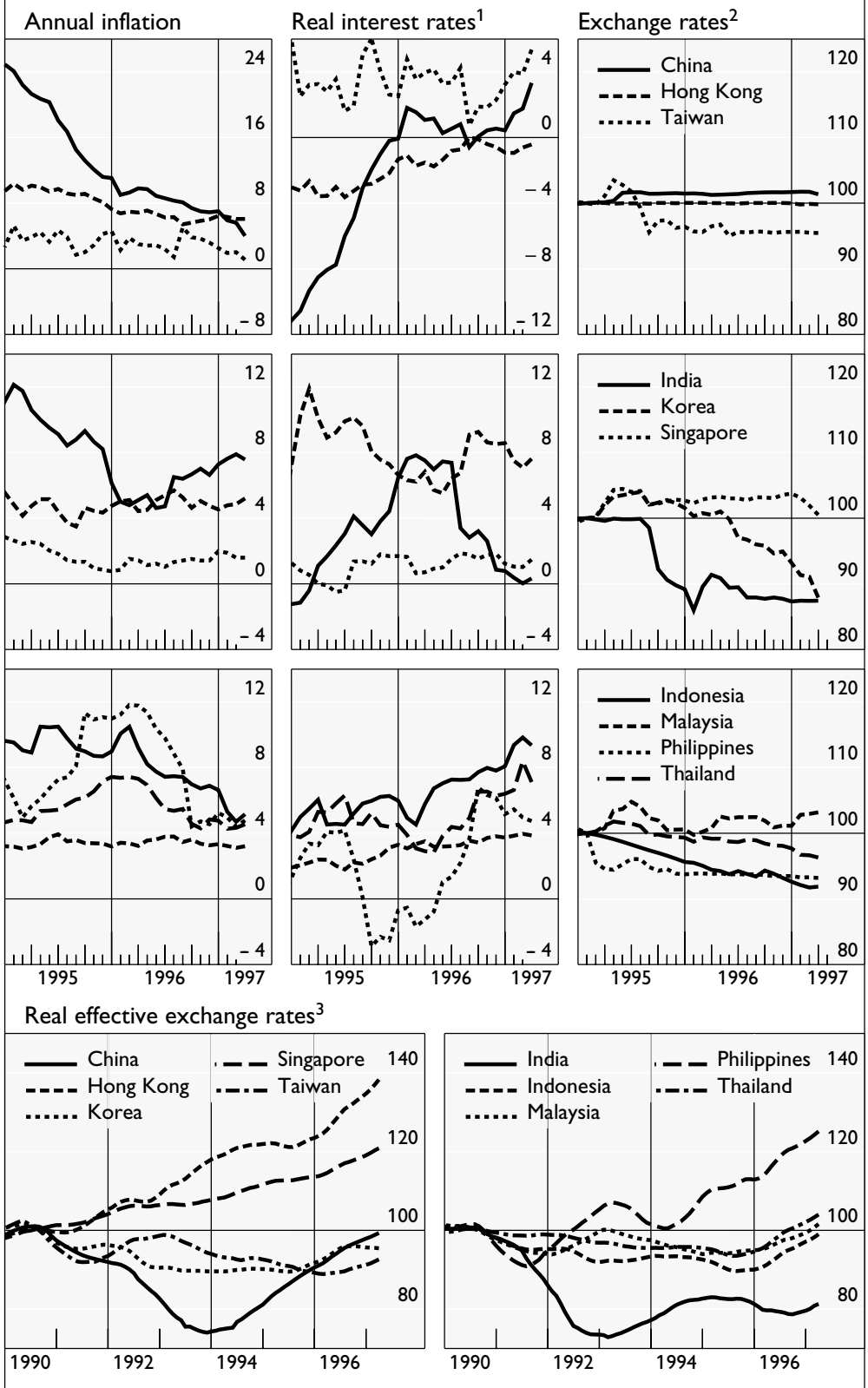
… but competitiveness weakens …

The yuan stayed virtually unchanged against the dollar as intervention channelled strong capital inflows into reserves. Given still large inflation differentials vis-à-vis trading partners, there was a real appreciation of 8%, following one of 11½% in 1995. The continuing erosion of the competitiveness gains achieved in early 1994 (when the dual exchange rate regime was abolished) has been an important factor behind the near-halving of export growth to just 8½% and the continued buoyancy of imports.

… and reform in the state-owned enterprise sector is urgent

Further successful demand management will depend on reforming China's state-owned enterprise sector. Cutting the deficit of these enterprises (equivalent to nearly 7% of GDP in 1995) is a prerequisite for public sector consolidation. Last year, the state-owned sector's losses are estimated to have soared by more than 40% as export performance was poor and output largely served to bloat inventories. Moreover, weak finances of state-owned enterprises can complicate monetary policy. Not only does credit restraint imposed on them almost inevitably cause inter-company debt levels to rise, but the effect of higher interest rates on their financial position, as well as on the quality of the loan portfolio of the state-owned creditor banks, may constrain monetary policy in implementing macroeconomic stabilisation.

Inflation, interest rates and exchange rates in Asia



[1] Short-term rates deflated by the annual rate of inflation. [2] US dollars per unit of domestic currency, January 1995 = 100. [3] In terms of relative consumer prices; 12-month moving averages, 1990 = 100. An increase indicates an appreciation. Graph III.3

Progress achieved with respect to trade opening, financial sector liberalisation and fiscal reform since 1991 has enabled India to increase its annual

growth rate to an average of 6% over the last five years. At the same time price inflation has been reduced and a large external imbalance has been avoided. Slowing credit growth and the favourable inflation performance last year permitted an easing of monetary policy and a significant drop in real interest rates. A relaxation of restrictions on foreign borrowing and the continued encouragement of inward foreign direct investment induced capital inflows which financed a modest current account deficit, boosted reserves and supported a relatively stable rupee/dollar exchange rate.

Continued structural adjustment and balanced growth in India …

Although the economy has grown much more solidly in recent years, closing the gap with other Asian countries will depend on increasing domestic saving, in particular by reining in public sector dissaving. Although narrowing slightly in the last fiscal year, the central government deficit remained sizable at 5% of GDP. Other parts of the public sector, including state-owned enterprises, added further to the financing shortfall. While current budget proposals encourage deficit reduction, even greater support would come from the additional growth likely to result from continued efforts to reform taxes, public administration and labour laws, rationalise state subsidy policies, promote competition and expand and make better use of the country's economic infrastructure.

… depend on public sector reform

Other Asian economies

The stance of domestic policies in the Republic of Korea remained cautious in the face of a slackening of growth (to 7%) and a further widening of the current account deficit (to 4½% of GDP) last year. Central government finances remained balanced, with spending increases being offset by measures to broaden the revenue base. Inflation was stable at around 5% throughout 1996 but monetary policy was eased little. The subdued economy and the associated vulnerability of the banking sector put downward pressure on the exchange rate: the won depreciated by 7% against the dollar in the second half of 1996 and by a further 5% in the first quarter of 1997. A return to high and sustained growth rates will depend on the effective implementation of structural reform. Key objectives include making goods markets more competitive (after decades of heavy government intervention), as well as reforming labour markets. Moreover, it is important that efforts to deregulate the domestic financial system and to ease restrictions on capital flows and trade in financial services continue.

Korean growth slowdown …

… also calls for structural reform

Slow export growth and sluggish private investment spending also characterised Taiwan last year. As economic growth dropped below 6%, inflation remained subdued and the current account surplus widened. Nevertheless, as the year went on, easier monetary and fiscal policies contributed to a progressive recovery of manufacturing production and a stock market rally. From late 1996 onwards, financial conditions were re-tightened somewhat.

Taiwan

The slowdown of Hong Kong's economy bottomed out in the first half of 1996 as services exports, private consumption and property investment strengthened. With domestic demand recovering and liquidity buoyed by continuing capital inflows, consumer price inflation climbed back to just under 7% by the end of 1996 and property prices boomed (see Chapter VI).

Hong Kong

As Singapore's economy slowed significantly, price pressures remained moderate and import demand declined, preserving a large current account

Singapore

surplus. The pattern of steady exchange rate appreciation that had been a consistent feature throughout the first half of the 1990s was interrupted after mid-1995 when the rate of exchange between the Singapore and US dollars stabilised close to the 1.40 mark.

Adjustment in Indonesia and Malaysia

Both Indonesia and Malaysia have adopted a more restrictive policy stance over the last year and a half to deal with incipient economic overheating. As growth in Indonesia accelerated to over 8% in 1995, inflation climbed to almost 10% and the current account deficit widened to 3½% of GDP. Even higher growth in Malaysia resulted in a very tight labour market and one of the largest current account imbalances in the region (8½% of GDP). Restrictive monetary policies from late 1995 onwards have led to rising real interest rates in both countries. In response to the resultant surge in capital inflows, Indonesia progressively widened its exchange rate band in the course of 1996. The results were greater volatility in the rupiah/dollar rate around a more level trend and a significant real appreciation (7% over the year). Modest steps were taken in both countries to maintain small central government budget surpluses. In the event, growth moderated, although external imbalances remained large.

Slowing growth …

… and financial sector problems in Thailand

Adjustment in Thailand to overheating in the first half of the 1990s has been complicated by sluggish export growth and a fragile financial sector. Tighter monetary policy succeeded in slowing domestic demand and import growth in 1996, but the current account deficit failed to narrow in the face of stagnating export growth. A slump in the property sector, a sharply weakening stock market and the economic slowdown also caused difficulties in the financial sector (discussed in more detail in Chapter VI). This posed problems for interest rate management given that high interest rates accentuated the vulnerability of the financial sector but were at the same time necessary to retain foreign investors' willingness to finance the large current account deficit. Indeed, the baht came under pressure on a number of occasions in the second half of 1996 and early 1997. To maintain investor confidence and protect an economy with a high level of foreign indebtedness, the authorities remained committed to their policy of closely pegging to a dollar-dominated basket, supported by positive interest rate differentials as well as official intervention.

The Philippines

One of the few Asian economies to enjoy faster growth last year was the Philippines. Economic liberalisation, financial deregulation and fiscal reforms in recent years helped to raise growth to almost 6% in 1996. Although export growth remained strong, it was outpaced by that of imports, causing the current account deficit to widen to 4% of GDP. Very rapid credit expansion, fuelled to a large extent by heavy capital inflows, has been countered by a rise in real short-term interest rates. However, in the context of a policy aimed at minimising changes in the peso/dollar rate, there are limits to the degree of restraint which monetary policy can produce on its own.

The Middle East and Africa

Saudi Arabia

Fiscal austerity pursued in Saudi Arabia over the last two years, as well as the rise in oil prices, helped to restore growth at a moderate rate of inflation and a balanced current account. In contrast, Israel's economic performance worsened

Israel

last year as an increase in the (domestic) fiscal deficit to 5% of GDP led to excessive demand growth and accelerating price inflation in early 1996. Monetary policy had to be tightened sharply in consequence, with interest rates rising by the middle of the year to levels that created considerable turbulence in bond and equity markets. Moreover, large capital inflows attracted by high interest rates complicated the management of the exchange rate within its sliding band. A stronger-than-targeted exchange rate not only added to the erosion of competitiveness already caused by rapid wage growth, but also necessitated heavy intervention in early 1997.

A boost to growth in Africa

Growth in Africa accelerated to 5% last year as structural adjustment efforts have been increasingly bearing fruit and encompassing a larger number of countries. Growth was again strong in the CFA countries, where the 1994 devaluation was instrumental in supporting economic reforms. Moreover, in countries such as Kenya, Malawi, Uganda and Zimbabwe, which have adopted policies to open their economies, strengthen public finances and modernise financial markets, encouraging growth rates were recorded.

South Africa

Exchange market turbulence contributed to relatively weak growth and an upturn of inflation in South Africa last year. A sudden decline in capital inflows in early 1996, a deepening current account deficit and very low international reserves caused the rand to depreciate sharply and monetary policy to be tightened significantly. Progress was also made in promoting greater fiscal discipline. By late 1996, these policies had succeeded in arresting the deterioration in the current account and regaining investor confidence.

Price stability and competitiveness in emerging economies

The pursuit of both internal and external balance …

In their quest for sustained high growth, emerging economies are subject to a number of constraints. First, internal balance must be maintained so that the expansion of domestic demand does not outstrip supply, leading to increased inflation, macroeconomic instability and heightened uncertainties that inhibit future investment and growth. Secondly, external performance must be sustained, both to avoid destabilising balance-of-payments problems and to ensure that exports continue to help shape the process of growth and development.

… and the changing effectiveness of monetary policy in a liberalised financial environment …

As was seen in the preceding sections, monetary policy can play a pivotal role in controlling aggregate demand. However, the transmission mechanism of monetary policy has been strongly influenced by progress made towards domestic financial liberalisation and the opening of the capital account in many emerging economies. This progress has enhanced prospects for higher efficiency and growth, but may also have made it more difficult to use monetary policy to achieve simultaneously the objectives of internal and external balance. In particular, in an environment of high capital mobility, monetary restraint to reduce inflation will induce capital inflows that temporarily strengthen the exchange rate. This reinforces downward pressure on inflation, but may also bring about an unwanted loss of competitiveness and a worsening external balance despite the moderating influence on imports of lower domestic demand.

… may lead to policy conflicts

These considerations point to potentially important inconsistencies, at least in the short and medium term, between the objectives of inflation containment

and strong external performance. Tightened monetary policy may reduce inflation, but at the price of an appreciated exchange rate and wider external imbalances. Conversely, making the exchange rate very competitive may induce higher inflation.

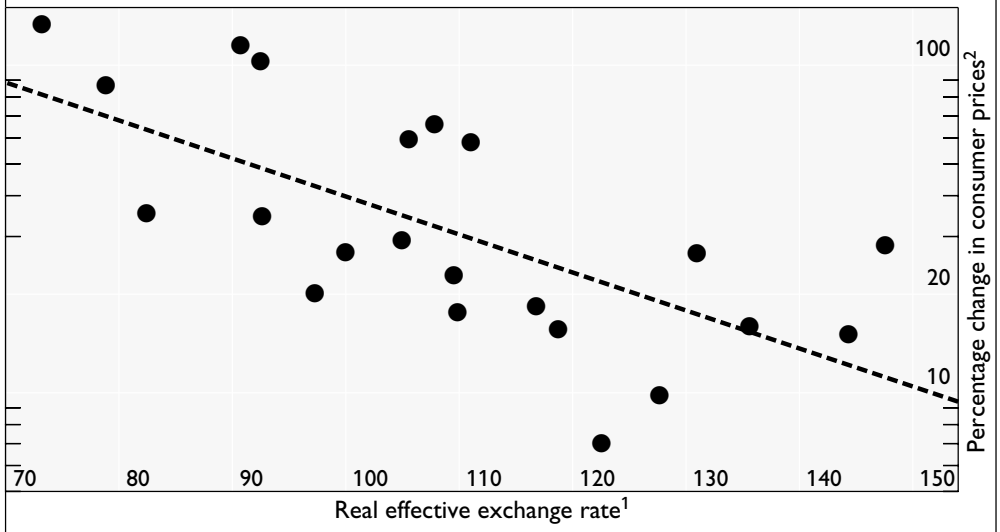
The link between inflation and competitiveness in the medium term …

It is well known that a one-time devaluation of the *nominal* exchange rate may result in a *temporary* increase in inflation. However, it is also true that keeping the level of the *real* exchange rate depreciated for an extended period of time may lead to a *sustained* increase in inflation. A devaluation of the nominal exchange rate raises domestic prices, both because it increases the domestic currency cost of imports and because it shifts demand from imports to domestically produced goods. In the absence of further nominal devaluations, these increases in domestic prices work to reverse the initial real depreciation, returning the real exchange rate to its original level. Hence, maintaining the real exchange rate at a depreciated level may require continuous nominal devaluations. The resultant sustained higher rate of nominal exchange rate depreciation, in turn, is likely to be associated with a sustained higher rate of domestic price inflation. As an example, Graph III.4 illustrates the strong negative correlation between the *rate* of inflation and the *level* of the real exchange rate in Mexico over the last two decades.

… and in the long term

In the long run, of course, policy trade-offs between inflation containment and competitiveness will be less well-defined. Movements in domestic inflation and external payments will work to return real exchange rates to their equilibrium value, while the pass-through of past inflation into future expectations will attenuate the link between inflation and the real exchange rate. In the short and medium term, however, changes in inflation and competitiveness can have profound effects on external balance and overall economic performance, as indicated by the recent experience of disinflation, real appreciation, current account deterioration and subsequent financial crisis in Mexico.

Inflation and competitiveness in Mexico

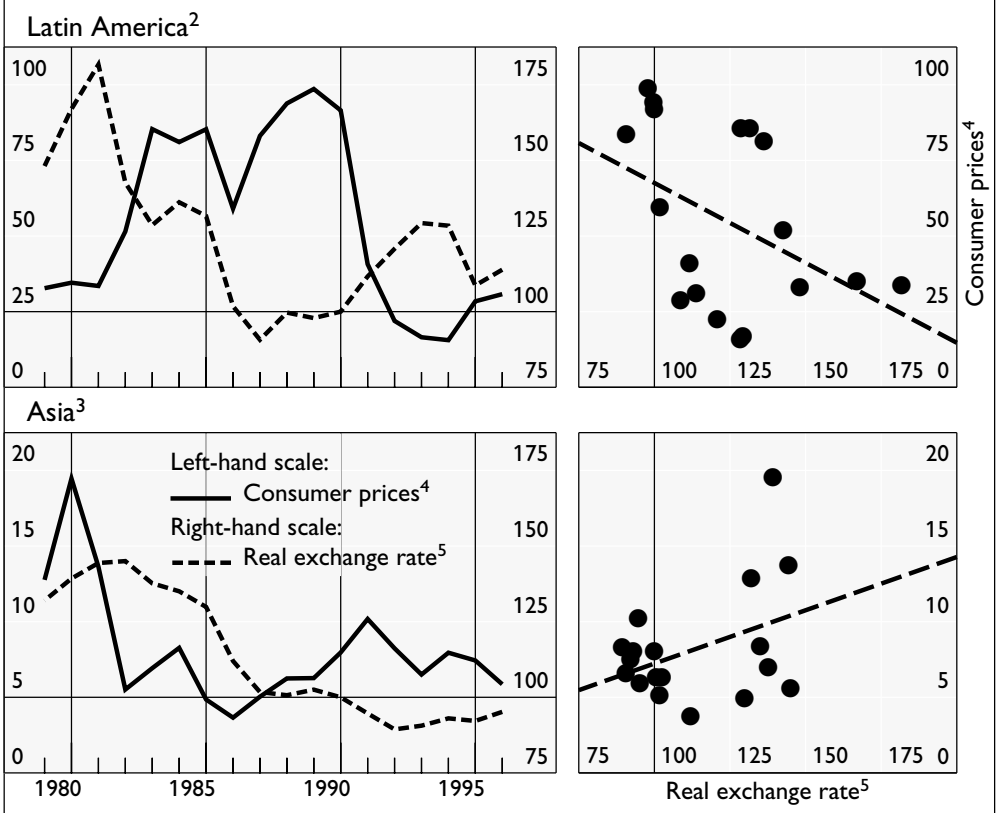


Note: The data points represent individual years between 1975 and 1996 (annual averages).

[1] In terms of relative consumer prices; 1990 = 100. An increase indicates an appreciation. [2] Logarithmic scale.

Graph III.4

Inflation and real effective exchange rates[1]



[1] Weighted averages, calculated using 1990 GDP and PPP exchange rates. [2] Argentina, Bolivia, Chile, Colombia, Ecuador, Mexico, Uruguay and Venezuela. [3] Hong Kong, India, Indonesia, Korea, Malaysia, the Philippines, Singapore, Taiwan and Thailand. [4] Annual percentage changes. [5] In terms of relative consumer prices; 1990 = 100. An increase indicates an appreciation. Graph III.5

Inflation/ competitiveness trade-offs are marked in Latin America …

The relationship between changes in inflation and competitiveness also appears to have been more marked in some economies than in others (Graph III.5). In Latin America, the short-term inconsistencies between the pursuit of price stability and maintaining external competitiveness have been particularly apparent. With the onset of the debt crisis in the early 1980s, many Latin American countries substantially devalued their currencies in order to reduce large current account deficits, contributing to a surge in inflation. In response, a number of them subsequently chose to fix their nominal exchange rates. This led to sharp reductions in inflation rates, but as these rates continued, at least initially, to exceed international levels of inflation, real exchange rates appreciated substantially. In Mexico, this appreciation proved unsustainable, and a large devaluation in 1994 boosted inflation rates in 1995 and 1996.

In sum, the focus of macroeconomic policy in Latin America has tended to alternate between disinflation, at the cost of external competitiveness, and reducing external imbalances, at the cost of domestic price stability, depending on which of these objectives seemed more urgent at the time. In contrast, macroeconomic policies in Asia have been more consistent and adverse repercussions from particular policies have been less evident. As in Latin America, Asian real exchange rates also depreciated substantially in the 1980s. In certain countries, including Korea, Malaysia, the Philippines and Thailand, devaluation was

required to reduce very large current account deficits. Further real depreciation after 1985 in part reflected the fall of the US dollar against other major currencies, since many Asian countries pegged their currencies to the dollar.

… but less so in Asia

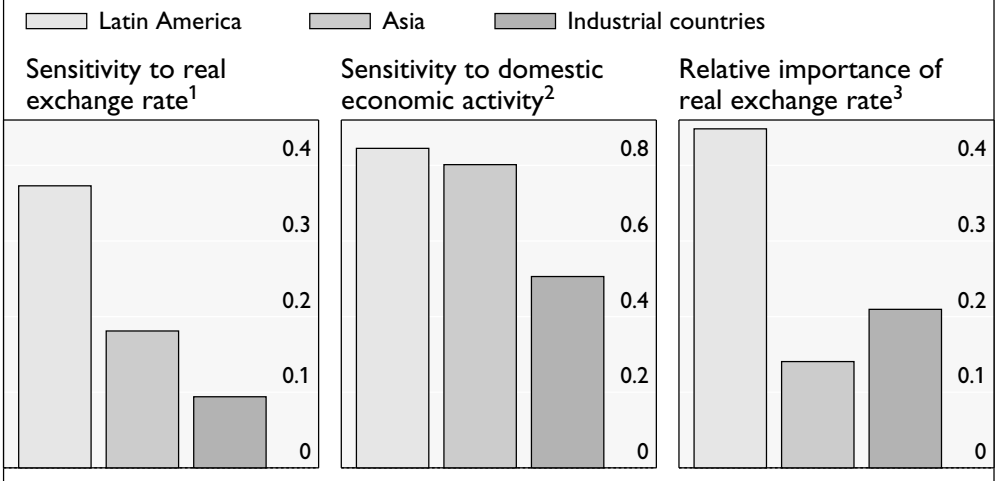
In contrast to the Latin American experience, however, the inflationary response to devaluation in Asia was relatively subdued. While Asian inflation rates picked up moderately between 1986 and 1991, as can be seen in Graph III.5, they remained well below average levels at the start of the 1980s. Moreover, again unlike in Latin America, the real exchange rate depreciation during the 1980s was not sharply reversed in the 1990s, although some slight real appreciation took place after 1992. To protect the vitality of their export sectors, many Asian countries have resisted large appreciations of their currencies, notwithstanding the strong upward pressures exerted by heavy capital inflows. In fact, it is precisely the *lack* of apparent inflationary responsiveness to the exchange rate that may have made this policy focus possible.

Estimated sensitivity of inflation to the real exchange rate …

The data shown in Graph III.5 represent merely impressionistic evidence that the underlying relationship between competitiveness and inflation has differed in the two regions. A more precise identification of the sensitivity of inflation to changes in the real exchange rate, based on the estimated relationship between the rate of inflation and the level of the real exchange rate in 38 countries, is shown in the left-hand panel of Graph III.6. The results confirm that inflation on average has indeed been more responsive in the short term to the level of the real exchange rate in Latin America than in Asia, although Asian inflation, in turn, has exhibited greater sensitivity to exchange rates than has inflation in the industrial countries.

The sensitivity of inflation to variations in domestic economic activity, shown in the middle panel of Graph III.6, is also estimated to have been higher

Estimated sensitivity of inflation in major world regions



Note: Sensitivities were estimated for nine Latin American countries, nine Asian countries and 20 industrial countries (see Graph III.7 for a list of the first two groups). Regression equations also controlled for lagged inflation, the domestic currency value of foreign inflation and long-term trends.

[1] Average percentage point increase in inflation in response to a 1 percentage point depreciation of the real effective exchange rate. [2] Average percentage point increase in inflation in response to a 1 percentage point increase in the output gap. [3] Median ratio of exchange rate sensitivity to economic activity sensitivity. Graph III.6

in Latin America than in Asia or in the industrial countries. This, together with the results described above, suggests that inflation in Latin America has generally been more sensitive to shocks than inflation in other regions, regardless of whether these shocks are associated with internal or external factors. (It is also likely that the shocks themselves – fiscal, monetary and terms-of-trade – have been more marked in Latin America than in other regions.) However, compared with Asia and the industrial countries, inflation in Latin America has been disproportionately affected by movements in exchange rate competitiveness. In the right-hand panel of the graph, the estimated sensitivity of inflation to the real exchange rate is divided by its estimated sensitivity to domestic activity. This ratio, which measures the relative strength of the real exchange rate compared with domestic activity in affecting inflation, has also been higher in Latin America than in the other regions. This is surprising, since one would expect that prices in Asian countries, with their greater degree of openness to international trade, would have been most sensitive to exchange rates.

… is higher in Latin America

It remains unclear exactly why the inflationary process should have been more sensitive to the real exchange rate in one region than in another. Much of the explanation may lie in the fact that sustained high levels of inflation, as they become embedded in the psychology and institutions of wage and price-setting, may themselves increase the sensitivity of inflation to subsequent inflationary shocks. When inflation is high and variable, the length of wage contracts tends to shorten, prices are revised with greater frequency, and expectations of future inflation become a more important determinant of current wage and price-setting. In these circumstances, factors tending to signal rising prices are likely to induce a more rapid inflationary response than would be the case in a low-inflation environment. The exchange rate has played a particularly important role in this respect since it is the most visible, frequently adjusted gauge of future movements in aggregate prices. Indeed, Graph III.7 suggests that, the higher the average rate of inflation in a country, the greater is the estimated sensitivity of inflation to the real exchange rate. By the end of the 1970s, for reasons that remain unclear, inflation had already become higher and more deeply entrenched in Latin America than in Asia. The much higher rate of inflation experienced in Latin America by that time may thus explain much of the subsequent difference in the relationship between inflation and competitiveness faced by the two regions in the 1980s and 1990s.

Importance of past inflation …

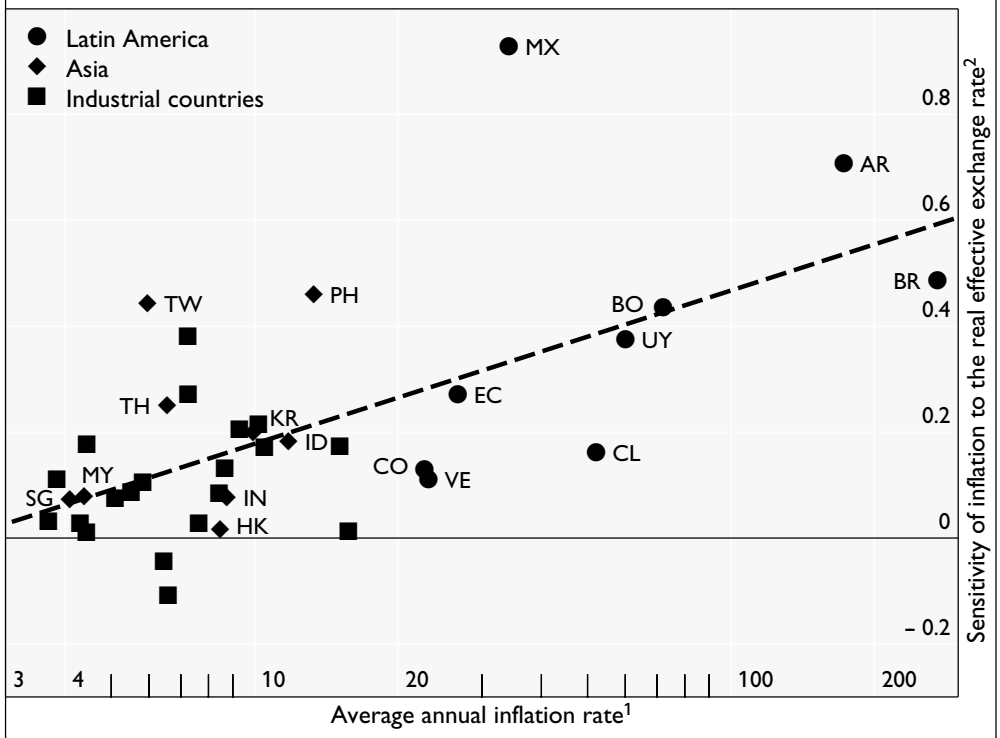
… for the degree of sensitivity to shocks …

The role of past inflation in affecting future inflation also highlights an element of instability in the inflationary process: because upward shocks to inflation heighten the sensitivity of inflation to future shocks, there is the risk that a succession of adverse shocks may lead to a rapid inflationary spiral. It is this risk that places such a high premium on reducing levels of inflation and keeping them low for extended periods.

Unfortunately, the more pronounced the linkage between inflation and competitiveness, the more difficult it is to reduce inflation substantially without risking a serious deterioration of external balance. In Mexico during the 1988–94 period, disinflation was associated with strong real appreciation, widening current account deficits and, eventually, a financial crisis. In Argentina during the early 1990s, disinflation was also associated with real appreciation and widening

… and the process of inflation reduction

Inflation sensitivity and inflation history



AR = Argentina; BO = Bolivia; BR = Brazil; CL = Chile; CO = Colombia; EC = Ecuador; MX = Mexico; UY = Uruguay; VE = Venezuela; HK = Hong Kong; ID = Indonesia; IN = India; KR = Korea; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; TW = Taiwan.

[1] Percentage change in consumer prices between 1970 and 1996, subject to data availability (logarithmic scale). [2] Estimated increase in inflation in response to a 1 percentage point depreciation of the real effective exchange rate. Graph III.7

external imbalances, and, in the wake of the Mexican crisis, only sharply contractionary fiscal policies could reduce these imbalances, restore confidence and maintain the exchange-rate-based stabilisation programme.

Structural reforms to mitigate short-term policy conflicts

These considerations point to the crucial need for structural reforms to mitigate the short-term conflict between the achievement of price stability and competitiveness. Measures to increase competition, liberalise trade, make labour markets more flexible and strengthen fiscal discipline, for example, may help to lower inflation for a given real exchange rate level. Similarly, reforms that boost efficiency and raise private saving – including privatisation and financial liberalisation – may lead both to improved export performance and to a reduced demand for imports, thereby allowing real exchange rate appreciation without a resultant deterioration of the external balance and rise in external debt. Finally, some countries have chosen to dismantle capital controls rather gradually as a means of maintaining some policy flexibility, although it is unclear how effective these controls might be in the absence of fundamental structural reforms.

Recent developments in transition economies

Weak activity in Russia despite falling inflation owing to …

Growth in *Russia* did not pick up as many had expected at the beginning of 1996 and, in fact, officially recorded output declined by a further 6% last year. Nevertheless, the country consolidated a number of gains, most notably a further

reduction of annual inflation to below 20% by early 1997. One important reason for greater price stability was the rouble exchange rate corridor adopted in 1995, which served to anchor inflation expectations at a lower level.

… poor enterprise governance …

Lack of economic buoyancy may reflect the still limited progress made in pursuing structural reform. Although privatisation was pursued further – 75% of large state enterprises and 50% of smaller enterprises are in private hands – the evolving corporate structure often failed to provide adequate incentives (in particular credible hard budget constraints) for good management and greater dynamism in the enterprise sector. Enterprises continued to build up wage and tax arrears, and involuntary debt accumulation between enterprises was again prominent. Clandestine stripping of enterprise assets is still widespread.

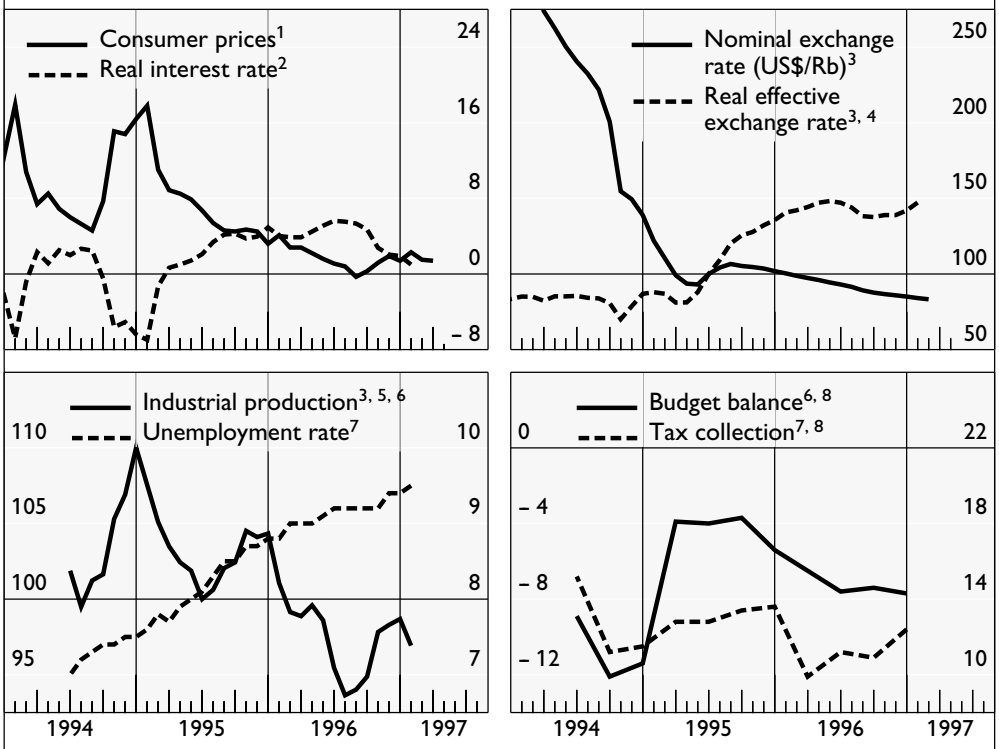
… financial sector fragility …

Against the background of an inadequate regulatory framework and insufficient incentives for efficient governance, banks' portfolios of bad loans remained substantial. In order to contain the wave of bank failures, the central bank continued its policy of providing cheap lombard credits to banks still deemed to be solvent, and of strengthening bank balance sheets through the sale of high-yielding Treasury bills. Licences of insolvent banks have been gradually withdrawn.

… and unsound public finances

The federal deficit widened to 7½% of GDP last year, in spite of continued sequestration of expenditures as only about 75% of budgeted expenditure for 1996 actually occurred. Many essential government services were either not provided or not paid for. Difficulties in collecting sufficient taxes to finance

Real and financial developments in the Russian Federation



[1] Monthly percentage changes. [2] Official refinancing rate, on a monthly basis, deflated by monthly inflation. [3] June 1995 = 100. [4] In terms of relative consumer prices. An increase indicates an appreciation. [5] Three-month moving average. [6] Left-hand scale. [7] Right-hand scale. [8] As a percentage of GDP. Federal government data. Graph III.8

spending were at the root of the problem. Weak enforcement has fuelled incentives to evade taxes: only 17% of economic agents complied with their tax liabilities in full and on time. In part, the poor collection record has also reflected a shift of activity and resources from the taxed official sphere into the untaxed shadow economy. Concerns about tax administration were partly responsible for a number of delays in 1996 and early 1997 in the disbursement of individual tranches of the $10 billion IMF credit granted in March 1996.

Developments in Eastern Europe

Growth in most major economies in *Eastern Europe* stayed close to the levels seen in 1995. Domestic demand growth, supported by rising real wages and vigorous investment, registered 8% and 10% in the Czech Republic and Poland respectively, and was even greater in the Slovak Republic. In Hungary, however, domestic demand was subdued, in part reflecting declines in real wages. Growth declined in Romania as well, while in Bulgaria output plunged by 11%.

In contrast to demand buoyancy at home, most countries faced weak export markets, most importantly in the European Union. Relative demand pressures were amplified by losses of competitiveness in the Czech and Slovak Republics and in Poland. A marked slowdown in export growth resulted while the momentum of imports remained strong, leading to a significant widening of current account deficits. Hungary's current account deficit, in contrast, shrank to about 4% of GDP as weak domestic demand limited import growth.

Policy challenges in the region

Two main challenges face Eastern Europe. First, despite improved profitability and a stronger capital base, the financial sector in many countries remains vulnerable, owing to widespread state control of banks, a high incidence of doubtful loans and weak corporate governance, especially in smaller banks. Secondly, as the transition to a free market system progresses, conflicts between macroeconomic objectives (as described in the preceding section) may assert themselves. In Hungary and Poland, inflation eased to below 20% and further declines may require either a slowing of the rate of exchange rate depreciation – at the price of diminished export competitiveness in the medium term – or a slowing of the growth of aggregate demand and output. In the Czech and Slovak Republics, inflation is relatively low, but external imbalances have become a cause for concern. This may require either further fiscal tightening to restrain demand (as in the Czech Republic in April 1997), significant wage moderation or an exchange rate depreciation that risks somewhat higher inflation in the near future.

Currency board arrangements

Faced with a rapid withdrawal of bank deposits, a collapse of the exchange rate, soaring inflation and plummeting growth, Bulgaria decided to introduce a currency board system in mid-1997, thus joining Estonia and Lithuania, which have both established currency boards in recent years. Bosnia-Hercegovina is also contemplating the introduction of such an arrangement, while Latvia's monetary framework resembles one. Argentina's 1991 Convertibility Plan is the most noteworthy currency-board-like scheme to have been established recently outside the transition economies.

Currency board principles

A strict application of the principles of a currency board requires a rigid exchange rate link to a reserve currency, the issuance of base money only in

exchange for equivalent amounts of foreign exchange, and the prohibition of all central bank lending. In most arrangements, however, some limited flexibility in the application of these principles is permitted. For instance, a system of reserve requirements that leaves some scope for discretionary liquidity management is often retained.

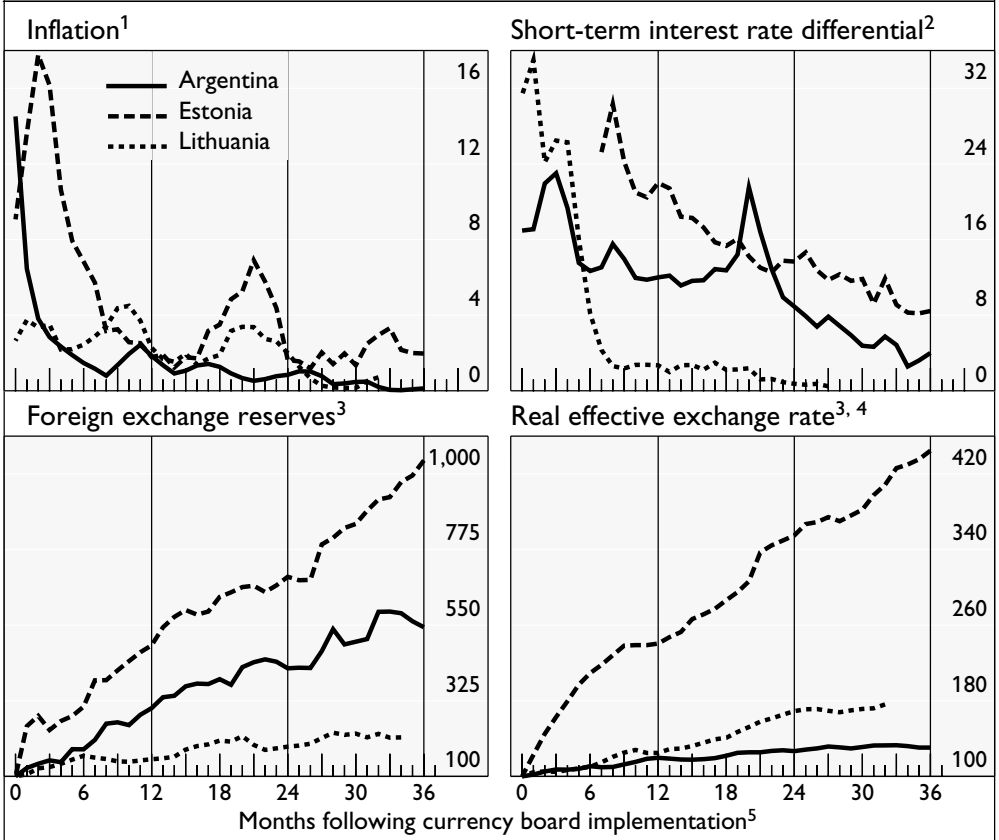
Advantages include transparency and simplicity …

Currency boards can offer a number of advantages. Establishing a fixed and rigid link between domestic currency issuance and changes in international reserves is transparent and simple. These are useful attributes for immature financial markets or institutions with limited policy-making experience. Also, by tying the hands of the monetary authorities, it greatly reduces the scope for discretion or outside political pressure. This could enhance the credibility of anti-inflation policies, make price expectations more responsive and speed up inflation reduction. In turn, this helps to ease the conflict between inflation and competitiveness objectives observed in monetary regimes that allow more scope for discretion. Finally, as a currency board commitment may inspire more confidence in the fixity of the exchange rate than a standard fixed exchange rate arrangement, access to and funding costs on international financial markets may also become more favourable.

… policy credibility …

… and exchange rate confidence

Developments in countries with currency boards



[1] Three-month moving averages of monthly percentage changes in consumer prices. [2] For Argentina and Lithuania, vis-à-vis the three-month US deposit rate; for Estonia, vis-à-vis the German lending rate. [3] Indices, implementation month = 100. [4] In terms of relative consumer prices. An increase indicates an appreciation. For Estonia and Lithuania, vis-à-vis industrial countries only. [5] For Argentina, April 1991; for Estonia, June 1992; for Lithuania, April 1994. Graph III.9

Existing currency-board-like arrangements in the transition economies, as well as in Argentina, have been instrumental in bringing down inflation and building credibility (Graph III.9). Both Argentina and Estonia saw inflation drop sharply within one year following the introduction of the currency board, gains which were preserved subsequently. Interest differentials vis-à-vis the reserve currency country have continued to narrow, while the significant rise in international reserves (often initiated by public sector borrowing abroad and, as the arrangement gains credibility, supported by a reversal of capital flight) has been indicative of the public's willingness to increase the stock of financial assets denominated in domestic currency.

But there are risks …

However, a currency board arrangement is subject to three sources of vulnerability, which, as in the case of Lithuania in early 1997, may force a loosening of the rules. First, because it is an exchange-rate-anchored policy in its most extreme form, a currency board raises the probability of the real exchange rate becoming misaligned. Inflation reduction cannot be instantaneous, so that some erosion of competitiveness in the initial stages of a currency board regime is unavoidable. Significant real exchange rate appreciation took place in Argentina, Estonia and Lithuania. Moreover, it may be harder to deal with shocks which cause the equilibrium real exchange rate to change.

… of exchange rate misalignment …

… insufficient fiscal support …

Secondly, the credibility of a currency board arrangement depends to a large extent on the fiscal policy stance. Only when financing requirements remain modest will pressures for central bank credit be absent and confidence in the exchange rate link strong. Argentina has supported monetary reform since 1991 with restrictive fiscal management, even at the height of the Mexican financial crisis. Estonia's fiscal approach has also been conservative.

… and difficulties in managing banking sector problems

Finally, in the absence of lender of last resort facilities, managing a fragile financial system can be problematic. Argentina, Estonia and Lithuania have all had to deal with banking sector problems in recent years. Without apparent loss of credibility, Argentina was able to use the limited room for flexibility within its arrangement (including a lowering of reserve requirements and the issuance of a small amount of dollar-denominated public sector bonds) to deal with the sharp reduction in domestic liquidity which the Mexican crisis had triggered in early 1995. Less flexibility seemed to exist or to have been relied on in Estonia when it allowed a large bank to fail in late 1992 at great cost to depositors and shareholders. This puts a premium on ensuring that the major building-blocks of a robust financial system are in place.

IV. Monetary policy and asset prices in the industrial countries

Highlights

The monetary policy environment in the industrial countries last year was characterised by continuing low inflation and sharp increases in the prices of financial assets. Headline inflation in many countries remained below 2%, but approached 3% in the United Kingdom and temporarily exceeded that level in the United States, where economic activity was strong. The buoyancy of the US economy and concerns that price pressures were building up led to a 25 basis point increase in the federal funds rate in late March 1997. In Japan, where a moderate recovery is under way, the general level of prices rose for the first time since early 1995. Considerable progress towards price stability was made in Italy and Spain, where inflation fell below announced objectives in 1996.

Low inflation and, in most countries, subdued economic growth throughout the year provided the foundation for a resumption of the global bond market rally that was briefly interrupted during the first quarter of 1996. At the same time spreads between historically high-yielding bonds and US and German bonds fell dramatically. With the major exception of Japan, equity markets also recorded very substantial gains, although the turn to a more restrictive monetary policy stance in the United States towards the end of March this year was associated with stock price declines in many countries.

While fundamentals in the spring of this year were favourable, price advances in some equity markets could contain an unsustainable element, giving rise to the concern that a fall in asset values may influence economic conditions negatively. More generally, movements in asset prices raise the issue of how monetary policy should react to such changes. This is a complex question, particularly in the current case, where price increases have been limited to financial assets with property prices on the whole little affected.

Monetary policy in the three major economies

Diverse conditions in the major economies

The macroeconomic environment facing central banks in the three major economies last year was diverse. With increasing signs of strong economic activity and inflationary pressures, policy was tightened modestly in the United States in March this year. In Japan, where a substantial output gap still exists, the stance of policy was unchanged and remained very accommodative although the recent period of falling prices came to an end. In contrast to the United States, monetary policy was relaxed slightly in Germany, where output continued to grow by less than potential and the rate of inflation fell further below the 2% level.

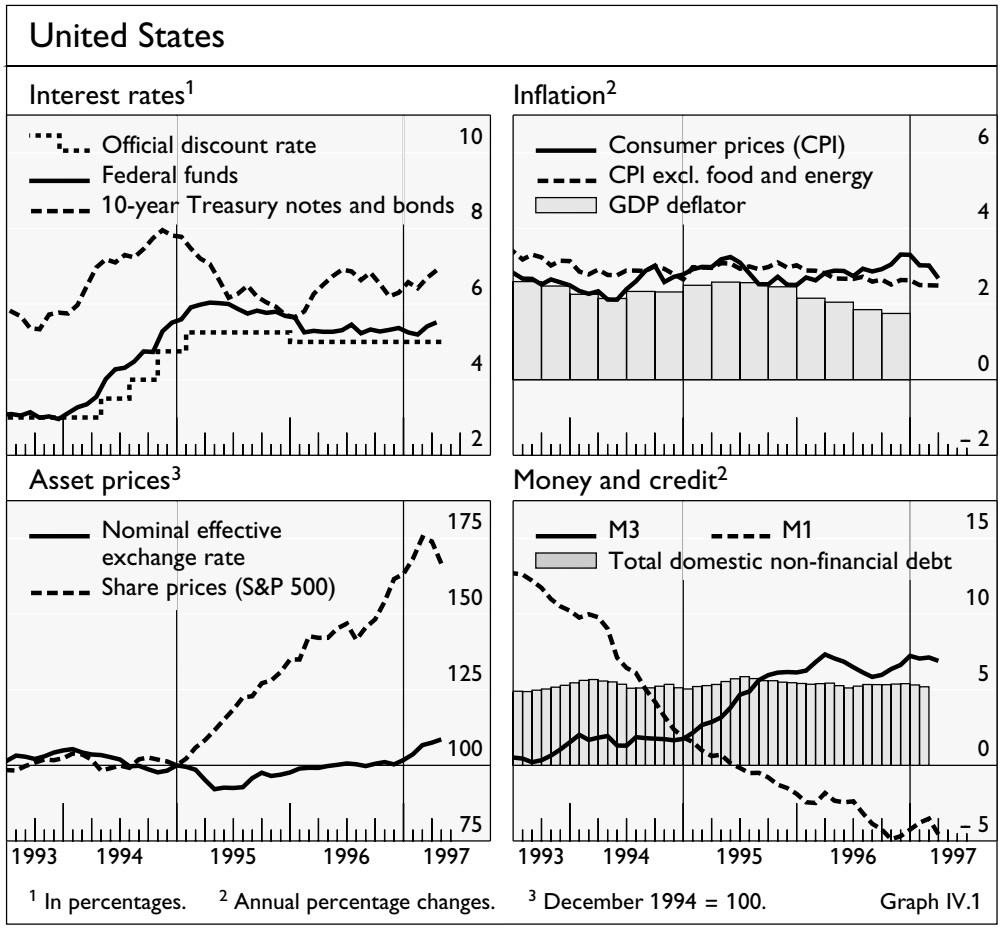
United States

Uncertainty about the future course of inflation

The primary policy question faced by the Federal Reserve last year was whether to tighten monetary policy to pre-empt a rise in inflation. The year was characterised by considerable uncertainty about the future course of inflation, with evidence at times pointing to growing pressures in goods and labour markets, and by sharp increases in stock prices.

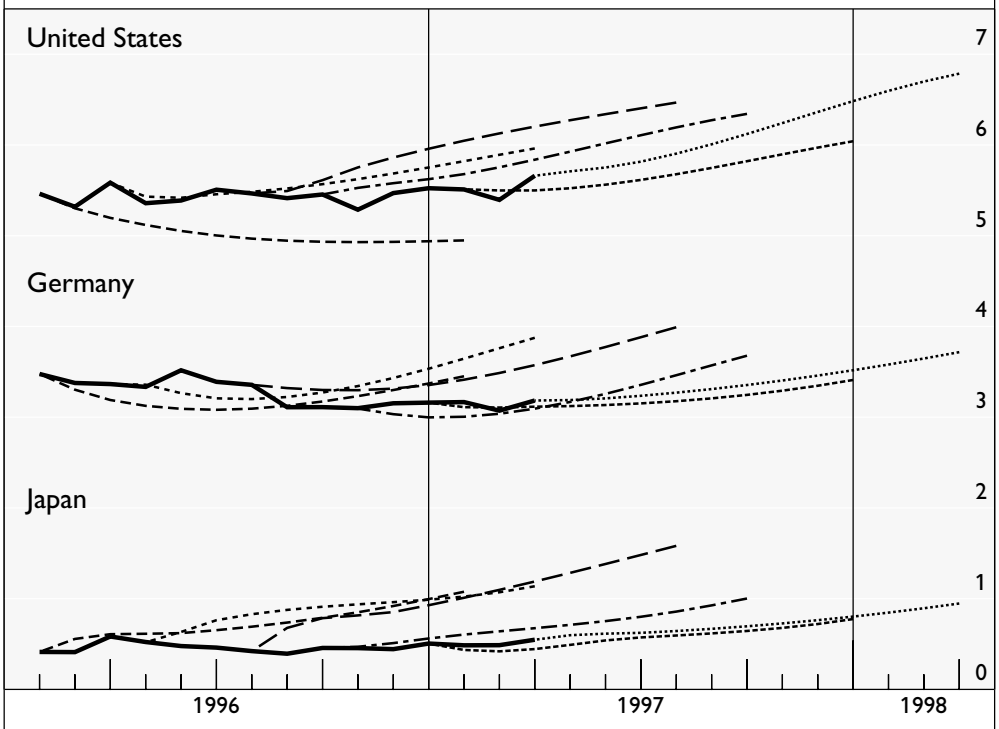
While financial markets expected the monetary easing in December 1995 to continue in early 1996, economic conditions during the spring, in particular the rebound of activity and some strengthening of headline inflation, increasingly suggested that inflation could be on the point of an upswing. As a result, market participants came to view a tightening of policy as more and more likely, as reflected in the rise in ten-year bond yields from 5.6% to 6.9% between the end of January and May, and in rising forward interest rates. This shift in expectations was also associated with an appreciation of the dollar in effective terms.

In the summer, however, incoming data suggested that economic activity was moderating to more sustainable levels, and headline inflation seemed to abate. In the light of these developments and the fact that the Federal Reserve declined to tighten policy, market participants revised their expectations of the future path of short-term interest rates downwards. This process was reinforced during the autumn as evidence accumulated that growth was slowing in the third quarter. Moreover, while headline inflation continued to rise, underlying inflation, as measured by the consumer price index excluding food and energy, fell further,



Overnight and forward interest rates*

At end-month, in percentages



* Estimated overnight eurocurrency deposit rate (thick line) and continuously compounded instantaneous forward rates (thin lines), estimated using deposit rates at the end of January, March, July, September and December 1996 and March 1997.

Sources: Reuters and BIS calculations. Graph IV.2

reaching 2.5% in October. Towards the end of the year, however, it became clear that economic activity was expanding rapidly, and expectations of a tightening of policy re-emerged.

Policy tightened in March to pre-empt increasing inflation

In view of the persistent strength of activity, in March 1997 the Federal Reserve tightened the stance of policy slightly by raising the federal funds rate by 0.25 percentage points to 5.5%. This interest rate adjustment is indicative of the greater emphasis placed by many central banks on the tightening of policy in advance of increases in inflation, and illustrates a growing recognition that it is easier to prevent inflation from rising above the range considered desirable by the authorities than to reduce it once it has moved beyond that range.

In setting policy, many central banks use estimates of the non-accelerating inflation rate of unemployment (NAIRU) or the output gap as a broad guide to underlying inflationary pressures. Although unemployment in the United States fell below many previous estimates of the NAIRU and some evidence pointed to output above potential, inflation increased only very moderately. While this may be an indication that the NAIRU has fallen to a lower level, the usefulness of the output gap and the NAIRU as a practical guide to policy is limited by the fact that these concepts are difficult to estimate precisely.

Japan

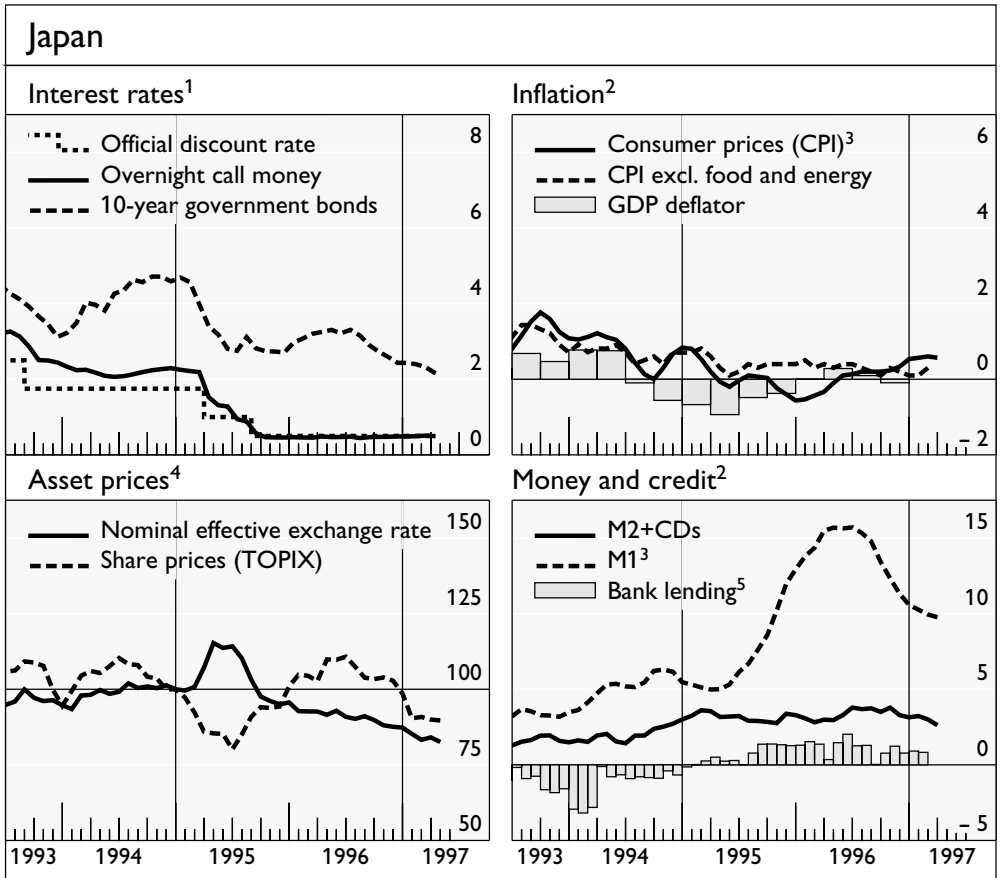
In Japan, the authorities adopted a wait-and-see attitude to assess whether the cut in the discount rate to 0.5% in September 1995 would be successful in

Policy unchanged but monetary conditions loosened

promoting recovery. While policy instruments were left unchanged, monetary conditions – as reflected in the real effective exchange rate and real interest rates – continued to loosen last year. With interest rates very low by international standards, the yen continued the depreciation that had started in the summer of 1995, and which has led to a gradual increase in import prices. In turn, this brought an end to the tendency for prices, as captured by the consumer price index and the GDP deflator, to fall. Both of these measures of prices rose marginally in the second quarter of 1996 for the first time since early 1995. With no change in nominal short-term interest rates, real short-term interest rates fell further, which stimulated the recovery.

In contrast to official interest rates, market interest rates did change during the year. The sharp increase in GDP growth in late 1995 and early 1996 led to a rise in the yield on ten-year government bonds of 0.3 percentage points in the first half of the year to 3.2% at the end of June. Similarly, forward interest rates in late May indicated that market participants expected policy to be tightened and the overnight rate to reach about 1.3% by year-end (Graph IV.2).

While markets continued to anticipate a tightening of policy, the Bank of Japan maintained the expansionary stance of policy during the autumn as the recovery failed to strengthen and balance-sheet problems remained. In response, yields on ten-year bonds declined gradually to reach 2.6% by the end of 1996 and fell somewhat below this level in the early months of 1997.



[1] In percentages. [2] Annual percentage changes. [3] Three-month moving average. [4] December 1994 = 100. [5] To the non-financial private sector. Graph IV.3

During 1996, progress was made with regard to the revision of the Bank of Japan Law, which dates from 1942 and is increasingly seen as being outmoded. The thrust of the proposals submitted by the Central Bank Study Group to the Prime Minister in November last year was that the law should be revised to clarify that price stability is the most important objective of policy, to strengthen the Bank's independence and to secure transparency and accountability in the conduct of policy. Deliberation of the draft bill started in Parliament in March this year with the intention of passing the bill into law by June. The bill has been welcomed by the Bank of Japan, which since 1995 has taken a range of measures to increase the transparency of policy, in particular by providing more complete information on its view of the outlook for the economy and the considerations underlying policy changes.

Changes to the Bank of Japan Law proposed …

… to strengthen independence, transparency and accountability

Germany

Monetary policy in Germany last year had to contend with a pause in the recovery which exacerbated the uncertainty regarding the outlook for fiscal policy. Determining the appropriate speed and extent of policy adjustment is difficult under these circumstances, in that an excessive easing can generate inflationary pressures if the recovery is stronger than expected or if announced measures to consolidate public finances are not implemented. On the other hand, maintaining the policy stance can delay recovery, worsen the outlook for fiscal restraint and thereby complicate the environment for monetary policy in the future. In the end, the stance of policy was relaxed slightly in August, when the repurchase rate was reduced by 0.3 percentage points to 3.0% in the light of a tendency for M3 growth to decelerate, after having exceeded the 4–7% target range since the beginning of the year, and continued inflation close to 1.5%.

Uncertain outlook for fiscal policy

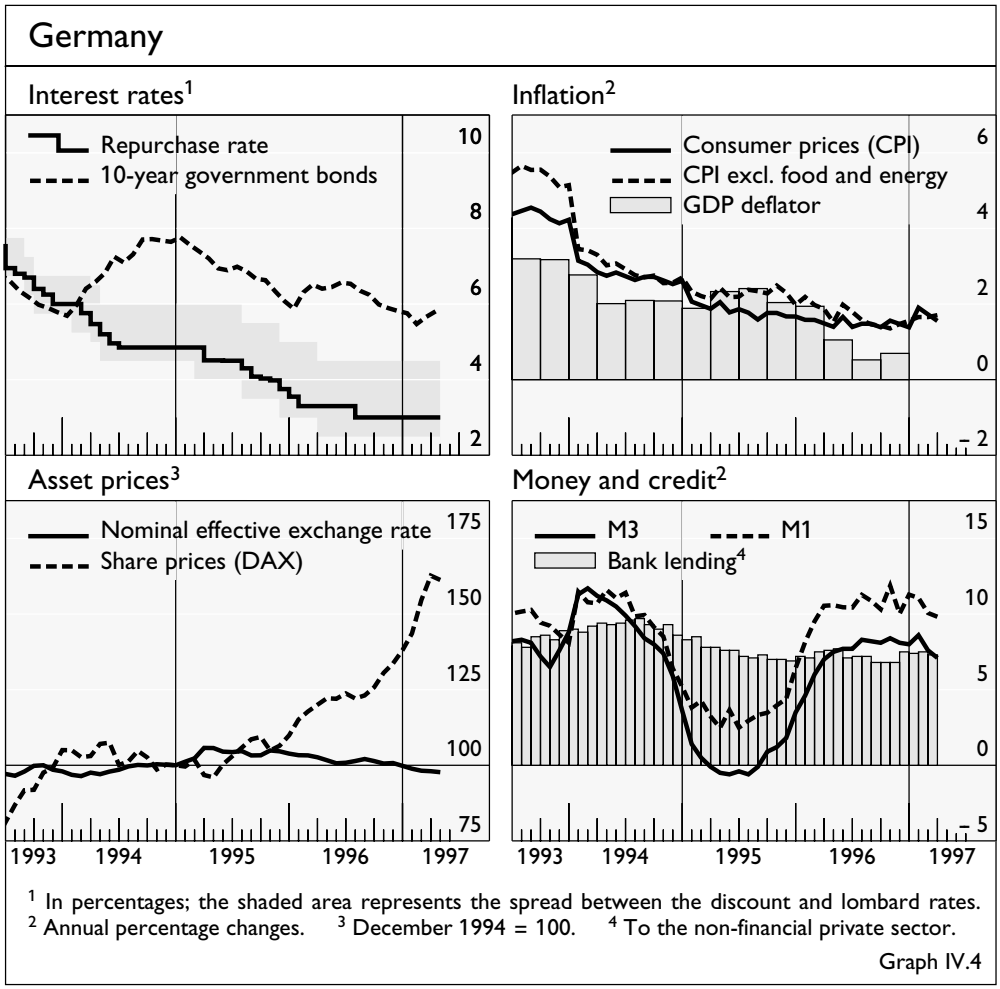
The behaviour of long-term interest rates in Germany last year illustrates the relative usefulness of long interest rates and forward interest rates as indicators of policy changes expected in the immediate future. Thus, ten-year interest rates rose from 5.9% at the end of January to 6.6% at the end of June, suggesting that it was expected that monetary policy would be tightened (Graph IV.4). In contrast, forward interest rates (Graph IV.2) indicated that a loosening of policy was anticipated during the spring, and that rises in short-term rates were expected only from early 1997 onwards. Graph IV.2 also indicates that the relaxation of policy in August led to a shift in market sentiment, and that by March 1997 financial markets viewed changes in the stance of monetary policy as unlikely before the end of the year.

Interest rates and policy expectations

While M3 growth, at 8.1%, slightly exceeded the target range adopted for 1996, it largely reflected special savings schemes and was therefore not thought likely to be a harbinger of excessive increases in spending. The Bundesbank has adopted a new monetary target for 1997, but in a break with past practice the time horizon for the target has been extended to two years. This is intended to clarify the stance of monetary policy in the run-up to economic and monetary union (EMU). Moreover, the Bundesbank has noted that the target can serve as a reference variable for any monetary policy coordination that is necessary in the period leading up to the introduction of a single currency. The two-year

M3 growth slightly above target

Two-year target adopted



[1] In percentages; the shaded area represents the spread between the discount and lombard rates. [2] Annual percentage changes. [3] December 1994 = 100. [4] To the non-financial private sector.

Graph IV.4

target specifies average growth of M3 of 5% per year, with a target corridor of 3.5–6.5% for 1997. The exact arrangements that will apply for 1998 will be announced at the end of 1997.

Other European Union countries

Monetary convergence …

Monetary policy and financial market developments in the EU countries are increasingly shaped by the scheduled start of stage three of EMU on 1st January 1999. Two groups of EU countries can be distinguished on the basis of the degree of financial convergence. As discussed in Chapter V, markets expect the French franc, Dutch guilder, Belgian franc and Austrian schilling exchange rates against the Deutsche mark to remain at current levels. In these countries, as well as more recently in Finland, exchange rates have remained close to their central parities during the past year and short rates have converged to German levels.

For other ERM currencies, including the Italian lira and the Spanish peseta, a risk premium is still being demanded, although the spread of both short and long-term interest rates over German rates came down sharply in 1996. A similar convergence took place for the Swedish krona, but not for the pound sterling; these two currencies, together with the Greek drachma, do not currently belong to the ERM.

France and smaller ERM countries

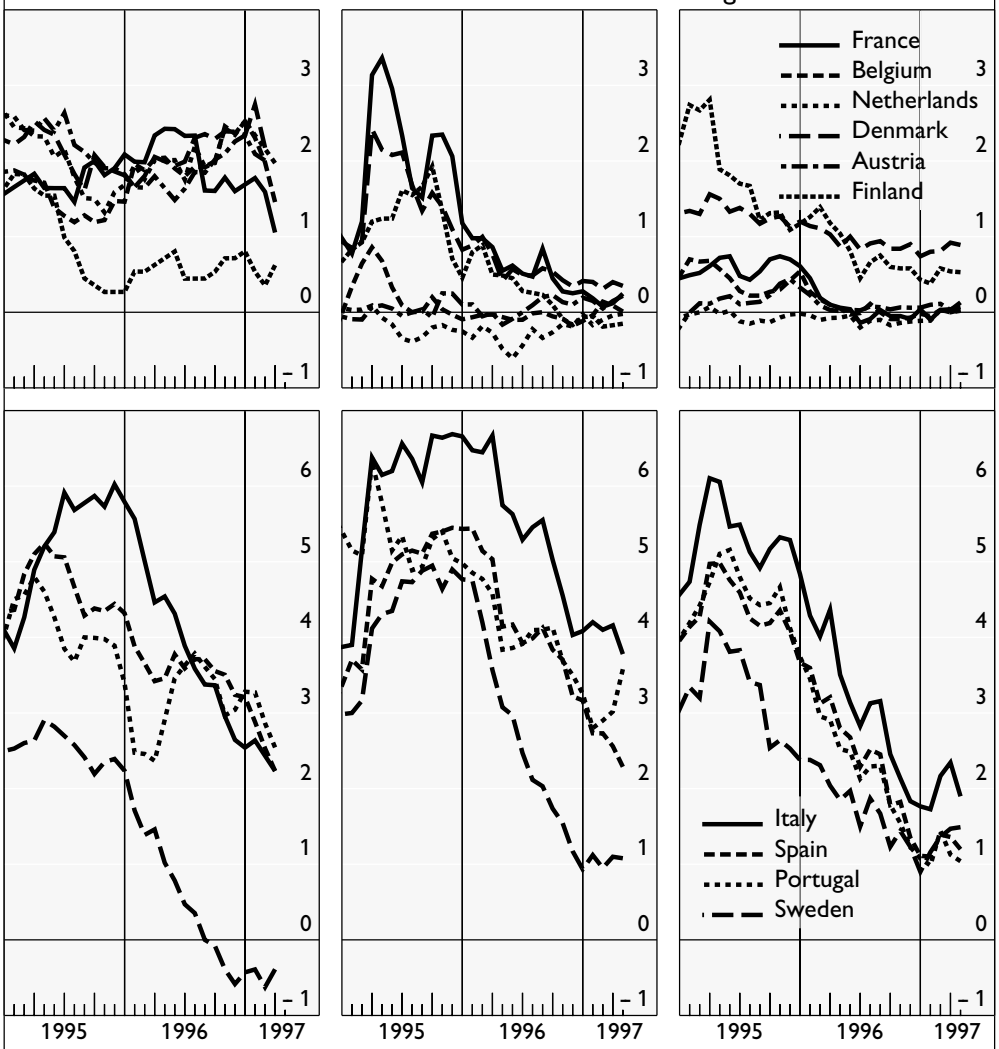
… very strong in Germany, France and smaller ERM countries …

In France, the objective that the increase in consumer prices should not exceed 2% in 1996 was met, once the effects of the 1995 VAT increase had disappeared in August. The credibility of the long-standing exchange rate commitment allowed the Bank of France to lower its repurchase tender rate from around 4.5% in January 1996 to 3.1% in early 1997. As a result, the positive three-month interest rate differential vis-à-vis Germany almost disappeared. Long-term interest rates also fell by more than 100 basis points in 1996 and have remained somewhat below German ones during the past year.

Short and long-term interest rates also converged in the smaller ERM countries. In Austria, Belgium and the Netherlands policy rates were relaxed in line with interest rates in Germany, and three-month rates fell temporarily below German rates on several occasions. Also in Finland, which entered the ERM in

Convergence in selected EU countries

In percentages and percentage points



[1] Annual percentage changes in consumer prices. [2] In three-month rates, vis-à-vis German rates. [3] In government bond yields, vis-à-vis German yields. Graph IV.5

October 1996, and in Denmark, the short-term interest rate differential almost disappeared towards the end of 1996. With the exception of Finland, headline inflation in these countries was close to 2% in 1996, but edged up slightly in some cases.

Italy, Spain, Sweden and Portugal

… but also impressive in Italy, Spain, Sweden and Portugal

In 1996 an impressive convergence of inflation and interest rates also occurred in Italy, Spain, Sweden and Portugal (Graph IV.5). In the light of a rise in inflation in the first half of 1995, the central banks in these countries had kept policy rates high for the rest of that year. In contrast, monetary policy was gradually relaxed in the course of 1996, mostly in response to the fall in inflation which followed a substantial appreciation of their currencies, accelerated fiscal consolidation and rapidly declining long-term bond yields.

In Italy, inflation fell from a peak of around 6% in the second half of 1995 to 2.6% in December 1996, significantly below the target of 4%. Towards the end of last year, the Italian monetary authorities set a new objective for inflation of less than 3% in 1997. Although official rates were cut by 75 basis points in July and October and again in January 1997, and the repurchase rate was reduced by almost 300 basis points, real short rates remained very high. As the exchange rate strengthened, the spread on government bond yields vis-à-vis Germany narrowed from a maximum of about 6 percentage points in 1995 to less than 2 at the end of 1996. These developments permitted the lira to rejoin the ERM at the end of November.

In Spain, the annual inflation rate fell gradually from more than 5% in June 1995 to less than 2.5% in the first quarter of 1997, bringing inflation within the Bank of Spain's medium-term inflation target; accordingly, the repurchase rate was lowered to about 6% at the end of 1996. The largest reduction in policy rates took place in Sweden, where underlying inflation fell below the target band of 1–3%. Headline inflation actually turned negative towards the end of 1996 because of a sharp drop in prices of imported goods and mortgage interest costs.

Countries with explicit inflation targets

Underlying inflation remained within or close to the band in those countries with publicly announced targets for inflation (Graph IV.6). In many of these countries a first test of the targets which arose from the acceleration in inflation in early 1995 appears to have been passed quite successfully.

Divergent inflation developments in Canada …

During 1996 inflation developments and the policy responses were quite different in the two largest economies with inflation targets. In Canada, inflation returned to the lower half of the target band in 1996 after the effects of exchange rate depreciation and commodity price rises in 1994 and early 1995 had faded. Although growth is expected to increase in 1997, underlying inflation is likely to remain subdued; a large output gap, in part the result of continued fiscal consolidation, should continue to put downward pressure on prices and wages. As financial markets increasingly focused on the good inflation record, along with improved public sector finances and a strengthening current account, the long-term interest rate differential vis-à-vis the United States disappeared towards the

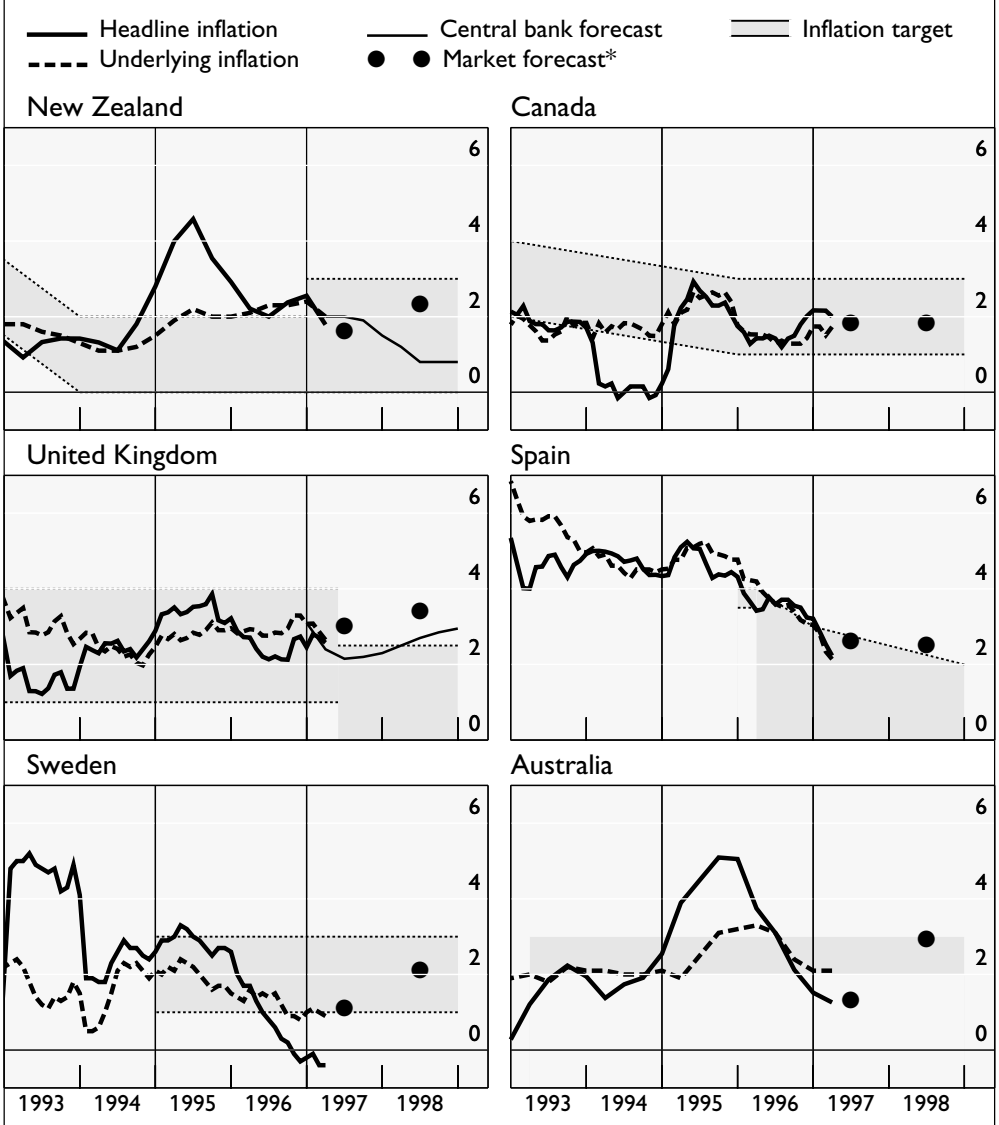
end of 1996 and the Canadian dollar appreciated. In the light of these developments, the operating band for the overnight interest rate was reduced by more than 200 basis points in 1996, implying a substantial easing of monetary conditions (Graph IV.7).

… and the United Kingdom

In contrast, the annual rise in retail prices excluding mortgage interest payments in the United Kingdom was 3.1% in December 1996, and thus above the Government's 1997 target of 2.5% or less. Nevertheless, official short-term interest rates remained quite stable during 1996 as the 25 basis point cut in June was reversed in October. In the course of the year the balance of the expansion shifted from net exports to strong growth in domestic demand, increasing the likelihood of inflation continuing to be above the band in the future. This led the Bank of England to recommend a further rise in policy rates, which may have

Inflation in selected countries: actual, forecasts and targets

Twelve-month changes in consumer price indices, in percentages

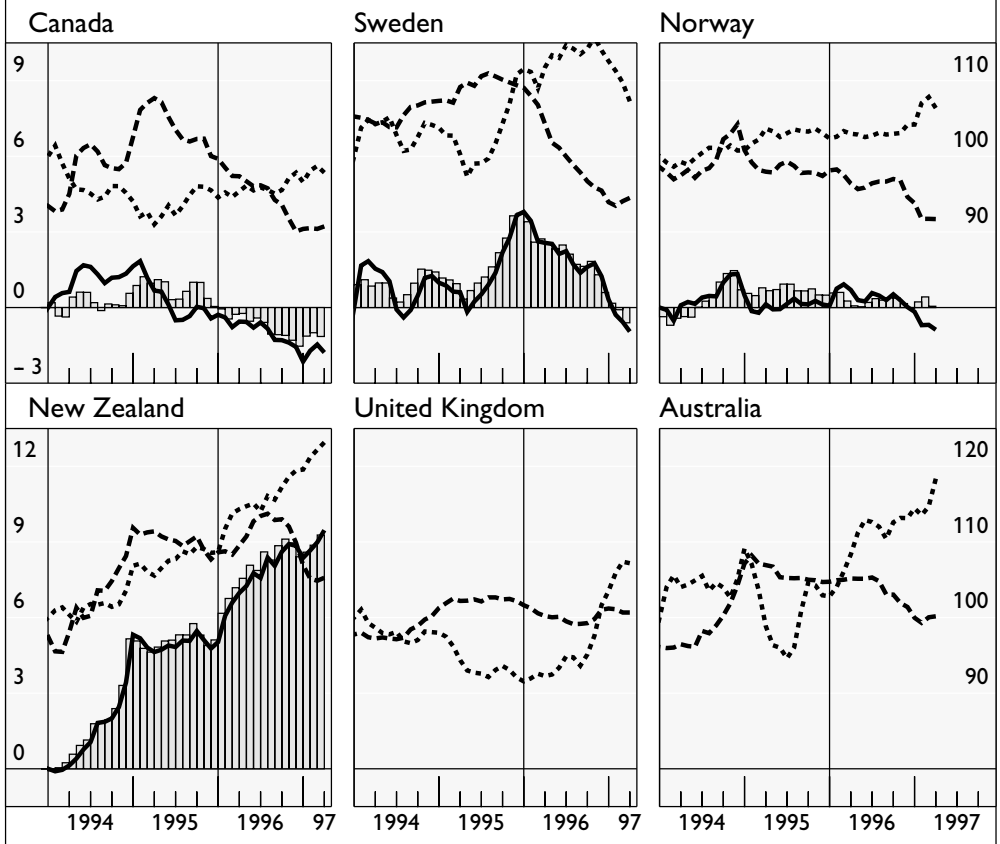


Note: For an explanation of underlying inflation and targets, see last year's Annual Report, pp. 62-71.

* Of average annual headline inflation; surveys conducted in March 1997.

Sources: © Consensus Economics, London, and national data. Graph IV.6

Monetary conditions in selected countries



[1] Calculated as the weighted index (end-1993 = 0) of the interest rate and the nominal effective exchange rate; for New Zealand, the ratio is 2:1, for the other countries, 3:1. [2] As for footnote 1, but using consumer-price-adjusted interest and exchange rates.

Sources: National data and BIS calculations. Graph IV.7

contributed to the large appreciation of sterling from August 1996 onwards (Graph IV.7).

During the year a few modifications were made to announced inflation targets. In New Zealand, a new Policy Targets Agreement, amending the upper limit of the target from 2% to 3%, was signed in December 1996 following the appointment of a new Government. The main motivation for the widening of the band was to lessen problems of excessive policy activism arising from having a relatively narrow band. In Spain, a reduced inflation target of 2.5% towards the end of 1997 and 2% from 1998 onwards was announced at the end of 1996 in order to underline the intention to comply with the Maastricht inflation convergence criterion.

Exchange rates and the monetary policy response

The policy response depends on …

One policy issue that re-emerged in 1996 was how to respond to exchange rate movements which may be quite pronounced, as observed last year in Australia, New Zealand, Norway and the United Kingdom. Under a floating exchange rate

regime, monetary authorities need to determine whether such changes are best disregarded, offset, or even reinforced by policy.

… the source of the shock: …

As with policy responses to other asset price movements, the answer depends on the sources of the shocks affecting the exchange rate and their effects on the inflation outlook. For example, the appreciation of the Australian dollar in early 1996 may have been driven primarily by rising commodity prices. If so, the appreciation offsets the inflationary effects that otherwise arise from such terms-of-trade improvements, and the monetary authorities may find the exchange-rate-induced tightening of monetary conditions helpful. Another illustration is the appreciation of the pound sterling from August 1996 onwards, which, as indicated by a widening of forward interest rate differentials, can in part be explained by the anticipation of a tightening of domestic monetary policy in response to strong domestic demand growth relative to continental Europe. To the extent that such market anticipations are consistent with the central bank's desired future path of policy rates, there again appears to be no need to offset the exchange rate movements.

terms-of-trade movements …

… changing relative demand growth …

… or monetary and financial factors

However, exchange rates may overshoot in reacting to economic developments and may also be affected by monetary and financial factors such as changes in credibility and risk premia. For example, the strengthening of exchange rates in Canada and Sweden in 1996 was partly the result of the improved credibility of the announced inflation targets. Because such exchange rate movements are likely to affect import prices and aggregate demand without necessarily changing the central bank's view of underlying inflationary pressures, central banks may wish to offset them to maintain the stance of policy.

The use of an MCI as an operating target …

A number of central banks have adopted a monetary conditions index (MCI) in order to incorporate the exchange rate formally into the design of policy. While the MCI is defined in all countries as a weighted average of a short-term interest rate and an exchange rate, with the weights determined by the respective elasticities of aggregate demand, its exact use in the conduct of policy differs between countries. In Canada and New Zealand, it is used as an operating target: that is, in the context of the periodic assessment of the inflation forecast, the central bank forms a view of a desirable interim range for the MCI and uses its policy instruments to achieve it. In contrast, in Sweden, Norway, Finland and Iceland it is used as an ex post indicator of the stance of policy.

… does not obviate the need to interpret exchange rates

Setting an operating target for the MCI does not obviate the need to determine whether a given exchange rate change reflects real or financial factors. In the former case, the desired MCI changes and policy action may be unnecessary. In the latter case, the desired MCI remains unchanged and policy rates can be moved to offset the effect of the exchange rate change on aggregate demand. One possible explanation for the fact that some central banks use an MCI and others do not relates to differences of view as to the "normal" source of exchange rate changes. Central banks that use the MCI as an operating target implicitly assume that their source is financial. Thus it is optimal to offset exchange rate movements unless the central bank has additional information indicating that the stance of monetary policy should change. This view may reflect the fact that historically monetary and financial factors have been the most important source of exchange rate variability in such countries. In contrast, other

central banks, including the Bank of England and the Reserve Bank of Australia, may adhere to the view that, beyond the very short term, most movements in the exchange rate are driven by real factors, in which case setting an operating target for the MCI does not seem helpful.

Fiscal consolidation and the monetary policy response

The policy response depends on …

Another and more general policy issue that arose in many countries last year concerns the appropriate monetary policy response to fiscal tightening. According to OECD estimates, the structural deficit in the EU countries was reduced by almost 1% of GDP in 1996 and is expected to improve by even more in 1997. In Japan, public expenditure is expected to fall this year and the general consumption tax was raised from 3% to 5% in April 1997. Such large fiscal corrections potentially have significant demand effects on output and inflation. Several factors may be important in deciding how monetary policy should respond.

… the size, composition and credibility of the package …

The size, composition and credibility of the consolidation package are of significance for both the extent and the timing of the monetary policy response. The extent of the policy response depends on whether the short-run negative demand effects of fiscal tightening are offset by positive expectational effects on private consumption and investment. Previous episodes of substantial fiscal consolidation have shown that there is no clear negative correlation between the size of fiscal consolidation and growth performance. On the contrary, large and persistent improvements that focus on cuts in government consumption and transfers, rather than tax increases, have in some circumstances had favourable growth effects, suggesting that positive expectational effects can appear if the programmes are thought to be comprehensive and durable. Secondly, a high credibility of the proposed consolidation package reduces the obvious risk in a pre-emptive easing that the proposed consolidation programmes may not be carried out, resulting in a too expansionary policy mix.

… the initial conditions …

The appropriate monetary policy response also depends on initial conditions. Many European countries, Canada and Japan are currently experiencing low inflation and high unemployment. Fiscal consolidation in such an environment is less likely to produce large, positive expectational effects and could bring some economies into the deflation zone with its related risks. In such circumstances "taking out some monetary policy insurance" may be a good idea. In contrast, in Ireland, the Netherlands and Norway, the effects of fiscal tightening can help to stave off inflationary pressures, while in Italy, Spain and Portugal the need for further disinflation and a less favourable inflation record warrant a more cautious response.

It must also be borne in mind that fiscal consolidation is taking place in many countries at the same time. This implies that it is harder to use the exchange rate to stimulate demand through net exports. If the interest rate transmission channel works more slowly than the exchange rate channel, a more rapid monetary policy response might be appropriate. Of course, the need to maintain stable exchange rates in the run-up to EMU effectively precludes the independent use of the exchange rate and indeed interest rates in many European countries.

… and asset market signals

Finally, monetary policy-makers may rely on asset market signals to condition their response to fiscal tightening. Some information as to the markets' assessment of the impact of a consolidation package may be obtained from a combined analysis of the reaction in bond and foreign exchange markets. If markets expect short-term rates to fall in response to the slack in the economy following fiscal tightening, then one would expect bond yields to decline and the currency to depreciate. Some signs of this happening in 1996 were evident in the effects of anticipated budget proposals on financial markets in Germany. In such a case the fall in bond yields and the depreciation of the exchange rate may crowd in demand, although this may be only temporary if not followed up by declines in short rates. In contrast, the exchange rate may strengthen while bond yields are falling if a credible fiscal package also reduces expected inflation or risk premia, as happened in Canada, Italy and Sweden in 1996 (see Graph V.8 in Chapter V). Such a response may increase the room for manoeuvre for a relaxation of the policy stance.

However, in deciding whether to react to asset price movements, it must be recognised that the central bank's assessment of the impact of fiscal consolidation may differ from the markets' and that asset prices may overshoot in response to anticipated economic developments. As discussed below, the global nature of the strong convergence of bond yields in 1996 suggests that speculative factors may also be at play, in which case the convergence may be partly reversed and the policy response may have to be more cautious.

Asset price developments

Large gains in bond and equity markets …

Against a backdrop of generally subdued economic growth and low inflation, bond and equity markets recorded large gains last year. Yet even though fundamentals currently seem favourable, there is concern that price advances in some markets could contain an unsustainable element. Although most of the discussion concerning potential overvaluation has focused on equity markets, especially in the United States, recent bond market increases also warrant attention. The strong convergence of bond yields in Europe, and the sharp declines in rates in the historically high-yielding markets, suggest that part of the explanation for the recent gains in asset values may be an increased appetite for risk which might easily be reversed.

… with few exceptions

Major exceptions to the trend towards higher financial asset prices during the period under review are the Japanese stock market and the US bond market. While the other major equity markets posted strong gains, the value of Japanese equities fell by 16%. And while most major bond markets have rallied, long-term interest rates in the United States moved higher, partly in response to signs of continuing economic strength. The tightening of monetary policy in March this year put additional upward pressure on US long rates and triggered a fall in the US stock market.

Decoupling of bond yields

One notable development in bond markets last year was a fall in German yields to levels substantially below those in the United States. More recently, the spread

Correlation of long and short-term interest rates*

	United States versus Germany				United States versus Japan			
	1975–79	1980–84	1985–89	1990–96	1975–79	1980–84	1985–89	1990–96
Long-term	0.52	0.65	0.81	0.61	0.19	0.40	0.67	0.52
Short-term	0.80	0.74	0.60	–0.57	0.73	0.33	0.30	0.11

* Between detrended interest rates calculated as the difference between the actual interest rates and the uncentred moving averages over the past two years.

Sources: National data and BIS calculations. Table IV.1

between long rates in the United States and Germany has widened further, seemingly reflecting a divergence of real economic conditions in the two countries. Although this recent decoupling of bond yields has been the subject of much discussion, what is perhaps more surprising is that it did not occur earlier. From the start of 1993 to the end of 1996, the spread between short rates in the United States and Germany swung from almost –400 basis points to over 200 basis points, while the difference in long rates between the two countries increased by around 100 basis points. Although detrended short-term interest rates in these countries over the 1990–96 period were negatively correlated, and indeed strongly so, the correlation of long-term interest rates remained high.

Divergence of short rates …

The generally high degree of comovement of long-term interest rates in the three largest economies over the 1990–96 period, despite substantial divergences in cyclical positions, has led to concern that, even under floating exchange rates, international factors might overshadow domestic considerations in the determination of long rates. An implication of this view is that the link between policy rates and longer-term rates might be weakened. This would complicate the conduct of monetary policy in countries where long rates play an important role in the transmission mechanism. However, an alternative explanation for the divergence of short and long-term rates in Germany has also been suggested which relies on more local considerations: the rise in German long rates during a period of economic weakness reflected a concern that the euro might be a weaker currency than the Deutsche mark. The recent decoupling of rates in the United States and Germany perhaps indicates a revision of views in this regard, or a downward revision of expected future short rates in Germany for other reasons.

… was not reflected in long rates

Strong bond yield convergence in Europe

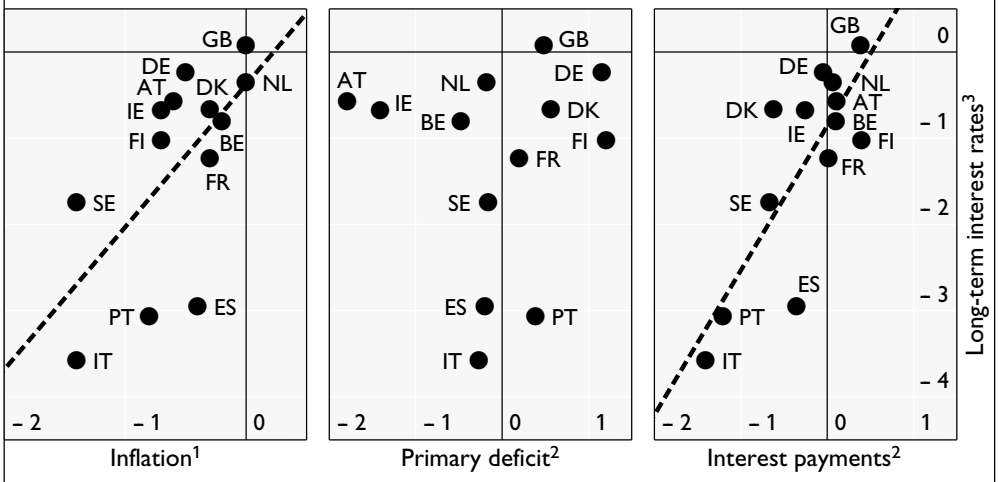
As German yields fell below US rates, spreads over German yields within Europe fell impressively. The prospect of EMU is obviously a special factor in Europe. As short-term interest rates will be unified in a future single currency area, changes in the perceived likelihood of participation in EMU have important effects on yield differentials. This likelihood is itself a function of political factors; more importantly, it also depends on whether countries are expected to fulfil the convergence criteria as laid down in the Maastricht Treaty.

Bond yields converged, owing to increased likelihood of EMU …

This conditionality on the Maastricht criteria, which relate among other things to the convergence of inflation, bond yields and government debt and

Bond yields, inflation and government deficits in EU countries

Change in expectations for 1997, in percentage points



AT = Austria; BE = Belgium; DE = Germany; DK = Denmark; ES = Spain; FI = Finland; FR = France; GB = United Kingdom; IE = Ireland; IT = Italy; NL = Netherlands; PT = Portugal; SE = Sweden.

[1] Average annual percentage change in consumer prices; surveys conducted in January and December 1996. [2] As a percentage of nominal GDP; forecasts published at end-1995 and end-1996. [3] Actual change between end-1995 and end-1996.

Sources: © Consensus Economics, London, OECD and national data. Graph IV.8

deficits in 1997, has strengthened the response of long-term interest rates to changes in short-run expectations of inflation and fiscal positions. As the convergence of long-term interest rates is itself one of the Maastricht criteria, and lower yields facilitate the achievement of the fiscal criteria by both reducing the debt burden and offsetting some of the negative demand effects of fiscal consolidation, firm policies geared towards achieving the criteria may lead to a mutually reinforcing process of low inflation, improved fiscal positions and falling bond yields. However, by the same token this conditionality also increases the vulnerability to adversely shifting market expectations if uncertainty remains regarding the fulfilment of the inflation and fiscal conditions.

… and converging fundamentals …

As already discussed above, the convergence of bond yields has gone hand in hand with a convergence of inflation rates and widespread fiscal consolidation. As shown in the left-hand panel of Graph IV.8, the countries in which long-term interest rates fell most in 1996 are those in which average inflation expected in 1997 fell most during the same period. A similar relationship can also be detected between the fall in bond yields and the OECD's downward revision of deficit expectations for 1997. However, this correlation seems to be due more to the positive effect of lower interest rates on the government debt burden than to an unexpected strengthening of the fiscal restraint measures themselves. This illustrates the dangers of any major reversal of the yield convergence.

… but risk of partial reversal remains

While fundamental factors have been at play, the possibility remains that in the current environment of low interest rates a search for high yields has led to an excessive convergence of bond yields. During the 1990s there has been a strong positive correlation between the average level of short-term interest rates in the three largest countries and spreads of high-yielding European bonds over German bonds. Another indication that such global factors may be at play is that

the convergence of bond yields has not been limited to the European economies (see Chapter VII). Finally, the ERM experience shows that in the short run the strengthening of exchange rates and the resulting convergence of interest rates has at times been linked to a strengthening of the US dollar against the Deutsche mark, as was also the case in 1996 (see Chapter V).

Equity markets

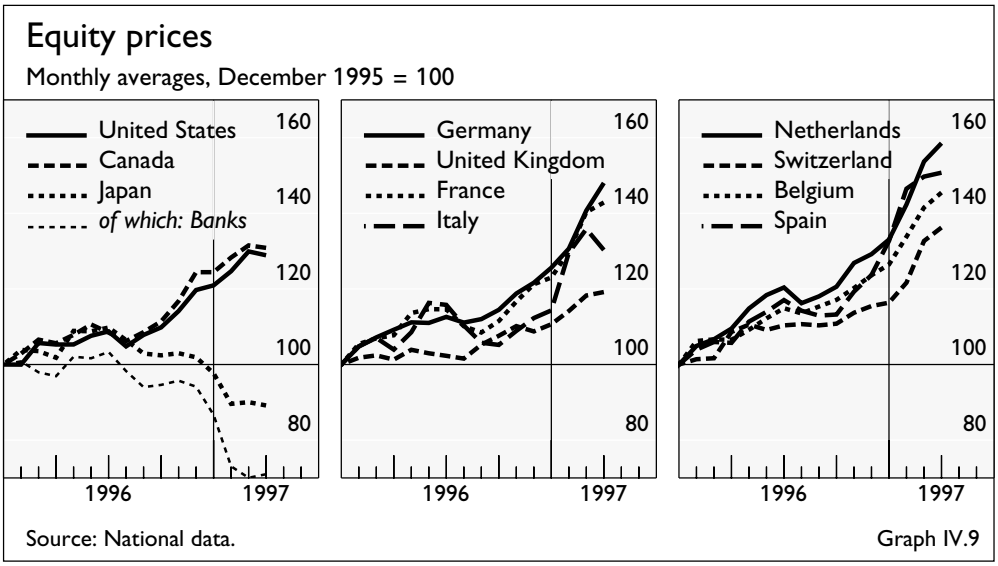
Record levels of equity indices …

Stock prices set new records last year, with equities in the Netherlands, Spain and Sweden recording the largest gains during the period under review. In most instances these sharp gains also came after large, cumulative increases in the previous four or five years. The major exception to the trend towards higher share values is Japan, where concerns about the impact of fiscal tightening on growth prospects and uncertainty over the impact of prospective financial deregulation have put downward pressure on equity prices. Japanese bank shares have been especially hard hit. One important factor contributing to the recent decline has been the unwinding of cross-shareholdings following the decision of the authorities not to rescue the shareholders of the failed Hanwa Bank.

… are partly supported by earnings …

In some cases, recent advances in equity prices have been supported by strong growth of corporate earnings. In Sweden, for example, earnings per share grew by 41% per year between the end of 1993 and the end of 1996. The United States also enjoyed very strong earnings growth over the same period. An appreciating US dollar has contributed to profit growth in some markets. Multinational firms with substantial direct investment in the United States or a large share of their earnings denominated in US dollars account for a large proportion of the equities traded on, for instance, the German, Dutch and Swiss stock exchanges. Another factor supporting corporate profits has been greater attention to strengthening efficiency and labour productivity as well as reduced financing costs arising from lower nominal interest rates.

However, there is more to the generalised run-up in share prices than strong corporate profits. As of March 1997, price/earnings ratios for most markets, including the United States, were above their 1986–95 averages, and were at



Price/earnings ratios[1]

Countries	Sept. 1987[2]	Peak 1986–95		Average 1986–95	Dec. 1995	Dec. 1996	March 1997	*Memo item: Output gap*	
		level	date					*1987 Q3*	*1996 Q4*
United States	22	26	May 92	18	18	21	21	*0.3*	*0.2*
Japan	70	74	June 87	53	67	57	51	*–2.9*	*–2.3*
Germany	15	25	Dec. 93	15	16	17	20	*–1.7*	*–1.1*
France	14	19	Jan. 94	12	13	17	18	*–2.2*	*–3.0*
Italy	15	29	May 94	17	14	17	19	*–0.5*	*–1.5*
United Kingdom	17	21	Feb. 94	15	16	16	16	*3.5*	*–1.8*
Canada	18	33	Feb. 94	17	15	20	21	*2.1*	*–3.1*
Netherlands	15	18	Feb. 94	12	13	18	20	*–0.7*	*–0.2*
Switzerland	14	19	Feb. 94	13	17	20	23	*–1.2*	*–4.2*
Belgium	15	20	Feb. 94	14	14	16	18	*–2.6*	*–3.0*
Sweden	23	30	Feb. 94	18	17	15	17	*3.8*	*–1.5*

[1] Ratio of price to reported earnings per share. [2] Month preceding the global stock market crash.
Sources: Datastream, OECD, national data and BIS estimates. Table IV.2

record levels in the Netherlands and Switzerland. Several factors have been suggested as potentially underlying the global trend towards higher price/earnings multiples. First, it has been suggested that this trend might reflect the impact of lower inflation rates in the industrial countries on equity risk premia. Secondly, insofar as the recent declines in nominal bond yields reflect lower real interest rates, this is an additional element supporting higher multiples which has undoubtedly played a role in the historically high-yielding countries Italy and Spain. Thirdly, in the United States in particular, higher multiples might reflect to some extent the increased tendency for corporations to buy back their own shares.

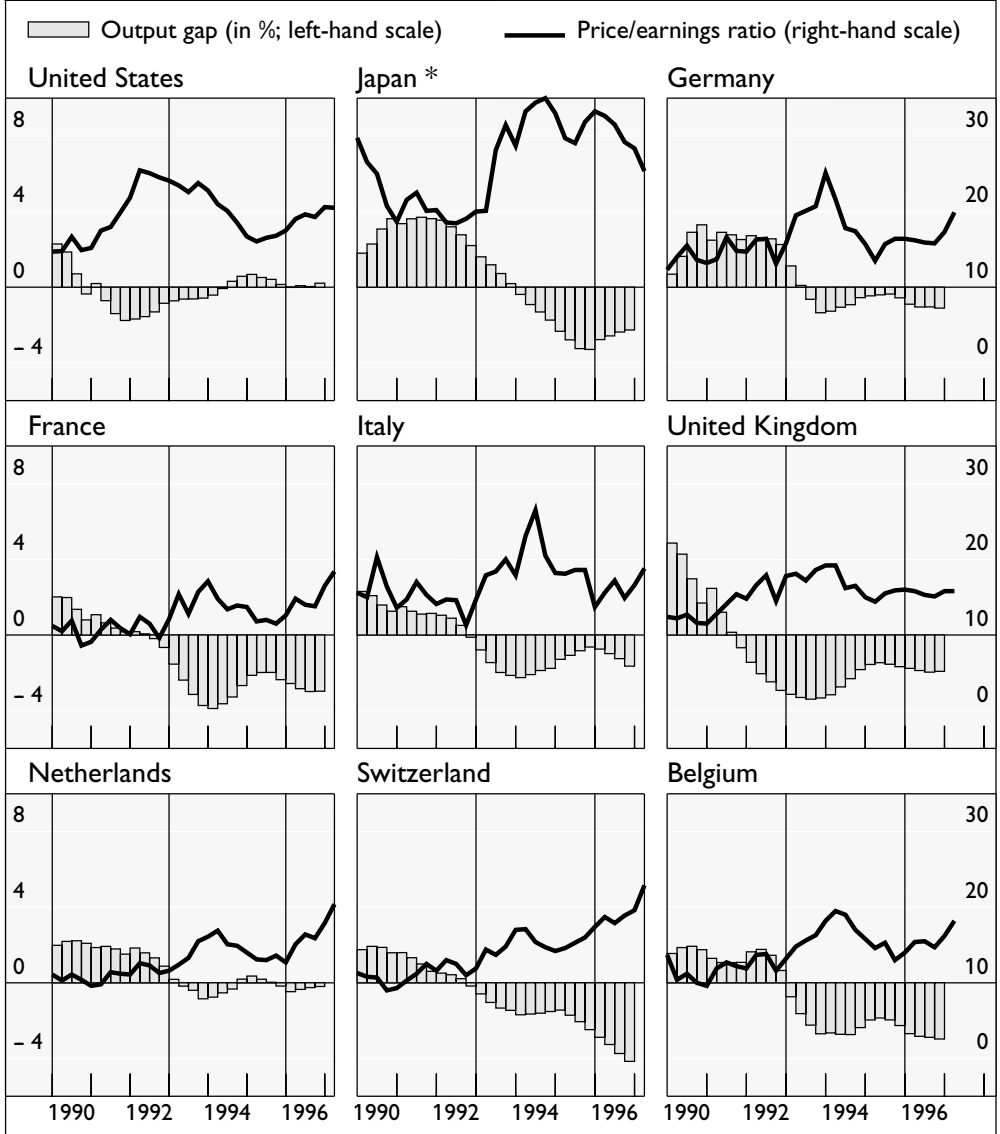
… but raise issues of appropriate values

Recent price/earnings multiples seem more pronounced once business cycle positions are taken into consideration. Multiples typically peak during the early stages of a cyclical recovery, when there is the potential for above-average profit growth over the medium term. By this standard, the price/earnings multiples for the Dutch and US markets during March 1997 seem relatively high by historical standards, given that both economies were operating approximately at potential.

It may also be useful to compare the recent situation with that which prevailed in September 1987. The price/earnings ratio for the US market at that time was not exceptionally high; yet US equities lost about 30% of their value in the subsequent global market correction. In March 1997, price/earnings multiples in Germany, France, Belgium and the Netherlands exceeded those of September 1987, a time when each of these countries was at a point in the business cycle broadly similar to that reached recently.

Whether the recent gains in equity prices will prove to be sustainable will depend in part on the future course of corporate profits. Analysts are forecasting earnings growth in the United States of 13% per year on average over the next three to five years. It is argued that there are many factors, in addition to the cyclical position of an economy, which help determine the growth of corporate profits, and there are indications that such factors are currently playing

Output gap and price/earnings ratio



* The price/earnings ratio is shown at half the actual level.

Sources: Datastream, OECD Economic Outlook, national data and BIS calculations. Graph IV.10

a greater role than previously. In particular, since the closing of the output gap in 1994, the United States has experienced earnings growth far in excess of that which followed previous such closures (Table IV.3). Aggressive corporate cost-cutting, an increased rate of technological advance reflected in reduced costs of capital goods, and the opening-up of new markets are several possibilities which are often cited to explain recent earnings growth and to justify its expected continuation.

The sustainability of the recent gains in equity prices will also depend on how far other supporting factors, such as the appreciation of the US dollar in 1995–96, prove to be temporary. Further increases in long-term interest rates outside the United States or a reduced willingness of market participants to take on risk would also put downward pressure on share prices. Any significant tightening of US monetary policy would be likely to work in this direction.

Real earnings per share in the United States[1]					
	Period[2]				
	1965 Q4	1972 Q2	1977 Q1	1985 Q2	1994 Q3
Growth over three years[3]	0.2	4.7	3.3	0.6	15.4[4]
Growth over six years[3]	−3.7	3.2	−4.0	0.1	–

[1] Earnings per share deflated by the consumer price index. [2] Quarter of estimated closure of the output gap. [3] From the respective reference period, at an annual rate, in percentages. [4] Growth between the third quarter of 1994 and the first quarter of 1997.

Sources: OECD, national data and BIS estimates. Table IV.3

Asset prices and monetary policy

There are several reasons why central banks might wish to respond to movements in asset prices. A first reason, which is also discussed in Chapters VI and VIII, is that asset price misalignments may endanger the health of the financial system. In the late 1980s many countries experienced sharp increases in prices of real and financial assets, which were associated with financial deregulation and rapid credit expansion. When these increases later proved unsustainable, large-scale losses were incurred in the banking sector, which deepened recessions and delayed recovery. While this episode illustrates the risks involved in disregarding asset prices in the formulation of policy, it should be recognised that the recent upswing is limited to financial assets and has not been accompanied by rapid credit growth, suggesting that balance sheets would be less exposed if asset prices reversed course. Furthermore, to the extent that policy-makers' concerns focus on the impact on the financial system of a sudden asset price fall, a tightening of prudential supervision and regulation would appear to be a more appropriate measure than adjustment of policy-determined interest rates.

Asset prices and the health of the financial system …

A second reason why central banks might wish to respond to asset prices is that they potentially play an important role in the transmission mechanism. Rising asset prices may have direct effects on the demand for goods and services and may therefore be associated with growing inflationary pressures. Thus, asset prices, in particular for real estate, which is the main component of household net worth, can affect household wealth and consumption expenditure, and influence the ability of enterprises to raise funds and thereby their investment spending. They also influence collateral values and banks' willingness to lend. The importance of asset prices became evident last year in the United Kingdom and the Netherlands, where increases in household wealth were an important force behind consumer spending.

… and the transmission of monetary policy …

In practice, however, policy-makers may hesitate to let policy react too vigorously to asset price changes. One particular problem is that it is difficult to determine why these changes have occurred and whether or not there are likely to be effects on spending. Indeed, in many countries the stock market decline in 1987 seems to have had little impact on consumer spending. Moreover, since asset prices depend strongly on expectations of future economic conditions, it is difficult to judge how they will respond to policy action. For example, an

unexpected shift in policy could elicit a much sharper response than a change that was anticipated. This underlines the desirability of signalling policy intentions to financial markets, particularly when the direction of policy is altered. Furthermore, since asset prices are determined by expectations far into the future, the possibility of perverse reactions to policy also needs to be taken into account. For instance, a tightening of monetary policy could lead market participants to revise upwards their assessment of the prospects for sustainable non-inflationary growth, and thus actually lead to increases in current asset prices.

… and as indicators of expectations

A third reason why asset prices might be useful for the design of policy is that they contain information about financial market expectations of future policy and macroeconomic conditions. For example, there is much evidence that the slope of the yield curve contains information about expectations regarding monetary policy, economic growth and inflation. Since financial market responses to anticipated policy changes are normally limited, policy may be altered more quickly in situations where asset prices, such as bond yields and exchange rates, indicate that policy changes have already been discounted in the markets.

However, while asset prices may be useful as indicators, gearing policy directly to them could give rise to self-validating asset price movements. For instance, if central banks interpreted an increase in long-term interest rates as evidence of rising inflationary expectations and thus as warranting a tightening of policy, the policy action would validate the initial rise in long yields. It could therefore trigger further increases in long rates, which in turn could lead to additional increases in short interest rates which would not be justified by underlying economic conditions. While it thus seems inappropriate to react automatically to asset prices, the information that may be contained in them can be incorporated in the central bank's forecast of future economic conditions, and in this way play some role in the formulation of policy.

V. Exchange rates and capital flows in industrial countries

Highlights

Two themes already evident in 1995 persisted in the foreign exchange market last year. The first was the strengthening of the US dollar, in two phases. In spite of continuing trade deficits, the dollar edged up for much of 1996 as market participants responded to its interest rate advantage, and the prospect of its increasing further. Then, towards the end of the year, the dollar rose sharply against the Deutsche mark and the Japanese yen as the US economic expansion demonstrated its vigour.

A firming of European currencies against the mark and the Swiss franc accompanied the rise of the dollar. This helped the Finnish markka to join and the Italian lira to rejoin the ERM in October and November respectively. Stronger European currencies and associated lower bond yields both anticipated and made more likely the introduction of the euro, the second theme of the period under review.

Market participants clearly expect the euro to be introduced: forward exchange rates point to exchange rate stability among a number of currencies judged most likely to join monetary union. Foreign exchange markets thereby stand to lose up to 10% of global transactions, and have begun to refocus on the rapidly growing business of trading emerging market currencies. Possible shifts in official reserve management with the introduction of the euro have preoccupied market commentators, but changes in private asset management and global liability management could well prove more significant. Even then, it is easy to overstate the effect of any such portfolio shifts on exchange rates. Differences in the vigour of growth in the major countries, and related differences in monetary policies, are likely to exert a greater influence on exchange rates.

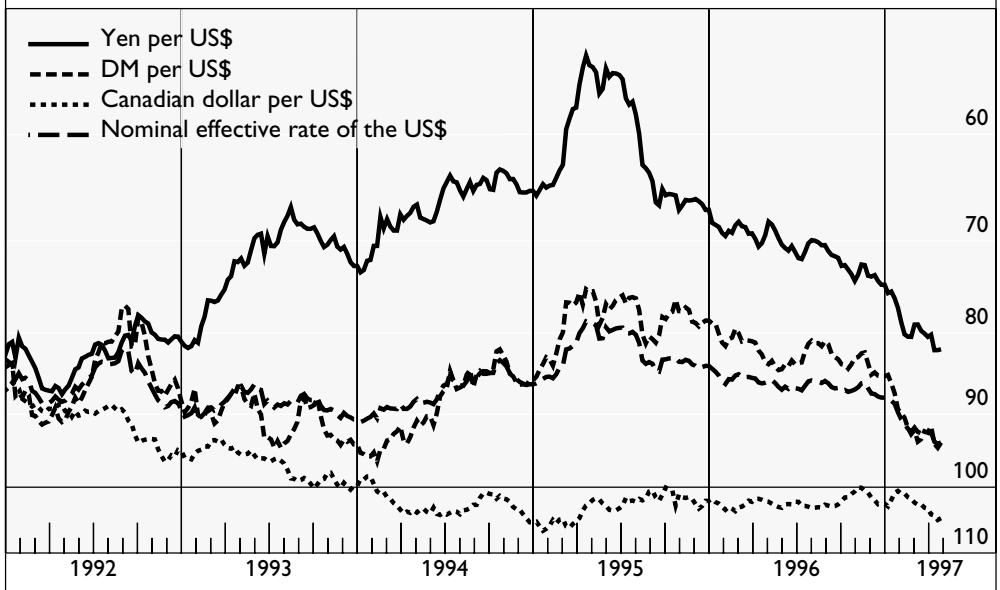
The ultimate international roles of the euro, the dollar and the yen will depend in part on their use as anchor currencies by third countries. The broadly based euro might well perform this role better than its predecessor currencies, but the dollar has the advantage of incumbency. The exchange rate policies of countries experiencing rapid growth will bear importantly on the future global role of the euro.

The US dollar, the Deutsche mark and the Japanese yen

The strengthening of the dollar against the yen and the mark reflected current and prospective cyclical developments and the consequent expectations about monetary policy. The strength of the dollar contributed to keeping short-term exchange rate volatility low for much of 1996, although the question arises as to whether the growing use of new instruments in the foreign exchange market also

Selected currencies against the US dollar and its nominal effective exchange rate

Weekly averages, third week of February 1987 = 100 (semi-logarithmic, inverted scale)



Note: A decline indicates a dollar appreciation. Graph V.1

played a role. With major exchange rates trading within narrow ranges for much of the year, official intervention by the three largest countries was notably absent over the last nine months of 1996. Record growth of official reserves resulted instead from large-scale capital flows to Asia, Latin America and parts of Europe.

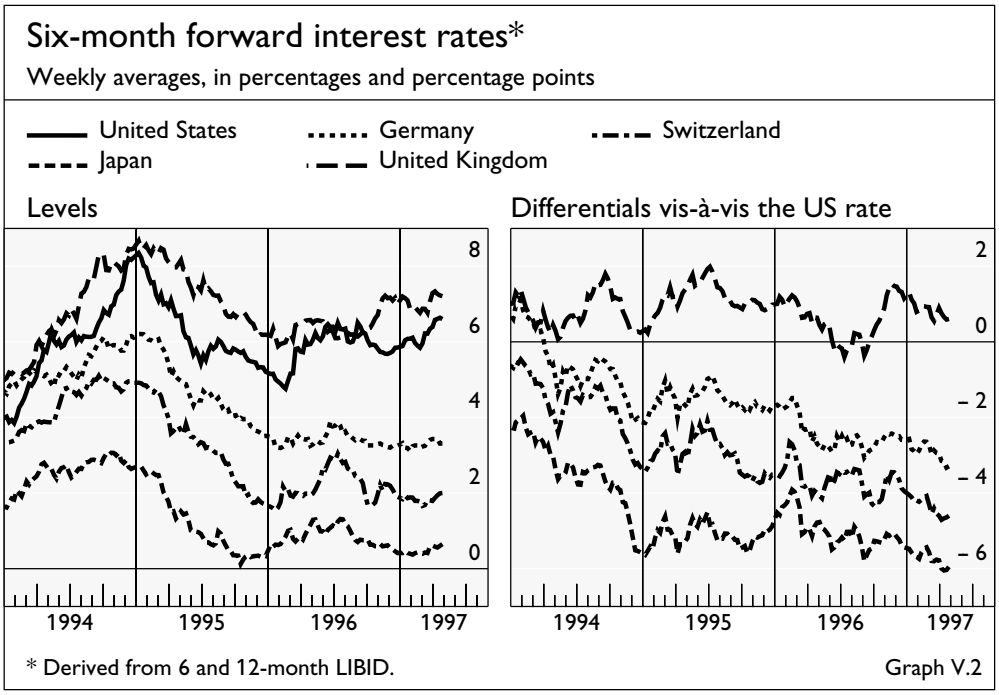
The dollar and business cycle developments

Differences in business cycle developments in the United States, Germany and Japan (see Chapter II) shaped expectations about the relative stance of monetary policy in the three countries. Opinion shifted back and forth for most of 1996 and then fixed late in the year on expectations of higher US policy rates to restrain a robust US economy and continuing low interest rates in Germany and Japan. The differential between forward rates (Graph V.2) expressed these views and provided the key to understanding the movements of the three currencies in the course of 1996.

Shifting monetary policy expectations leave the dollar trading within narrow ranges …

The dollar rose in the first half of 1996 in response to expectations of monetary easing in Germany owing to weak economic data, together with stable Japanese rates. Expectations of low Japanese rates changed only briefly at the end of April when the Bank of Japan suggested that higher rates would accompany a recovery, and did not react at all to the publication in June of exceptionally strong figures for first-quarter growth.

In the third quarter of 1996, the dollar responded to shifting expectations about US and German monetary policy and traded between DM 1.47 and 1.53. It also drifted above ¥110 amid weakening stock prices in Japan and further signs that the Japanese recovery might not sustain itself, which indicated continuing low interest rates. The fall in the US equity market on 16th July interrupted the dollar's rise with a 3 pfennig decline. Stock market investors seemed to react to



signs of rapid growth, which heightened fears that the Federal Reserve might need to raise interest rates sharply as in 1994. The fact that the dollar fell in tandem with the stock market, rather than rising with dollar interest rates, posed the broader question of the linkage of the dollar to US asset prices.

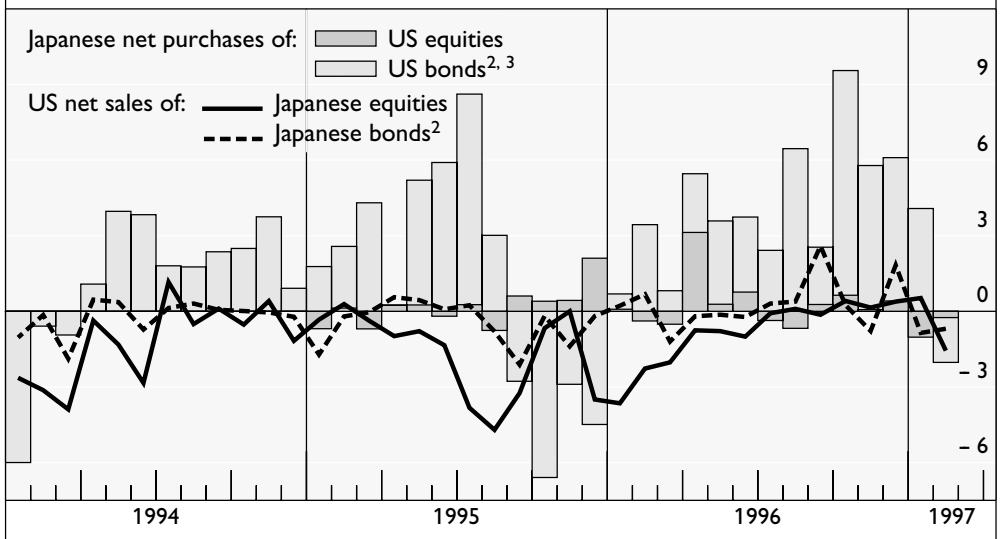
The dollar gained further against the yen in the last quarter of 1996 even though market participants' views shifted back towards a stable US monetary policy. Weak economic data and concerns about the soundness of the financial system in Japan reduced the likelihood of a near-term rise in interest rates. Moreover, as trade frictions with the United States remained unusually subdued and as Japanese government bond yields fell below 3%, Japanese investors came to regard the purchase of higher-yielding bonds overseas as entailing less risk (Graph V.3). The strong portfolio outflows from Japan were reinforced by a loss of interest by foreign investors in the Tokyo stock market. Even with the revival of Japanese institutional and household investment in foreign currency securities, however, cross-border transactions remain well below those of the boom year of 1989 (Table V.1).

… until the immediate prospect of higher US rates lifts the dollar at year-end

Towards year-end, changing views on the likelihood of monetary union and speculation that the Bundesbank might ease interest rates influenced the dollar/mark exchange rate. The dollar strengthened during a period of marked optimism about the prospects for monetary union in late November, when the lira rejoined the ERM, and early December. Moreover, at the turn of the year, expectations shifted once more in favour of a Federal Reserve tightening and the dollar rose further. This led the Group of Seven Finance Ministers in February 1997 to express their view that the major misalignment in exchange markets of 1995 had been corrected. By the time of their meeting, the dollar had gained 20% against the mark and 52% against the yen since its trough in spring 1995. The dollar continued to rise in late February and March, with the well-anticipated Federal Reserve tightening in late March exerting only a modest

Portfolio flows from Japan to the United States[1]

In billions of US dollars



[1] A positive (negative) sign indicates a net flow from (to) Japan. [2] Data may include official transactions. [3] 1994 data include US equities.

Sources: Japanese Ministry of Finance and US Treasury. Graph V.3

effect. In April, the dollar appreciated further as evidence confirmed a strong demand for labour and rising wage pressures in the United States, while unemployment remained high in Germany and tax increases threatened to slow demand in Japan.

The dollar's cyclical role …

These broad exchange rate movements have tended to redistribute world demand towards economies experiencing weaker growth. They have certainly benefited Europe (see Chapter II) by boosting exports and supporting growth as governments moved to cut budget deficits before the launch of the single currency. The stronger dollar also helped to limit the risk of an overheating of the US economy. However, from a longer-term perspective, the question arises as to whether the current level of the dollar is consistent with fundamentals.

… and long-term fundamentals

Judged against its purchasing power the dollar remains undervalued (Table V.2): travellers still find goods and services cheaper in the United States than in Europe or Japan. Judged by the dynamics of the US international investment

Cross-border transactions in bonds and equities[1]

	1975	1980	1985	1989	1990	1991	1992	1993	1994	1995	1996
	as a percentage of GDP										
United States	4	9	35	101	89	96	107	129	131	135	164
Japan	2	8	62	156	119	92	72	78	60	65	84[2]
Germany	5	7	33	66	57	55	85	171	159	172	200
France		5	21	52	54	79	122	187	201	180	227[3]
Italy	1	1	4	18	27	60	92	192	207	253	468
Canada	3	10	27	55	64	81	113	153	212	194	258

[1] Gross purchases and sales of securities between residents and non-residents. [2] Based on settlement data. [3] January–September at an annual rate.

Source: National data. Table V.1

Estimates of the US dollar's purchasing power and fundamental equilibrium value

	Market rate[1] against the dollar	Purchasing power parity (PPP)		PPP adjusted for productivity	Fundamental equilibrium exchange rate	
		OECD[2]	Penn[3]	Goldman Sachs[4]	IIE	SBC[4]
Deutsche mark	1.70	2.05	2.12	1.51	1.45–1.50	1.42
Japanese yen	123	172	188	112	100	94

[1] On 9th May 1997. [2] 1996 average. [3] 1992. [4] Early 1997.

Sources: OECD, Penn World Tables 5.6, Goldman Sachs, John Williamson's April 1996 informal update of estimates in *Estimating equilibrium exchange rates*, Institute for International Economics (IIE), Washington, D.C. (September 1994) and Swiss Bank Corporation (SBC). Table V.2

position, the picture looks different. Fundamental equilibrium exchange rates are effective exchange rates compatible with current account imbalances that leave the ratio of external debt to output stable. Necessarily problematic estimates suggest that at market rates in May 1997 the dollar is somewhat overvalued against the mark and rather more so against the yen. While any widening of the US current account deficit could become evident only slowly, the $18 billion trade deficit in January indicated that the process may indeed have begun. The Japanese surplus seems already to have bottomed out in 1996.

Volatility and the dollar cycle

Low volatility owing to …

It is easier to explain the dollar's broad upswing since 1995 than the unusually narrow range of short-term variation of major exchange rates and cheap currency options (low implied volatility) during much of 1996 (Graph V.4). Major central banks, which saw no reason to intervene in such quiet markets, had occasion to ask whether low volatility was here to stay. Discussion centred on a new generation of options as a source of permanently lower volatility. However, the role of the dollar cycle in fostering what may prove to be only a temporary period of calm also deserves attention.

… the dollar trend …

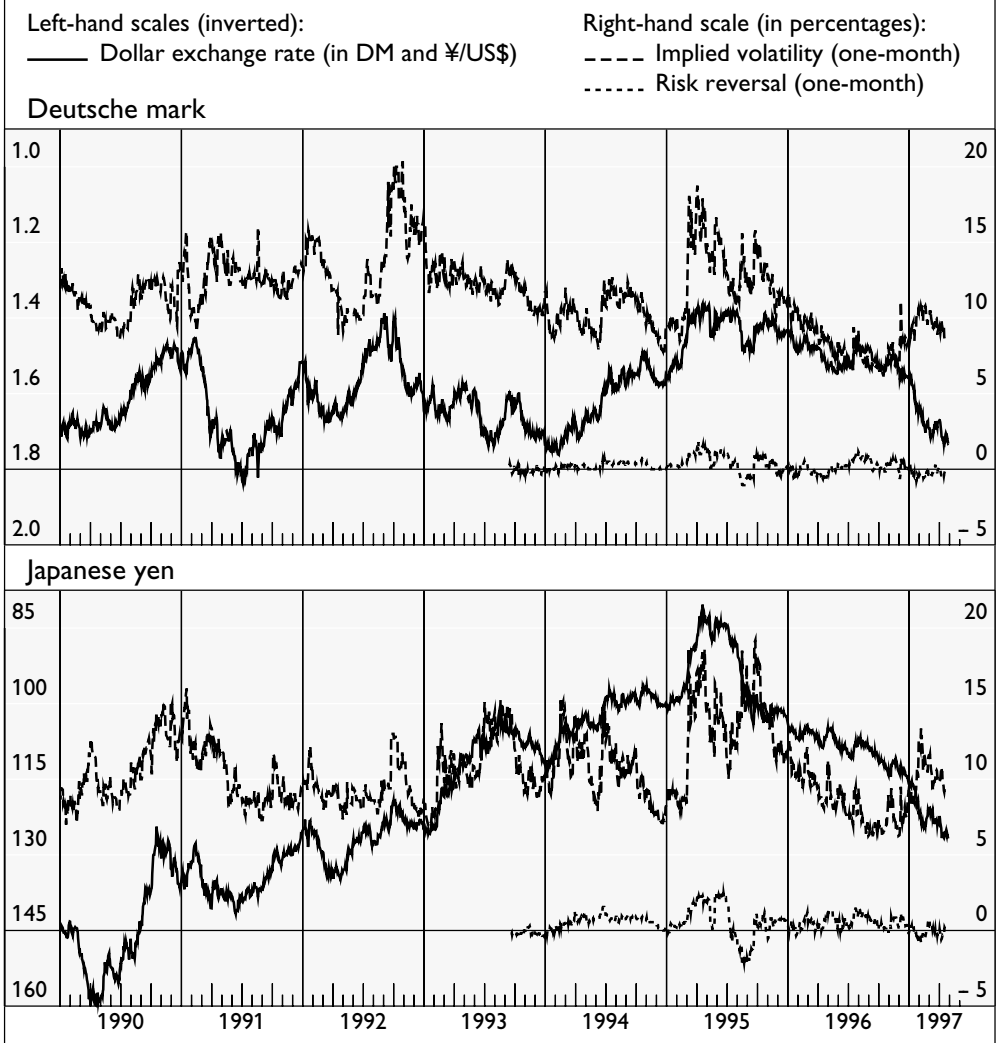
The dollar's rising trend may explain some of its low volatility in 1996. Since the United States has accumulated a net external debt and continues to run a current account deficit, global investors and international traders have a net long position in dollars. The pressure to hedge against a falling dollar leads to more expensive options (higher implied volatility) than the parallel but weaker pressure to hedge against a rising dollar. Thus the dollar's sharp rise at the turn of the year did not take implied volatility above its average levels.

The episode of dollar weakness in mid-July suggested a connection between global financial wealth and the price of dollar options. As the US and other equity markets fell, and with them the dollar, market participants bid up implied volatility (widening the probability distribution) and attached more weight to the possibility of the dollar's sinking further (fattening the left-hand tail of the distribution; see Graph V.5).

… and new option market participants

Generally low implied volatility in 1996 may also have reflected the increased popularity with investors of a new generation of options, called range or binary

Dollar exchange rates, implied volatilities and risk reversals



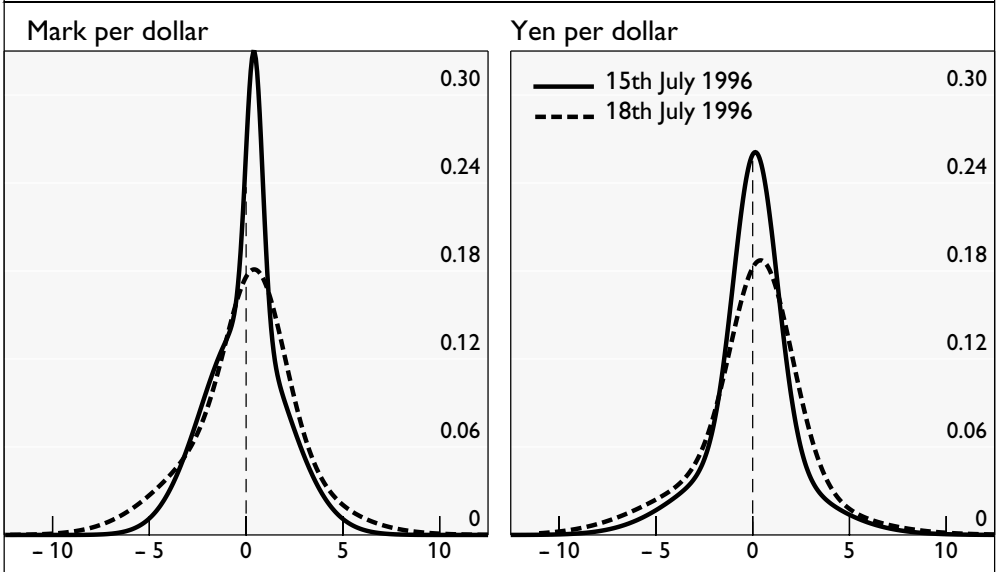
Note: Regression analysis shows that, for the period 1992 to date, implied volatility (IV) is related to weekly percentage changes in the spot exchange rate, when the dollar is appreciating (ΔXR^+) or depreciating (ΔXR^-), according to the equations: $IV_t = 0.60 + 0.92IV_{t-1} + 0.30\Delta XR_t^+ - 0.54\Delta XR_t^-$ against the mark, and $IV_t = 1.07 + 0.86IV_{t-1} + 0.50\Delta XR_t^+ - 0.69\Delta XR_t^-$ against the yen.

Sources: National Westminster Bank Plc and BIS. Graph V.4

options. Before the advent of such options, an investor taking the view that an exchange rate would be stable could sell puts and calls around the current rate. This strategy generally implied an *unlimited* downside risk from large exchange rate movements; consequently, few speculators would enter into such trades, and then only for short-term contracts. But with the new generation of options, investors unwilling to lose more than a certain amount can easily bet on stable exchange rates, even for horizons as long as a year. Range options allow an investor to pay a *certain* amount upfront, to be forfeited in the event of an exchange rate moving *outside* a given range, in exchange for receiving an attractive multiple in the event of the rate remaining *inside* the same range.

In the global financial markets of 1996, characterised by high liquidity and a pervasive pursuit of higher yields, these new instruments offered yet another way to boost returns. Fixed payments allowed new investor groups to enter the

Probability distributions of the dollar



Note: Percentage deviation from the one-month forward rate, assuming risk neutrality; positive values indicate dollar appreciation. Vertical line drawn at the centre of the distribution (forward rate).

Sources: National Westminster Bank Plc, BIS and BIS calculations. Graph V.5

currency volatility market. Even fixed income investors with low tolerance for losses, as well as investment funds and firms, took such positions. An illustration was a Swiss franc investment sold to retail clients that paid zero interest (an opportunity loss) if the franc/dollar exchange rate strayed outside a specified range, but an above-market rate of interest (the attractive multiple) if it stayed inside.

Range options may also have contributed to the decline in exchange rate volatility last year. Market-makers taking the other side of these transactions hedged them by selling plain vanilla options and also by buying the dollar low and selling it high in the spot market. These two hedging strategies tended to add to the downward momentum of implied volatility and to pin spot rates within ranges. Of course, as perceptions of the strength of the US economy hardened towards the end of the year, the new options neither prevented the dollar from rising nor kept volatility from returning to normal levels.

Reserve developments and current account financing

Record reserve growth despite limited intervention by major central banks

Official foreign exchange reserves grew by a record amount of almost $200 billion (at constant exchange rates) in 1996 (Table V.3), despite the fact that the German and US monetary authorities undertook no intervention in the foreign exchange markets during the year, nor indeed during the first quarter of 1997. The Bank of Japan, after showing a $21 billion increase in reserves in the first quarter of 1996 from intervention and interest receipts, does not seem to have intervened in the next 12 months. The $14 billion increase in Japanese reserves over the last nine months of 1996 appears to represent mainly the flow of earnings on a stock of foreign exchange reserves that reached $207 billion by the end of the year. Most of the growth in official reserves took place in other parts of Asia, notably China, and in Latin America. In Europe, Spain and Italy also built up

Official foreign exchange reserves

	1993	1994	1995	1996	Amounts outstanding at end-1996
	in billions of US dollars				
	Changes, at current exchange rates				
Total	110.9	151.8	199.4	169.5	1,517.8
Industrial countries	32.0	60.9	80.1	72.9	707.0
Asian NIEs[1]	20.5	30.3	21.3	15.6	261.6
Other countries	58.4	60.6	98.0	81.0	549.2
	Changes, at constant exchange rates[2]				
Total	115.7	111.6	181.8	196.5	1,517.8
Dollar reserves held:	73.9	91.8	156.1	145.8	1,041.5
In the United States[3]	66.4	38.3	106.0	122.0	712.1
With banks outside the US[4]	0.6	30.0	–15.4	19.2	126.2
Unallocated	6.9	23.5	65.5	4.6	203.2
Non-dollar reserves	41.8	19.8	25.7	50.7	476.3
of which held with banks[4]	*6.2*	*1.8*	*7.7*	*8.0*	*122.1*

[1] Hong Kong, Korea, Singapore and Taiwan. [2] Partly estimated; valued at end-of-year exchange rates. The residual has been allocated on the basis of known reserves. [3] Excludes foreign military sales prepayments and the current value of zero coupon bonds issued to the governments of Argentina, Mexico and Venezuela as collateral for their Brady bonds. [4] Deposits by official monetary institutions with banks reporting to the BIS.

Sources: IMF, national data and BIS. Table V.3

reserves substantially as foreign investors bought peseta and lira bonds and the Bank of Spain and the Bank of Italy intervened to buy dollars or marks.

US official inflows result from capital flows to emerging markets

The United States financed most of its current account deficit in 1996 with official inflows. Although this had also been the case in 1987 and 1995, the underlying process at work differed last year. In 1987 and 1995 the dollar suffered from the unwillingness of private foreign investors to accept the dollars flowing from the US current account deficit at prevailing exchange rates and interest rates; the dollar's weakness against major currencies led Group of Ten authorities to intervene in its support. In 1996, by contrast, the dollar rose against major currencies and a pervasive search for yield in world financial markets (see Chapters III, VI and VII) led to strong capital flows to emerging markets. Since many of these countries link their currencies to the dollar, the resulting foreign exchange intervention led to increases in reserves, which were generally invested in US Treasury securities and other liquid dollar instruments.

As for the recycling of Japan's current account surplus, private outflows predominated in 1996. Given domestic bond yields below 3%, and with trade disputes muted along with the associated risks of a stronger yen, Japanese institutional investors and households alike bought higher-coupon US ($45 billion), UK ($10 billion), Canadian ($4 billion) and Australian ($3 billion) bonds.

European currencies and the Canadian dollar

Last year's Annual Report highlighted a pattern of exchange rate linkages that relates the direction of European exchange rate changes to movements in the

dollar/mark rate. This pattern can be explained by trade links, the comovement of cyclical fluctuations and international portfolio bias.

Exchange rate links

The relationship with the dollar/mark rate reflects …

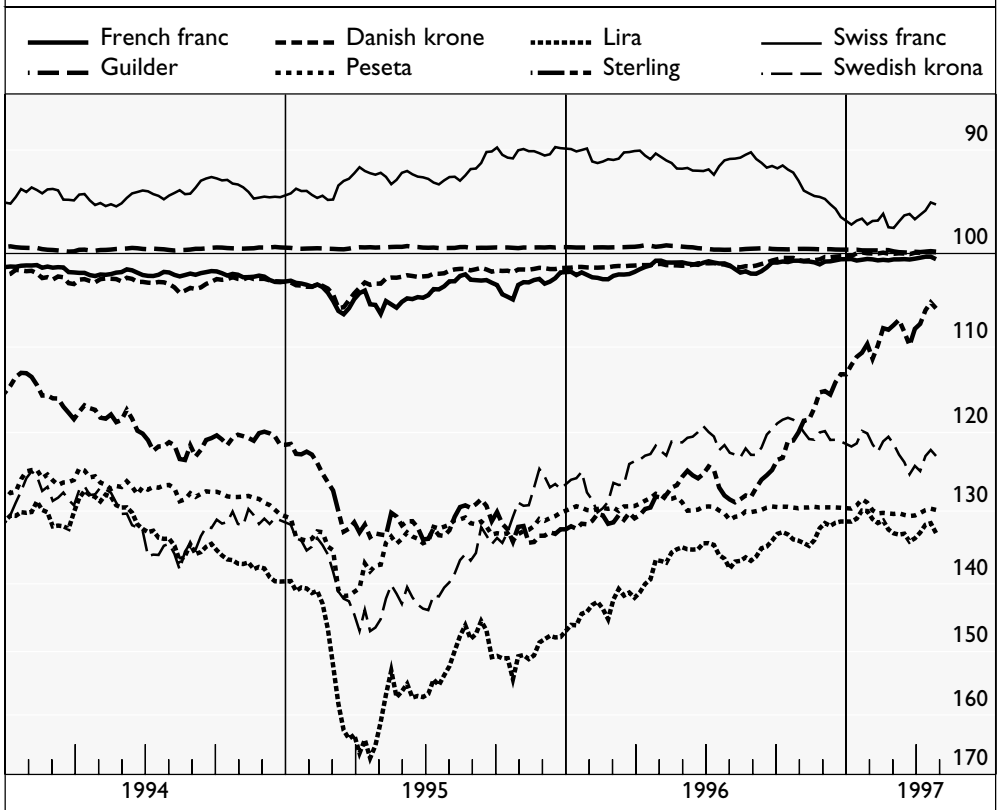
The strengthening of the US dollar against the mark during 1996 and the early months of 1997 was accompanied by a firming of most European currencies against the mark, the conspicuous exception being the Swiss franc (Graph V.6). These recent exchange rate movements are consistent with a pattern that has been observed in the past. When the mark depreciates against the dollar, the Swiss franc depreciates even more; most other European currencies also depreciate against the dollar, but to a lesser extent, thus strengthening vis-à-vis the mark, while the Canadian and Australian dollars appreciate against the US dollar (Graph V.7). Typically, the currencies of Germany's neighbours – and more recently the escudo and the peseta – track the mark quite closely, while sterling, the Irish pound, the lira and the Swedish krona share half or more of the mark's movements.

… trade links …

The correlation coefficients shown at the bottom of Table V.4 indicate how well measures of trade links, the comovement of cyclical fluctuations and international portfolio bias explain the exchange rate sensitivities. Trade intensity matches the pattern of currency links most closely. Given the observed

Exchange rates of European currencies against the mark

Weekly averages, ERM central rate in August 1992 = 100* (semi-logarithmic, inverted scale)



Note: A rise indicates an appreciation against the mark. Since February 1994, the Belgian franc has moved closely in line with the guilder.

* For the Swiss franc and the Swedish krona, August 1992 = 100. Graph V.6

elasticities, changes in the dollar/mark exchange rate tend to exert a broadly similar impact on the effective exchange rates of European currencies. Even so, these elasticities, together with trade patterns, imply that the recent depreciation of the mark has improved Germany's competitiveness more than that of its neighbours.

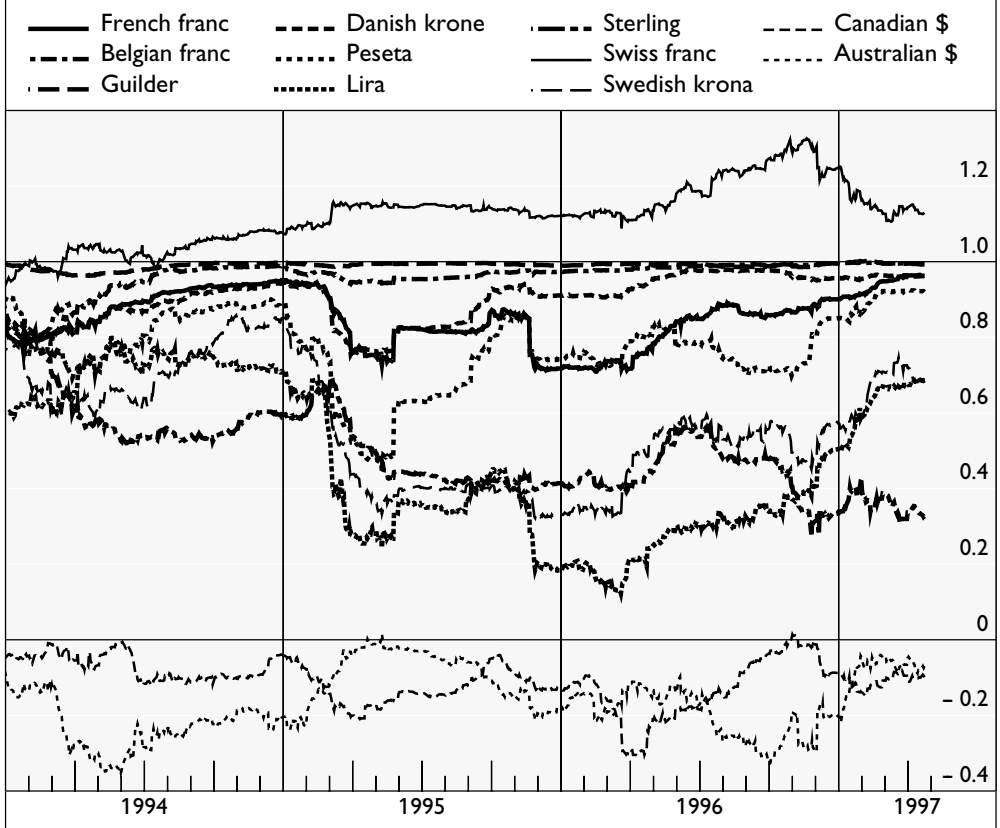
… business cycle synchronicity …

Strong trade links – such as those between Germany and the Netherlands – can lead to tight currency links by heightening official interest in bilateral exchange rate stability. Trade also transmits cyclical impulses across borders. Countries with common business cycles tend to pursue similar monetary policies and to record similar balance-of-payments changes, and thereby to experience similar exchange rate changes. However, the symmetry of cyclical fluctuations matches currency links less well than does trade intensity. The failure of the Canadian dollar since late 1996 to follow its typical pattern by appreciating against a rising US dollar reflects the different cyclical positions in North America. With inflation low and unemployment still high in Canada, the authorities there cut official rates 11 times in 1996, and in early 1997 short-term rates in Canada did not immediately follow the rise in their US counterparts.

… and international shifts of funds

Another explanatory factor is the source of funds shifted from Europe to North America. The extensive international investment in Swiss francs suggests that, as the dollar strengthens, a shift of funds from Europe to North America

Sensitivity to movements in the mark against the dollar



Note: Each point represents an estimated elasticity derived as the parameter, β , in the regression $\log X/\$_t - \log X/\$_{t-1} = \alpha + \beta(\log DM/\$_t - \log DM/\$_{t-1})$ over the current and previous 125 working days. By definition, the DM/$ sensitivity to itself is unity, and that of the dollar is zero. Graph V.7

occurs disproportionately at the expense of the Swiss franc, which accordingly weakens. This portfolio bias can be proxied by the ratio of international deposits and eurodeposits to GDP, which is highest for the Swiss franc, lower for the French franc and lowest for the lira.

Events in 1995 and 1996 suggest that the causal relationship between dollar strength and the cohesion of European currencies (or the prospects for monetary union) runs in both directions. While the weakening of European currencies against the mark in reaction to the US stock market fall on 16th July 1996 illustrates how US developments can influence European currencies, the dollar's weakness when doubts arose regarding the breadth of participation in monetary union in September 1995 (see last year's Annual Report) illustrates how European developments can influence the dollar.

European currencies

The strength of the dollar vis-à-vis the mark in 1996 favoured the firming of European currencies against the mark and helped the Finnish markka to join

Explaining exchange rate sensitivities

	Exchange rate sensitivity[1]	Trade intensity[2]		Correlation of business cycles				International portfolio bias[5]	*Memo item: Dollar exchange rate changes on 16th July 1996*	
				Output gaps[3]		Supply shocks[4]				
		with DE	with US	with DE	with US	with DE	with US		*% change[6]*	*ratio to DM/$ change*
Swiss franc	1.05	2.87	0.59	0.40	0.25	0.34	0.20	3.44	*– 2.1*	*1.37*
Mark	1.00	0.00	0.34	1.00	0.20	1.00	0.18	1.39	*– 1.5*	*1.00*
Guilder	0.94	2.75	0.53	0.63	0.39	0.24	0.18	0.89	*– 1.4*	*0.94*
Belgian franc	0.93	2.22	0.48	0.52	0.09	0.39	0.15	1.05	*– 1.4*	*0.95*
Danish krone	0.84	2.22	0.29	0.29	0.42	0.21	0.17	–	*– 1.4*	*0.94*
French franc	0.82	1.94	0.42	0.38	0.14	0.36	0.16	0.67	*– 1.3*	*0.82*
Escudo	0.82	1.68	0.30	0.33	–0.00	0.02	–0.05	–	*– 1.3*	*0.81*
Peseta	0.73	1.87	0.33	0.10	–0.33	–0.03	–0.08	–	*– 1.2*	*0.81*
Irish pound	0.53	1.15	0.75	–	–	–	–	–	*– 0.5*	*0.33*
Swedish krona	0.49	1.59	0.43	0.28	0.29	0.08	0.19	–	*– 0.5*	*0.31*
Pound sterling	0.46	1.39	0.81	–0.01	0.56	–0.05	0.13	0.89	*– 0.3*	*0.32*
Lira	0.45	1.93	0.40	0.55	0.41	0.25	0.25	0.62	*– 0.6*	*0.39*
US dollar	0.00	0.41	0.00	0.20	1.00	0.18	1.00	1.62	*0.0*	*0.00*
Canadian dollar	–0.09	0.14	5.29	0.06	0.86	–0.24	0.22	–	*0.2*	*–0.12*
Australian dollar	–0.12	0.36	0.92	–0.07	0.76	–0.05	0.05	–	*0.2*	*–0.16*
Memorandum item: Correlation with sensitivities[7]										
of values	*1.00*	*0.93*	*–0.63*	*0.69*	*–0.71*	*0.75*	*–0.06*	*0.58*	*–0.96*	*0.97*
of rank orders[8]	*1.00*	*0.88*	*–0.41*	*0.68*	*–0.57*	*0.69*	*0.00*	*0.80*	*–0.95*	*0.95*

[1] Exchange rate sensitivities are defined as the slope coefficient in a regression of daily percentage changes of dollar exchange rates on percentage changes in dollar/mark exchange rate changes, estimated over the period 1994–96. [2] Ratio of the bilateral trade share with Germany (the United States) to the German (US) share of world trade. [3] Correlation of output gaps computed as deviations from potential GDP estimated using the Hodrick-Prescott filter. [4] Estimated following the method of Bayoumi and Eichengreen described in "Shocking Aspects of European Monetary Integration", in *Adjustment and Growth in the European Monetary Union,* Cambridge University Press (1993), but using quarterly data from 1980 to 1995 and four lags. [5] Ratio of cross-border and local foreign currency deposits in each currency to GDP of the country of issue in 1995. High values indicate large international use of the currency in relation to the scale of domestic financial markets. [6] A decline indicates an appreciation against the dollar. [7] Since trade intensity with Germany (the United States) is not defined for Germany (the United States), these two countries are excluded. [8] Spearman rank order correlation. Table V.4

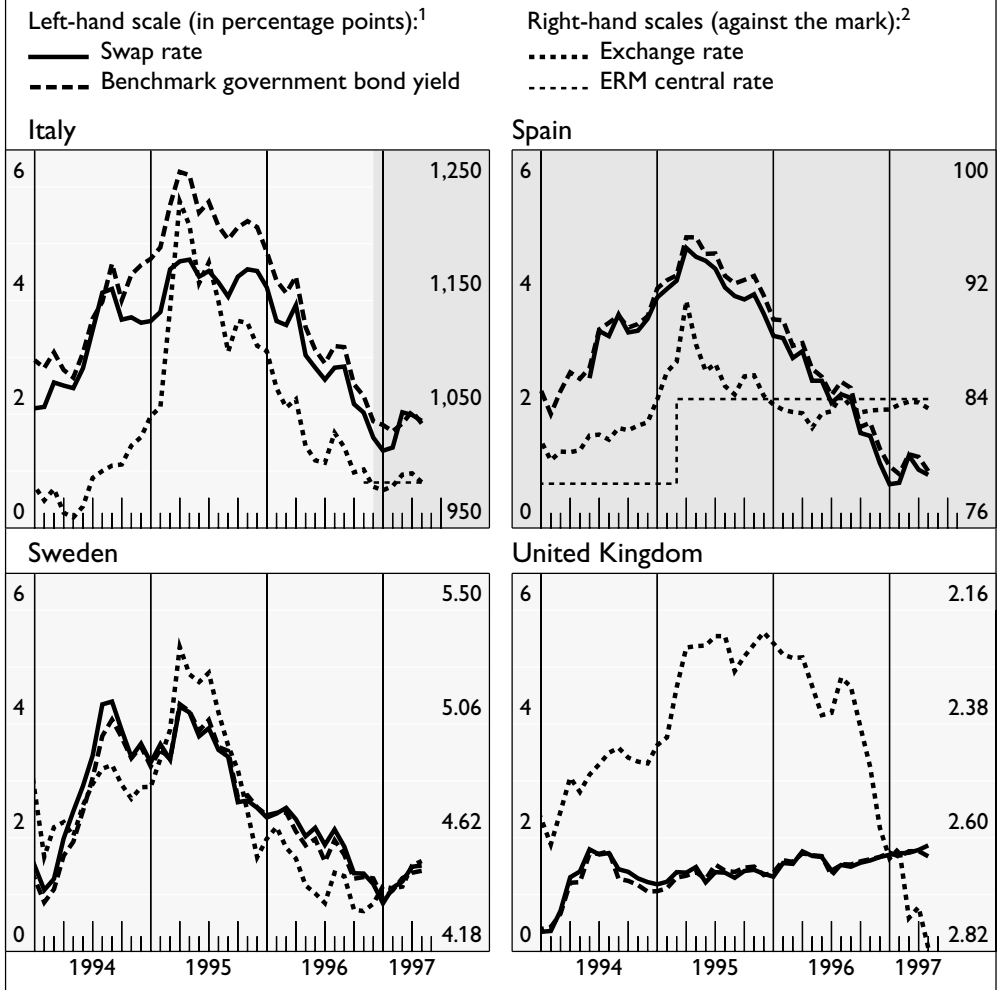
More ERM members and converging bond markets

the ERM on 20th October and the lira to rejoin after a four-year absence on 25th November. This was in sharp contrast to the events of 1992 when it was the mark that was appreciating. It was also the case in 1996 that declining inflation rates, fiscal consolidation and rising expectations of monetary union led to substantial capital inflows into government bonds in Italy ($34 billion up to end-November), Spain ($16 billion) and Sweden ($5 billion). The narrowing of interest rate differentials vis-à-vis Germany in Italy, Spain and Sweden highlights how bond markets and foreign exchange markets were responding jointly to good news (Graph V.8).

Consistent with their usual currency links but in stronger measure, sterling strengthened against the mark in 1996 whereas the Swiss franc weakened. The announcement in March of the UK general election for 1st May 1997 did not prevent sterling from rising to DM 2.77 (its lower limit in the ERM during 1990–92). Forward interest rates suggested expectations that the election

Ten-year yield differentials and European exchange rates

At end-month



Note: The shaded areas denote ERM membership.

[1] Domestic less German rate. [2] Scaled to show a 35% range of variation; for the United Kingdom, DM/£ (inverted scale). A decline indicates an appreciation of the domestic currency.

Sources: Reuters, Datastream and BIS. Graph V.8

would in any case be followed by a rise in interest rates. (In the event, an announcement on 6th May that the Bank of England would be granted more independence accompanied a rise in short-term interest rates, and sterling gained further against the mark and the dollar.) While there was discussion of sterling as a haven from the uncertainties of monetary union, what is demonstrable is that the pound has traded more in sympathy with the dollar in the past year than at any time since the late 1970s (Graph V.7). For its part, the Swiss franc weakened in response to continuing signs of stagnation of the Swiss economy and an aggressive easing of monetary policy in late 1996.

The introduction of the euro

As the probability has increased that several European currencies will merge into the euro, attention has turned to the potential effects on the global foreign exchange market and on global portfolio management, and to the possible use of the euro as an anchor currency by countries outside the industrial world.

The market outlook for European monetary union

Market indicators point to monetary union

Opinion in financial markets regarding the probability of European monetary union, and the currencies likely to be included, firmed last year. Yields on interest rate swaps, as traded in the over-the-counter derivative market, offer a measure of these changing views. Implied exchange rates calculated out to ten years forward show that the currencies of a number of countries are expected to be stable against the mark (Graph V.9, upper panels). Indeed, for much of the past year forward French franc swap contracts, starting in 1999 and extending to 2004, have featured fixed interest rates noticeably lower than those on corresponding mark contracts owing to a strong domestic French portfolio shift into bonds in the face of low short-term rates. This rate configuration persisted despite international disinvestment of $39 billion out of French government bonds in the first three quarters of 1996 and international investment in German government bonds of $27 billion in the year as a whole, as well as parallel transactions in swap contracts.

With the exception of sterling, other European currencies were by early 1997 expected to demonstrate much more stability against the mark than had been the case in 1996 or 1995 (Graph V.9, middle panels). Recent forward rates for the dollar suggest that it might give back to the euro some of its recent gains against the mark.

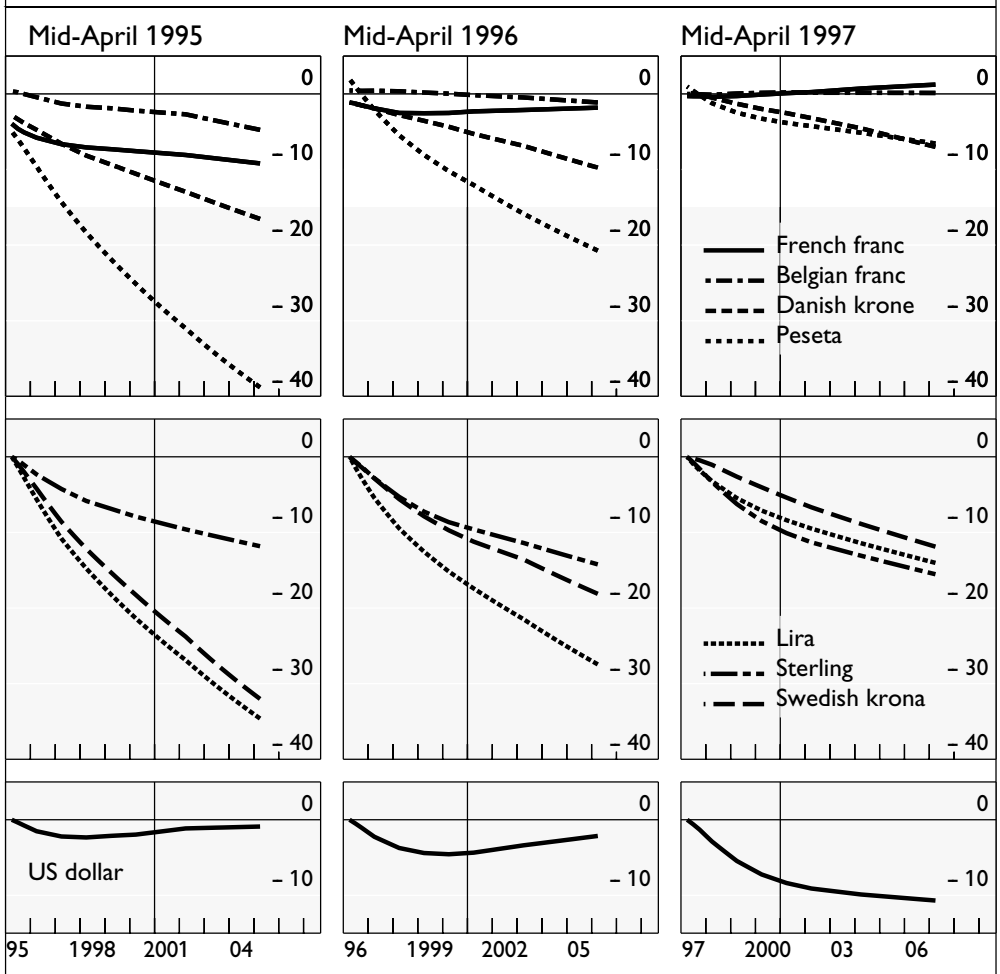
The impact of the euro on the foreign exchange market

The prospect of disappearing European currencies …

Monetary union would reduce revenues from foreign exchange trading and outright position-taking even though many financial firms have profited from the convergence of interest rates in Europe. The April 1995 foreign exchange market survey conducted by the central banks and monetary authorities of 26 countries may be taken as the basis for assessing the scale of the prospective loss of trading. It should be emphasised at the outset, however, that such an estimate can only be approximate, since precise decompositions, for instance of trading of French francs against lire in London, are not available. In addition, the calculations may understate the potential loss of turnover to the extent that an exchange of two

Forward exchange rate changes against the mark

In percentages



Note: Forward exchange rates are derived from differentials on one-year eurodeposit interest rates and, for longer horizons, on interest rate swap (midpoint) yields in the respective currencies (for France, Belgium, Denmark and Spain, relative to their respective central rates). The lira re-entered the ERM on 25th November 1996.

Sources: Reuters and BIS calculations. Graph V.9

European currencies currently entails two exchanges, for example of French francs against dollars and then dollars against lire. (The usual vehicle currency in such a transaction is the mark, not the dollar, however.) Moreover, the decrease in the volatility of many intra-European exchange rates (implied volatility in the French franc/mark averaged 2% in 1996, compared with 7% in April 1995) may well have led to a slowdown in trading, with the result that some of the estimated fall in turnover has already happened. Bearing these caveats in mind, the 1995 survey findings suggest that 10% of the foreign exchange market could disappear with the advent of the euro (Table V.5).

… together with a squeeze on margins owing to the growth of electronic broking …

This prospective decline of foreign exchange trading has to be seen against the background of a squeeze on dealing margins caused by the recent rapid growth of electronic broking of spot foreign exchange transactions. In 1995, direct dealing among banks amounted to between two-thirds and three-quarters of trading volume, and more centralised trading through so-called voice brokers accounted for the balance. Reuters, which provides a network over which banks

European monetary union and foreign exchange turnover

In billions of US dollars and percentages[1]

	Turnover in April 1995						
	Actual					Under the hypothesis of monetary union (total less EMS total)	
	Total[2]		versus:				
			dollar[2]	EMS[3] total	of which mark[2]		
US dollar	1,313	84%	–	714	365	1,313	92%
EU currencies/euro	1,099	70%	714	*300*	140	*799*	56%
Mark	584		365	140	–	(443)	
French franc	127		72	*53*	50	*(74)*	
Guilder	*27*		*18*	*9*	*7*	*(18)*	
ECU	36		25	*11*	10	*(25)*	
Belgian/Luxembourg franc	*29*		*20*	*9*	*8*	*(20)*	
Schilling	*8*		*5*	*3*	*3*	*(5)*	
Irish pound	*3*		*2*	*1*	*0*	*(2)*	
Markka	*5*		*3*	*2*	*2*	*(3)*	
Danish krone	*23*		*17*	*6*	*5*	*(17)*	
Swedish krona	*26*		*15*	*10*	*9*	*(15)*	
Pound sterling	140		103	*32*	29	*(108)*	
Peseta	*33*		*25*	*8*	*8*	*(25)*	
Escudo	*4*		*2*	*2*	*1*	*(2)*	
Lira	*49*		*39*	*10*	*9*	*(39)*	
Drachma	*4*		*2*	*2*	*1*	*(2)*	
Yen	371	24%	329		33	371	26%
Swiss franc	116		86		26	116	
Canadian dollar	50		49		1	50	
Australian dollar	40		39			40	
Emerging currencies	25		23			25	
Hong Kong dollar	15		14			15	
Singapore dollar	6		5			6	
South African rand	4		4			4	
Other reporting countries and unallocated	130		71		18	130	
Grand total	1,572	100%	1,313	1,099	584	*1,422*	100%

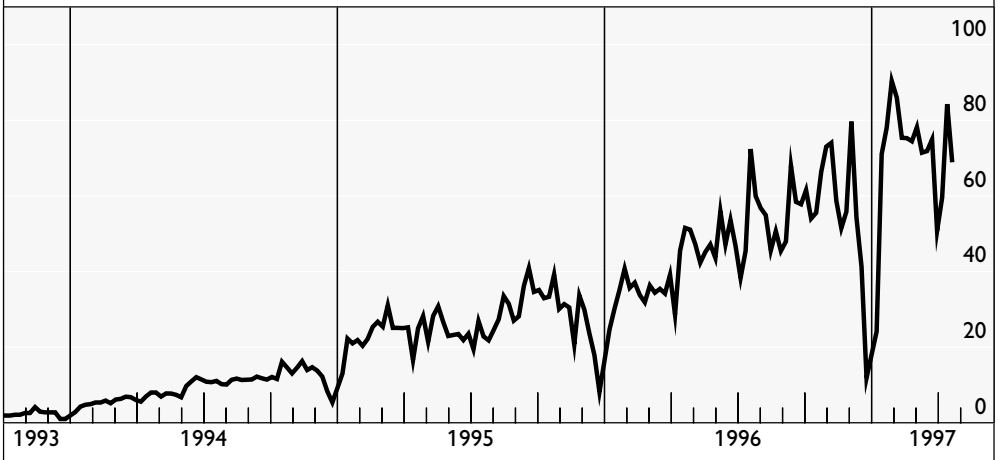
Note: Estimates shown in italics; contribution of EU currencies to euro turnover shown in brackets.

[1] Turnover, net of local inter-dealer double-counting. This table reports the turnover in which a given currency appears on one side of a transaction; consequently, each transaction is counted twice. To take this into account, the grand total is divided by two and set to 100%. Components may not add to totals owing to rounding. EU currencies (excluding the ECU) are ordered according to poll respondents' views on the probability of their joining monetary union at the outset (*Consensus Forecasts*, August 1996). Some transactions between EMS currencies that currently take place using the US dollar as a vehicle would disappear under the assumption of monetary union. Therefore, the currency shares shown in the last column overstate the importance of the euro, understate the importance of the yen and correctly represent the importance of the dollar. [2] Decompositions are available only for the mark, French franc, ECU and sterling; the decomposition of aggregated "other EMS currencies" ($212 billion for the grand total, $148 billion against the dollar and $53 billion against the mark in Tables 1-D, 1-E and 1-F) is estimated using each currency's local currency trading as a proportion of such trading for all other EMS currencies (Table 1-G). [3] The French franc (sterling) EMS total is estimated as the franc (sterling) total less the sum of franc (sterling)/dollar trading and Paris (London) trading of the franc (sterling) vis-à-vis the yen, Swiss franc, Canadian dollar and Australian dollar. The EMS total for every other EU currency is estimated as its total less its dollar trading (local trading of these currencies against the yen, Swiss franc and others is negligible).

Sources: *Central Bank Survey of Foreign Exchange and Derivatives Market Activity 1995* and BIS calculations. Table V.5

Foreign exchange turnover through Electronic Broking Service

Weekly averages of daily spot transactions, in billions of US dollars



Note: Total daily spot foreign exchange turnover in April 1995 averaged $520 billion.

Source: Electronic Broking Service. Graph V.10

deal foreign exchange directly with each other, introduced an electronic brokerage service in 1992 to compete with voice brokers. In response, a year later a consortium of banks started a rival system, called Electronic Broking Service (EBS). In the past 18 months the volume traded over the EBS (and over Reuters as well, although volume figures are not available) has expanded very rapidly (Graph V.10). Electronic broking is mostly growing at the expense of voice broking. Some smaller banks, however, have scaled back their direct dealing since electronic trading offers transparent and low-cost access to prices as they are made. Once a given currency pair attains critical mass, electronic broking can offer very narrow spreads, of one or two hundredths of a pfennig in dollar/mark trading, for example, which is about one-third of previous spreads. Thus, monetary union holds out the prospect of declining activity in a market already adjusting to narrower spreads.

… leads to a strategic reorientation towards new currencies

Faced with these challenges, foreign exchange dealers are focusing on the growth of trading in currencies from outside the industrial countries. As replacements for European exchange rates, the currencies of emerging economies offer wider margins to interbank dealers (although the electronic brokers are also planning to introduce these currencies). Information on many emerging currencies is not readily available, although participation in the next triennial central bank survey in 1998 will extend beyond the 26 authorities that took part in 1995. Data from official and market sources suggest that trading in currencies not captured by the 1995 survey is expanding rapidly (Table V.6). The aggregate of such business has reached over one-third of the volume of the intra-European trading that may disappear with the introduction of the euro. For example, the Indonesian rupiah is already traded about as much against the dollar and yen as was the lira against the mark in April 1995. One factor helping to boost trading in many "exotic" currencies is that international investors prefer to buy the currency forward rather than to buy local bank deposits or government bills. That is, forward trading allows international investors to reap the high yield obtainable from emerging money markets even prior to reforms

Foreign exchange turnover in emerging currencies

In billions of US dollars

Currencies	Local turnover[1]		Global turnover		
	April 1995[2]	April 1996[2]	March 1996[2]	April 1997[2]	early 1996[3]
Asia	>13.6	>17.8	>16.3	>39.4	36.6
Indian rupee	1.6[4]	1.2	1.0	n.a.	1.1
Indonesian rupiah	4.8[4]	7.8[4]	3.5	10.0	8.5
Korean won	3.1	3.2	1.8	2.4	2.4
Malaysian ringgit	n.a.	n.a.	5.0	10.0	9.5
New Taiwan dollar	1.5	1.6	n.a.	3.0	1.1
Thai baht	2.6[4]	4.0[4]	5.0	14.0	14.0
Latin America	9.1	10.9	>5.8	n.a.	
Argentine peso	1.7	2.0	n.a.	1.5	
Brazilian real	4.3[5]	5.5[5]	4.5	n.a.	
Chilean peso	0.8	0.9	n.a.	n.a.	
Colombian peso	0.1[4]	0.1[4]	0.1	n.a.	
New Mexican peso	2.1	2.2	1.2	n.a.	
New Peruvian sol	0.1	0.2	n.a.	n.a.	
Eastern Europe	1.8	>5.9	>1.6	8.1	
Czech koruna	0.6[4]	2.5[4]	0.5	5.5	
Hungarian forint	0.3	0.6	0.3	0.4	
Polish zloty	0.3[4]	n.a.	0.3	0.4	
Russian rouble	0.6	2.6	0.5	1.4	
Slovak koruna	0.02	0.2	n.a.	0.4	
Other currencies	5.4	6.7	>7.4	>7.0	
New Israeli shekel	0.3	0.5	n.a.	n.a.	
Saudi riyal	1.4	1.5	0.3	n.a.	
South African rand	3.7	4.7	6.0	6.0	
Turkish lira	0.01[4]	0.02[4]	1.1	1.0	
Total[6]	>29.9	>41.3	>31.1	>56.1	

Note: The countries shown (except South Africa) had aggregate GDP of $3.4 trillion in 1992 or 15% of world GDP, compared with 80% for the countries included in the April 1995 central bank survey.

[1] Estimates as reported by the respective central banks, net of double-counting unless otherwise specified, for a period as near as possible to April. For Thailand, 1995 second half and 1996 annual averages. For Indonesia and Argentina, annual average. The turnover of the Russian rouble and the South African rand in April was well above the annual average. [2] Citibank estimates, net of double-counting. [3] Estimates reported in the *Singapore Foreign Exchange Market Committee Annual Report 1996*. [4] On a gross basis. [5] Includes other currencies. [6] The *Central Bank Survey of Foreign Exchange and Derivatives Market Activity 1995* reports a grand total (including South Africa) of $1,136.9 billion. Table V.6

of withholding taxes, custodial arrangements, reserve requirements and other impediments to holding cash instruments in these countries.

The euro and portfolio shifts

The question of how global portfolio managers will respond, in the short run and over the long term, to the introduction of the euro has attracted a great deal of commentary in the past year. Financial market participants have focused on the possibility that official reserve managers might shift their assets out of the mark and into the dollar in the near term, and then might shift out of the dollar

into the euro in the long run. Current international reserve holdings in European currencies fall far short of the potential importance of the euro area in terms of output and world trade. In particular, after European Union countries' reserve holdings of each other's currencies are netted out, the share of EU G-10 members in G-10 output and world trade is twice the share of their currencies in global reserves (Graph V.11).

Four points should be borne in mind in considering possible portfolio shifts. First, the behaviour of euro-area residents could be important in the transition. In a published report, the Swiss authorities discussed the possibility of large shifts out of the euro into the Swiss franc by such residents. However unlikely this may be, the discussion underscores the fact that portfolio shifts need not be confined to investors from outside the euro area.

Official reserves in perspective

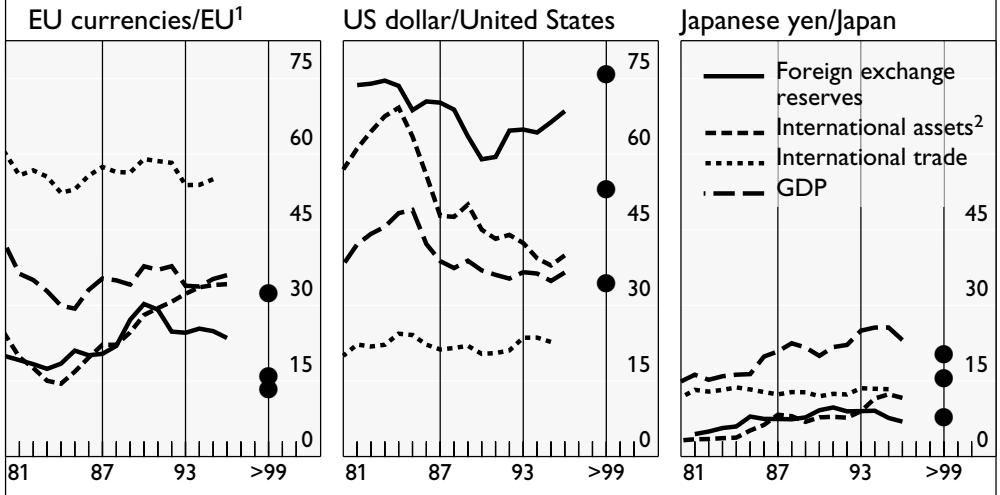
Secondly, official foreign exchange reserves represent only a small part of international portfolios. At $1½ trillion, official reserves amount to much less than total international bonds and (non-bank) deposits outstanding, at over $5 trillion. Moreover, this aggregate does not include the one-quarter of US Treasury securities or the one-third of German public debt securities held by non-residents, in both cases mostly in the private sector. In an era in which private capital flows have demonstrated their importance, the preoccupation with official reserve management seems misplaced.

The euro would attract international borrowing as well as investment

Thirdly, the behaviour of global *liability* managers may change in a manner that could partly offset, or more than offset, shifts by private *asset* managers. Debtor countries, for instance, appear to have a very small fraction of their liabilities denominated in the euro's predecessor currencies. Larger and more

The international role of the euro, dollar and yen

Currency and country shares, in percentages



Note: Hypothetical shares beyond 1999 are computed by netting out from most recent observations, respectively: EU holdings of EU currency reserves; EU holdings of EU currency bank assets and EU issuers' bonds/notes in G-10 EU currencies; and G-10 EU trade with EU countries. Total reserves, assets and G-10 GDP were $1.52 (1.38), 5.1 (3.9) and 19.9 trillion respectively in 1996; G-10 trade was $5.8 (3.9) trillion in 1995 (consolidated totals in brackets).

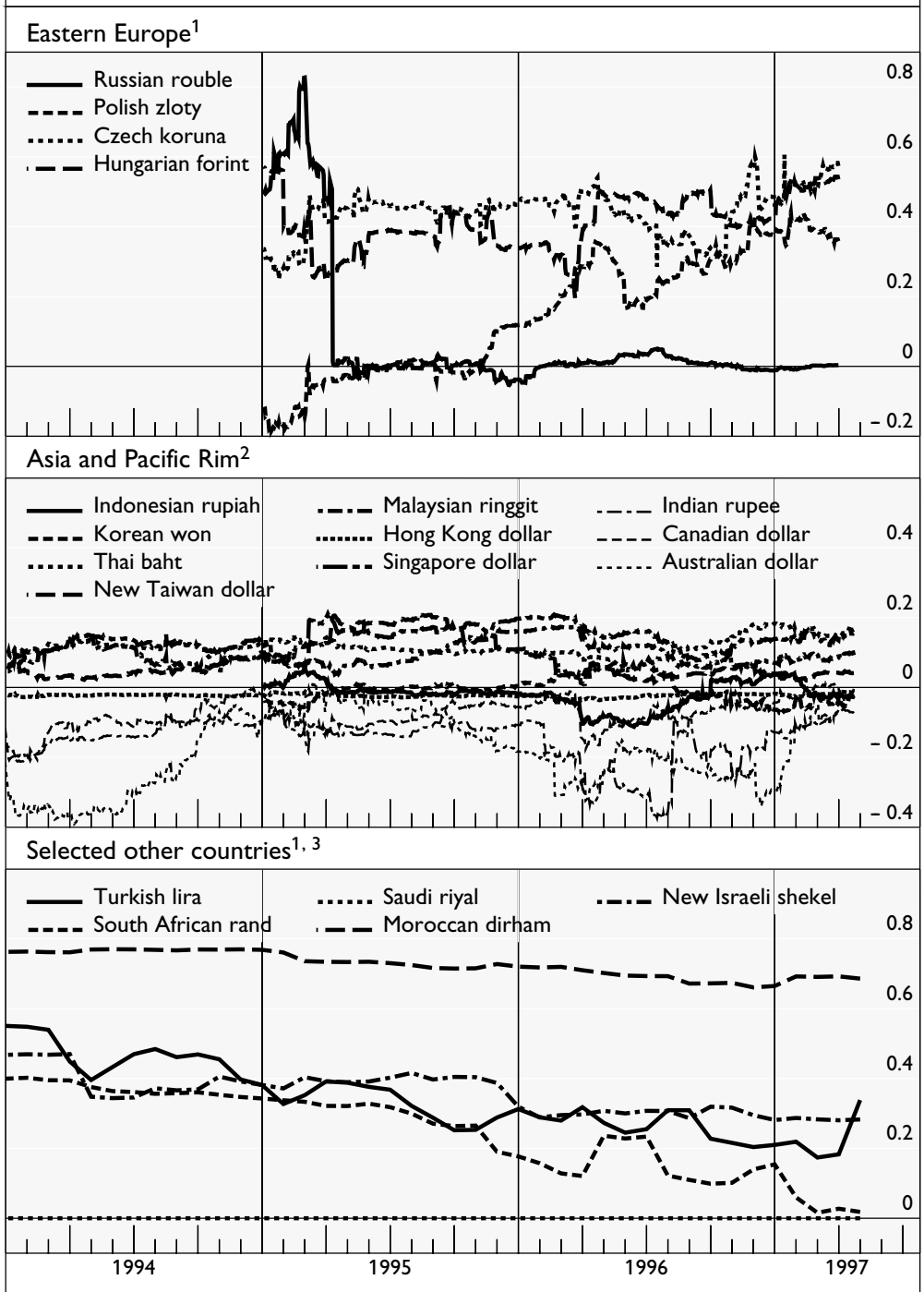
[1] G-10 EU countries only. [2] Includes international bonds, cross-border bank liabilities to non-banks, foreign currency liabilities to domestic non-banks (from 1984) and euronotes (from 1989).

Sources: IMF, OECD, BIS and national data. Graph V.11

liquid fixed income markets in euros, as compared with current European markets, could encourage debt issuance in the euro.

Lastly, it is easy to overstate the effect of portfolio shifts on exchange rates. In the final analysis, business cycle positions and associated expectations about future monetary policy, as well as the credibility of the European Central Bank, will play central roles in determining the external value of the euro.

The geography of exchange rate sensitivities



[1] Sensitivity to movements in the mark against the dollar (see the note to Graph V.7). [2] Sensitivity to movements in the yen against the dollar (by definition, the yen/$ sensitivity to itself is unity). [3] Over the current and previous 36 months.

Sources: Bank of Japan, Bankers Trust, Datastream and IMF. Graph V.12

The euro, dollar and yen as currency anchors

The euro's international role will depend in part on its use as an anchor currency by non-G-10 countries. The use of European currencies as an anchor currently does not extend beyond parts of Eastern Europe, Africa and the Middle East, as is indicated by the exchange rate sensitivities of non-G-10 currencies to movements in the mark/dollar rate (Graph V.12). The dollar, in contrast, serves as an anchor for currencies in the Americas and Asia, for the Australian dollar and even for some Eastern European currencies. The role of the yen as an international currency is limited even in Asia, where most currencies tend to share no more than 10% of its movements against the dollar. Foreign exchange turnover data in emerging markets confirm the limited role of the yen and show much higher shares of dollar trading in Asia.

Looking ahead, the exchange rate policies of Russia and China could prove of particular importance. The current dollar orientation of Russian policy and foreign exchange holdings (official and private), as well as the scale of its commodity exports, favour linkage to the dollar, but growing trade with Europe could shift the balance towards the euro over time. Hong Kong's fixed link to the dollar, as well as rapidly expanding trade between the United States and China, make a reorientation of China's policy perhaps less likely.

Gold

\$11 billion turns over each day …

The London Bullion Market Association recently reported that clearing turnover in gold in London in late 1996 was equivalent to about \$11 billion per day. According to a Bank of England survey, most of the trading was spot – both physical and book-entry – with a significant forward market and an active option market. The value of gold traded in London thus rivals that of London trading of sterling against the Deutsche mark.

… reflecting an active lease market

This high trading volume reflects the increased propensity of gold producers to lock in their output prices by selling their gold forward. The lack of an upward trend in gold prices may spur such selling, but so does the less speculative desire by producers to reduce the volatility of their cash flows in order to improve their access to credit. These forward sales generate spot sales. That is, the banks that contract to buy the producers' output forward hedge this undertaking by borrowing gold and selling it in the spot market. Banks borrow gold by taking gold deposits, offering a yield known as the lease rate. Although the three-month

Turnover in the gold market in 1996

In billions of US dollars per day

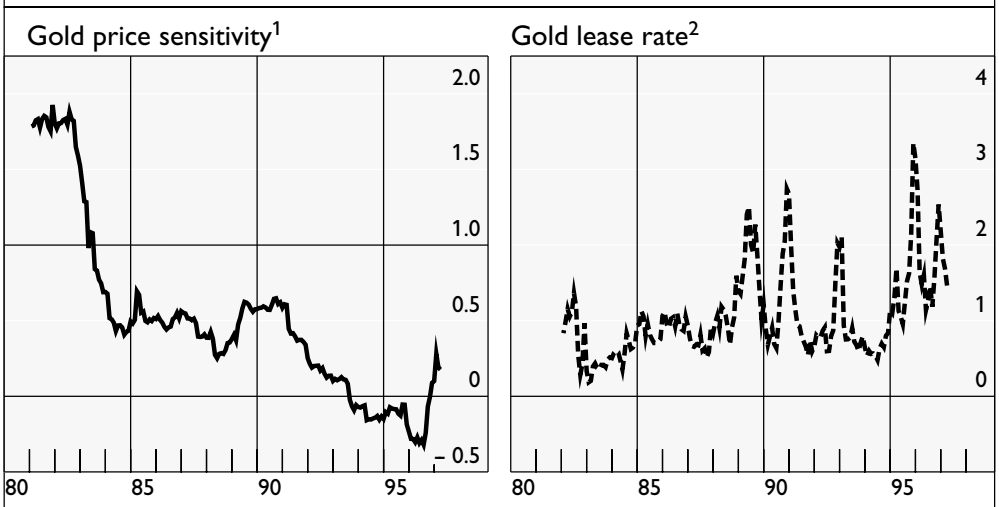
Total	Bullion[1]	Derivatives				*Memorandum items*	
		Exchange-traded[2]		Over-the-counter[3]		*World annual production[4]*	*World reserves[5]*
		Futures	Options	Forwards/ swaps	Options		
14.4	11.0	1.8	0.3	1.1	0.2	*29.2*	*408.9*

[1] Fourth-quarter average. [2] 1996 averages. [3] May averages. [4] At the 1996 average price. [5] End-year holdings by central banks, the BIS, the IMF and the EMI at the end-year price.

Sources: London Bullion Market Association, Bank of England, COMEX, CBOT, TOCOM, BM&F, EOE, IMF and Gold Fields Mineral Services Ltd. Table V.7

Gold price sensitivity and the gold lease rate

Monthly averages



[1] Estimated, as in Graph V.7, by regressing the dollar price of gold on movements in the mark against the dollar over the current and previous 36 months. [2] On three-month gold deposits in London.

Sources: Barclays Bank Plc, N.M. Rothschild and BIS calculations. Graph V.13

lease rate shows considerable seasonal variation (with end-year spikes reflecting a reduction in the supply available for loans extending beyond 31st December), a longer-term uptrend can still be discerned (Graph V.13, right-hand panel). In particular, in the early 1980s gold deposits rarely yielded over 1%, while more recently they have rarely yielded less than 1%.

The dollar price of gold has lost its linkage to dollar/mark changes

Subjecting the price of gold to the same elasticity analysis as was conducted above for exchange rates shows that the dollar price of gold has lost its sensitivity to exchange rate movements. At the time when its price peaked in 1980, gold served for many as a refuge from a dollar seemingly prone to accelerating domestic inflation and international depreciation. Thus, movements in the dollar gold price amplified the mark's movements against the dollar (Graph V.13, left-hand panel). As inflationary expectations have fallen around the world, not least in the United States, the price of gold has shown less and less sensitivity to movements in the dollar/mark exchange rate. In this evolution, the price of gold bears a resemblance to the exchange rate of the South African rand, whose sensitivity to dollar/mark movements has also declined over the last ten years (Graph V.12). This consistency is not surprising given the importance of gold to the South African economy.

Changing gold price dynamics may also be related to the increasing wealth and gold holdings of Asian investors. If rapid Asian growth has raised the proportion of gold bought and held by investors resident in countries whose currencies are most closely linked to the dollar, an increasing fraction of world gold demand (expressed in dollars) is hardly affected by changes in the dollar's value. Thus the growing importance in the gold market of the dollar-linked economies can help explain why the dollar price of gold no longer tracks movements of the mark against the dollar. A question for the future is whether the introduction of the euro will draw the pricing of gold and other commodities away from the dollar.

VI. Financial trends in the emerging markets

Highlights

Private capital flows to the major emerging markets in Asia and Latin America reached record levels last year as industrial country investors continued to diversify their portfolios. A sizable increase in the issuance of international bonds was the biggest single factor; many more countries succeeded in launching such bonds. Despite the increased supply, risk premia for emerging market bonds narrowed during 1996 and early 1997 as persistence with stabilisation and reform policies improved the credit standing of some countries. In addition, global liquidity conditions remained easy, inducing investors to seek higher-yield and riskier investments. Maturities lengthened significantly, enabling several countries to restructure their external debt. However, for the least creditworthy emerging market countries, borrowing costs appear to have declined more slowly and they remain above those for comparably rated industrial country borrowers.

Equity markets rose strongly in much of Latin America although in some cases only after falling early in the year under the influence of political and other uncertainties. The picture in Asia was more mixed: while many major markets recorded large gains in 1996, those in Korea and Thailand suffered sharp declines. Moreover, many countries in Asia are confronted with serious property market gluts that continue to depress prices. This is putting the banking systems in some countries under strain.

Key features of the evolving pattern of capital flows – a widening range of countries and institutions receiving substantial flows of capital from large numbers of private investors – have given credit-rating agencies a much greater role than even at the beginning of the decade. This applies to ratings not only of countries but also of banks, which have come under increasing pressure to become more transparent in the reporting of their business operations.

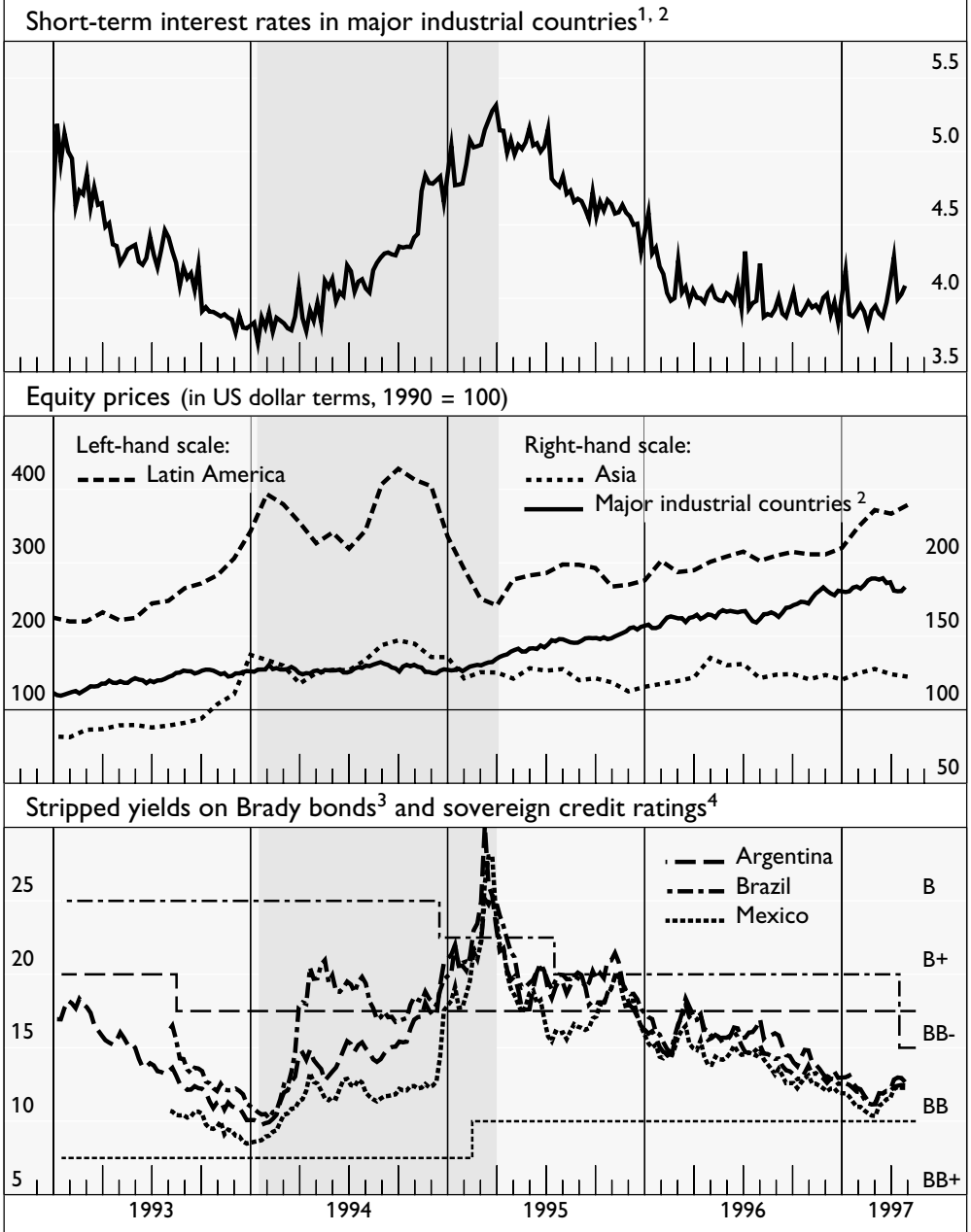
Recovery of capital flows after the Mexican crisis

After drying up in the wake of the Mexican crisis …

Last year marked a period of strong recovery of private capital flows to the emerging market economies after the gradual weakening that began with rising US short-term interest rates in early 1994 and the interruption occasioned by the Mexican financial crisis at the beginning of 1995. Yields paid by some emerging market borrowers had begun to move up from early 1994 (Graph VI.1) and the volume of capital flows fell (Table VI.1). In the early months of 1995, capital flows dried up, several countries – in particular Mexico and Argentina – suffered a heavy loss of reserves and yields on emerging market debt rose to exceptionally high levels. Capital outflows from these countries were subsequently halted by a combination of tight macroeconomic policies and a continued commitment to

liberal financial markets; foreign official lending also played a significant supporting role. Substantial foreign exchange reserves and a willingness both to raise interest rates and to limit domestic banks' short-term lending to non-residents allowed Asia to weather the storm better. An important cyclical influence was the steady reduction in US short-term interest rates from early 1995, which increased

Interest rates in the industrial countries and financial asset prices in the emerging markets



[1] Overnight rate; the peak and the trough define the shaded area. [2] Weighted average of the United States, Japan, Germany, France and the United Kingdom. [3] Yields on Brady par bonds stripped of US Treasury collateral on principal and interest (left-hand scale; thick lines). [4] Assigned by Moody's and Standard & Poor's (right-hand scale; thin lines). Standard & Poor's first assigned a rating to Argentina in August 1993 and to Brazil in December 1994.

Sources: International Finance Corporation, J.P. Morgan, Moody's, Standard & Poor's and national data. Graph VI.1

Capital flows and reserves in Asia and Latin America

In billions of US dollars, at annual rates

	1980–90	1991	1992	1993	1994	1995	1996
	Net private capital inflows						
Total	12.9	52.5	81.3	99.1	78.7	77.7	149.8
China	1.9[1]	–1.9	11.7	7.8	14.6	13.9	23.0
Other Asia[2]	4.7	26.2	19.3	34.0	26.8	37.6	56.8
Brazil	3.8	2.5	9.1	9.9	9.1	31.8	35.4
Mexico	1.6	20.6	23.6	30.3	10.3	–13.2	13.5
Other Latin America[3]	0.8	5.0	17.6	17.0	18.0	7.6	21.1
	Net official capital inflows						
Total	13.8	12.8	19.8	13.2	13.8	33.8	0.9
China	1.2	2.9	5.4	5.6	9.3	6.9	7.0
Other Asia[2]	6.8	8.3	13.3	5.7	3.7	1.9	3.8
Brazil	1.0	–1.4	–0.5	–1.2	– 0.7	– 0.7	– 1.8
Mexico	2.1	2.4	2.0	–0.9	0.3	24.5	–10.0
Other Latin America[3]	2.7	0.6	–0.4	3.9	1.2	1.1	1.8
	Net increase in reserves						
Total	13.3	55.5	71.4	59.2	48.5	62.6	83.2
China	2.7	14.1	23.2	1.8	30.5	22.5	31.4
Other Asia[2]	10.5	25.2	25.7	37.1	23.8	16.2	25.8
Brazil	–0.1	–0.4	14.7	8.7	7.2	12.9	9.3
Mexico	0.6	8.2	1.2	6.1	–18.9	10.7	1.8
Other Latin America[3]	–0.4	8.4	6.6	5.5	5.9	0.4	14.9

Note: Capital flows are calculated as the difference between the current account and the change in reserves; private flows are calculated as a residual from an estimate of official flows.

[1] 1982–90. [2] India, Indonesia, Korea, Malaysia, the Philippines, Singapore, Taiwan and Thailand. [3] Argentina, Chile, Colombia, Peru and Venezuela.

Sources: IMF Balance of Payments Statistics and Institute of International Finance. Table VI.1

liquidity in international capital markets and led industrial country investors to seek higher yields abroad.

… private inflows recover in Latin America …

Sharp increases in private inflows to Latin America in 1996 enabled countries to accumulate reserves and to repay official debt; the current account imbalance for the region as a whole was virtually unchanged. Governments of some Latin American countries, notably Mexico and Argentina, used renewed access to international capital markets to improve the maturity structure and the pricing of their outstanding debt. Sizable Mexican bond issues were used to finance early repayments of official emergency support provided in 1995 by the US Treasury and the IMF, as well as to retire some outstanding higher-yield Brady bonds. Argentina also continued to borrow heavily in private international capital markets, financing a small rise in the current account deficit and expanding its official international reserves. The maturity of its bonds was lengthened and a peso-denominated bond was issued. Finally, investing in short-term peso-denominated Mexican government debt proved particularly profitable to foreign investors last year as the depreciation of the peso fell far short of the nominal interest rate differential (short-term interest returns in US dollar terms are

Short-term interest rates:[1] real and in US dollar terms

Annual rates of return

	Real[2]				In US dollars[3]		
	1990–94	1995	1996	1997 Q1	1990–94	1995	1996
China	– 2.2	– 5.0	0.7	2.2	– 2.9	12.7	9.3
India	2.2	5.7	4.9	– 2.7	– 0.2	2.9	8.6
Hong Kong	– 3.7	– 2.7	– 0.8	– 0.4	5.7	6.3	5.4
Korea	2.2	4.2	2.4	2.7	6.2	10.8	– 1.4
Singapore	1.1	0.8	1.5	1.2	9.6	5.9	4.0
Taiwan	3.3	2.5	2.3	3.9	7.2	2.2	4.6
Indonesia	8.3	6.7	8.7	11.3	12.9	11.3	13.6
Malaysia	2.7	2.5	3.5	3.9	7.8	6.7	7.7
Philippines	5.0	3.4	3.6	5.8	15.2	4.1	12.0
Thailand	5.3	5.5	4.3	5.1	10.9	11.2	8.5
Argentina	–12.4	8.2	7.2	6.2	21.9	11.8	7.4
Brazil	10.6	25.5	10.3	12.7	20.6	33.1	19.3
Chile	6.6	5.9	6.9	6.8	15.0	12.6	8.6
Colombia	0.1	9.5	8.5	5.7	11.0	11.4	29.3
Mexico	3.3	9.8	– 1.1	– 1.8	4.2	3.0	28.9
Peru	–12.4	4.3	3.4	5.2	–24.6	9.8	2.3
Venezuela	– 2.5	–22.0	–36.2	–37.8	4.1	–26.9	–22.4

[1] Rates on three-month paper; for China, one-year deposit rate; for India and Brazil, overnight rate; for Taiwan, overnight rate and, before November 1994, weighted average of six money market rates with maturities ranging from overnight to six months. [2] Deflated by the consumer price index. [3] Calculated from monthly average interest rates and changes in the exchange rate during the month.

Sources: IMF, national data and BIS estimates. Table VI.2

shown in Table VI.2). Interest rate differentials also accounted for continued large inflows into Brazil. These inflows financed a widening current account deficit and further, though diminishing, additions to international reserves.

… and remain strong in Asia

In most Asian countries, strong growth of net private capital inflows, which had already resumed in 1995, continued last year. In Asia as a whole, reserve accumulation absorbed more than half of these inflows. High domestic interest rates, faster economic expansion and the recovery of international bond markets after the Mexican crisis allowed the Philippines to attract heavy capital inflows and finance very substantial reserve growth, as well as to retire $635 million of Brady bonds. However, in some Asian countries, in particular Korea and Thailand, current account deficits rose more rapidly than net inflows. As discussed in Chapter III, widening current account imbalances in these and several other Asian countries reflected a combination of slower export growth and continued increases in domestic demand.

Greater Asian reliance on bond issuance

An important feature of Asian capital inflows last year was a shift in external borrowing towards greater reliance on bond markets. Net international securities issuance by Asian developing countries rose by a factor of three. This reflected a desire among many Asian borrowers to diversify sources of funding, as well as official efforts to contain short-term offshore borrowing from banks (e.g. a limit was imposed by Thailand; Malaysia tightened its rules). There was indeed a sharp

fall in bank lending to entities in Thailand, where external short-term debt had reached high levels. In other Asian countries, the flow of international bank financing rose (see Table VII.3 and Graph VII.4 in Chapter VII).

Asset prices

Better access to international capital markets has also been evident in the movement of asset prices. Yields on Brady bonds, which started to decline after March 1995, have now fallen back almost to their early-1994 levels. However, the recovery in Latin American equity prices, measured in dollars, has been only partial: the International Finance Corporation's aggregate index is still below the peak levels reached in 1994. Equity prices in Asia, which had declined much more gradually in early 1995, have been weaker overall than those in Latin America. Most Asian markets fell sharply in the first four months of 1997, while most Latin American markets remained strong. The relatively subdued performance of aggregate Asian equity prices during the last couple of years or so may reflect continuing concerns about financial fragility and the sustainability of large current account deficits in certain countries. As discussed further below, however, the aggregate movements mask quite divergent trends in individual markets.

Capital flows to emerging market economies in the 1990s

Increased capital market integration

Total net private flows to Latin America and Asia in 1996 alone exceeded total flows for the entire 1980s, while official flows have remained relatively flat (Table VI.1). Two powerful forces are driving the emerging market economies towards increased integration with international capital markets. First, the widespread movement towards market-oriented economic reform in developing economies has increased the number of countries that are considered to be creditworthy, and has also led to heightened demand by these countries for investment financing. Secondly, investors in industrial countries are continuing to diversify their financial portfolios, a trend reinforced by the cyclical decline in short-term interest rates in industrial economies in the 1990s.

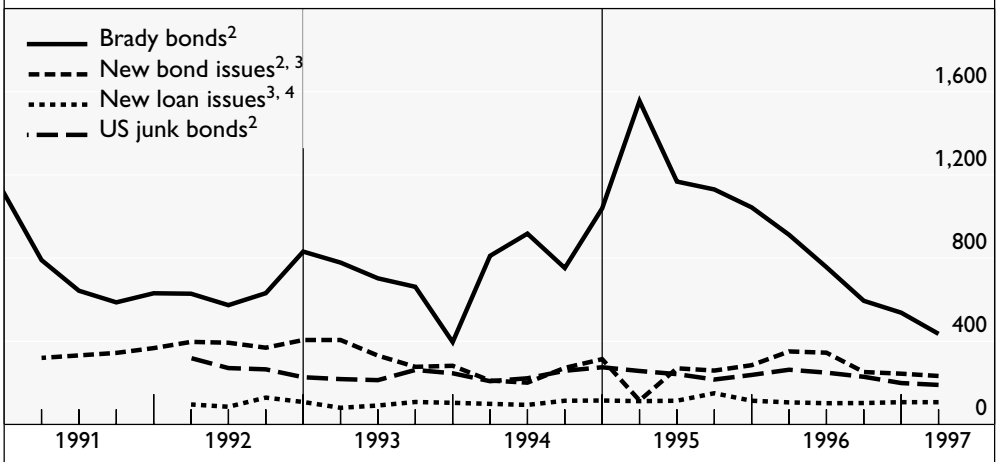
Debt finance

Increases in capital inflows during the 1990s have been quite broadly based, including bank borrowing, securities issuance and equity investment (both direct and portfolio). As shown in Graph VII.4 in the next chapter, both bank borrowing and net securities issuance by Latin American and Asian countries have grown substantially. Bank borrowing has been the principal means of fund-raising by Asian countries, while Latin American countries have relied more heavily on securities issuance. Banks may have preferred initially to lend to Asian countries as a result of the difficulties in the repayment of Latin American commercial bank debt in the 1980s. In addition, Latin American bonds generally were not restructured during the 1980s, making them seem an attractive vehicle for investment in the 1990s. At all events, as noted above, patterns of fund-raising in the two regions may recently have begun to converge.

Equity flows

Expanding equity flows have been another important feature of the surge in capital flows to emerging market countries in the 1990s. Portfolio equity flows have been particularly buoyant, with their share of total private capital inflows rising from 13% in 1991 to 19% in 1996. This is a further indication of the increasing globalisation of industrial country financial portfolios, and of the growing importance of certain types of investor – such as pension funds and

Spreads on emerging market debt instruments and US junk bonds[1]



[1] Average spreads, in basis points, weighted by US dollar value amounts. [2] Over US Treasury bonds of appropriate maturity. [3] Based on a subset for which spreads were available. [4] Over LIBOR.

Sources: Bloomberg, J.P. Morgan and Euromoney Bondware and Loanware. Graph VI.2

mutual funds – that previously had restricted themselves to domestic financial market investments.

Interest rate spreads narrow …

The evolution in the cost of funds to developing country borrowers in the 1990s provides less clear-cut evidence of integration than aggregate flows. Graph VI.2 compares the spreads over US benchmark interest rates of three developing country debt instruments (Brady bonds, new bond issues and new bank loans) with that of US BB-rated corporate "high-yield" (junk) bonds. The spread on Brady bonds, the most actively traded emerging market debt instrument, has often been used as a barometer of the cost of funding for emerging market countries. Despite recent sharp falls, this spread is still above the lows reached at the end of 1993.

… markedly on Brady bonds …

As can be seen from the graph, spreads on Brady bonds have generally been well above those on new bond issues and loans. This in part reflects the fact that Brady bonds represent restructured bank loans, and may be considered by the market to be more exposed to the risk of further rescheduling in the event of payment problems than other forms of borrowing. Moreover, because Brady bonds were issued solely by countries that experienced difficulties in repaying their external debt, their spreads probably incorporate a higher degree of risk than is believed to characterise emerging market borrowers in general.

… while for new bond issues the pattern is ambiguous …

Average spreads on new bonds issued by emerging market countries have declined from their high levels of the early 1990s, although, as with Brady bonds, they have been subject to some variation over time. Moreover, the similar decline in spreads on US junk bonds suggests that there has been no *relative* improvement in the access of emerging market countries to capital markets in the 1990s: both emerging market borrowers and issuers of US junk bonds appear to have benefited from greater liquidity, an increased appetite for risk and hence lower spreads. Finally, spreads on bank loans have been some 200 basis points lower on average than spreads on bonds issued by emerging market countries, in large

part reflecting the higher proportion of better-rated Asian countries in bank borrowing than in bond issuance. Spreads on bank loans have narrowed in the past year, along with those on Brady bonds and new bond issues, but have not exhibited a longer-term trend over the 1990s.

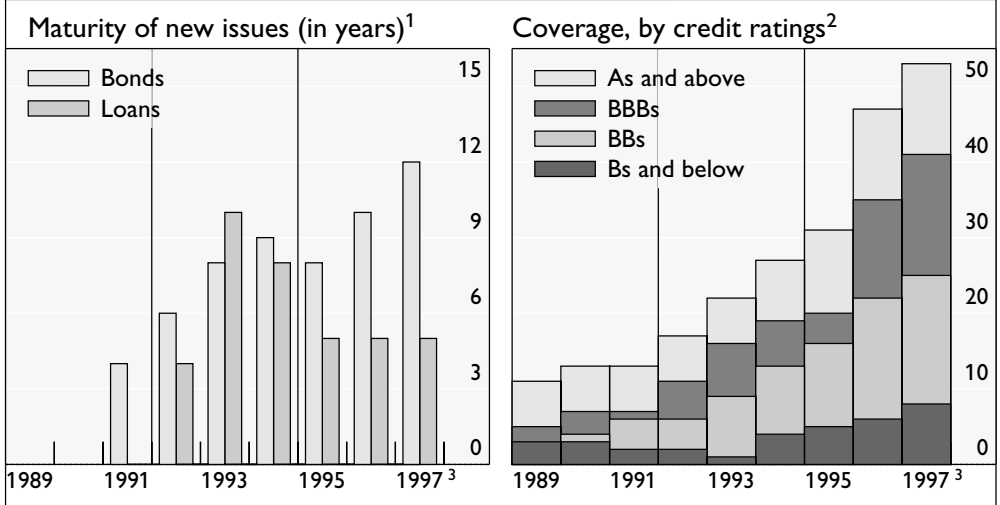
… reflecting longer maturities …

Various factors may have affected the rather ambiguous and hard-to-interpret pattern of average spreads on new bonds and bank loans shown in Graph VI.2. First, investors have been prepared to lend at longer maturities as the perceived creditworthiness of emerging market countries has improved, and emerging market countries have willingly paid higher spreads in order to lengthen the maturity structure of their debt. As indicated in Graph VI.3, average maturities for bonds increased from four years in 1991 to ten years in 1996, and this has contributed to a smaller decline in spreads than would otherwise have occurred. Average maturities for new bank loans, which include occasional large long-term project loans, have been much more erratic, and have displayed no long-term trend in the 1990s.

… and new borrowers

A second factor that may have kept up average spreads on new loans and bonds has been the entry into the market of many new borrowers. If such borrowers represent higher risks, and thus pay higher premia, this could raise average spreads in the market, even if spreads for particular risk categories were declining over time. However, the evidence from recent changes in the distribution of sovereign borrowers across different risk categories (Graph VI.3) reveals no overall trend in the average riskiness of rated emerging market countries. (The year-to-year volatility of spreads probably reflects year-to-year movements in the share of risky borrowers.) Nevertheless, it is possible that the entry of new borrowers may have raised average spreads, simply because the markets tend to require higher yields from new borrowers without a credit track record, regardless of their rating.

Emerging markets: maturities and ratings

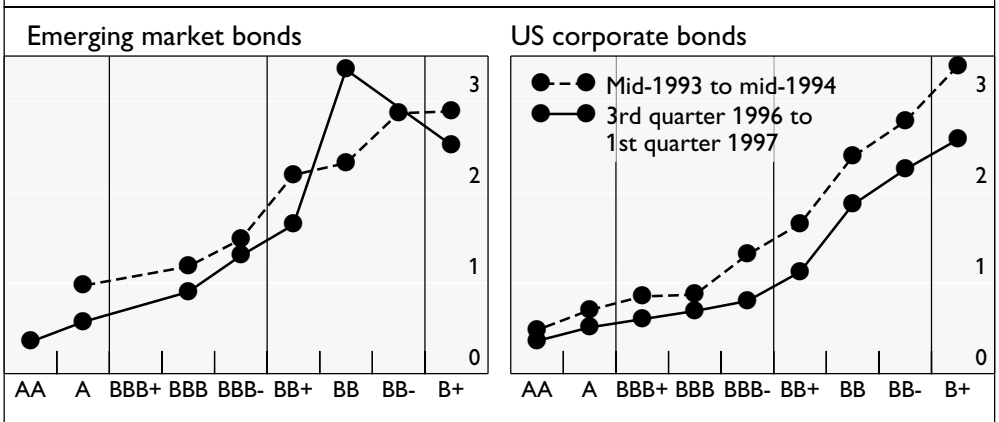


[1] Based on selected new issues for which data on credit ratings and spreads exist. [2] Number of countries with sovereign credit ratings assigned by Moody's or Standard & Poor's. [3] End-March.

Sources: Moody's, Standard & Poor's and Euromoney Bondware and Loanware. Graph VI.3

Spreads and ratings: emerging market and US corporate bonds

In percentages



Note: The dots indicate bonds for which spreads over US Treasury bonds and ratings were available.

Sources: Bloomberg and Euromoney Bondware. Graph VI.4

Continued caution about high-risk borrowers …

In order to control for changes both in the composition of borrowers and in the maturity of debt, the left-hand panel of Graph VI.4 compares spreads for new bond issues across the risk-rating scale, but with the same maturity, in two periods: mid-1993 to mid-1994 (when spreads reached their previous low) and September 1996 to the present (when spreads had fallen back). For all but the higher-risk credit categories, spreads unambiguously declined between 1993–94 and the recent period, supporting the view that emerging market country borrowers are benefiting from improved pricing of their debt. However, for the high-risk borrowers – that is, those rated BB and B+ – spreads have not uniformly declined, suggesting that investors remain cautious about the riskiest emerging market borrowers.

The right-hand panel of the graph indicates that spreads on US corporate bonds for the same maturity and for the same periods as the emerging market bond issues have also narrowed since 1994. This suggests little obvious change in the degree of discrimination between borrowers from different geographical areas. It is nonetheless notable that spreads among the least risky credit categories for which data are shown – A and BBB – fell more sharply for emerging market bonds, whose yields are now at approximately the same level as those on US corporate bonds in the AA and A risk categories. Yet, for riskier credit categories, the gap between emerging market and US corporate bonds has actually widened.

… but lower spreads for lower-risk borrowers

In sum, a closer examination of movements in spreads on new bonds confirms that the less risky emerging market borrowers have benefited from a combination of increased liquidity and, perhaps, a heightened appetite for risk, as well as a greater willingness on the part of investors to assess emerging market borrowers on the same basis as their industrial country counterparts. However, for borrowers with riskier credit ratings, spreads – while declining – remain high compared with similarly rated borrowers in industrial countries, suggesting that financial markets still apply different standards of credit access for this subset of borrowers.

Equity and property markets

Equity markets large but still volatile …

Equity markets in the developing world are now far larger than they were at the beginning of the decade: in terms of the ratio of capitalisation to GDP, markets in many countries are now comparable to those in the larger European countries (Table VI.3). Moreover, these markets, which have attracted much-increased foreign interest, are now more closely integrated with the financial markets in the developed world. Nevertheless, the volatility of equity prices, although tending to fall, has remained higher than in the industrial world.

… and diverged sharply

Price movements in different countries diverged in 1996 and early 1997. Many Latin American markets rose sharply, with substantial gains in Argentina, Brazil and Venezuela. Markets in Chile and Colombia fell back. Several Asian markets reached new records while Taiwan's market recovered from an earlier slump that had been provoked by political concerns. However, there were precipitous falls in two major centres: the Korean and Thai indices had, by early 1997, fallen by about one-half from their previous highs.

Equity markets: capitalisation, volatility and recent performance

	Capitalisation[1]		Volatility[2]		Change in market index[3]
	1990	1996	1993–94	1995–96	
China	0.5[4]	13.8	26.6	10.5	71.7
India	12.9	35.1	8.9	8.2	–25.3
Hong Kong	111.5	280.8	10.1	5.5	32.8
Korea	43.6	25.4	6.1	6.1	–47.6
Singapore	91.6	169.0	3.9	3.1	– 1.1
Taiwan	62.7	100.5	13.9	8.5	6.6
Indonesia	7.1	41.2	8.9	7.3	17.6
Malaysia	113.6	315.5	9.0	5.8	16.7
Philippines	13.4	97.5	10.2	6.4	8.2
Thailand	28.0	54.0	11.0	7.7	–54.1
Argentina	2.4	15.7	9.1	9.4	28.7
Brazil	4.0	28.6	13.6	7.6	31.3
Chile	49.1	90.8	8.7	5.1	–22.4
Colombia	3.5	20.8	8.2	6.7	–21.4
Mexico	13.5	37.1	7.9	11.4	9.4
Peru	2.2	23.0	11.0	9.0	6.8
Venezuela	17.2	15.4	12.4	15.2	26.9
Memorandum items:					
United States	*53.8*	*108.7*	*1.4*	*2.0*	*27.2*
Japan	*98.2*	*67.6*	*6.0*	*3.4*	*–25.2*
Germany	*23.6*	*29.4*	*3.2*	*1.7*	*19.4*
United Kingdom	*86.7*	*151.0*	*4.2*	*2.5*	*22.6*
Other G-10 Europe[5]	*26.9*	*47.8*	*4.7*	*3.8*	*10.9*

[1] As a percentage of GDP. [2] Standard deviation of monthly changes over the periods January 1993–November 1994 and January 1995–November 1996 (to exclude the crisis-affected month of December 1994). [3] Percentage change from the highest point reached in 1995 to February 1997, in US dollar terms. [4] 1991. [5] Weighted average based on 1990 GDP and PPP exchange rates.

Sources: International Finance Corporation, Institute of International Finance, OECD, national data and BIS estimates. Table VI.3

Property price cycles in Asia

Percentage changes in real prices, at annual rates

	Trough to peak	Peak to trough	Latest incomplete cycle		Elasticity with respect to equity price index*
			percentage	initial year	
Hong Kong	20 24	−30	56	1995	1.07
Korea			−2	1990	−0.12
Singapore	27	−26	18	1992	0.82
Indonesia	54		−8	1990	0.13
Malaysia	26	−13	−6	1991	−0.21
Philippines	42	− 8	7	1991	0.34
Thailand			−7	1991	−0.09

Note: Calculations are based on yearly data on prices usually in capital cities. The latest cycle is based on the change from the initial year shown to 1996.

* Elasticity of the year-to-year percentage change in nominal property prices with respect to the year-to-year percentage change in share prices, 1991 to 1996.

Sources: Colliers Jardine and Jones Lang Wootton. Table VI.4

Real estate prices also volatile …

Real estate prices are driven by many of the same forces that drive equity prices – bank credit, real growth, inflation expectations and so on. Property price booms in emerging markets in Asia have been much more intense than in the larger industrial economies. The average increase in real prices during property upswings in the countries for which data are readily available (shown in Table VI.4) has generally exceeded 20% a year, compared with around 10% a year typically experienced in the United States or the larger European economies. One important reason is the rapid pace of industrialisation and urbanisation, which creates an extremely strong demand for new buildings. An indicator of this is the development of office rents: since the mid-1980s, the average real rental price of offices in the central areas of Kuala Lumpur and Singapore has more than doubled and that of Hong Kong has risen almost as sharply.

… even if sometimes sticky downwards

Unlike equity prices, however, real estate prices do not always decline quickly when excess supply emerges. As in much of the developed world, there have been significant falls in prices in recent years after the massive increases registered in earlier periods, usually after a significant tightening of monetary policy. In two economies (Hong Kong and Singapore), price cycles have been shorter than in the others shown in Table VI.4; this, and the higher correlation between property and equity prices in these economies during the 1990s, implies greater and more rapid responsiveness of property prices to excess supply conditions than in Korea, Malaysia, the Philippines or Thailand. While the downward correction that followed the excesses of the 1980s has already given way to a renewed boom in Hong Kong and Singapore, the adjustment in the other countries remains incomplete. Construction industry estimates suggest that further large increases in supply during 1997 or 1998 in Bangkok, Jakarta, Kuala Lumpur and Manila may put further downward pressure on prices.

Financial fragility in Asia

Earlier crises in Latin America have triggered restructuring

The resurgence of private capital flows into the emerging markets has occurred at a time of considerable fragility of the banking systems in most recipient countries. In Latin America, Argentina, Brazil, Mexico and Venezuela are still recovering from major difficulties (analysed in last year's Annual Report). An extensive process of restructuring (which has involved government subsidies, mergers, increased foreign participation and more rigorous prudential oversight, both regulatory and market-based) is under way. One concrete manifestation of this has been deep cuts in banking sector employment, which had often been inflated by the easy profits to be made under hyperinflation: between 1990 and 1996, bank employment was cut by 34% in Brazil and 20% in Argentina. The ratio of non-performing to total loans has fallen significantly (Table VI.5). There has been a drastic tightening of credit conditions, with a steep decline in bank credit.

Asian banks exposed after years of rapid growth

Very rapid growth in Asia in the first half of the 1990s created a climate of ever-rising demand conducive to an extraordinary expansion in the ratio of bank

Non-performing loans as a percentage of total loans

	Crises in the 1980s		1990	1994	1995	1996[2]
	years[1]	average				
India[3]				23.6	19.5	17.3
Hong Kong[4]				3.4	2.8	2.7
Korea	1986	6.7[5]	2.1	1.0	0.9	0.8
Taiwan[6]	1986	5.5	1.2	2.0	3.1	3.8
Indonesia			4.5	12.0	10.4	8.8
Malaysia	1988	30.5	20.4	8.1	5.5	3.9
Thailand	1983–88	15.0	9.7	7.5	7.7	n.a.
Argentina	1985	30.3	16.0	8.6	12.3	9.4
Brazil			4.7	3.9	7.9	5.8
Chile	1983	15.5	2.1	1.0	1.0	1.0
Colombia[7]	1984	25.3	2.2	3.1	3.8	4.6
Mexico[7]	1982	4.1	2.3	10.5	14.4	12.5
Peru	1985	17.7	12.8	6.9	4.8	5.1
Venezuela	1983	15.4	3.0	24.7	10.6	3.8
Memo items:						
United States	*1987*	*4.1*	*3.3*	*1.9*	*1.3*	*1.1*
Japan[8]				*3.3*	*3.3*	*3.4*[9]
Italy			*5.2*	*8.1*	*9.3*	*10.1*
			1992[10]			
Finland			*8.0*	*4.6*	*3.9*	*2.7*
Norway			*9.1*	*5.4*	*4.1*	*3.2*
Sweden			*11.0*	*6.3*	*4.4*	*3.0*

[1] Peak years shown. [2] Preliminary. [3] Public sector banks only. [4] Locally incorporated banks only. [5] Official data are available only from 1986 onwards. [6] Past-due loans. [7] Commercial banks only. The figures for Mexico for 1995 and 1996 incorporate the effects of special programmes to deal with bad loans. Without such programmes the figures would have been 19.3 in 1995 and 24.2 in 1996. [8] Fiscal years. [9] September 1996; including restructured loans, the figure is 4.5%. [10] The peak year of the Nordic banking crises. Table VI.5

credit to GDP that has no recent parallel in the industrial countries (Table VI.6). The most rapid rates of growth in credit have been recorded in the more recently industrialising countries – Indonesia, Malaysia, the Philippines and Thailand. In Thailand, the peak rates of credit expansion occurred in 1995, and a significant slowdown set in during 1996. Credit expansion in the Philippines, where the pick-up in real growth began rather later than in the other countries, accelerated: in the space of just a couple of years, the real volume of bank credit has approximately doubled.

The recent cyclical downturn in several Asian countries has exposed structural weaknesses in their banking systems. One important factor has been increases in (or continued high) real interest rates, partly designed to cool very rapid credit growth but partly aimed as well at supporting the exchange rate in the context of very large current account deficits. After successive increases during most of 1996, real interest rates in Indonesia and Thailand had, by early 1997, risen above 10% and 8% respectively (see Graph III.3). In Malaysia, where

Growth of bank credit to the private sector relative to the growth of GDP

	1981–89	1990–94	1995	1996[1]	Memorandum item: Bank credit to the private sector as a percentage of GDP	
	average annual percentage changes				1980	1995
China[2]	4.6	3.8	– 0.5	3.8	47.5	83.9
India	2.6	–2.0	3.8	– 2.0	20.2	23.9
Hong Kong[3]	11.7	8.8	8.9	– 6.1	71.7	321.4
Korea	3.2	2.6	2.2	– 0.6	36.2	55.7
Singapore	2.1	0.8	7.8	5.7	62.9	84.9
Taiwan	7.1	9.2	1.1	– 3.9	49.2	143.1
Indonesia	15.1	10.4	4.4	5.7	8.1	49.1
Malaysia	6.8	3.1	10.5	13.1	33.1	76.9
Philippines	–7.6	10.7	27.4	31.5	37.9	39.3
Thailand	6.8	10.0	11.1	5.8	27.5	88.7
Argentina	–4.0	7.9	6.2	0.4	16.5	17.9
Brazil	3.5	1.4	6.7	– 4.9	17.5	27.4
Chile	3.8	3.1	1.3	14.4	26.5	43.6
Colombia	2.0	4.1	4.2	5.0	10.8	16.4
Mexico	–1.9	25.7	– 0.6	–36.0	12.8	33.6
Peru	–9.6	22.0	25.8	29.9	9.2	12.7
Venezuela	–2.9	–9.6	–39.4	–19.6	24.9	7.0
Memorandum items:						
United States	*1.7*	*–3.5*	*4.2*	*– 0.6*	*62.1*	*63.3*
Japan	*3.8*	*0.3*	*0.5*	*– 1.9*	*81.0*	*115.1*
Germany	*1.4*	*2.5*	*0.8*	*4.6*	*74.2*	*96.1*
United Kingdom	*9.6*	*1.3*	*2.3*	*3.3*	*39.9*	*99.7*
Other G-10 Europe[4]	*1.7*	*2.0*	*– 2.6*	*– 0.8*	*61.0*	*76.2*

[1] Preliminary. [2] Credit other than to central government. [3] Total credit. Licensed banks only. [4] Weighted average based on 1990 GDP and PPP exchange rates. Table VI.6

greater exchange rate flexibility has been allowed, real interest rates have been somewhat lower and much more stable. Real rates in Korea also remain high, although there has been a substantial decline in the exchange rate. Downward pressure on asset prices in some countries has magnified these difficulties.

Bank fragility reflects adjustment to liberal and open environment

The underlying causes of bank fragility in Asia are various. Among them are four principal common elements that typify the problems of adjustment to a more liberal and open environment – and are reminiscent of very similar difficulties seen in industrial countries not many years ago. First, a central cause of instability has been violent asset price cycles driven by an excessive expansion of bank and other credit. Banks that had developed under tight regulation often lacked the experience to evaluate credit risks properly in a new liberalised environment. Some took too many risks, with the tacit expectation of official support should they run into trouble. In many instances, the system of prudential oversight was not tightened sufficiently to cope with greater risks. Secondly, capital account liberalisation and greater freedom for domestic financial institutions to engage in international transactions have complicated the task of monetary policy (as also discussed in Chapter III). Exchange rate targets have often restricted the use of interest rates to maintain internal stability. A third cause is that the earlier policies of directed lending have left a legacy of bad debts. A final difficulty is that the intensification of competition among domestic institutions has not always led to the rationalisation of often very fragmented banking systems inherited from the past.

Asset price cycles

Asset price cycles accentuated by bank credit …

Asset price cycles funded by an excessive expansion of bank credit have been a central common feature in the financial crises in industrial countries as well as developing countries in recent years. Because the linkages between asset prices and changes in bank credit are self-reinforcing, at least in the short run, financial instability can be exacerbated as economies adjust to a more liberal financial environment. Before liberalisation, interest rate ceilings on deposits kept bank intermediation profitable. Moreover, bank credit was typically directed to government or industrial enterprises, with only a limited share typically channelled into equities or real estate. The removal of such restrictions not only gives banks greater latitude of action but also encourages them to search for new, profitable business as margins on their traditional business are squeezed.

… as new opportunities for profit …

A common development following liberalisation is that banks will extend loans for the purchase of equities and real estate. Banks themselves may acquire equities, and may even hold equity in other types of financial institution permitted to take more risks (e.g. heavy investment in property) than they are. Similarly, property-related loans may rise sharply for a number of years, fuelling an unprecedented property boom. Asset price booms will also "infect" lending for other purposes because both equities and property will appear to offer banks good collateral while prices are rising.

… tempt banks to go too far …

Borrowers will continue to borrow – even at high interest rates – to buy assets that are rapidly appreciating in value and banks will continue to lend because the value of their collateral is rising. Highly profitable property and equity investment in the early stages of the boom will encourage both borrowers and

banks to seek still further exposure, leading to renewed rises in prices. In this phase, moreover, banks and other financial institutions often compete strongly with each other, driving margins lower just as risks are rising. The point at which property prices exceed the present value of future returns is imprecise because of uncertainty about the "right" rate of discount and because future returns are themselves hard to gauge, particularly in rapidly developing countries. A speculative bubble in property is almost inevitable.

… with major difficulties when the bubble bursts

When the bubble bursts, banks and their customers will face major difficulties. At first, mounting excess supply may not be reflected in prices as owners and their creditors hold their properties off the market and transactions decline. But, as financing costs build up (often leading to escalating interest arrears), this cannot be sustained. In particular, highly leveraged investors may be forced to sell, pushing prices down. As the value of property collateral held by banks and others falls, the pressure to sell intensifies, reinforcing downward pressure on prices that may in turn induce further forced sales which may drive property prices below their long-run equilibrium values.

What should be done to temper booms?

This process presents the authorities with several policy challenges. One is what can or should be done to moderate excessive asset price increases during a boom. For many countries in Asia, where exchange rate objectives dominate the setting of domestic interest rates (see below, especially Graph VI.5), the scope for adjusting interest rates is limited. In any case, tightening monetary policy when asset prices are rising sharply – but the general level of prices is not – may be problematic because only very large increases in interest rates will be able to control asset price inflation once expectations of higher prices have taken root.

Systemic risks …

As discussed in Chapter IV, asset price increases can be of direct concern to a central bank mainly when assets are pledged as collateral for bank loans or are financed by bank borrowing. In such cases, movements in asset prices can affect the health of the entire financial system, often as a result of difficulties at small banks or other apparently marginal participants in the domestic banking system. While the larger and better-capitalised banks in Thailand, for instance, typically maintained relatively conservative loan-to-value ratios, some of the smaller banks and other institutions did not. Finance companies in Thailand are heavily exposed to property; many banks have a significant share in the equity of finance companies.

… suggest a need for prudential measures …

Central banks and other supervisory authorities have therefore often sought to tighten prudential guidelines on the extension of credit when asset prices become driven by excessive speculative pressure. Real estate loans may be made subject to maximum loan-to-value ratios or repayment periods. In early 1997, for example, Hong Kong reduced its recommended loan-to-value ratio for luxury apartments from 70% to 60%. In some cases, moral suasion may be employed in order to discourage too rapid an expansion of lending for property investment (Malaysia, Thailand and Indonesia). In several cases, the central bank has used what regulatory power it possesses to give moral suasion "teeth" (e.g. by making permission for new branches dependent on how faithfully banks follow suasion).

In many countries, there has been a sharp slowdown in new bank lending; however, the capitalisation of interest on mounting non-performing loans has

added to the volume of bank loans as published in several countries. In other cases, fresh loans have been made to keep afloat developers owning unsold buildings. These factors may help to explain why credit expansion has apparently continued to finance heavy investment in construction/property-holding well after excess supply emerged in many Asian property markets.

… which may also apply to equities

Another concern has been banks' exposure to equity market risks. The slide in equity market values in Korea saddled the banks with large, unrealised losses. As losses mounted provisioning rules were relaxed: the reserves that banks were required to set aside to cover estimated equity market losses were reduced. The boom in Malaysia's equity market continued until early 1997. Measures announced by the Malaysian central bank in March 1997, which set a limit to banks' lending for both stock market and property investment, succeeded in moderating the equity market boom. Malaysia's more flexible exchange rate policy has also served to contain the volatility of interest rates.

How to deal with the after-effects of a boom?

A second policy challenge for the authorities is what to do once a property price bubble bursts and defaults occur. Typically, banks will be left owning real estate that cannot easily be sold. If the banks do not have enough capital, then the public sector often finds itself financing the holding of property. How quickly assets should be disposed of depends on balancing two conflicting dangers. One is that of a collapse in prices provoked by too hurried selling in conditions of market weakness. The other danger is a long period of market illiquidity. Prospective buyers, aware of a large inventory of unsold property hanging over the market, are reluctant to buy. The necessary correction of prices is then prolonged while debt financing costs mount, especially when real interest rates are high.

The experience of the Resolution Trust Corporation in the United States, which succeeded in disposing of the assets of failed savings and loan associations over the period 1989–95, is instructive. Asset sales through competitive auctions started almost immediately, with the value of assets disposed of peaking in 1990–91. While the US real estate market did weaken, as a result of these sales and of other factors, it began to pick up quickly from 1991 onwards, in part because of the Federal Reserve's low interest rate policy. In Sweden, the initial intention of disposing of property acquired by the state in the wake of the 1991 banking crisis over a 10 to 15-year period gave way to a policy of more rapid sales. This was aided by the decision to float the Swedish krona in late 1992, which gave the authorities greater latitude to reduce interest rates in the face of a deep recession.

Capital mobility

The dilemma between interest rates and the exchange rate

Greatly increased capital mobility has permitted current account deficits both larger and more persistent than previously, and has accentuated the familiar monetary policy dilemma between targeting the exchange rate or interest rates. An exchange rate target makes it harder, and perhaps almost impossible, for the central bank to use interest rates to moderate credit cycles. Moreover, a fixed exchange rate may lead to potentially dangerous currency mismatches. A common source of trouble in industrial and emerging market economies has been the combination of a fixed exchange rate with relatively high domestic interest

rates and inflation, which typically encourages residents (banks and their customers) to borrow foreign currency to finance local currency business or assets. Such mismatches can leave the banking system very exposed if large current account deficits eventually cause a sizable devaluation.

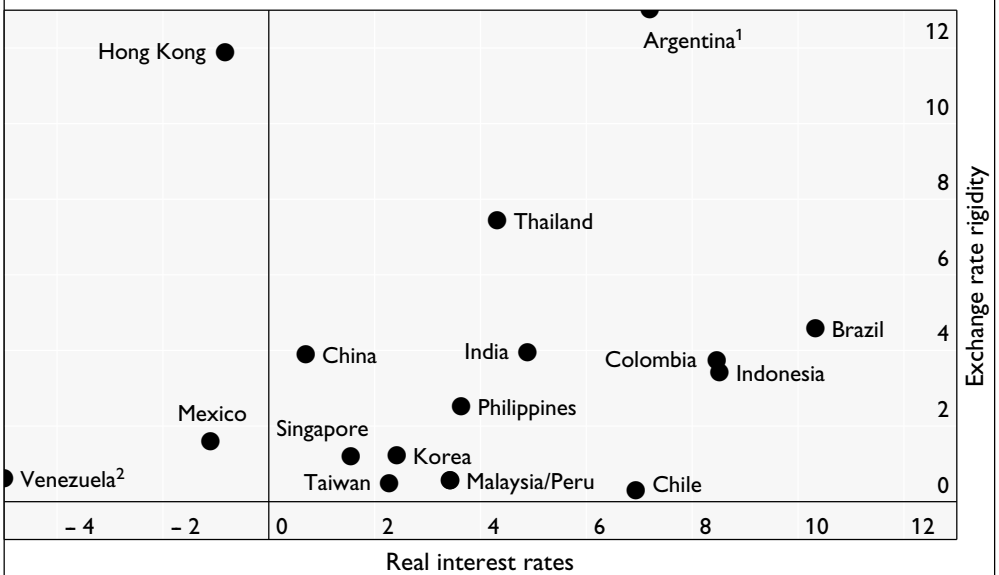
Towards freer exchange rates?

In general terms, most Asian countries have traditionally subordinated monetary policy to an exchange rate target, often at the price of accepting more volatile interest rates. Nevertheless, several countries have moved towards a freer exchange rate in recent years (Indonesia, for example, recently widened its exchange rate band) and have succeeded in keeping interest rates more stable. The ratio of interest rate to exchange rate volatility provides some, albeit imperfect, measure of the relative weights given to exchange rate and interest rate targets in setting policy (Graph VI.5). By this measure, among the Asian developing countries, Hong Kong and Thailand have had the more rigid exchange rate regimes: the volatility of their exchange rates in the last two years has been very low. Once market confidence in the exchange rate weakens, however, this policy requires a high level of real interest rates (Thailand).

Capital inflows and domestic credit

Partly because of a reluctance to allow the exchange rate to rise to restrain incipient capital inflows, inflows into many Asian countries were heavy and sustained during the first half of the 1990s, when their foreign exchange reserves rose sharply. For instance, the difficulties of Thailand's banking system can be traced in part to the creation, in early 1993, of the Bangkok International Banking Facilities (BIBFs), which, as well as promoting Bangkok as an international financial centre, allowed local banks to borrow in dollars. Given the policy of keeping the baht in a rather narrow range and the large weight of the dollar in

Exchange rate rigidity and real interest rates: 1995 – 96



Note: Exchange rate rigidity is defined as the volatility of overnight interest rates divided by the volatility of the exchange rate; volatility is defined as the standard deviation of monthly changes over the period 1995-96. Real interest rates are average 1996 three-month (for Brazil, India and Taiwan, overnight, for China, one-year) interest rates deflated by average 1996 inflation.

[1] Exchange rate rigidity: 184. [2] Real interest rate: -36%.

Source: BIS calculations. Graph VI.5

the country's currency basket, the perceived risk of exchange rate losses was rather small.

Several steps have been taken to limit the credit-expansionary effect of foreign inflows. Some Asian countries kept higher reserve requirements for foreign short-term bank deposits than for other types of bank deposit. The Bank of Thailand has taken a number of measures to limit the growth of BIBF onlending to the domestic market. From September 1995 local banks' net foreign exchange liabilities were made subject to ceilings (e.g. 20% of assets). In addition, foreign deposits were excluded from the calculation of the statutory loan-to-deposit ratios that banks have to maintain.

Directed lending

Government direction of lending weakens credit discipline

A third major cause of banking system fragility has been government-directed lending. The legacy of bad loans from earlier policies of state-directed lending is particularly heavy in China, where about one-fifth of loans are non-performing. Under central planning, banks played practically no role in assessing credit risks, and bank loans were merely the accounting dual of the physical plan. Under this system, state-owned enterprises had a captive market for their goods, which accounted for two-thirds of industrial output in China even as recently as a decade ago. Major economic reforms have allowed private, collective and joint-venture firms to enter these markets; state enterprises now contribute less than one-third of industrial output. Moreover, many of their goods fail to sell so that inventories have risen. Because the state-owned enterprises have not been allowed to go bankrupt (not only are they major employers of labour but they are also important providers of social welfare), losses have mounted, leaving the banks with bad loans. Many state-owned enterprises remain in business only because banks provide their working capital. A key objective of policy at present is to ensure that banks extend loans on commercial terms: the aim is to abolish controls on credit for fixed capital investment by the year 2000.

Bad loans in India and Indonesia are also generally concentrated in state-owned (or formerly state-owned) banks. Korean banks face problems today largely because of earlier policies of government-directed lending. These included loans at preferential rates to priority sectors in earlier phases of Korea's development and more recently a requirement to finance (riskier) small and medium-sized enterprises.

Competition and structural adjustment

Competition and the need to rationalise

A fourth element has been a failure to rationalise the financial system in the wake of domestic deregulation. In many Asian countries, profit margins have been squeezed, particularly in traditional lines of business, forcing the banks to spread into new, unfamiliar – and often riskier – areas. In many industrial countries, greater competition has triggered a strong movement towards rationalisation and mergers, often fostered by the authorities, especially after a banking crisis. Yet bank owners in many Asian countries have resisted mergers. The sheer number of banks in Indonesia (239), for example, suggests a rather fragmented system; efforts by the central bank to encourage consolidation produced only one merger last year. There have been no recent bank mergers in Korea. The recent

difficulties in Thailand have prompted the authorities to redouble rationalisation efforts. The collapse of the country's largest finance company in February 1997 – with about one-half of its loans in property and hire purchase – led the authorities to require certain institutions to raise additional capital. An official programme to encourage mergers was also announced. Under Malaysia's two-tier regulatory system, only banks with shareholders' equity above a certain threshold amount are allowed to conduct certain operations: through mergers, however, smaller banks can reach the size needed to qualify as so-called Tier One institutions. Another tactic employed by the authorities in some countries is to facilitate or allow entry into the banking industry only through the acquisition of existing banks.

Improved disclosure by banks

Effective market discipline, a potentially crucial mechanism for keeping banks prudent, depends on transparency. But because the very business of banking is built on the possession of confidential information about their customers, transparency has not always come easily to banks. Nevertheless, liberalisation, the proliferation of more sophisticated financial instruments and globalisation have given considerable impetus to fuller and more accurate disclosure by banks in the developing world as in the industrial world. (The role of improved disclosure in strengthening prudential regulation and supervision is discussed in Chapter VIII.)

Trend towards better disclosure in the emerging markets?

How the severity and persistence of recent banking crises in the emerging markets has affected the drive towards greater disclosure is somewhat unclear. On the one hand, heavy bank losses, often in the end borne by the taxpayer, have prompted many national authorities to strengthen disclosure requirements. In Latin America, Argentina and Mexico are striking recent examples. On the other hand, some supervisory authorities fear that full public knowledge of the true financial state of many banks would undermine confidence and that genuine progress towards greater disclosure – which they would support in principle – cannot be made while banks are very weak. In any event, some progress has been made in recent years in raising accounting accuracy, in increasing the frequency and detail of financial reports, in strengthening auditing procedures and in fostering the work of credit-rating agencies.

More information on asset quality …

Several countries have taken steps to ensure that banks provide better information on the quality of their loans, combined in many cases with more rigorous rules on reserves to be set aside as loans are extended or as conditions change. Argentina, for instance, has used the interest rates on individual loans as a proxy for their perceived riskiness. India has recently tightened the rules for the prompt recognition of impaired loans. Similar measures have been taken to deal with banks' securities holdings, requiring a greater degree of marking to market (India) or fuller disclosure of off-balance-sheet positions (Thailand). Steps have also been taken to ensure that banks reveal significant exposures (e.g. to particular sectors such as real estate, to large single borrowers and so on). Despite all this progress, much remains to be done. Many countries continue to allow their banks to hide the full scale of losses on securities holdings and of

… and large exposures …

… but still many gaps

non-performing loans. Only in relatively few countries are data publicly available on the unpaid debt servicing costs capitalised into bank loans.

Reports are more detailed …

A second important development has been the increased detail and frequency of reports on banks' financial performance. Such reports not only take the form of statistical returns (by means of which the supervisory agencies in many countries summarise the financial condition of all banks in their jurisdiction) but often also comprise management accounts of how risks, problems and so on are being dealt with.

… and banks are better audited

In several jurisdictions, provisions governing the use of internal and external auditors have been tightened. Minimum requirements for the internal audit function have been raised in a number of countries. Other changes have included limiting a bank's choice of auditors and extending the coverage of auditors' reports. Auditors often have the duty to directly notify the supervisory agency of any emerging problems at the banks they audit.

The role of credit-rating agencies

Bigger role for credit-rating agencies …

Market knowledge of bank performance has been enhanced in recent years by the greatly expanded activities of credit-rating agencies. The number of emerging market countries that have been assigned credit ratings has increased from 13 at the beginning of this decade to 53 in early 1997 (Graph VI.3). This crucial development reflects fundamental changes in the nature of both lenders and borrowers in international financial markets. In the late 1970s and early 1980s, foreign capital was provided primarily by banks which, in theory, had the capacity independently to assess and monitor country creditworthiness. At the same time, developing country recipients of private capital flows were dominated by a relatively small number of countries and well-known borrowers within those countries, usually governments. Close and continuous relationships between creditor and borrower were often perceived as mitigating the need for independent credit assessment. By the 1990s, however, flows of foreign capital were being channelled by pension funds, mutual funds, insurance companies and others with little experience in assessing the creditworthiness of the many emerging market countries represented in their diversified portfolios. At the same time, borrowers with little or no credit history – both governments and private institutions – sought to tap international credit markets.

… which now rate many more banks …

The major agencies now rate many more banks from a wider range of countries than before (Table VI.7). This trend has been driven by several factors. First, the supervisory authorities in some countries have compelled, or at least strongly encouraged, banks within their jurisdiction to seek and publish a credit rating. The reliance on disclosure in New Zealand is well known, although the authorities stopped short of requiring *all* banks to seek a credit rating when smaller banks argued that this would involve them in unnecessary costs. Argentina and Peru have required their banks to seek a rating. In Chile, not only do private agencies offer ratings, but official auditors also assign each bank a summary credit rating which is published.

A far more important factor for many countries has been banks' increased use of international capital markets to raise funds: a credit rating by a prominent

Banks and credit ratings

	Banks required to seek credit rating	Does a local credit-rating agency exist?	Number out of the ten largest domestically owned banks receiving ratings in February 1997 from	
			local agency[1]	international agency[2]
India	NO	YES	8	8
Hong Kong	NO	NO	–	3[3]
Korea	NO	YES	0	10
Singapore	NO	NO	–	All 6
Taiwan	NO	Starts May 1997	–	6
Indonesia	NO	NO	–	10
Malaysia	NO	YES	7[4]	2
Thailand	NO	YES	3[5]	9
Argentina	YES	YES	10[6]	10
Brazil	NO	YES	n.a.	9
Chile	YES[7]	YES	10	10
Colombia	NO[8]	NO	–	5[9]
Mexico	NO	YES	5	10
Peru	YES	YES	10	(6)
Venezuela	NO	YES	All	7

[1] For local currency deposits. [2] For long-term foreign currency debt. If only available for local currency deposits, this is shown in brackets. [3] Domestically owned banks only. Five banks have received ratings for their long-term foreign currency debt. [4] Banks receive ratings based on overall banking operations. [5] Rated for their long-term local currency bonds; none rated for local currency deposits. [6] One bank whose liabilities are guaranteed by the Federal Government is not required to seek a credit rating. [7] At least two agencies must rate bank securities. [8] However, a rating is required if certain operations are undertaken (e.g. securitisation and bond issuance). [9] For issuance of ADRs and GDRs.

Source: Central banks. Table VI.7

agency is often required and the rating awarded usually has an impact on the terms of the loan raised. Similarly, the international banking business is no longer the preserve of only the large well-known banks: many small, relatively unknown banks have developed direct cross-border business links with other small banks, a business which is greatly facilitated by the existence of reliable credit ratings.

… making a key contribution

The increased surveillance brought about by the credit-rating agencies' activities has thrown much more light on banks' financial positions. Both banks and the supervisory authorities in many countries have taken steps to ensure that the rating agencies are well informed about the financial position of banks. In addition, the agencies have in recent years shown themselves willing to downgrade large and influential banks before any public recognition of problems by official bodies.

Yet ratings have specific purposes, are conservative …

Yet it is important not to make credit ratings bear more than is intended. Rating strategy tends to be conservative because the credit-rating agencies must avoid being too influenced by purely cyclical developments and because their credibility depends on a certain rating stability. Hence a country's credit rating naturally tends to be much more stable over time either than domestic economic conditions or than spreads paid on external borrowing. Graph VI.1 (see page 98)

compares the evolution of credit ratings and the movements of spreads for Argentina, Brazil and Mexico. Brady bond spreads, a measure of the market's perception of future default risk, clearly exhibit much greater movements than the credit ratings.

Similar considerations apply to the rating of banks. Equity analysts and bank supervisors will often want to monitor even small and possibly short-lived changes in bank performance that will naturally not be captured by credit ratings.

… and sometimes count on an official bailout

Secondly, many of the ratings assigned to a bank or to bank debt will contain a judgement of the likelihood of an official bailout should the bank run into difficulties. While this is what creditors need to know, it may not accurately convey the intrinsic strength of the bank. To address this issue a number of agencies have recently developed "stand-alone" ratings that abstract from official support. A third issue is the rating of banking systems and not just individual banks. Although an assessment of certain system-wide features such as the efficacy of local supervisory arrangements plays a part in the rating of individual banks, the rating of banking systems is not common. There is a market demand mainly for the rating of individual institutions; there are also conceptual difficulties in defining the meaning of credit risk for an entire system. Fourthly, all ratings reflect an element of subjective judgement (e.g. about such matters as the quality of management) as well as a weighting of objective indicators. This element is all the more important in countries where the standards of financial reporting are low.

Agencies have yet to establish a track record for their ratings of banks

A related point is that few banks in the emerging markets have long-established track records of performance in a liberalised environment. In contrast, the statistical record of defaults in the US corporate bond market – where credit ratings have a long history – provides a check on the accuracy of ratings.

Constraint of sovereign ratings

A final, and important, issue is the relationship between a bank's rating and the rating of the country of the bank's ownership. The rating assigned to banks' foreign currency liabilities by the major international rating agencies is normally subject to the ceiling of the country's own sovereign debt rating. This applies equally to private and state banks on the grounds that the government of a country faced with default may take measures to impede banks in its jurisdiction from honouring their foreign currency debt. For this reason, the international ratings assigned to banks in many emerging markets tend to "bunch" at or just below the sovereign debt ceiling. In order to discriminate more finely between different institutions, some agencies have begun to use national rating scales designed to abstract from sovereign risk. Which rating is more useful depends on the nature of any crisis that provokes difficulties. In many countries, local credit-rating agencies also play a significant role – particularly in the rating of local currency liabilities. One question that arises is the development of internationally comparable ratings – especially where local rating scales are mandated by local regulators for specific needs.

Unresolved questions

In short, disclosure and the role of credit-rating agencies raise several issues. Such questions are likely to increase in importance with the growing number of banks conducting international business and with the "atomisation" of present-day international capital markets.

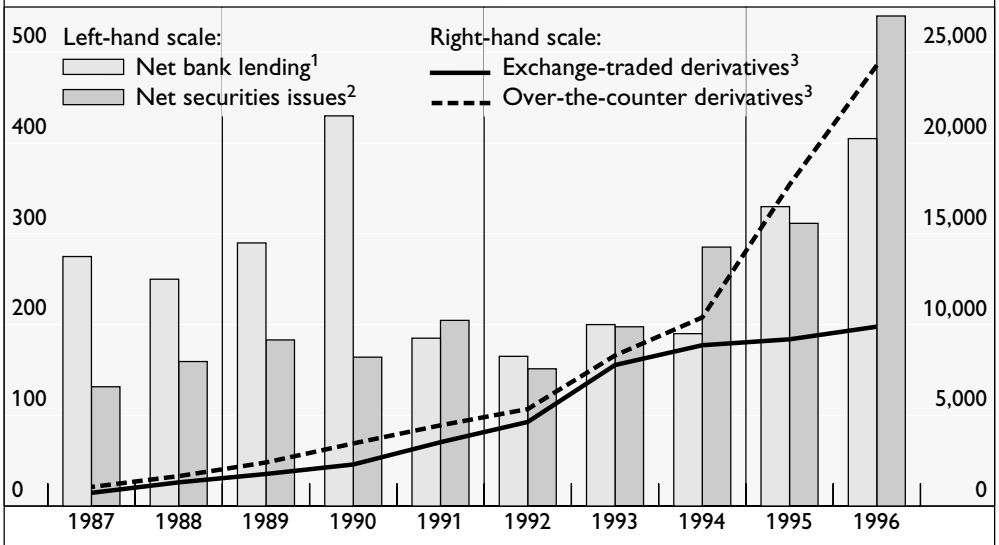
VII. International financial markets

Highlights

Ample liquidity, subdued inflation, widespread efforts at fiscal consolidation, further progress towards European economic and monetary union (EMU) and ongoing financial market liberalisation boosted activity in the international financial markets in 1996. Indeed, the international market-place was often at the centre of investors' relentless search for higher yields, with a growing acceptance of lower-rated issues and a proliferation of increasingly complex structures. Activity was characterised by a record volume of securities issues and a further expansion in banking intermediation. At the same time, the overlap between the two market segments was accentuated, with financial institutions accounting for the bulk of new securities issues and banks' acquisition of securities for all of the upswing in bank claims. In the derivatives markets, turnover in exchange-traded instruments stagnated, whereas business in over-the-counter (OTC) products continued to thrive and securities offering derivatives-related payouts returned to favour.

Activity in international financial markets

In billions of US dollars



[1] Changes in amounts outstanding, excluding exchange rate valuation effects and interbank redepositing. [2] Net issues (excluding exchange rate valuation effects) of international bonds and euronotes. [3] Notional amounts outstanding at end-year.

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 VII.1

Estimated net financing in international markets[1]

Components of net international financing	1991	1992	1993	1994	1995	1996	Stocks at end-1996
	in billions of US dollars						
Total cross-border bank claims[2]	– 48.0	185.5	316.4	274.9	680.0	496.6	8,289.9
Local claims in foreign currency	– 61.4	–39.8	–0.9	0.2	–36.0	81.2	1,355.6
minus: Interbank redepositing	*–294.4*	*–19.4*	*115.5*	*85.1*	*314.0*	*172.9*	*4,630.5*
A = Net international bank lending[3]	185.0	165.0	200.0	190.0	330.0	405.0	5,015.0
B = Net euronote placements	34.9	40.4	72.1	140.2	192.4	265.0	834.1
Total completed international bond issues[4]	319.7	334.7	432.4	373.6	358.7	569.2	
minus: Redemptions and repurchases[4]	*150.0*	*223.8*	*307.0*	*228.4*	*239.6*	*294.1*	
C = Net international bond financing[4]	169.8	110.9	125.4	145.2	119.2	275.1	2,391.8
D = A + B + C = Total international financing	389.7	316.3	397.6	475.4	641.6	945.1	8,240.9
minus: Double-counting[5]	*34.7*	*71.3*	*122.6*	*60.4*	*111.6*	*200.1*	*1,310.9*
E = Total net international financing	355.0	245.0	275.0	415.0	530.0	745.0	6,930.0

[1] For banking data and euronote placements, changes in amounts outstanding, excluding exchange rate valuation effects; for bond financing, flow data. [2] Claims reported by 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] Excluding bonds issued under euro-medium-term note (EMTN) programmes, which are included in net euronote placements. [5] International securities 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 VII.1

Behind these developments lie fundamental shifts in market practices and structures, which are related to the dismantling of regulatory barriers and technological innovation but also to deeper market forces. The issuance of international securities is increasingly becoming a substitute for more traditional funding channels. Meanwhile, repurchase agreements (repos) are gradually replacing outright interbank depositing, permitting participation by a broadening range of actors and further blurring the distinction between banking and securities transactions. Moreover, the rapid development of loan trading and the growing popularity of instruments such as asset-backed securities, structured notes and asset swaps are contributing to a greater interpenetration between market segments. Progress made last year in the area of credit risk management also helped to strengthen these links.

In spite of the growth of securitisation worldwide, commercial banks have generally been able to retain their dominant position at the core of the financial system by more active asset and liability management, by offering new off-balance-sheet services and by acquiring securities houses and investment funds. For their part, investment banks have been making inroads into areas hitherto dominated by commercial banks such as syndicated lending and credit risk assessment. These trends have heightened the convergence between commercial and investment banks, with both groups also facing competition on their own ground from other market participants. In this evolving and somewhat more opaque environment, the focus of official initiatives has been to facilitate the smooth play of market forces, while at the same time preserving the stability of the financial system.

The international banking market

An exceptionally large volume of international syndicated loan facilities (US$ 530 billion) was arranged last year. Non-financial entities from the industrial world, particularly in sectors facing economic restructuring or privatisation, accounted for the bulk of activity, but there was also an increase in facilities for emerging market borrowers. Ample liquidity and growing participation by investment banks and institutional investors meant that the pricing and non-price characteristics of loans continued to move in favour of borrowers. The low margins charged to highly rated names encouraged banks to link such business to other more lucrative services or complex arrangements, and to seek higher returns through loans to lower or non-rated borrowers and merger-related deals. They also led them to develop further secondary market trading, with, for instance, the establishment of a Loan Syndications and Trading Association in the United States and the announced launch of a Loan Market Association in Europe. The trend towards more active management of banks' loan portfolios was especially evident in the area of credit risk, with the further expansion of credit derivatives and the introduction by a major US bank at the beginning of this year of a model applying the value-at-risk concept to credit risk (see the section on derivatives

High volume of loanable funds available …

… more active management of credit risk …

Main features of international banking activity[1]

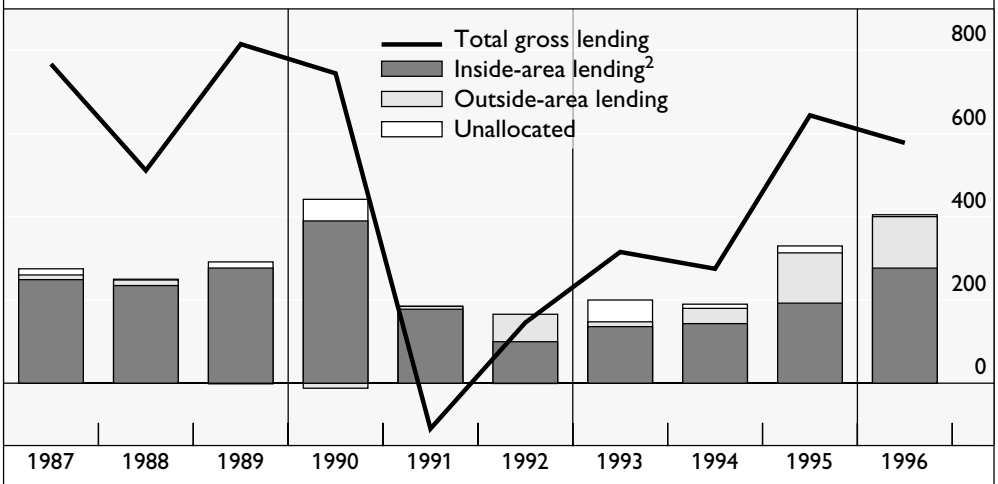
Uses and sources of international bank credit	1991	1992	1993	1994	1995	1996	Stocks at end-1996
	in billions of US dollars						
A = Claims on outside-area countries	6.8	66.0	11.6	36.6	120.8	123.8	1,115.6
B = Claims on inside-area countries	–116.6	80.4	251.4	228.3	506.5	449.5	8,291.7
(1) Claims on non-banks	*100.9*	*90.0*	*122.7*	*–49.3*	*189.5*	*305.4*	*2,666.6*
(2) International financing of banks' domestic lending	*76.9*	*9.8*	*13.3*	*192.5*	*3.0*	*–28.7*	*994.6*
(3) Interbank redepositing	*–294.4*	*–19.4*	*115.5*	*85.1*	*314.0*	*172.9*	*4,630.5*
C = Unallocated	0.4	– 0.8	52.5	10.1	16.7	4.5	238.1
D = A + B + C = Gross international bank lending	–109.4	145.6	315.5	275.1	644.0	577.9	9,645.5
E = D – B*(3)* = Net international bank lending	185.0	165.0	200.0	190.0	330.0	405.0	5,015.0
A = Liabilities to outside-area countries	– 11.7	13.2	–14.8	74.6	96.4	93.7	983.3
B = Liabilities to inside-area countries	–208.8	91.2	112.5	539.2	338.5	316.3	7,595.7
(1) Liabilities to non-banks	*15.2*	*104.4*	*86.2*	*132.8*	*120.6*	*207.5*	*1,865.8*
(2) Domestic funding of banks' international lending	*117.7*	*40.7*	*85.6*	*–64.4*	*19.0*	*– 7.0*	*1,370.9*
(3) Interbank redepositing	*–341.7*	*–53.9*	*–59.3*	*470.9*	*198.9*	*115.8*	*4,358.9*
C = Unallocated	63.9	6.7	43.0	47.1	94.0	110.9	795.0
D = A + B + C = Gross international bank borrowing	–156.7	111.1	140.7	660.9	528.9	520.8	9,373.9
Memorandum item: Syndicated credits[2]	*136.7*	*221.4*	*220.9*	*252.0*	*310.8*	*530.0*	

[1] Changes in amounts outstanding, excluding exchange rate valuation effects. [2] Announced new facilities.

Sources: Bank of England, Euromoney and BIS. Table VII.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 VII.2

markets below). Nevertheless, banking authorities made renewed calls for caution, noting that the terms on transactions may not have given adequate consideration to risks over the full business cycle.

… and growing use of repos …

Actual on-balance-sheet transactions of international banks, as revealed by the comprehensive BIS data, showed a mixed picture last year, with a decrease in gross banking flows but a sharp acceleration in net bank lending. The contrast between the two primarily reflected the decline in interbank activity. Indeed, the slowdown in gross international banking flows would have been more severe had it not been for banks' on-balance-sheet transactions in securities, especially through repos. By improving funding and lending opportunities, the growing use of repos has enabled traditional players to maintain market presence and allowed participation by new actors. Banks' aggregate lending last year was also affected by the reduced activity of Japanese institutions and the difficulties experienced by the banking systems of some emerging market countries. Nevertheless, despite measures taken by the national authorities in several emerging market countries to moderate short-term capital imports, interest rate arbitrage continued to sustain banking flows to these countries.

… which allows broader market participation

Developments by sector, currency and nationality of reporting banks

The contraction in interbank activity was responsible for the overall dampening of international banking business. In contrast, lending to non-bank customers (including non-bank financial institutions) gathered pace, underlining the widening range of players in the international wholesale money market. At the same time, the strong upsurge recorded in reporting banks' holdings of securities suggests a closer link between interbank transactions and securities trading. The fact that cross-border lending to non-bank customers inside the reporting area was nearly twice as high as borrowing from them illustrates the key role played by banks in providing cash to other wholesale market participants. It also indirectly confirms

Nevertheless, commercial banks retain their predominance …

anecdotal evidence of greater use of repos by institutional investors to raise funds for position-taking, albeit in a less leveraged and more diffused form than in the early 1990s.

One notable feature of last year was the further erosion in the market share of Japanese banks in international banking assets (from 24.8% to 21.6%), which partly reflected their funding difficulties in the international interbank market. Despite the variety of strategies adopted by financial institutions and the current restructuring in the industry, there was, however, little movement in the relative importance of other major banking groups. There are a number of reasons for this. First, banks from the English-speaking countries appear to have put greater emphasis on off-balance-sheet activities such as securities underwriting and risk management services. Secondly, the periodic emergence of strains in the foreign exchange and securities markets gave rise to large compensatory flows involving the banking systems of the issuing currency countries, irrespective of their international competitive position. For instance, a large volume of repo transactions involving the French banking system were undertaken in parallel with sales of French franc securities by foreigners. Thirdly, there were diverse offsetting influences related to the restructuring of the global financial industry, such as the rationalisation of operations through a reduction in inter-office positions and the greater concentration of business in London.

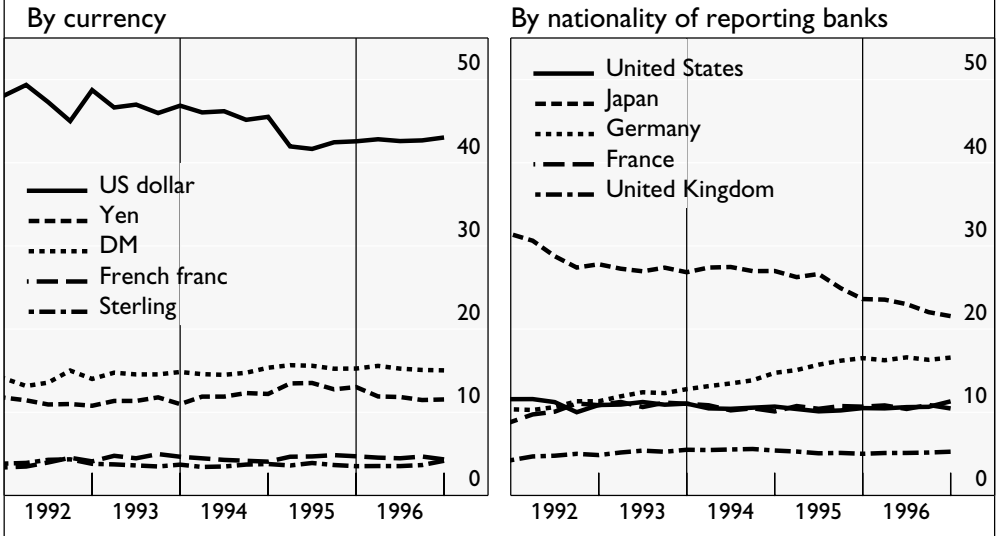
… although their strategies diverge …

The pull-back by Japanese banks in turn strongly affected the currency composition of international banking flows last year and entailed, in particular, a shift away from the dollar and the yen. However, this was dwarfed in the case of the dollar by increased borrowing demand for other purposes, such as purchases of securities. At the same time, the expansion of banking activity in European currencies conceals important divergences between individual market

… with the retreat of Japanese banks causing currency shifts …

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 VII.3

… as do changes in international portfolio preferences

segments, mirroring changes in international portfolio preferences. Whereas lending in Deutsche marks, Italian lire, sterling and Dutch guilders accelerated, a further scaling-back of banking positions in ECUs was reported.

Business with countries outside the reporting area

Sharp cutback in lending to Thailand …

New bank credit to countries outside the reporting area rose further in 1996. This occurred despite a sharp cutback in banking flows to Thailand (the largest Asian bank debtor after Korea), as restrictive policy measures and a record current account deficit dampened banks' enthusiasm for extending loans to Thai entities. In contrast, sizable transactions related to project financing and/or ongoing interest rate arbitrage led to an acceleration in bank lending to other large bank debtor countries in Asia, including Korea, China, Indonesia, Malaysia and the Philippines. In the case of Korea, the boost to inflows resulting from the more favourable capital ratio requirements associated with the country's entry into the OECD was tempered at the end of the year by news of the emergence of significant losses on loans to the local corporate sector. More generally, attempts to curb reliance on short-term banking flows and the growing receptiveness of international bond investors to new Asian signatures allowed borrowers in the region to diversify their sources of funds last year. This was a positive development given the high share of their short-term banking debt (up to 70% of the total banking debt in Korea and Thailand).

… but an acceleration elsewhere in Asia …

… and in Latin America …

There was a further expansion in lending to Latin American countries, where a loss of momentum in short-term credits to Brazil was more than offset by a resumption of banking flows to Mexico and an increase in bank lending to Argentina and a few other countries (Colombia, Ecuador and Peru). Large-scale refinancing of official loans in the international securities market by Argentina and

Banks' business with countries outside the reporting area*

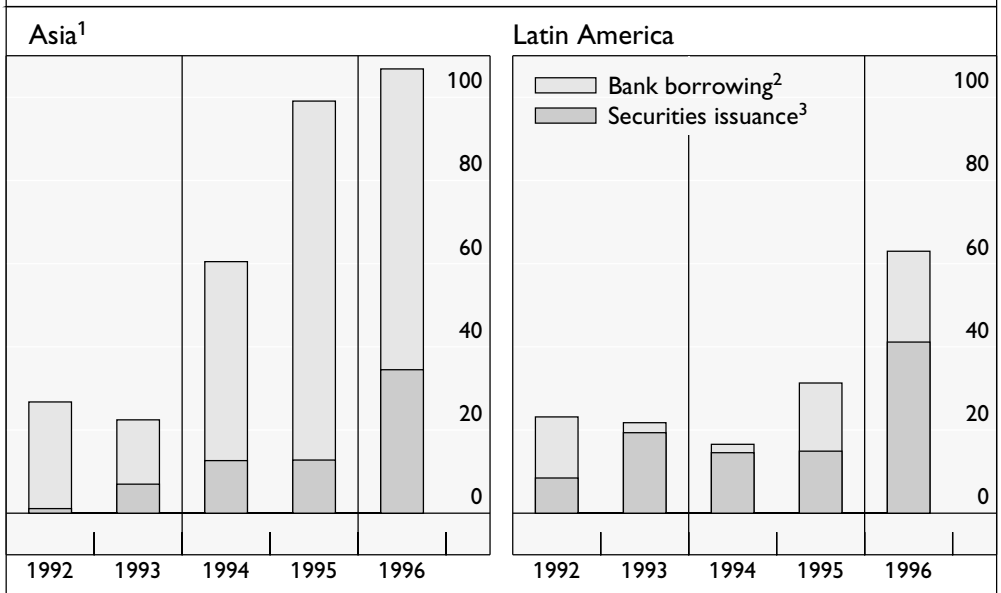
Positions of banks vis-à-vis	Assets			Liabilities			Stocks at end-1996	
	1994	1995	1996	1994	1995	1996	Assets	Liabilities
	in billions of US dollars							
Total outside area	36.6	120.8	123.8	74.6	96.4	93.7	1,115.6	983.3
Developed countries	– 1.3	26.0	21.2	22.4	20.3	18.5	208.8	189.5
Eastern Europe	–13.0	3.3	10.9	2.0	9.2	2.7	94.7	48.7
Developing countries	51.0	91.5	91.8	50.1	66.9	72.5	812.2	745.1
Latin America	2.0	16.4	21.8	21.0	43.0	23.0	267.3	224.2
Brazil	*– 6.7*	*12.0*	*10.0*	*9.9*	*24.3*	*7.9*	*83.4*	*68.3*
Mexico	*6.6*	*–4.2*	*1.0*	*0.1*	*7.4*	*3.9*	*73.8*	*37.4*
Middle East	3.1	–7.5	0.0	2.9	8.1	16.6	72.4	219.0
Africa	– 2.0	–3.7	–2.4	3.3	–1.2	2.7	33.6	43.2
Asia	47.8	86.3	72.3	22.9	17.0	30.3	438.9	258.6
Korea	*15.1*	*22.5*	*25.9*	*4.9*	*4.5*	*5.3*	*108.5*	*29.9*
Thailand	*19.4*	*38.8*	*8.9*	*2.0*	*4.7*	*–2.5*	*98.7*	*9.2*

* Changes in amounts outstanding, excluding exchange rate valuation effects.

Source: BIS. Table VII.3

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. [3] Net issues of euronotes and international bonds.

Sources: Bank of England, Euroclear, Euromoney, IFR, ISMA, national data and BIS. Graph VII.4

Mexico may have indirectly facilitated access by the local private sector to the banking market, as evidenced by signs of greater recourse to international loans by corporate entities. In Brazil, heavy issuance of international securities by financial and non-financial entities was accompanied by massive inflows of short-term bank capital attracted by high interest rate differentials, despite various official measures to restrict such flows. Elsewhere in the region, external borrowing was conducted primarily through the international securities market and there were fewer instances of active interest rate arbitrage through local banking systems.

… accompanied by differences in the behaviour of major lending groups

Banking business with other countries outside the reporting area was characterised by major transactions with Australia, Greece, Turkey and Russia. While the operations involved a high proportion of securities purchases in the case of Australia and Greece, the perceived risk in lending to Turkey and Russia meant that most of the new loans extended to these two countries had very short maturities. Overall, however, the behaviour of the different nationality groups of lenders towards outside-area countries varied considerably in 1996. Data available for the first half of the year show that European banks accounted for much of the new lending to the developing world, whereas the activity of US banks was more subdued and Japanese banks generally refrained from entering into new loan commitments with such countries. Although external factors such as temporary funding difficulties may have played a role for some institutions, this divergence should be seen in the broader context of banks' differing international lending strategies.

The international securities markets

Ample liquidity fuels investors' search for yield …

Total net financing through euronotes and international bonds reached an all-time record of $540.1 billion in 1996. This represented a 19% increase in the stock outstanding, a rate of expansion significantly faster than that witnessed in domestic securities markets. Issuance of international debt was fuelled by investors searching for higher yields in a context of ample global liquidity, the further development of securitisation, the migration of fund-raising activity away from domestic markets and the appearance of new borrowers. In their attempts to enhance returns, international investors again showed a willingness to move down the credit spectrum and explore new niches. As a result, a large proportion of securities involved some form of asset repackaging and/or the use of derivative features. There was also an increase in the number of currencies used, with, for example, issues in Argentine pesos, Croatian kunas and Polish zlotys.

Although the climate in certain fixed income markets was not always conducive to issuance, renewed investor interest in assets denominated in US dollars and sterling proved to be more important than the evolution of interest

Main features of international securities issues[1]

Country of residence, currency and type of issuer	1991	1992	1993	1994	1995	1996	Stocks at end-1996
	in billions of US dollars						
Total net issues	204.7	151.3	197.6	285.4	311.6	540.1	3,225.9
International bonds[2]	169.8	110.9	125.4	145.2	119.2	275.1	2,391.8
Euronotes	34.9	40.4	72.1	140.2	192.4	265.0	834.1
Developed countries	159.0	115.3	129.7	208.4	230.5	361.5	2,421.3
Europe[3]	*88.3*	*93.7*	*142.7*	*166.2*	*169.9*	*210.0*	*1,457.0*
Japan	*39.6*	*–3.4*	*–44.7*	*–27.0*	*–27.4*	*–17.6*	*203.7*
United States	*13.8*	*16.8*	*11.1*	*41.1*	*64.3*	*145.7*	*449.7*
Canada	*15.9*	*10.5*	*19.1*	*18.2*	*10.6*	*9.1*	*186.6*
Offshore centres	3.9	0.0	5.8	38.6	38.4	73.7	255.4
Other countries	16.0	12.8	25.7	28.7	27.3	79.9	230.1
International institutions	25.7	23.2	36.5	9.8	15.4	24.9	319.1
US dollar	54.9	58.7	31.5	73.4	74.2	262.1	1,245.9
Japanese yen	21.1	9.2	33.7	106.8	108.3	81.2	517.6
Deutsche mark	12.6	24.6	31.2	27.5	55.1	54.8	347.1
Other currencies	116.1	58.7	101.2	77.6	74.0	141.9	1,115.4
Financial institutions[4]	43.5	43.5	53.5	156.1	179.9	342.7	1,344.0
Public sector[5]	79.6	83.1	132.7	107.9	98.7	123.6	1,075.1
Corporate issuers	81.6	24.7	11.5	21.4	33.1	73.9	806.8
Memorandum items:							
Announced international bonds[2]	*317.7*	*334.1*	*446.5*	*361.6*	*356.4*	*575.1*	
Announced euronote facilities	*95.9*	*113.2*	*109.8*	*194.0*	*271.6*	*269.3*	

[1] International bonds and euronotes. For international bonds, flow data; for euronotes, changes in amounts outstanding excluding exchange rate valuation effects. [2] Excluding bonds issued under euronote facilities. [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 VII.4

rates. In addition, the easy stance of monetary policy in core European economies and in Japan induced investors to seek higher-yielding alternatives, leading to a further convergence between "peripheral" and "core" long-term interest rates within the major currency blocs (see Chapter IV). The scale of the rally was particularly striking in Europe, as investors increasingly factored out currency risk in the light of evidence of a firmer commitment to implementing the fiscal corrections necessary to meet the Maastricht criteria and progress in other aspects of economic convergence. However, the search for yield created even more pronounced rallies in the area of emerging market debt. This proved highly beneficial to borrowers from those countries, with net new issuance more than tripling (to a record $90.6 billion). While sovereign borrowers such as Argentina, Mexico and the Philippines refinanced their Brady bonds or official loans internationally, the market opened up to several new countries (in Eastern Europe in particular). International demand for emerging market paper was fuelled by the adoption of sounder economic policies, the diversification of institutional portfolios, increased European retail interest, better data disclosure and the more widespread availability of hedging instruments. In such a favourable environment, sovereign borrowers often launched issues in anticipation of need in order to diversify their investor base, extend maturities or introduce benchmarks across the yield curve.

… leading to a narrowing of risk premia and, encouraging …

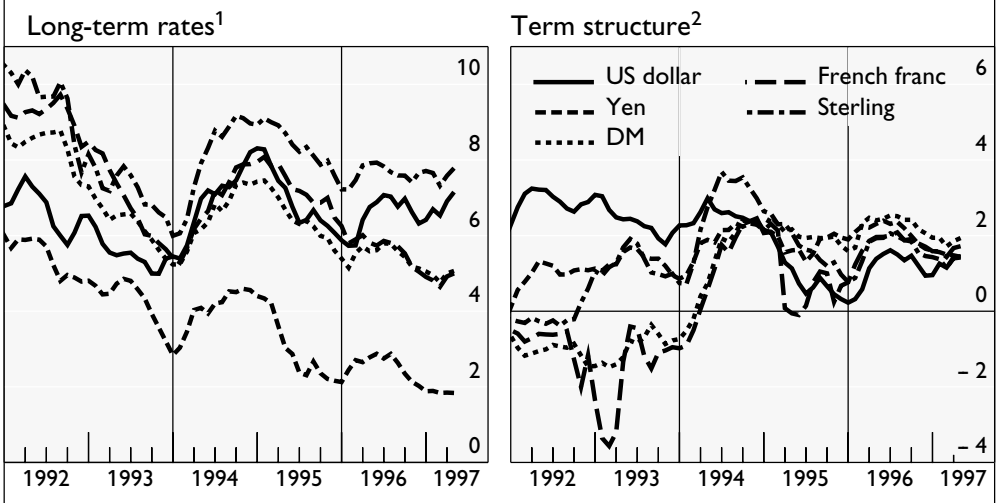
… issuance by emerging market borrowers …

The relentless search for higher returns was also illustrated by the pervasive use of derivative features. For example, a large number of subordinated bonds launched by financial institutions offered investors attractive margins, with various optional elements often resold in the secondary market by intermediaries to reduce borrowers' cost of funds. The originators of these structures made continued attempts to entice investors through the progressive incorporation of more complex features and finer distinctions between debt and equity characteristics. Such issues were particularly popular in the US dollar sector,

… a pervasive use of derivative features …

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.

Source: BIS. Graph VII.5

… and the development of new techniques

where the low level of swap spreads had reduced the scope for sub-LIBOR funding. International investors also demonstrated a greater willingness to explore new techniques. Thus, asset-backed securities (ABSs) gained in popularity, accounting for 34% of total net issuance of stand-alone international bonds, compared with 13% in 1995. The market tended to diversify away from US-originated deals, with several large European issues related to privatisation or balance-sheet restructuring. There were, for instance, a $5.1 billion transaction securitising a pool of corporate loans originated by a UK bank, a $4 billion deal in the aircraft leasing sector and a series of repackagings involving the outstanding debt or foreign exchange receivables of Eastern European and Latin American borrowers. While offering investors higher returns than assets of comparable credit standing, ABSs allow issuing financial institutions to economise on capital and maximise income. The opportunities provided by such securities for maintaining relationships and obtaining ancillary business without tying up capital have been especially attractive to banks given the low level of margins on corporate loans to creditworthy borrowers.

US investment banks predominate …

… whereas Japanese dealers face reduced yen business

The high volume of primary market activity continued to support the profitability of intermediaries. However, competition remained acute. While US-based investment banks established a dominant position in the underwriting league tables, European commercial banks were particularly aggressive in securing footholds in the business. There was some slippage in the ranking of Japanese dealers, which in part reflected the lower volume of yen business. In the secondary market, turnover in securities reported by the international clearing houses accelerated in 1996, with a 38% increase in value terms (to $44.6 trillion). As in recent years, the rise was more pronounced in domestic securities (70% of total turnover) than in eurocurrency paper. The Deutsche mark continued to gain market share, accounting for almost 50% of total transactions compared with 47% in 1995. Overall, activity was boosted by occasional turbulence in European securities markets, the continued growth of repo business and the integration of domestic links into clearing networks.

Type and residence of issuers

Financial institutions account for two-thirds of net new issuance

There was a record volume of net new issuance by financial institutions, which represented almost two-thirds of total market growth. The use of special-purpose vehicles to issue ABSs was reflected in a gain in the relative importance of non-banks within the group of financial institutions. But there was also a broadening of the range of borrowers, to include government-sponsored and local financing entities and lower-rated emerging market names. While European banks often used subordinated funds to capitalise their trading books or to finance acquisitions, many US-based institutions aimed at exploiting discrepancies in regulatory and tax treatments. Borrowing by public and corporate sector entities also increased significantly, with a large part of such net fund-raising stemming from emerging markets.

Types of instrument

Euronotes expand sharply …

Euronote facilities continued to be a major vehicle for issuance, with the cumulative total of programmes launched since the establishment of the market exceeding

$1.5 trillion. Net issuance last year amounted to $265 billion, or almost 50% of total net issues of international securities. By year-end euronotes represented 26% of all international securities outstanding, compared with 7% at the end of 1990. Uncertainty concerning the evolution of interest rates in North America and Europe and growing demand from European mutual funds boosted net issuance of *short-term notes* (including *euro-commercial paper – ECP*), to a record volume of $41.1 billion. Although the short-term euronote segment now stands at more than $170 billion in terms of amounts outstanding, its size still pales in comparison with the US CP market ($779.4 billion). In addition to the longer history of the US market, this difference can be attributed to other factors such as the restrictions on issuance in several major European currencies and the relatively small size of the European money market fund industry. However, the introduction of a single European currency might contribute to the development of a pan-European CP market.

… although inhibiting factors in the ECP market …

At $223.9 billion, total net issuance under *euro-medium-term note (EMTN) facilities* accelerated further. Underwritten issues remained the chief source of market growth, making an increasing proportion of notes issued under such facilities little different from traditional eurobonds. For new borrowers, however, placement through dealers remains a more discreet way of testing market acceptance than issuing traditional eurobonds. For regular borrowers, EMTN facilities provide a quicker and cheaper way of accessing different pockets of investment demand since they allow the introduction of tailor-made instruments that can often better capture arbitrage opportunities or tax and regulatory loopholes than stand-alone international bonds. These factors may have accounted for the recent expansion of structured issues targeted at various categories of Japanese investors, particularly given the scope offered by recent liberalisation measures and the apparent preference of these investors for privately placed offshore paper.

… contrast with the greater success of EMTNs

1996 represented a new landmark for the *international bond market*. Taken together, announcements of bonds issued on a stand-alone basis and under euronote facilities show an expansion of 85% in the gross volume of bond issues, to $792.4 billion. Issuance of global bonds more than tripled (to $118.3 billion), although, in contrast to the early days of the market, when supranational and sovereign borrowers were predominant, most global issues were launched by securitisation-related special-purpose vehicles.

International bond issues reach new heights

Announcements of *straight fixed rate paper* accounted for two-thirds of stand-alone bond issues, compared with 78% in 1995. Notwithstanding the historically low level of US dollar swap spreads, dollar issuance was spurred by the improvement in sentiment towards that currency and narrow margins over benchmark rates. In contrast, there was a pronounced decline in euroyen issuance owing to unfavourable interest rate expectations and swap rates, persistent currency weakness, the recent liberalisation of the domestic and Samurai bond markets and the greater freedom given to pension funds to invest in other types of foreign assets. Meanwhile, the search for higher yields by Japanese retail investors led to a record volume of dual-currency and emerging market Samurai issues. The movement by international investors away from Deutsche mark bonds translated into a reduction in the share of that currency.

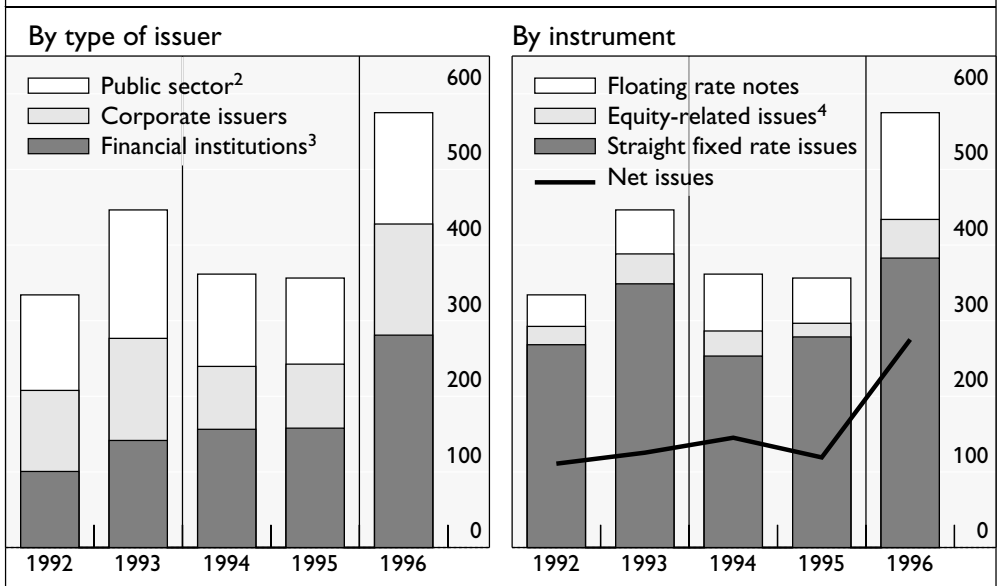
In the fixed rate sector, heavy issuance of US dollar debt …

… but reduced interest in euroyen paper …

… and DM-denominated bonds

Main features of the international bond market[1]

Announced issues, in billions of US dollars



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

Sources: Bank of England, Euroclear, Euromoney, IFR, ISMA and BIS. Graph VII.6

Nevertheless, attractive interest rate swap opportunities in the five-year area supported a steady volume of issues by non-residents and German-based specialised financing entities. The offshore expansion of German financial institutions was reflected in a few large collateralised Deutsche mark issues (Pfandbriefe) by German mortgage and public sector banks. There were also pockets of demand for high-yielding Deutsche mark bonds, as illustrated by a number of large or long-dated emerging market issues. Most of the other important European currency sectors benefited from fixed income rallies or the more stable climate prevailing within the ERM. Issuance in Swiss francs, however, was adversely affected by some weakening of that currency's status as a haven during periods of turmoil. Finally, the economic and legal questions surrounding swap-driven issuance meant that activity in the ECU bond market remained subdued.

Continuing subdued market activity in ECUs

Uncertainty with respect to the evolution of interest rates in a few key countries, the strong liquidity position of financial intermediaries and buoyant demand for yield-enhancing structures provided fertile ground for the issuance of *floating rate notes (FRNs)*. The share of announcements in US dollars increased further, but issuance in sterling and Deutsche marks also rose appreciably. Financial institutions reinforced their dominant position with a large volume of asset-backed securities and subordinated issues. Gross issuance of sovereign FRNs was boosted by a $5.4 billion transaction for Mexico, the largest-ever single transaction in the euromarket. Nevertheless, the volume of new sovereign issues was matched by repayments, which enabled sovereign borrowers to take advantage of terms significantly better than those on maturing issues (and often highly competitive with those prevailing in the syndicated loan market). Sovereign

FRN issuance spurred by …

… ABSs and subordinated debt issues

issuers now account for a smaller share of business than in the early days of the FRN market.

Limited recovery in the market for equity-related bonds

Finally, the primary market for *equity-related bonds* recovered somewhat from the very low volume of 1995, and the outstanding stock of issues increased slightly following several years of contraction. Developments in the Asian equity markets, where the bulk of issuers have been located in recent years, were generally not very favourable. Japanese borrowers nearly doubled their announcements, but this was not sufficient to compensate for the volume of maturing issues. While the corporate sector accounted for most of the new issues by Japanese borrowers, a small number of banks attempted to strengthen their balance sheets by launching large yen-denominated convertible issues. Other notable developments included the higher profile of European-based names, with a few large privatisation-related transactions, and the emergence of Latin American issuers.

Global derivatives markets

Exchanges suffer from the growing use of cash-based and OTC trading strategies …

Derivatives markets continued to exhibit divergent trends in 1996, with aggregate activity on exchanges stagnating and OTC business thriving. While some market sources attributed the subsiding demand for exchange-traded products to low volatility on a number of major debt and currency markets, this was not consistent with developments in all market-places. In fact, the continuing buoyancy of plain vanilla and exotic OTC business and the popularity of retail-oriented derivative instruments such as structured securities and warrants suggest that other, more fundamental forces were at work. These include the rapid growth of cash-based hedging strategies (most notably repos), the flexibility of OTC instruments in accommodating shifts in market preferences and the reduction in the cost of OTC transactions. Greater efficiency in risk management practices and growing industry concentration may also have lessened the need for the hedging of residual positions through exchanges, which again faced strong pressures to innovate and rationalise. These pressures were accentuated in Europe by the prospective introduction of the single currency, which acted as a catalyst for a broad-based restructuring of business.

Exchange-traded instruments

… and offer a mixed picture …

The current dollar value of aggregate turnover in exchange-traded financial contracts monitored by the BIS declined further in 1996. While some of this reduction resulted from the valuation impact of the appreciation of the US dollar on transactions in other currencies, underlying turnover in interest rate products decreased and currency contracts continued to stagnate. A migration of activity to OTC markets has been observed for some time in currency contracts, but interest rate instruments were negatively affected by the growing preference of large participants for cash-based and OTC trading strategies. On the other hand, the use of stock index instruments for domestic and international portfolio allocation was reflected in a sustained expansion in that area.

… with a lower volume of US interest rate business …

Within the broad market risk categories, there were significant differences between contracts and exchanges. In North America, the overall value of trading

in financial products declined, but the inclusion of non-financial contracts (hitherto excluded from the BIS data) reveals diverging trends. For example, the lower volume of long-term interest rate business on the CBOT was offset by the buoyancy of commodity contracts, helping the exchange to maintain its leading position in North America, ahead of the CME and the CBOE. In contrast, higher commodity trading on the CME was not sufficient to offset the drop in short-term interest rate transactions. LIFFE maintained its lead in Europe and offered a strong challenge to the global supremacy of the Chicago exchanges, with a sharp expansion of business related to the convergence of European interest rates. Activity on the DTB was boosted by the growth in interest rate contracts and the rapid development of equity products, enabling the DTB to displace the MATIF as the second most active market-place in Europe. Lacklustre trading on the MATIF reflected a combination of factors, including a calmer financial climate, less active foreign participation in French debt markets and some displacement of activity in favour of Deutsche mark instruments. In Asia, there was a moderate expansion in Hong Kong, but a decrease in turnover in Singapore and Japan, with, in the case of the latter, the low level of yen interest rates limiting hedging needs. Elsewhere, turnover of small-sized currency and interest rate contracts on Brazilian exchanges contracted sharply, as a result of an easing of monetary policy (which reduced the demand for instruments circumventing compulsory deposit requirements) and a decline in currency uncertainty.

… but more commodity trading

LIFFE increases its market share

Exchanges under strong pressure to innovate

Competitive pressures on exchanges showed no signs of abating, maintaining the incentive to innovate. With interest rate products reaching a plateau on well-established markets and the bulk of currency-related business continuing to take place off-exchange, older exchanges placed greater emphasis on designing equity instruments, as illustrated by the large number of new contracts on indices, the extension of the flexible option concept and the introduction of contracts on

Markets for selected financial derivative instruments

Instruments	Notional amounts outstanding at end-year					
	1991	1992	1993	1994	1995	1996
	in billions of US dollars					
Exchange-traded instruments	3,519.3	4,634.4	7,771.1	8,862.5	9,188.2	9,884.6
Interest rate futures	2,156.7	2,913.0	4,958.7	5,777.6	5,863.4	5,931.1
Interest rate options[1]	1,072.6	1,385.4	2,362.4	2,623.6	2,741.8	3,277.8
Currency futures	18.3	26.5	34.7	40.1	38.3	50.3
Currency options[1]	62.9	71.1	75.6	55.6	43.2	46.5
Stock market index futures	76.0	79.8	110.0	127.3	172.2	198.6
Stock market index options[1]	132.8	158.6	229.7	238.3	329.3	380.2
Over-the-counter instruments[2]	4,449.4	5,345.7	8,474.6	11,303.2	17,712.6	24,292.0
Interest rate swaps	3,065.1	3,850.8	6,177.3	8,815.6	12,810.7	..
Currency swaps[3]	807.2	860.4	899.6	914.8	1,197.4	..
Other swap-related derivatives[4]	577.2	634.5	1,397.6	1,572.8	3,704.5	..

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

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

individual stocks. Emerging market products were much in evidence, but, apart from those introduced by exchanges recently opened (e.g. in Korea and Malaysia), most were launched by US exchanges. However, save for the rapid acceptance of contracts on the Mexican peso, trading in such instruments failed to gain momentum. Established exchanges also sought to enhance trading in existing products through an extension of trading hours, new expiry cycles and reduced trading fees, and they continued to list new contracts replicating some of the characteristics of OTC instruments.

The challenge created by EMU …

In Europe, the perceived need to secure a strong competitive position ahead of the profound restructuring expected from the introduction of the single European currency was addressed through the creation of official and private task forces to analyse the implications of EMU and make recommendations aimed at strengthening the standing of local market-places. Among the actual EMU-related

Financial derivative instruments traded on organised exchanges

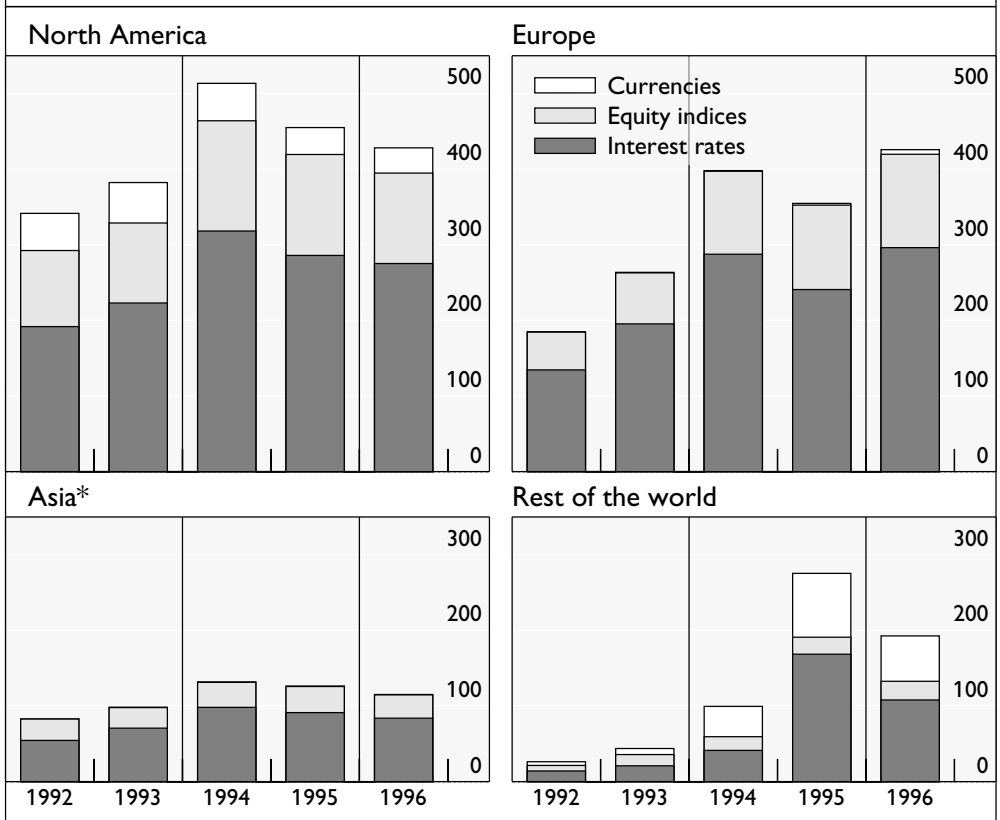
Instruments	Turnover in notional amounts						Notional amounts outstanding at end-1996
	1991	1992	1993	1994	1995	1996	
	in trillions of US dollars						
Interest rate futures	99.6	141.0	177.3	271.7	266.3	253.5	5.9
On short-term instruments	75.2	113.3	138.9	222.1	218.2	204.8	5.5
of which: Three-month eurodollar rates[1]	*41.7*	*66.9*	*70.2*	*113.6*	*104.1*	*97.1*	*2.1*
Three-month euroyen rates[2]	*12.9*	*14.0*	*24.6*	*44.2*	*46.8*	*34.2*	*1.4*
Three-month euro-DM rates[3]	*3.2*	*7.5*	*12.9*	*18.5*	*18.4*	*23.9*	*0.6*
Three-month PIBOR	*2.9*	*5.8*	*10.4*	*12.0*	*15.9*	*13.7*	*0.2*
On long-term instruments	24.3	27.7	38.5	49.6	48.2	48.7	0.4
of which: US Treasury bonds[4]	*6.9*	*7.1*	*8.0*	*10.1*	*8.7*	*8.5*	*0.0*
Japanese government bonds[5]	*2.0*	*2.8*	*3.2*	*4.6*	*3.4*	*3.4*	*0.1*
German government bonds[6]	*10.3*	*9.7*	*14.2*	*13.8*	*16.2*	*12.3*	*0.1*
French government bonds[7]	*2.0*	*2.9*	*4.2*	*8.1*	*8.0*	*9.3*	*0.0*
Interest rate options[8]	17.3	25.5	32.8	46.7	43.3	41.0	3.3
Currency futures	2.7	2.3	2.8	3.3	3.3	3.0	0.0
Currency options[8]	1.5	1.4	1.4	1.4	1.0	0.9	0.0
Stock market index futures	7.8	6.0	7.1	9.3	10.6	13.1	0.2
Stock market index options[8]	6.4	5.7	6.3	8.0	9.2	10.1	0.4
Total	135.2	181.9	227.8	340.4	333.8	321.7	9.9
In North America	*70.8*	*102.1*	*113.1*	*175.9*	*161.1*	*154.3*	*4.8*
In Europe	*26.7*	*42.8*	*61.4*	*83.9*	*87.5*	*100.3*	*2.8*
In Asia[9]	*37.7*	*36.9*	*53.0*	*77.8*	*81.1*	*63.8*	*2.2*
Other	*0.0*	*0.1*	*0.3*	*2.9*	*4.2*	*3.3*	*0.1*

[1] Traded on the Chicago Mercantile Exchange – International Monetary Market (CME-IMM), Singapore International Monetary Exchange (SIMEX), London International Financial Futures and Options Exchange (LIFFE), Tokyo International Financial Futures Exchange (TIFFE) and Mid-America Commodity Exchange (MIDAM). [2] Traded on the TIFFE, SIMEX and LIFFE. [3] Traded on the Marché à Terme International de France (MATIF), LIFFE, CME-IMM and SIMEX. [4] Traded on the Chicago Board of Trade (CBOT), MIDAM, LIFFE, New York Futures Exchange (NYFE) and Tokyo Stock Exchange (TSE). [5] Traded on the TSE, LIFFE, CBOT and SIMEX. [6] Traded on the LIFFE and Deutsche Terminbörse (DTB). [7] Traded on the MATIF. [8] Calls and puts. [9] Including Australia and New Zealand.

Sources: Futures Industry Association, various futures and options exchanges and BIS calculations. Table VII.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 VII.7

… prompts new initiatives …

measures taken were the redenomination of contracts in euros, the launching of new interest rate instruments to improve coverage of the various segments of domestic yield curves (including money market and bond contracts on German rates) and to allow spread trading, and adjustments to existing contracts (such as the reduction in the coupon on the French government bond contract). The size of the prospective euro-denominated bond market could offer new trading opportunities, but there is unlikely to be a demand for as wide a range of national bond futures as currently exists. Consolidation in short-term interest rate products will probably be even more pronounced, since these are based on generic interbank rates and are therefore less able to support more than a few pan-European contracts. From the very beginning, LIFFE has banked on the role of London as a global financial centre and its weight as the most active and diversified European exchange to ensure its continued dominance once the euro is introduced. The DTB is relying on the benchmark nature of German government debt, its status as the biggest electronic exchange in Europe and the high volume of its equity-related business, which will be somewhat less affected by intra-European competition. The MATIF is emphasising the sophistication and liquidity of French debt markets, benefiting from an official commitment to the early conversion of all underlying instruments into euros. Ultimately, however,

… and heightens competition in Europe …

success will depend on a complex set of interrelated factors such as the importance of the local financial system, the size and liquidity of the underlying instruments, the cost and efficiency of trading and clearing mechanisms and the overall regulatory and fiscal framework.

… but obscures the challenge posed by OTC markets

The importance of strategic moves in connection with EMU last year may have obscured an equally fundamental challenge facing exchanges, namely the loss of business to the OTC market. The perception of this threat was most evident in the United States, where exchanges stepped up the innovative drive to enhance their competitiveness vis-à-vis OTC instruments. Contracts providing for the trading of interest rate differentials were launched, as were, for the first time, flex options on single US equities. In addition, US exchanges announced new cross-market products and services, such as the listing of equity warrants issued by intermediaries and a facility for the simultaneous trading and clearing of cash and exchange-traded derivative instruments. At the same time, pressures to introduce facilities for the management of swap collateral intensified, with the opening of such a service by the banking subsidiary of a euromarket clearing house.

Links remain at the core of competitive strategies …

Efforts to consolidate market share or capture additional trading demand also involved regional or intercontinental links, through different combinations of trading systems and clearing arrangements. For example, the CME introduced euroyen futures as part of its long-standing mutual offset agreement with SIMEX, while LIFFE and TIFFE agreed on an open outcry/electronic link to trade similar contracts. The prospect of EMU also encouraged intercontinental alliances based primarily on revolving open outcry trading arrangements. Thus, the MATIF signed an agreement with the CME for the trading of its interest rate contracts on the CME's floor and LIFFE announced that it would allow CME members to trade its three-month euromark contracts on its own floor. In addition, several European exchanges entered into partnerships with local stock markets and/or promoted regional integration through the establishment of new links.

… but raise new issues for trading and clearing mechanisms

Certain other developments, however, pointed to the difficulty of structuring agreements that are satisfactory to all partners in a highly competitive environment, as illustrated by the abandonment last year of the project for a joint electronic platform to trade cash and derivative instruments between the DTB and the MATIF, and the announcement early this year by the MATIF and the CME that they were ending their participation in the current version of Globex, the multilateral electronic trading system. Exchanges are reluctant to develop alliances that could deprive them of the control or flexibility deemed necessary in designing new products and trading technologies. The various uses to which electronic systems can be put have led even the staunchest defenders of open outcry to re-examine their potential benefits. In the United States, in particular, such mechanisms no longer seem to be treated as mere after-hours supplements to open outcry, but as an integral part of new trading systems linking cash and derivatives markets. They also form the basis of some exchanges' global strategy, as in the DTB's expansion of remote access to its electronic system through the installation of terminals outside Germany and an extension of business hours.

Some evidence of market retrenchment

In contrast to the various initiatives aimed at expanding product lines and trading links, there was some movement in the direction of retrenchment. In

particular, the low level of dealers' margins in relation to exchange fees maintained the pressure to reduce trading costs through a rationalisation of services. Important cost reduction measures included an agreement between the CBOT and the CME to establish a common banking facility and the merger between LIFFE and the London Commodity Exchange.

Over-the-counter instruments

Preliminary data released by the International Swaps and Derivatives Association (ISDA) indicate that the notional principal of swap and swap-related positions outstanding rose by 37% in 1996. Although this was less than the 57% rate of increase recorded in 1995, it remained well above that posted by exchanges. According to detailed data available for the first half of the year, interest rate swaps experienced the most rapid expansion, followed by interest rate options and currency swaps. Interest rate swaps in currencies other than the US dollar continued to grow at a faster pace than dollar transactions, with business in the yen and the Deutsche mark being particularly buoyant. Keen competition resulting from high global liquidity, the entry of new participants, improvements in market infrastructure (in areas such as documentation and collateralisation) and greater hedging efficiency all contributed to deepening the market. While intermediation margins generally continued to narrow, conditions varied between market segments. In the US dollar sector, evidence was mixed. Strong issuance of fixed rate securities, intense asset-swapping and an improvement in the credit quality of core participants were largely responsible for maintaining spreads over benchmarks at historically low levels; but activity was reportedly dampened by the flatness of the yield curve, the narrow range of interest rate movements and the proposed introduction of new US accounting standards for derivatives. In Europe, a significant volume of business was related to new issuance, the convergence of continental interest rates or the anticipated flattening of yield curves. In Japan, the process of financial market liberalisation, the search for higher yields and the funding difficulties faced by some financial institutions prompted renewed interest in risk management products. In particular, the sharp increase in dual-currency issues launched on the Samurai market and the persistence of the so-called Japan premium led to active trading in cross-currency and basis swaps involving the yen.

Further deepening of the interest rate swap market …

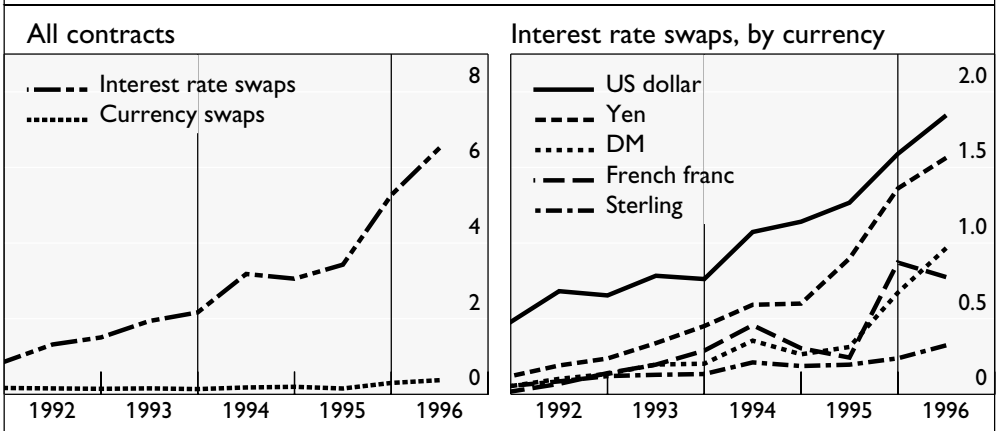
Although complex yield-enhancing instruments returned to favour, greater interest rate risk appears to have been taken on more through an extension of duration or plays on interest rate differentials than through higher leverage. Higher yields were also sought through structures enabling investors to move down the credit spectrum, such as asset swaps. There were, nevertheless, reports that corporate end-users remained cautious in their approach to exotic products. This may have inhibited intermediaries' drive to create new instruments, as, save for the development of various types of volatility and overnight swaps, few products attracted the attention of market participants. Entities involved in these markets also seem to have devoted more resources to improving the quality of risk management systems.

… with longer duration and more spread trading

The search for higher yields and the resulting broadening of the range of market participants generated greater interest in active credit risk management.

New interest rate and currency swaps

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



Sources: ISDA and BIS. Graph VII.8

Development of credit derivatives …

In this context, the concept of credit derivatives, which had been introduced by financial institutions in the early 1990s in an attempt to apply to credit risk the sophisticated techniques already used for the management of market risk, gained wider acceptance. Insofar as they provide a more systematic way of evaluating and transferring credit risk, such instruments offer financial institutions a useful tool for the management and optimisation of asset risk profiles. However, because of their novelty, credit derivatives are facing a number of constraints relating to market practices, accounting treatment and regulation. The customised nature of transactions and the lack of standardisation have also hampered liquidity, making it difficult to accurately price and hedge transactions. At the same time, there was continuing interest in structures providing access to the core segment of the swaps market, as reflected in the introduction of new triple-A derivatives subsidiaries. However, not all new credit enhancement facilities involved separately capitalised entities, which entail high capital and start-up costs and appear less suitable for infrequent users of swaps.

… and of new currency instruments

With regard to currency products, the low level of volatility prevailing on the foreign exchange market induced dealers to offer a variety of high-payout instruments based on barriers or trading ranges (see Chapter V). However, the fall of the dollar against the yen and the Deutsche mark in the summer again illustrated the potential pitfalls involved in using such instruments, with dealers suddenly having to cover their positions as parities moved outside their ranges. It was also reported that some intermediaries had suffered substantial losses on range trades because of a significant decline in volatility since 1995, when a large number of contracts had been struck. There was also growing investor interest in forwards and options on the currencies of Asian emerging market and Eastern European countries as well as in currency swaps. Non-deliverable forwards, which enable users to hedge currency exposure when regulatory restrictions preclude standard forward contracts, were particularly popular.

In the market for warrants, although the total dollar value of new offerings nearly halved compared with 1995 (from $161.2 billion to $87.1 billion), there was a greater number of separate issues. The low level of European interest

Lively interest in equity products

rates and the strong performance of European equity markets, combined with a string of privatisations, generated lively interest in equity products. As a result, instruments based on equities accounted for 75% of all new warrant issues, with a growing proportion of offerings made on narrowly focused indices or individual shares. Warrants are highly flexible securitised derivatives which allow intermediaries to rapidly tailor specific features in response to new developments. The climate in equity markets last year was conducive to the constant introduction of new issues. However, a flurry of offerings may have considerably outpaced demand, giving an exaggerated impression of actual transactions.

Developments in market infrastructure

Globalisation fostered by liberalisation measures …

Intense competitive pressures once again led regulatory authorities to further liberalise their financial systems last year, fostering the process of structural convergence taking place between financial systems in the main economic blocs. Thus, there was a major enlargement of repo markets, with, for example, an extension of the Bank of England's money market activities to include gilt repos and a greater number of market participants, the exemption of repos from minimum reserve requirements in Germany and, more recently, in France and the introduction of a more liberal system for such instruments in Japan. The progressive implementation in national legislation of European Union financial directives contributed to the harmonisation of market and regulatory structures. Following a series of measures further liberalising domestic and euroyen bond issuance, the Japanese Prime Minister announced in November a comprehensive five-year package aimed at bolstering the Japanese financial system and bringing its supervisory, accounting, legal and tax framework more into line with that in the rest of the industrial world. The "Big Bang" initiative proposed a concrete plan of action, which includes, inter alia, the removal of functional barriers between banks, securities houses and insurance companies. In the United States, the Federal Reserve considered a further relaxation of the conditions under which subsidiaries of US bank holding companies can underwrite securities. Emerging market countries also liberalised their financial systems, although heavy capital inflows led to the introduction of temporary restrictive measures in some of them (e.g. Brazil and Thailand).

… as well as new regulatory initiatives …

At the same time, various measures were adopted to strengthen the regulatory structure of financial markets. While several of these were aimed at reducing systemic risk through improvements to the payment and settlement infrastructure, one of the main thrusts of policy continued to be the development of a framework capable of dealing more flexibly with financial innovation (see Chapter VIII). Concrete initiatives included steps to encourage the flow of information at the micro and macro levels, to harmonise rules between markets, to develop more meaningful and transparent accounting standards and to establish adequate documentation for new instruments.

… for sharing information …

In the area of information, there was growing adherence to the Memorandum of Understanding concluded in March 1996 in the wake of the collapse of Barings in order to foster the sharing of information among exchanges

and clearing houses. The original accord was supplemented by an agreement with regulators covering situations in which cooperation within the industry might be hampered for legal or other reasons. Similarly, in May 1996, the Basle Committee on Banking Supervision and the International Organization of Securities Commissions (IOSCO) announced a joint initiative for the exchange of information between banking and securities supervisors of diversified financial groups. The follow-up survey conducted by the Basle Committee and IOSCO on disclosure of trading and derivatives-related business by internationally active banks and securities firms, and the decision by the Group of Ten central banks to collect regular market statistics on OTC derivatives, provided other illustrations of the ongoing efforts at the official level to promote transparency. Harmonisation was fostered by the endorsement in June by a large number of banking supervisors of a report prepared by the Basle Committee and the Offshore Group of Banking Supervisors designed to strengthen implementation of the 1992 Minimum Standards for the Supervision of International Banking Groups and their Cross-Border Establishments. These, as well as other, initiatives are covered in greater detail in "Activities of the Bank" at the end of this Report. At the same time, private and semi-official initiatives were taken in Japan and the United States to promote mark-to-market accounting rules for derivatives, while industry groups such as ISDA developed standard documentation for repos, certain swap transactions and credit derivatives.

… for promoting disclosure …

Greater reliance on market forces than on rigid supervisory prescriptions has meant that a correspondingly larger share of responsibility has fallen on the financial industry. A primary goal of official initiatives last year was to enhance the role played by risk management systems in meeting regulatory risk control objectives. Along with calls for improved voluntary disclosure of information, one important step in this direction was the amendment extending the Capital Accord of July 1988 to market risk and allowing banks to calculate their capital charges for market risk according to internal models as an alternative to the standard method. The pre-commitment approach being considered in the United States would go one step further by leaving it to individual financial institutions to "pre-commit" an amount of capital deemed to be sufficient to cover any potential trading losses over a given time horizon, subject to a penalty if losses were to exceed the pre-committed amount. The emergence of a market for credit derivatives has added to the challenge of developing a consistent regulatory framework. Following the release by the US authorities in August 1996 of documents which for the first time addressed the regulatory issues raised by credit derivatives, the Bank of England published a discussion paper in November proposing a regulatory framework for this market which was in line with the approach adopted by the Basle Committee and the European Union for longer-established cash and derivative instruments. A more recent consultative paper published by the Bank of England aims at developing further the risk-based approach to banking supervision through a more flexible risk assessment process based on the overall business risk profile of an institution and on the evaluation of its internal control measures.

… and for enhancing firms' risk management systems

Towards a more flexible regulatory risk assessment process …

In this search for a viable market-oriented, risk-based official framework, the identification by market participants and regulators of underlying market trends

and of the sources of potential systemic disturbances is assuming greater importance. The foregoing review of developments in the international financial markets last year has highlighted the continuing rapid growth of collateralised lending and OTC derivatives business. The resulting broadening spectrum of actors in the wholesale markets and the intermingling of exposures are raising a number of questions concerning the nature and role of core market participants, the increasing acceptance of lower-rated underlying instruments and counterparties, the potential impact on the financial system of the failure of one or more large participants, and the adequacy of firms' present management structure. These developments underline the need for adjustments to the existing regulatory framework. At the current stage of the financial cycle, characterised by ample liquidity and investors' pursuit of higher yields, the potential for more varied and subtle types of risk that are not adequately captured by models and risk assessment procedures cannot be ignored. This puts a premium on greater prudence and accountability on the part of individual market participants.

… which puts a premium on accountability of market participants

VIII. The evolution of central banking

Highlights

The last 25 years have been an eventful time for central banking. In the monetary sphere, the period since the breakdown of the Bretton Woods system was dominated by efforts to bring inflation under lasting control after its major global rise in the wake of the first oil shock. In the financial sphere, under the aegis of the central banks of the Group of Ten countries, the period saw the first steps ever in the process of international policy coordination in prudential regulation and supervision and in the oversight of payment and settlement systems. These initiatives formed part of a broader endeavour to strengthen safeguards against instability following several episodes of financial distress and profound changes in the financial environment.

This chapter traces the evolution of central banking since the early 1970s in a historical perspective, so as to better comprehend both ruptures with, and echoes of, the past. The focus is on two objectives, namely monetary and financial stability, as pursued through three tasks, namely monetary policy, prudential regulation and supervision, and oversight of payment and settlement systems. While to varying degrees the objectives have been associated with *central banking* since its inception, not all of the tasks have invariably or exclusively been assigned to *central banks*. The intention is to stress the parallel developments in the conception and execution of the tasks as well as their increasingly apparent interrelationships.

The backdrop, objectives and constraints

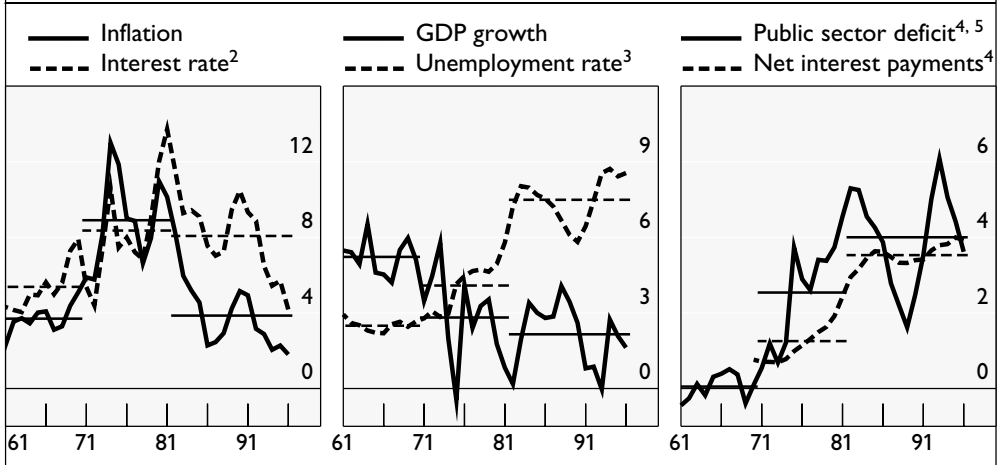
Much of the history of central banking during the past 25 years can be seen as an attempt to come to grips with the implications of two new phenomena: the emergence of stagflation in the early 1970s and the radical transformation of the financial environment which gathered momentum in the 1980s under the influence of liberalisation and financial innovation.

Stagflation …

Stagflation challenged the foundations of the prevailing postwar confidence in the maintenance of full employment and in an exploitable trade-off between unemployment and inflation. The stylised response to the first oil shock, consisting of expansionary fiscal policies and accommodating monetary conditions, failed to ensure lasting gains in output or employment. Chronic inflation and the cumulative deterioration in the state of government finances demonstrated to the public at large the costs of monetary instability and revealed the limitations of macroeconomic activism (Graphs VIII.1 and VIII.2). The comparatively successful experience of those countries, such as Germany and Switzerland, which had followed more prudent policies, especially in the

Key macroeconomic indicators for the Group of Ten countries[1]

Annual averages, in percentages



[1] Unweighted averages; the thin lines indicate averages for the periods 1961-70, 1971-81 and 1982-96. [2] Three-month rate; prior to 1971, excluding Italy, Switzerland and the United Kingdom. [3] Prior to 1971, excluding France and the Netherlands. [4] As a percentage of GDP. [5] Prior to 1971, excluding France, the Netherlands and the United Kingdom.

Sources: IMF, OECD and national data. Graph VIII.1

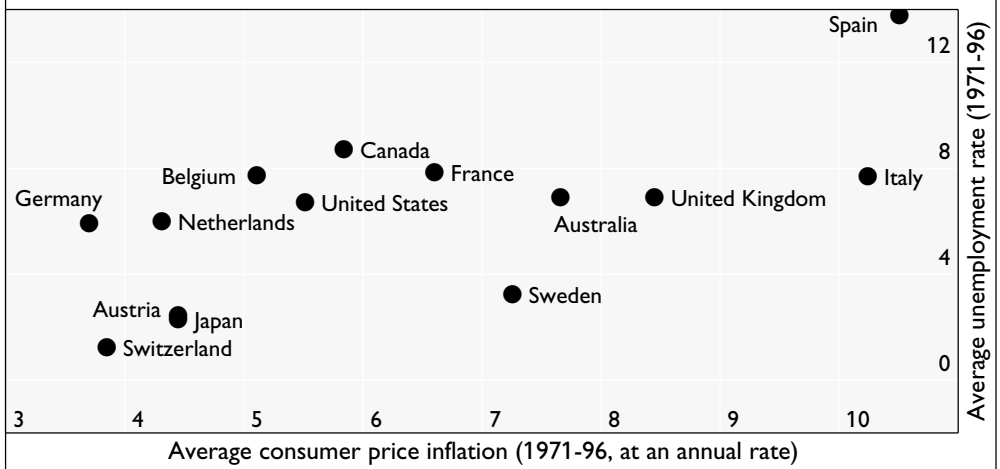
monetary sphere, highlighted the merits of a cautious macroeconomic approach. These developments prepared the ground for a more sober assessment of the power of the state to master economic developments and for a revival of laissez-faire philosophy. They were at the origin of the subsequent determined fight against inflation.

… and the transformation of the financial environment …

The transformation of the financial environment had equally far-reaching effects. Partly the product of the background economic conditions themselves, not least high and variable inflation rates, this process drew strength from the ascendancy of free market philosophy, an acceleration of advances in information technology and conceptual breakthroughs in finance. Its characteristics are by

Inflation and unemployment: cross-country experience

In percentages



Source: National data. Graph VIII.2

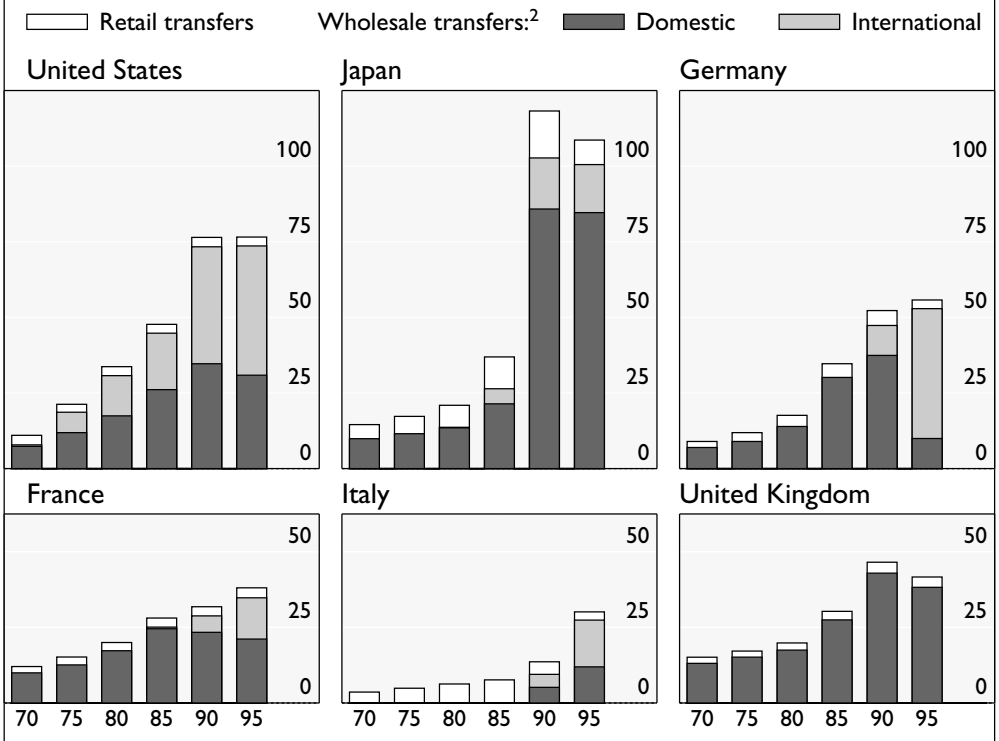
now well-known (see the Bank's 62nd Annual Report): wide-ranging deregulation; a quantum leap in the spectrum of financial instruments and in the breadth and depth of markets; the internationalisation of finance; the institutionalisation of savings; a blurring of distinctions between different types of financial institution and of financial instrument; a major increase in competitive pressures; and a spectacular rise in the volume and value of transactions and hence payments (Graph VIII.3 and Table V.1 in Chapter V). The result was a substantial expansion of the financial sphere in relation to the real economy.

… have a profound impact on central banking

The impact of this expansion on central banking was pervasive. In terms of objectives, it gave renewed prominence to safeguarding the stability of the financial system. The numerous episodes of financial distress that punctuated the transformation of the industry in both industrial and emerging economies underscored the need for this shift in priorities: not since the interwar years had financial instability been so widespread. In terms of focus, the enormous growth in settlement volumes meant that for the first time specific attention had to be given to the liquidity and credit risks that arise in the process of executing transactions. In terms of strategy, the increasing globalisation of finance meant that any action could hardly be confined to modifying domestic arrangements unilaterally; joint international initiatives were called for. In terms of means, in order to be successful the pursuit of both monetary and financial stability had

Indicators of trends in the value of payments[1]

Ratio of the annual value of funds transfers to GDP



[1] Payments through the main interbank funds transfer systems. [2] The breakdown into domestic and international is based solely on the specialisations of the systems; for the United Kingdom, such a breakdown is not feasible.

Source: National data.

Graph VIII.3

to rely on mechanisms that worked with, rather than against, the grain of market forces.

Taken together, these broad developments in the macroeconomic and financial background helped to shape the evolving relationship between central banks, governments and financial markets and hence some of the key constraints under which central banks have operated during the period. From being long stifled by design, financial markets emerged as a powerful force and, potentially, a valuable source of discipline on overly ambitious policies. From this perspective, the renewed efforts by governments and central banks to safeguard financial stability are best seen as an attempt to harness this force and ensure that its discipline is effective. At the same time, the inflation experience drew attention once again to the risks that arise from combining the government's power to spend with weak or no restrictions on its monetary financing. More generally, it confirmed the pitfalls in assigning to monetary policy the pursuit of objectives for which it is not well suited. Accordingly, towards the end of the period the political environment had become more receptive to the desirability of endowing central banks with a somewhat greater degree of autonomy from government and with mandates more clearly focused on price stability.

The conception and execution of the tasks

The profound transformation of the financial environment has meant that the conception and execution of the tasks of safeguarding monetary and financial stability have evolved in similar ways. In each case, the challenge has been to redefine "anchors" or benchmarks to guide policy, taking into account the increasing constraints that result from the growing power of markets to "arbitrage" across currencies, instruments and institutions, as well as across legal, regulatory and tax jurisdictions. Over time, this process has led to a greater emphasis on transparency, market incentives and the credibility of policies.

Anchors and arbitrage

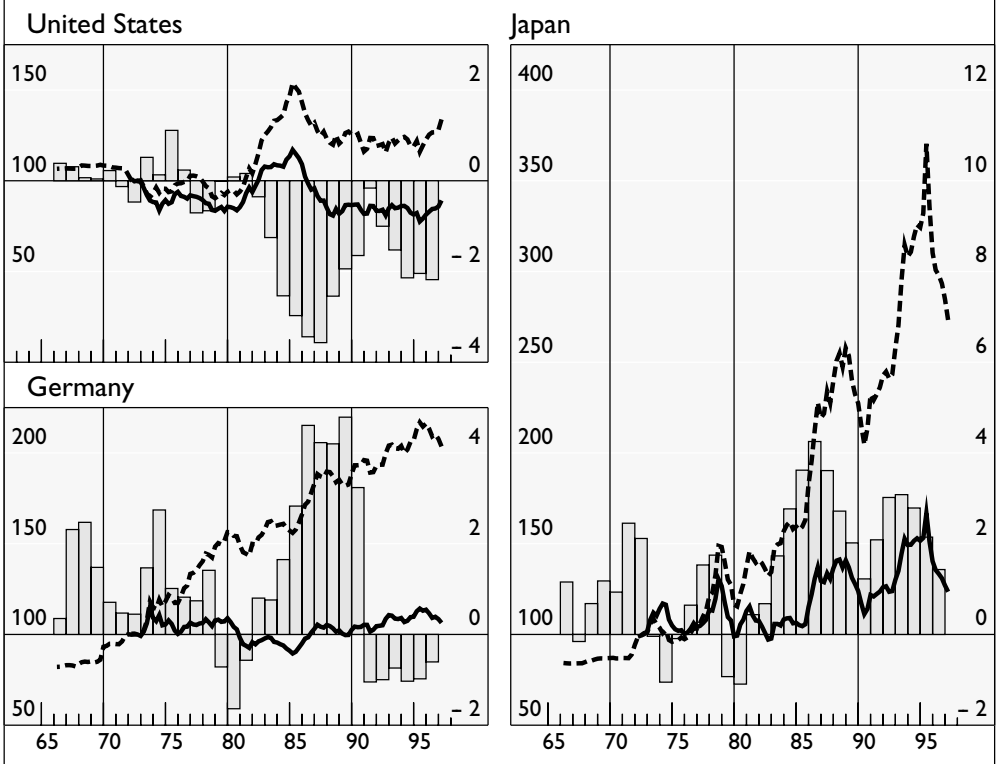
Monetary stability:

In the *monetary sphere*, the increasing constraints arising from arbitrage have had a major effect both on the relationship between monetary policies across countries and on their design within countries. The end result has been to raise the degree of interdependence between national policies, to encourage a shift in emphasis from financial quantities to financial prices in their design and to heighten the need for judgement in their execution. These developments have complicated the search for reliable *nominal anchors* aimed at ensuring satisfactory price performance.

financial arbitrage complicates the viability of external …

Increasingly free capital flows posed a double-edged challenge to monetary authorities. On the one hand, they made exchange rate commitments harder to sustain. By the turn of the 1970s, international capital flows had already become a force to be reckoned with and had helped to precipitate the breakdown of Bretton Woods. In subsequent years, especially during the 1980s and early 1990s, they gained in scope and strength, as was vividly demonstrated by the ERM turbulence in the autumn of 1992 and again in the summer of 1993. Technically, the resources that the markets could mobilise at short notice to test currency

Exchange rates and current account balances



* In terms of relative wholesale prices.

Sources: National data and BIS.

Graph VIII.4

parities were far greater than those that the authorities could deploy in their defence. And without resorting to non-market means to limit the rise of interest rates, the economic and political costs of defending an exchange rate peg could easily become unacceptable. On the other hand, under floating exchange rates that same capital mobility appeared in a new guise as a sometimes significant and unexpected constraint on the ability of central banks to pursue autonomous monetary policies. The high sensitivity of capital flows to yield prospects over short horizons on assets denominated in different currencies and their failure to respond adequately to longer-term factors such as relative price competitiveness meant that domestic monetary policies were closely conditioned by exchange rate movements (Graph VIII.4). Similarly, policies designed to influence exchange rates through intervention in foreign exchange markets, without eventually altering interest rates or making broader policy changes, became increasingly ineffective.

Thus, since the early 1970s international monetary arrangements have evolved into a unique historical configuration: virtually unrestricted capital movements now coexist with purely fiat money and a varied constellation of exchange rate regimes. No single "anchor" exists for the system as a whole, such as gold under the gold standard or, de facto, US monetary policy under Bretton Woods. At the global level, there have been only a few high-profile attempts to

limit medium-term swings in exchange rates, most notably the Plaza Agreement of 1985 and the Louvre Accord of 1987, following the major appreciation and subsequent depreciation of the dollar. By undermining the feasibility of heavily managed exchange rate systems, the force of capital flows has complicated the use of exchange rates as nominal anchors by individual, or groups of, countries. Increasingly, countries are effectively having to choose between free floating or substantial monetary integration. The recent moves towards European monetary union can partly be viewed in this context.

… and internal nominal anchors

The transformation of the financial environment was equally significant in complicating the choice of nominal anchors for countries not relying exclusively on exchange rate commitments. In particular, it gradually eroded the usefulness of the most popular anchors adopted in the 1970s, namely *monetary targets* (Graph VIII.5).

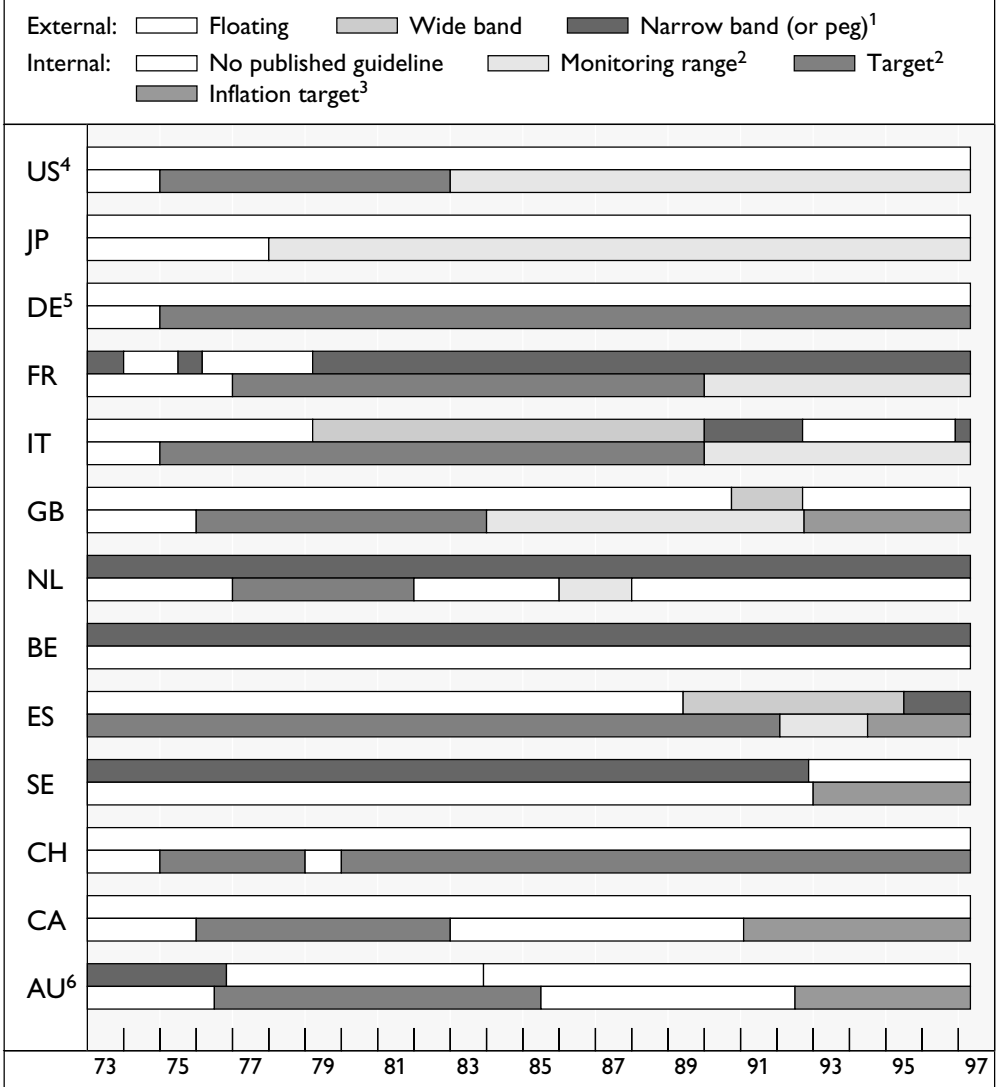
Monetary targets had a number of functions whose relative importance varied considerably both across countries and according to economic and political circumstances. After a long period in which monetary policies had typically accommodated other objectives, their adoption in some cases underlined the authorities' greater resolve to bring inflation under control. Expressing policy in terms of monetary aggregates rather than interest rates could help to clarify the need for unpalatable and sometimes unprecedented increases in interest rates. When announced as part of a clear framework linking money to prices, as in Germany, the targets could contribute to convergence in inflation expectations. At a more technical level, focusing on nominal quantities rather than interest rates as policy guides was a safer strategy at a time when, because of historically high inflation, it was particularly difficult to gauge inflation expectations and hence the required stance of policy. Such a focus could limit the risk of adjusting short-term interest rates too late and in too small steps, a widespread criticism of previous countercyclical policies, and act as a check on cumulative errors.

In any event, regardless of its specific architecture, a precondition for an effective targeting strategy is a stable relationship between the quantity targeted and the final goal, at least in the medium term; and it is precisely this precondition which was undermined by the quickening pace of financial arbitrage, particularly in the 1980s. While other factors also played a role, the emergence of new instruments and payment technologies, heightened competition, the redefinition of institutional and business boundaries in the financial industry, the increased openness of economies to capital flows and easier access to a wider range of sources of credit were all key forces behind the erosion of previously stable statistical relationships.

Heightened role of asset prices …

In addition to undermining the usefulness of monetary targets, the evolution of the financial environment progressively enhanced the role that financial "prices", broadly defined, could play in influencing the conduct of policy. As indicators of market expectations, their potential value in helping to anticipate market responses or future economic developments grew in line with the greater breadth and depth of markets. As factors capable of affecting economic activity, their heavier weight naturally made it harder to downplay their movements in the setting of policy. As possible causes of financial instability, their large medium-term swings came to command increasing attention. At the same time,

Nominal anchors



US = United States; JP = Japan; DE = Germany; FR = France; IT = Italy; GB = United Kingdom; NL = Netherlands; BE = Belgium-Luxembourg; ES = Spain; SE = Sweden; CH = Switzerland; CA = Canada; AU = Australia.

[1] The margin of fluctuation in the ERM band was set at ±15% on 2nd August 1993; since then, a narrow band is assumed when the exchange rate shows little movement vis-à-vis its central rate. [2] The distinction between the two is often not clear-cut and typically the shift is gradual; given a tight exchange rate commitment and no capital controls, announced "target" paths for monetary aggregates are treated as "monitoring ranges" only. [3] As from date of announcement. Supplemented by monitoring ranges for the United Kingdom (M0 and M4) and Spain (ALP). [4] Closer targeting of M1 between October 1979 and October 1982; monitoring ranges assumed since the doubling of target ranges. [5] Treated as a free floater because of its de facto anchor role in European exchange rate arrangements. [6] From November 1976 to December 1983, variety of crawling pegs.

Source: National data. Graph VIII.5

the difficulties in interpreting asset price behaviour added significantly to the inevitable need for judgement in policy-making.

As a result of these developments, the search for internal nominal anchors has in some respects come almost full circle. Nowadays, arguably the only major industrial country still strongly emphasising a monetary target is Germany, a country whose financial system, partly by design, has been less vulnerable to change. Even there, the strategy has become harder to maintain. Elsewhere,

monetary aggregates have generally been downgraded to the status of indicators, sometimes with several under observation. Except where there are exchange rate commitments, interest rates have regained their former prominence as the main "symbols" of policy. And the need for discretion in interpreting economic developments to guide policy is regarded as more important than ever. Against this background, the stronger focus on price stability as the longer-term policy objective, sometimes underlined by quantified inflation targets, can best be interpreted as a way of limiting the risk of repeating previous policy errors. In other words, less discretion regarding final objectives can compensate for increased discretion in their pursuit as an anchor for policy.

… regained visibility of interest rates …

… and stronger focus on price stability

Financial stability:

the key anchors are …

The safeguarding of *financial stability* has been based on two complementary strategies: promoting the soundness of individual institutions through prudential regulation and supervision (the "micro-prudential" level) and improving the robustness of the linkages across institutions and markets (the "macro-prudential" level), primarily by upgrading payment and settlement systems. In each case a particular notion has played the role of anchor, respectively *capital standards* and *timely settlement*.

The transformation of the financial industry called for a fundamental revision of the approach to preserving the soundness of individual financial institutions. This could no longer be left to the rigid web of regulations that, regardless of their original aim, had compartmentalised the financial system and provided firms with a comfortable cushion of economic rents. It was the framework of *prudential regulation and supervision* that had to be strengthened to take account of the new freedoms and the risks inherent in a much more competitive environment. The main strategy was to rely more heavily than in the past on capital standards. The underlying philosophy was that firms' capital cushion should be adequate to sustain the risks they incurred.

In contrast to what was occurring in the monetary sphere, the need for active cooperation to establish global anchors in global financial markets was a powerful motivation for joint policy initiatives, all too often triggered by episodes of financial distress with international ramifications. Indeed, common prudential standards were typically first agreed for internationally active banks and subsequently extended to other domestic institutions. The principal vehicle for cooperation has been the Basle Committee on Banking Supervision, established in 1974, initially with a different name, under the aegis of the central banks of the G-10 countries in the wake of the failure of Bankhaus Herstatt, and including as members central banks and other banking supervisory authorities (Table VIII.1). The first steps did not involve capital standards per se, but addressed the need to ensure proper consolidated supervision of internationally active banking establishments and a clear allocation of responsibilities between home and host-country supervisory authorities (Basle "Concordats" of 1975 and 1983). The landmark Capital Accord that followed in 1988 had as its primary objectives strengthening banks' capital cushion and levelling the playing-field across regulatory jurisdictions.

… capital standards at the individual firm level …

The process of arbitrage posed a challenge to each element of this dual strategy. First, the accelerating pace of change in the financial environment called for continuous refinements of prudential standards lest they became obsolete.

Selected joint central bank initiatives: micro-prudential level*

Year	Area	Summary
1975	Cross-border banking	*Basle "Concordat".* Establishes guidelines for the division of responsibilities for the supervision of banks' foreign establishments between "home" and "host" supervisors.
1983	Cross-border banking	*Revised Basle "Concordat".* Introduces the principle of *consolidated supervision*. Strengthens the original Concordat so as to avoid supervisory gaps arising because of inadequately supervised financial centres or specific holding company structures.
1988	Capital adequacy	*Basle Capital Accord.* Agreement aimed at securing international convergence of capital adequacy measurement and standards. Addresses explicitly only credit risk. Defines: (a) eligible capital elements; (b) variable risk weights applicable to several main categories of on and off-balance-sheet exposure; and (c) overall minimum capital ratio of 8% of risk-weighted assets, with core (Tier 1) capital – the fully harmonised definition in terms of components – being not less than 4%.
1990	Relations between supervisors	*Exchanges of information between banking and securities supervisors*. Agreement on the need for the progressive removal of barriers to the exchange of prudential information between the two sets of supervisors. Examines ways of facilitating information flows.
1992	Cross-border banking	*Minimum standards for the supervision of international banking groups and their cross-border establishments.* Strengthens the Basle Concordat by introducing minimum standards for certain of its features, notably through conditions designed to prevent the setting-up of cross-border banking establishments not subject to effective consolidated supervision or belonging to opaque conglomerate groups.
1994	Derivatives	*Risk management guidelines for derivatives* (jointly with IOSCO). Sets out guidelines for supervisory authorities and banking organisations designed to promote sound internal risk management of banks' derivatives activities; brings together practices used by major international banks. (Followed up in 1995 by a *framework for supervisory information about derivatives activities for banks and securities firms.*)
1995	Derivatives/ trading	*Public disclosure of the trading and derivatives activities of banks and securities firms* (jointly with IOSCO). Provides an overview of disclosure practices and recommendations for their improvement, stressing the need to make public sufficient information to evaluate the adequacy of risk management systems (builds on 1995 report (see previous item) and draws partly on concepts developed in a 1994 discussion paper on *public disclosure of market and credit risks by financial intermediaries* (*Fisher Report)* by the Euro-currency Standing Committee (G-10 central banks)).
1995	Relations between supervisors	*The supervision of financial conglomerates*. Report by the (informal) Tripartite Group of banking, securities and insurance supervisors examining the relevant issues and making a number of recommendations for the improvement of supervisory practices.
1996	Capital adequacy	*Amendment to the Capital Accord to incorporate market risks.* Establishes minimum capital standards for market risks (those arising from changes in interest rates and equity prices (trading book only) as well as exchange rates and commodity prices). Envisages two possibilities: (a) a standardised method, based on a common risk measurement framework; and (b) an internal model-based approach, which allows banks to use their internal models for the measurement of risk subject to a number of qualitative and quantitative criteria as well as to successful "backtesting".
1996	Capital adequacy	*Multilateral netting of forward value foreign exchange transactions.* An amendment to the Capital Accord effective from end-1995 had extended the recognition of bilateral netting schemes (as mechanisms for reducing credit risk exposures) to all those deemed effective under the relevant laws and in compliance with the minimum standards set forth in the Lamfalussy Report (Table VIII.2). The new document provides guidelines for the establishment of the capital requirement in the case of multilateral netting schemes.
1996	Cross-border banking	*The supervision of cross-border banking.* Report prepared jointly with the Offshore Group of Banking Supervisors containing 29 recommendations aimed at reducing impediments to the effective supervision of cross-border banking.
1997	Interest rate risk	*Principles for the management of interest rate risk.* Consultative paper setting out 12 principles for evaluating the adequacy of banks' management of interest rate risk.
1997	Core principles	*Core principles for effective banking supervision.* Consultative document laying down 25 supervisory principles covering preconditions for effective supervision, licensing and structure of institutions, prudential regulations and requirements, methods of ongoing banking supervision, information requirements, formal powers of supervisors and cross-border banking. Intended as reference for supervisory and other authorities in all countries and internationally.

* Basle Committee on Banking Supervision, whose members are representatives of the central banks and, where applicable, other banking supervisory authorities of the G-10 countries. Table VIII.1

Part of the arbitrage process had a momentum and direction of its own; but part was also a deliberate attempt to economise on regulatory capital. Advances in financial engineering provided firms with new opportunities to reduce their regulatory capital without necessarily altering, and possibly even raising, their risk exposures. Secondly, as different types of institution increasingly encroached on each other's territory and the overlap between their activities grew, the pursuit of a level playing-field could not be confined to banks. Pressures in this direction came both from supervisors, concerned with the scope for regulatory arbitrage, and from firms themselves, worried about a loss of competitive advantage. Furthermore, the dismantling of other restrictions on banks' operational freedom highlighted the potential influence of capital standards on competitive conditions.

In response to these forces, cooperation was gradually extended beyond banking supervisors to encompass securities and insurance regulators, both nationally and internationally (Table VIII.1). Yet the combined challenges raised by arbitrage made it unexpectedly difficult to reconcile the prevailing laissez-faire philosophy with safeguards against financial instability. Some of the more recent initiatives have attempted to strike a better balance (see below).

The spectacular growth and internationalisation of *payments and settlements* can be regarded as an inevitable by-product of financial arbitrage. Its effect has been to modify the perceived role of the payment system in propagating financial turmoil. Historically, this role had been primarily associated with a generalised flight from one means of payment to another, namely from bank deposits to cash. During the last 25 years, the focus shifted clearly to the credit and liquidity risks incurred in the process of executing transactions. Albeit short-lived, the corresponding exposures sometimes became very large in relation to on-balance-sheet exposures and the institutions' capital. This was especially true for active providers of wholesale payment services. Episodes such as the 1974 crisis involving Bankhaus Herstatt (a relatively small bank active in foreign exchange dealings), the stock market crash of 1987 and the failures of Drexel Burnham Lambert in 1990 and Barings in 1995 are just a few of the incidents that underlined the potential of payment and settlement systems for transmitting and amplifying financial difficulties.

As the institutions typically in charge of overseeing the payment system, central banks were naturally well-placed to orchestrate a policy response. Just as in the case of prudential supervision, international cooperation by the G-10 central banks played a crucial role in advancing a common understanding of the issues, in identifying lines of action and in promoting initiatives (Table VIII.2). The anchoring principle in this case has been "timely settlement". The underlying logic is that securing the final settlement of transactions removes a major additional source of uncertainty in the financial system and can limit the excessive concentration of exposures on providers of settlement services. Through these channels, it can contribute to distinguishing temporary liquidity difficulties from underlying solvency problems and to containing the spread of financial strains.

… and timely settlement at the system-wide level

Guided by the notion of timely settlement, policy has paid specific attention to four interrelated areas of particular concern: large-value interbank funds transfer systems (LVTS), and the settlement of securities, foreign exchange and derivatives transactions (see the 64th Annual Report). Depending on the specific

Selected joint central bank initiatives: macro-prudential level

Year	Area	Summary
1990	Interbank netting	*Report of the Committee on Interbank Netting Schemes of the central banks of the Group of Ten countries (Lamfalussy Report)*. Recommends a set of minimum standards for the operation of cross-border multicurrency netting schemes and sets out the principles of cooperative central bank oversight. Stresses the need for a well-founded legal basis and well-structured mechanisms for the management of credit and liquidity risks. At a minimum, such systems should ensure timely (daily) settlement in the event of the failure of the participant with the largest single net debit position. Basic blueprint for all subsequent multilateral netting schemes, including purely domestic systems (builds on a 1989 report).
1992	Securities settlement	*Delivery versus payment in securities settlement systems (G-10)*. Defines and analyses the types and sources of risk associated with securities settlement between participants in a single settlement system. (Followed up in 1995 by a report on cross-border securities settlement.)
1993	LVTS	*Minimum common features for domestic payment systems (EU)*. Sets out minimum standards for LVTS and recommends the adoption as soon as possible of an RTGS system into which as many large-value payments as possible should be channelled. In line with this philosophy, in 1994 the EMI sets out a project to link domestic RTGS systems (TARGET), followed up by a detailed report in 1995.
1994	Electronic money	*Report on prepaid cards (EU)*. Analyses this new payments technology and recommends that only credit institutions (banks) should be allowed to issue multipurpose prepaid cards.
1996	Forex settlement	*Settlement risk in foreign exchange transactions (G-10)*. Provides a clear definition of foreign exchange settlement risk, a corresponding method for its measurement and a strategy for reducing it. The strategy involves encouraging action by individual banks, industry groups and central banks.
1996	Derivatives markets	*Proposal for improving global derivatives market statistics (G-10)*. Sets out a detailed proposal for the regular (semi-annual) collection and publication of statistics on OTC derivatives (follow-up to a 1995 report).
1996	Electronic money	*Implications for central banks of the development of electronic money (BIS)*. Analyses the policy issues of particular concern to central banks, including those related to the oversight of payment systems, seigniorage, monetary policy and banking regulation and supervision.
1997	Securities settlement	*Disclosure framework for securities settlement systems (G-10 and IOSCO)*. Encourages transparency in the operation of securities settlement systems so that participants have a clearer understanding of their rights, obligations and risk exposures.
1997	LVTS	*Real-time gross settlement systems (G-10)*. Addresses the risks involved in, and the design of, RTGS systems.
1997	Derivatives settlement	*Clearing arrangements for exchange-traded derivatives (G-10)*. Describes the structure of existing clearing arrangements and identifies potential weaknesses. These can include the inadequacy of the resources of clearing organisations in the event of member defaults following large price movements, a lack of intraday controls on members' positions and the use of payment arrangements not providing for timely intraday settlement.

Table VIII.2

role played by individual central banks in each area in the various countries, the type of action has ranged from encouragement of private initiatives to direct implementation of the necessary measures.

The soundness of LVTS, the linchpin of modern payment arrangements, has been strengthened by promoting the introduction of real-time gross settlement (RTGS) and the upgrading of multilateral net settlement systems. In the latter case, the adoption of loss-sharing and backup liquidity mechanisms aimed at ensuring settlement of the system in the event of failure to settle by individual institutions has been particularly useful. Improvements to the safety of securities settlement systems have relied mainly on a shortening of the time interval between trading and settlement and on the introduction of delivery versus payment, which eliminates the sizable capital risks to counterparties arising from the possibility that only one of the two legs of the trades will be completed. With respect to foreign exchange transactions, a key first step has been

to encourage individual banks to manage their settlement exposures more effectively. In addition, central banks have followed a two-pronged strategy: they have promoted the netting of trades and the establishment of well-structured private multicurrency settlement mechanisms, notably based on the application of variants of payment-versus-payment procedures; and they have supported these schemes by improving the domestic LVTS ultimately used to settle the trades. More recently, central banks have drawn attention to potential weaknesses in the clearing of derivatives and suggested ways of eliminating them, not least through specific mechanisms for securing timely intraday settlement.

Information, incentives and credibility

The raw material of markets is information; their dynamic is the pursuit of individual profit. Given the greater reach and vigour of market forces, in implementing policies diktat increasingly had to give way to inducement. Markets could not be told what to do, they had to be given good reasons for doing it. Hence the progressive shift towards transparency and attention to incentives and credibility.

Monetary stability: the increasing power of markets puts a premium on …

For *monetary policy*, the growing sanctioning power of financial markets has influenced the trend towards improved transparency at various levels. As regards objectives, the markets', and in particular bondholders', ingrained aversion to inflation gradually encouraged the adoption of more explicit anti-inflation commitments. Concerning strategies, those commitments had to be shown to be supported by consistent plans. Regarding tactics, clear signals of the intended policy stance became ever more important in ensuring its control. To be sure, the significance of transparency as a means of influencing behaviour goes well beyond its impact on financial markets. Transparency about objectives and strategy can be helpful in guiding the decisions of all economic agents and in securing the necessary support for policies from the public at large. It is also a precondition for political accountability, especially important for central banks enjoying a comparatively greater degree of autonomy. Nevertheless, it is financial markets that most require transparency for their immediate profit/loss calculations and that can make their influence felt most strongly, not least through their impact on interest rates and exchange rates.

… transparency …

… market incentives …

The shift towards greater transparency in objectives and strategies which has taken place during the 1990s has probably been most pronounced in those countries that have adopted explicit inflation targets (Graph VIII.5). Invariably, this shift has gone hand in hand with greater transparency about the set of information underlying decisions and about central bank views regarding the transmission of policy impulses. In some countries, including the United Kingdom and New Zealand, the process has encompassed the publication of the central bank's inflation forecasts themselves. More generally, the shift has been even more widespread, if perhaps less conspicuous, in day-to-day policy implementation. Its purpose has been to reconcile a stronger market orientation of policy, as exemplified by reduced reliance on standing facilities and reserve requirements, with maintaining close control over the short-term interest rates serving as operating objectives. Increased transparency about the interest rate levels desired by the authorities has taken two forms. One is the explicit

announcement of targets for operating objectives, be these point targets (Australia and the United States), specific ranges (Canada) or broad indications of appropriate levels (most recently, Japan). The second has been a revealed preference for tender techniques which make the central bank's decision regarding interest rates clearer, such as fixed rate as opposed to flexible rate tenders; this is the case in most continental European countries.

… and credibility

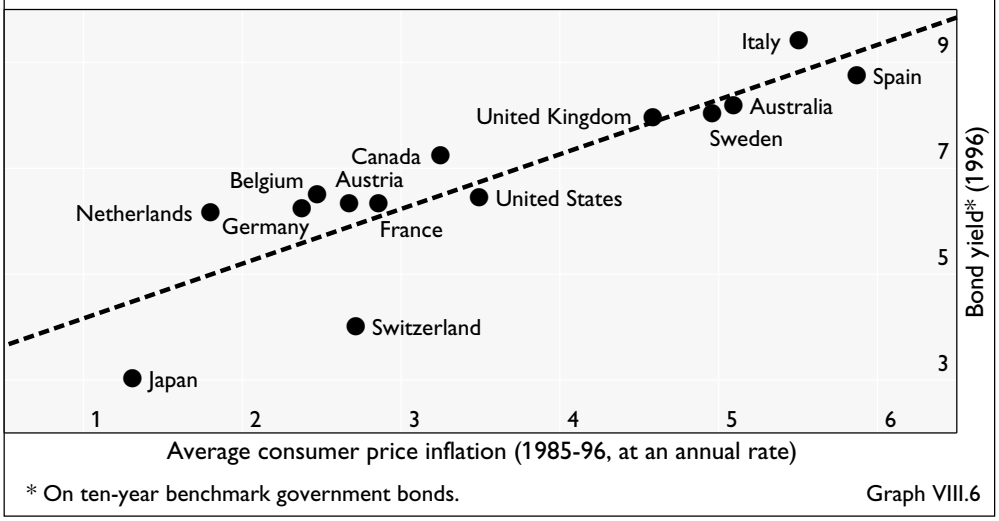
By itself, however, transparency is not sufficient to influence behaviour. Its effectiveness is conditional on the credibility of the information disclosed. And that credibility can only be gained over time, through a correspondence between the information and the facts. A signal of policy intentions regarding interest rates loses its value if subsequent actions fail to conform to it. Putting forward an official view of the functioning of the economy or the sustainability of policy, unless it is already shared by the markets, can have only a limited effect without corroborating events. Admittedly, a declaration of a firm commitment to price stability is more likely to be believed if the overall policy is seen to be consistent with it. But over time, regardless of the sincerity of the commitment and even of confidence in its sincerity, its beneficial effects on the markets will not materialise unless the authorities repeatedly deliver. The close correlation across countries between the level of long-term interest rates and the historical inflation record is a clear reminder of this relationship (Graph VIII.6).

The role of central bank autonomy

The close link between consistent performance and credibility has put a premium on arrangements designed to contain the risk and costs of central banks' failing to deliver. Ultimately, this is the role of recent measures giving central banks greater autonomy or "independence" together with political mandates more clearly focused on price stability (Table VIII.3). Their function is to make central banks less vulnerable to possible pressures to test the limits of monetary policy in pursuit of transient employment or output gains. Such pressures are only natural in an environment in which the gains are typically quick to materialise, the lasting inflationary consequences take time to appear, and the inevitable uncertainty created by the changing structure of the economy can

Bond yields and the inflation record

In percentages



* On ten-year benchmark government bonds.

Graph VIII.6

Central bank autonomy: selected developments*

Country	Year	Summary of developments
Belgium	1993	A new law stipulates that the Government cannot oppose central bank decisions in its areas of responsibility, including monetary policy. Credit to the Government is forbidden.
France	1993	New legislation assigns to the central bank the responsibility for formulating, not just implementing, policy and specifies price stability as its objective. The Government cannot give instructions to the central bank or obtain credit from it.
Germany	1994	Cash advances to the Government discontinued.
Italy	1981	The obligation to underwrite Treasury bill issues is abolished.
	1992	The central bank gains autonomy in setting the discount rate.
	1993	Prohibition on granting credit to the Government (previously automatic up to a ceiling); exclusive right to set reserve requirements.
Japan	1997	A bill proposes new statutes: price stability is set as an explicit goal; the Ministry of Finance loses its power to give instructions to the central bank with respect to its business, to carry out inspections, to dismiss its executives and to be permanently represented on its Board. Accountability is increased through regular reports to the Diet, publication of policy minutes and Diet approval of the three top appointments.
Netherlands	1993	The obligation to make current account advances to the Government is abolished.
Spain	1994	A new law grants the central bank autonomy in the formulation and implementation of monetary policy, with price stability as its primary objective. Extension of the Governor's and Deputy Governor's terms of office. The law forbids government financing.
Sweden	1989	New central bank statutes formalise and strengthen the central bank's autonomy: legal responsibility to Parliament rather than to the Government; autonomy in monetary policy decisions; lengthening of the Governor's term of office and reduction of political influence on the appointment.
United Kingdom	1992–1994	The Chancellor asks the central bank to produce an independent assessment of progress in meeting the inflation objectives (1992). The central bank acquires discretion over the timing of changes in policy (interest) rates (as long as they are implemented prior to the following monthly meeting with the Chancellor) (1993). Publication of the minutes of the monthly meetings in which the central bank gives its independent advice to the Chancellor (1994).
	1997	The central bank is given autonomy in setting short-term interest rates; the Government cannot give instructions (except under special circumstances); policy decisions are assigned to a new committee.
United States	1978	The Full Employment and Balanced Growth Act requires the central bank to pursue several objectives, including full employment and production, balanced growth and reasonable price stability. The central bank is obliged to report semi-annually on its progress in meeting the final goals as well as its plans for, and performance in respect of, growth ranges for monetary and credit aggregates (reported quarterly since 1975 on the basis of House Concurrent Resolution 133).

* Similar developments have taken place in several other countries, including emerging economies. Table VIII.3

provide convincing grounds for discounting past experience. In a world where the exercise of judgement is so important for the success of policy, a clear mandate, autonomy of action and procedures to make the central bank accountable for the achievement of the prescribed goal are a better set of mechanisms for ensuring consistent performance than relatively rigid rules. And in a context in which the adoption of fiat money has eliminated a significant line of defence against the pursuit of inflationary policies – the convertibility constraints – buttressing that independence with restrictions on the central bank's ability to grant credits to the government is an important additional policy safeguard. It is considerations such as these, supported by historical experience, that have shaped the constitution of the future European Central Bank.

Financial stability:

In the area of *prudential regulation and supervision* the shift towards greater transparency has been, if anything, even more pronounced. The objective has

been to strengthen the market's ability to discipline individual institutions and to discriminate between them in terms of creditworthiness. These efforts have been especially valuable given that the growing complexity of financial activity has made it increasingly difficult to assess the risks incurred by firms. The main mechanism employed has been to upgrade public disclosure of both credit and market risks, especially those connected with the growing use of derivatives (Table VIII.1). Moreover, as no disclosure interval can be short enough to reflect the speed with which risk profiles can change nowadays, a consensus has been emerging that the content of the information should no longer be limited to a static picture of an institution's economic results, its asset quality and the principal risks faced. Rather, it should enable markets to form a view about the adequacy of risk management systems, in particular by comparing forecasts with outcomes. Similarly, prudential authorities have taken steps to deal with the greater opaqueness of organisational structures due to the rise of complex conglomerates straddling functional, geographical and regulatory boundaries (Table VIII.1).

an analogous shift in emphasis occurs in prudential regulation and supervision …

In addition, policy has begun to pay closer attention to improving market participants' incentives to adopt prudent behaviour. Capital standards themselves fall into this category. Capital not only represents a cushion against losses; it is also a concrete measure of the owners' commitment to a firm's continued existence. By making shareholders more vulnerable to the risk profile of the institution, minimum capital standards can shift part of the responsibility for instilling discipline away from supervisors and onto markets themselves. Furthermore, recent initiatives have tried to strike a better balance between supervisors' and management's judgement of what constitutes an appropriate cushion, thereby also reducing the incentives to engage in regulatory arbitrage. The prime example is the greater role that internal models for the measurement of market risk will be allowed to play in the definition of the capital requirements (Table VIII.1).

… and the oversight of payment and settlement systems

In the macro-prudential field, particularly *payment and settlement systems*, many of the measures already discussed can partly be seen as attempts to increase the transparency of the risks involved in the arrangements and to limit the incentives for participants to take individual action which, even if justified in itself, would be inconsistent with systemic stability. By reducing the pyramiding of exposures connected with unsettled transactions, RTGS can make them more transparent and controllable. At times of strain, delivery or payment-versus-payment mechanisms limit the instinctive tendency to withdraw from trades owing to the fear of counterparty default, thereby containing the risk of market freezes and gridlocks. By allowing settlement to take place despite individual failures, liquidity-pooling and loss-sharing arrangements can further reduce this risk. By the same token, the corresponding greater predictability and transparency of the handling of incipient strains can help to contain their transmission. Recent initiatives to improve disclosure standards for securities settlement systems or the statistics on derivatives markets are a part of the same broad process (Table VIII.2).

Finally, in both micro and macro-prudential areas efforts have been stepped up to mitigate the consequences of those forms of official intervention that

provide agents with protection in the event of distress. Admittedly, such mechanisms can prevent limited liquidity difficulties from giving rise to wider solvency problems. Nevertheless, by insulating agents from adverse outcomes, they can also blunt the incentive to behave prudently (i.e. they can induce "moral hazard"). As a result, in the absence of appropriate safeguards, they can even potentially increase the likelihood of insolvency. These efforts are all the more important given the much greater freedom and compass of market forces in the new environment.

A common strategy has been to attempt to reduce the scope of, often implicit, guarantees on banks' liabilities. This has been done either by introducing explicitly restricted insurance schemes for retail depositors or by tightening existing arrangements. In the United States, the introduction of risk-related deposit insurance premiums, a review of the "too big to fail" doctrine and the implementation of caps and fees on intraday central bank credit were motivated by similar considerations. A complementary approach has been to reduce not the guarantees themselves, but the likelihood that distorted incentives for the authorities will lead to their activation. In particular, some countries have adopted rules to ensure graduated but prompt supervisory intervention, including early closure of weak institutions, so as to limit the risk of forbearance.

At the same time, as with monetary policy, the materialisation of the benefits promised by the aforementioned arrangements for limiting moral hazard is conditional on their credibility. And this credibility is only in part a function of specific legislation and regulations. In the final analysis, it depends on the actual conduct of the authorities in the event of a crisis. At a minimum, this calls for a judicious and selective use of the central bank's ultimate control over liquidity, a use which can only be based on an intimate knowledge of market mechanisms and participants. More generally, it requires consistent action on the part of all the authorities in charge of handling financial distress (see the 63rd Annual Report).

The interlinkages between the tasks

The last 25 years have not just seen parallel developments in the execution of the various tasks; they have also highlighted their interrelationships. Increasingly, the pursuit of monetary stability has had to consider the implications for policy of financial instability. Similarly, the micro and macro-prudential aspects of the safeguarding of financial stability have drawn closer together. Arguably, these developments have their origin in the combination of fiat money with a weakening of restraints in the financial environment.

The close link between monetary and financial stability …

Historically, there has always been a close relationship between the tasks of securing monetary and financial stability. Its specific manifestation and intensity, however, has evolved with the institutional arrangements providing "anchoring" mechanisms in the monetary and financial spheres.

The link between the two tasks was most obvious under the gold standard. Convertibility into gold acted as both the nominal anchor and the financial anchor. The commitment actually defined monetary stability and was the main constraint on financial, crucially credit, expansion, a constraint that would give way at times

of generalised financial distress. With the gradual emergence of fiat standards in the interwar years, the link between the two tasks became less obvious: monetary stability was progressively identified with price stability; the state's solvency, buttressed by the power to tax, became the sole foundation for acceptability of the currency. Yet the link persisted, in that financial instability continued to be fundamentally related to excessive credit growth as ultimately checked by the regulation of central bank liquidity, both in normal conditions and in the event of strains. Moreover, the new institutional arrangements weakened the constraints on financial expansion, contributing to the widespread instability of the interwar years. Indeed, this experience was generally the motivation for the strict regulation of the commercial banking industry, including the introduction of a variety of solvency and liquidity requirements as well as restrictions on activities. Under Bretton Woods, the monetary set-up was somewhat ambiguous: the de jure convertibility clause for official transactions acted as a nebulous anchor for what quickly developed into a de facto dollar standard. At the same time, the web of regulations imposed on markets and intermediation acted as a restraint on financial expansion, but at increasingly unacceptable costs in terms of economic efficiency.

… evolves historically with anchoring mechanisms

The environment that unfolded from the early 1970s saw a further relaxation of constraints in both the monetary and financial spheres. Fiat money and the willingness to use it to finance deteriorating fiscal positions and in the pursuit of overly ambitious macroeconomic objectives paved the way for the accelerating pace of deregulation and financial innovation. This set the stage for the widespread financial instability observed during the period (see the 62nd Annual Report).

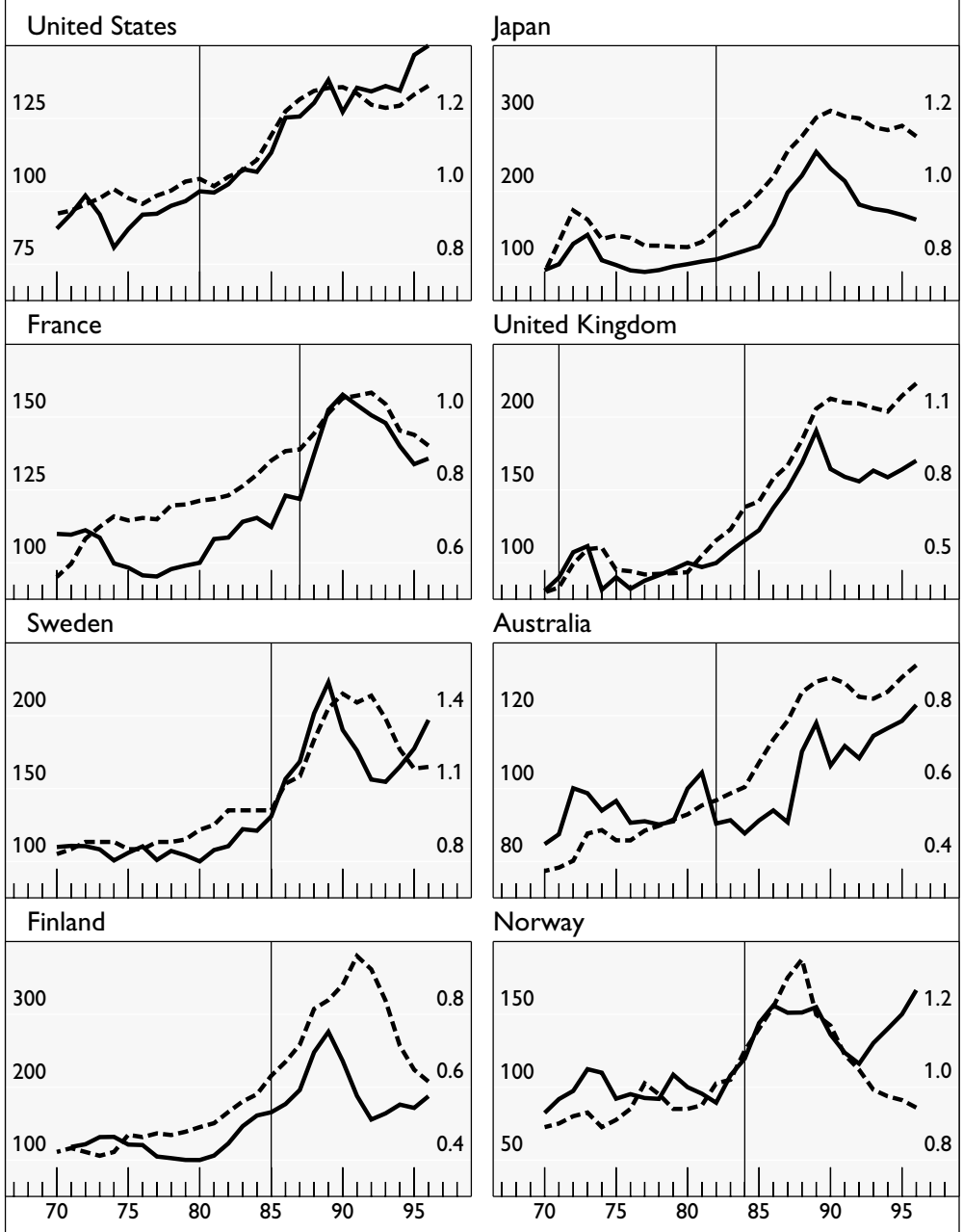
Financial instability since the 1970s: causes …

While inflation is by no means a precondition for financial instability, rising prices contributed to it in several ways, echoing to some extent the experience of the early 1920s: they prepared the ground for the sharp increase in the level and volatility of interest rates and for major swings in exchange rates; they masked the build-up of weakness in banks' balance sheets; and, more generally, they distorted real and financial decisions. Some of the episodes of instability in the 1970s and early 1980s, notably the crisis in the US thrift industry and in lending to heavily indebted economies, can partly be seen in this light. Quickening deregulation in the 1980s facilitated the ensuing credit/asset price spirals that sowed the seeds of financial distress later in the decade, as asset prices reversed direction (Graph VIII.7; see also the 63rd Annual Report). The failure to tighten the framework of prudential supervision in time or sufficiently and to remove the obstacles to the discipline of market forces compounded the financial difficulties. As a result of these developments, the costs of liberalisation proved unexpectedly high. Furthermore, in some countries the need to manage the crises risked leading to more, rather than less, lasting government involvement in the financial industry.

… and implications for monetary policy

This environment complicated considerably the task faced by the monetary authorities. First, it was actually one of the factors undermining the role of quantitative aggregates as nominal anchors. The rapid expansion of credit and monetary aggregates during the upswing in asset prices against the background of often declining inflation, steady growth and rising real interest rates made

Credit and real aggregate asset prices



Note: The vertical lines indicate the initial years of significant financial reform.

* Weighted average of equity and residential and commercial real estate price indices deflated by consumer prices. The weights are based on the composition of private sector wealth.

Sources: National data and BIS estimates. Graph VIII.7

it harder to interpret policy. Moreover, the potential destabilising effect of this expansion was typically underestimated, as the phenomenon was generally regarded as a benign reflection of the natural "reintermediation" of the system following financial repression. Secondly, once the financial strains surfaced, the policy stance had to take into account the generalised weakness in balance sheets. The impaired solvency of institutions became a significant constraint on economic

activity. The impact of reductions in interest rates on aggregate demand was necessarily weaker and unpredictable, as it operated more indirectly, in part via the induced build-up in financial strength. Finally, the monetary authorities sometimes faced a dilemma between the contrasting needs of the real economy and inflation control, on the one hand, and financial stability, on the other. In some of the countries experiencing the sharpest asset price increases, the tightening of policy consistent with stability in asset markets risked excessive contraction in the product markets. The case of Japan, where evident signs of speculative excesses in the late 1980s coexisted with low inflation, is a possible illustration.

Increasing linkages between micro and macro-prudential tasks

The transformation of the financial environment also began to erode some of the specific distinctions between prudential supervision and the oversight of payment and settlement systems. Traditionally, albeit to an extent that depended on the institutions' business, prudential supervision and regulation had paid comparatively little attention to the risks incurred in the process of facilitating and managing the trading and settlement of transactions. This had been especially true for banks, which in comparison with securities firms had been less involved in trading. As banks became increasingly active in trading and awareness of the risks involved in the settlement process grew, prudential regulation and supervision began to attach greater weight to these potential sources of insolvency. A more careful treatment of the credit risks connected with unsettled trades and the definition of criteria for the recognition of contract netting for capital adequacy purposes are just two examples of a process which is bound to continue (Table VIII.1).

The policy challenges

Mutually reinforcing policies in the monetary and financial spheres

The key challenge in the years ahead will be to continue to adapt policy to the rapidly changing environment in order to preserve monetary and financial stability. Given the intimate connection between the two tasks, this will call for mutually consistent and reinforcing policies in the two spheres. Owing to the reach of the transformation under way, developments in the financial system will play a major role in shaping policy. The foregoing analysis indicates that the principles that should guide adjustments in the policy framework seem to have been correctly identified. Nevertheless, much more needs to be done in order to consolidate existing gains and forestall future problems.

Monetary stability

In the monetary sphere, no single anchor for the world as a whole is likely to emerge in the foreseeable future. Given the prospective economic and political conditions, it seems unlikely that there will be a successor regime to Bretton Woods. In addition, the trend towards full external convertibility and the expansion of financial markets will further tighten the constraints on national monetary policies, regardless of the specific choice of anchoring mechanism. Taken together, these developments put a premium on the adoption of institutional safeguards aimed at supporting the pursuit of global price stability while at the same time minimising the risks of disruptive exchange rate movements.

Price stability and central bank autonomy and accountability

As confirmed by recent policies, the best safeguard is arguably a political mandate to pursue price stability allied with autonomy in the execution of the assignment and accountability for the achievement of the objective. Nevertheless, these arrangements are hardly sufficient. Stability in the domestic and international value of national currencies calls for supporting policies in other areas, notably sustainable fiscal positions and greater flexibility in labour markets. History indicates that lasting control over inflation, no less than the preservation of central bank autonomy, requires a broad consensus of public opinion. That consensus can best be maintained by a realistic appraisal of the power and limitations of monetary policy, but ultimately rests on actual performance with respect to inflation, growth and employment.

Need for judgement …

As regards strategy, the ever-changing financial environment and real economy can be expected to continue to make heavy demands on judgement in the pursuit of the final objective. In the process, central banks will constantly need to reassess the impact of the evolving situation on the design and implementation of policy. Recent work on the policy implications of the growth of derivatives markets and the emergence of electronic money by the G-10 central banks is an example (Table VIII.2). Prospectively, and assuming supporting changes in accounting technology, one development which may have far-reaching implications for policy implementation is the trend towards ever-shorter settlement lags, facilitated by the widespread introduction of RTGS. It is possible to imagine a futuristic scenario in which 24-hour trading and real-time settlement in various currencies could help to blur the present neat distinction between "intraday" and "overnight" central bank credit. This could necessitate a redefinition of key maturity intervals and implementation strategies as a continuous yield curve spanning "intraday" and longer maturities emerges.

… flexibility …

The rapid expansion of markets is likely to tilt the balance further towards reliance on transparency in policy implementation as a means of guiding market expectations. The challenge here is to ensure that transparency is not pushed to the point where it might actually hamper the flexibility needed to respond to unexpected developments. One risk is that conspicuous but desirable reversals in policy rates may be delayed and their size restricted for fear of confusing markets, inducing volatility or losing credibility. Limiting this risk calls for a sufficiently forward-looking strategic policy focus. The recent greater willingness shown by some central banks to raise interest rates before seeing increases in *recorded* inflation is a sign of such a pre-emptive approach. This approach might also be usefully supplemented by efforts aimed at preparing financial markets to expect a more flexible policy concerning interest rate adjustments, thereby forestalling its potential drawbacks.

… and a forward-looking approach

Financial stability

The key policy challenge in securing financial stability is to complete the adaptation of the framework of checks and balances to the new financial realities. The urgency of the task is underscored by the fact that, looking ahead, the emergence of further strains cannot be ruled out: the sectors in the financial industry still requiring restructuring are simply too large; the need for continuing adaptability to the evolving environment is too demanding; and the remaining

obstacles to an effective and orderly exercise of market discipline are too numerous and too strong.

Meeting the challenge involves intensifying efforts in the two main directions which have been identified in recent years. The first, which concerns the means, is to strengthen the framework's market orientation. The second, which concerns the ends, is to sharpen its systemic orientation.

Need to strengthen the market orientation …

Strengthening the *market orientation* implies enlisting and upgrading the market's disciplinary mechanisms. Three areas seem to provide considerable scope for further improvement: enlarging the domain and improving the quality of public disclosure; designing regulatory constraints, such as capital standards, so as to make them less vulnerable to financial arbitrage; and limiting the impact of those forms of intervention that provide protection without commensurate oversight, thereby numbing incentives to prudent behaviour. In addition, the task involves much broader policy initiatives without which the effectiveness of market forces risks being blunted. Such policies include fostering ownership structures more responsive to market forces (notably through privatisation) and removing obstacles to the adjustment of capital and labour. Easing constraints on, and improving the effectiveness of, the takeover mechanism and reducing inflexibilities in the labour markets are cases in point. All of these steps can mitigate the restructuring problems and facilitate orderly exit (see last year's Annual Report).

… and systemic orientation of policy

Sharpening the *systemic orientation* requires further progress in containing the knock-on effects of failures of institutions. In this context, upgrading payment and settlement systems will remain a priority in the years ahead. Much still needs to be done, particularly in the area of international transactions. Similarly, further attention needs to be paid to the interaction under strain of different trading and settlement systems. In addition, a sharper systemic focus means raising the level of tolerance of the failure of individual institutions above what has generally been observed in the past. To this end, reducing the vulnerability of the system to such failures is a vital step.

The scale of the aforementioned challenges should not be underestimated. The adaptation of a prudential framework still largely based on pre-war institutional divisions (banking, securities, insurance) and national jurisdictions to a world of blurring distinctions between a full range of intermediaries and global financial markets still has a long way to go. The increased heterogeneity of players, the further expansion and growing complexity of markets and the greater speed with which disturbances can spread are likely to complicate the task of central banks in crisis management. Whatever their specific role in prudential supervision, this puts a premium on central banks having adequate information to act effectively in the event of turmoil. More fundamentally, achieving the right balance between the market and the authorities as a source of financial discipline is a tall order: not only are there still unanswered questions about their comparative effectiveness, the long history of generous official protection also poses a serious obstacle. A better balance calls for a change in perspective on the part of the authorities, market participants and the public at large. Without such a change, the goal of securing financial stability in a world where market forces have full sway could remain an elusive one.

A fundamental change in perspective is required

IX. Conclusion: stable prices but changing financial structures

The world shows some signs of having become a less inflationary place. In most European countries and in Japan, inflation last year either reached, or was maintained at, very low levels. In the United States, continued strong growth in the sixth year of expansion was possible only because of the absence of resurgent inflationary pressures. Moreover, outside the industrial world, many countries made dramatic progress in reducing inflation further. A variety of causes can be suggested for this phenomenon: technological progress and the sharp fall in the price of data-processing and telecommunications equipment, globalisation due both to trade and to foreign direct investment, and retrenchment following earlier periods of excessive spending. None of these forces seems likely to dissipate soon. Furthermore, the level of unemployment, whether measured or hidden, remains very high in most countries and needed structural and regulatory reforms could increase it even further in the short run. Finally, government expenditure in most industrial countries must also remain restrained, not only to cope with excessive levels of government debt, but also to secure the means to provide future pensions and medical care for an ageing population.

These broad-based forces, affecting both supply and demand, imply that inflation should generally be less of a problem in the near future than in earlier decades. Nonetheless, it would be highly imprudent to assume that the laws of economics have changed in any fundamental way. Over time, although fiscal policy can help or hinder, the general level of prices continues to be determined by monetary policy, which has the power to deal with either excessive or insufficient levels of demand. In the United States, the recent tightening of monetary policy indicates a desire to resist the former, whereas in continental Europe and Japan the willingness to accept a further easing of monetary conditions in 1996 points to a judgement that disinflationary forces are still in the ascendant. In many emerging market economies, it is also clear that the principal cause of sharp declines in inflation has been a disciplined monetary policy, often in association with supportive fiscal and exchange rate policies.

Against a backdrop of low or declining inflation, more prudent fiscal policies and a growing commitment almost everywhere to market liberalisation and restructuring, there are good grounds for expecting solid and sustainable growth in the global economy over the next few years. This is currently the consensus view of both public and private forecasters. Moreover, financial markets also seem to be anticipating good news. Equity prices, even after having fallen back in the spring of 1997, still seemed to discount further increases in earnings in many markets. The record flow of capital into emerging markets in 1996, increasingly in

the form of bond and equity issues as well as direct investment, suggests expectations of either higher returns or lower risks than previously. In addition, the convergence of bond yields in Europe is consistent with a similar convergence of inflation and fiscal prospects, allied with a growing confidence that the euro will be introduced essentially as planned.

Yet, just as it would be premature to declare inflation dead, it would also be unwise to assume that sound fundamentals guarantee good performance in the near term. In fact, there are identifiable risks to the outlook in each of the major geographical areas. Perhaps the most pressing concern is that inflationary pressures in the United States may prove more difficult to tame than is now anticipated, and that the expansion might eventually end abruptly. Even a "soft landing" which demanded a series of tightening measures might have significant implications for equity prices and other more risky investments. In continental Europe, the principal risks relate to the need for structural reforms, particularly in labour markets, and the possibility of market turbulence in the run-up to economic and monetary union. These risks make it all the more important that European countries seeking to participate in monetary union pursue firm macroeconomic and structural policies, so as to avoid doubts about their eventual participation that might cause domestic interest rates to rise and undermine their fiscal position.

In Japan, obvious concerns are the headwinds arising from continuing weakness in the financial sector and a need for both structural reforms and fiscal restraint which could affect demand in the short run. In many countries in Asia, Latin America and Eastern Europe, which have based their stabilisation strategy on exchange rate anchors, the challenge will be to restore external competitiveness without sacrificing the advances recently made against inflation. The fact that banking systems in many of these countries are quite fragile is clearly another source of uncertainty about the macroeconomic outlook.

To point out these risks is not to challenge the consensus forecast of quickening growth and low inflation: the variance of a probability distribution is distinct from its mean. Rather, the purpose is to ask whether markets are adequately pricing these macroeconomic concerns into their assessment of market and credit risk when entering into investment transactions. If not, the search for higher yields, documented in several chapters of this Annual Report, could easily turn into a widespread search for enhanced protection should bad news emerge from whatever source.

Swings of sentiment in financial markets are by no means new, but there may be particular problems of interpretation should asset price increases take place against a backdrop of otherwise low inflation and changing financial structure. This issue, and others pertaining to the pursuit of price stability in the current climate, are discussed below. Such swings of sentiment may also have implications for the health of the financial system and the economy more broadly. Since there is no agreed method of identifying "irrational exuberance" ex ante, it is thus all the more important to design a framework which will preserve the stability of the financial system, regardless of the kinds of shocks or the degree of asset price inflation to which it might be subjected. This issue, which is of interest to central bankers as well as other supervisors, is also discussed further below.

Pursuing and maintaining price stability

Recent improvements in inflation performance in most industrial, many emerging and some transition economies are clearly to be welcomed. The costs of inflation are now well recognised, particularly by those policy-makers in industrial countries who have spent the best part of 20 years trying to bring inflation back under control. Yet, in moving to a lower rate of inflation, certain dangers arise and some existing uncertainties pertaining to the conduct of monetary policy can be exacerbated. The objectives, transmission channels and instruments of monetary policy may all have to be seen in a somewhat different light.

In industrial countries and also in most emerging economies, it is now conventional wisdom that the principal objective of monetary policy should be domestic price stability. This not only avoids longer-term inflationary bias but also leads to automatic countercyclical movements of monetary conditions. Inflationary finance, far from expanding output growth and employment, except in the very short run, may actually lead to the opposite outcome (see Graph VIII.2 in Chapter VIII). The only problem with a continuing state of low inflation is that it may cause people, even those in positions of authority, eventually to forget this message and to seek again to push demand beyond sustainable limits. This potential for "memory failure", with costs that may span decades, argues strongly in favour of central banks being given a clear mandate to ensure price stability, along with the capacity to exercise their powers autonomously within a framework of public accountability.

A similar temptation to shift objectives can arise if the real exchange rate appreciates sharply in the context of a disinflationary monetary policy and the trade balance deteriorates. A relatively benign sequel, as observed over the last decade in Canada, is that the nominal exchange rate subsequently declines in a gradual way as the economy slows; competitiveness is thus restored, even if some of the disinflationary benefits of the earlier exchange rate strength have to be surrendered. This may also be the pattern that will be followed in the case of the US dollar should the external balance fail to improve. With output in the United States essentially at full capacity, however, stronger demand from abroad will have to be accompanied by measures to slow domestic demand if an inflationary outcome is to be avoided.

A more troubling outcome following real exchange rate appreciation, often seen in the past in Latin America, is that policy is suddenly shifted radically in the direction of encouraging external balance through currency depreciation. Such a shift is all the more likely if a weak domestic financial system increases the pressure for growth-oriented policies. Still more harmful, the market itself may come to believe that the external deficit is no longer sustainable and a currency crisis may be precipitated in consequence. In such cases, domestic prices may rise particularly sharply as the exchange rate falls.

While this apparent policy conflict between internal and external balance can be serious, and is often exacerbated by capital inflows, it certainly does not warrant abandoning the objective of price stability. To do so would only expose the country to recurrent bouts of inflation and depreciation which would ultimately make inflation expectations extremely unstable in an upward direction. Indeed, this is

the fundamental problem, arising from the inflationary history itself, which makes it so difficult to reduce inflation in many Latin American countries and which accounts for significant real exchange rate appreciation whenever monetary policies are directed to this end. For Asian countries, the historical record of more stable prices has, at least until recently, protected them from such a dangerous process. The policy conclusion would seem to be that a good inflation record should be defended with the utmost vigour, using monetary and fiscal policies in as balanced a way as possible. In contrast, those with a bad inflation record will have to give prominence to fiscal and other policies to restore credibility, which in turn will limit the adverse side-effects that firm monetary policies tend to have on the external balance.

Even with the objective of price stability firmly established, further uncertainties connected with the operation of the transmission mechanism can complicate the conduct of monetary policy. The first of these complications is the need to define more precisely what is meant by price stability. While opinion in the industrial countries seems to have converged around a target range for inflation of between zero and about 2%, arguments can be advanced for both less and more ambitious targets. In many emerging market economies, and a few industrial ones, the more pertinent question is how rapidly to bring down inflation rates that are still considered to be too high.

The answer to both questions depends on two related considerations: how quickly domestic wages and prices respond to disciplined demand policies, and how quickly inflation expectations can be made to adjust. Labour and product market reforms directed to increasing price flexibility can contribute to the former goal, and thereby limit the short-term output losses associated with reducing inflation. At the same time, such reforms can also lower structural unemployment, which is a permanent cost to any economy and a particular burden in Europe today. Supportive fiscal policies also have dual benefits, strengthening the credibility of monetary policy in the short term, while addressing as well the need for fiscal stabilisation in the medium term. Moreover, combining these sets of reforms could well produce benefits considerably greater than the sum of the parts, helping in particular to resolve the problem of internal and external balance referred to above.

In the last few years, uncertainty as to how to respond to movements in the prices of certain financial assets has also been a problem. Rapid increases in the prices of equities have occurred contemporaneously with the maintenance of relatively low inflation in many industrial countries. In a number of Asian countries, property prices, fuelled by credit creation, have also been rising rapidly. While such gains in wealth and reductions in the cost of capital might be thought likely to intensify demand pressures, the timing and the magnitude of these effects remain uncertain. Leaning too heavily against these influences, particularly if inflation is already low, risks more generalised deflation. On the other hand, failure to lean sufficiently runs the risk of a sudden collapse, also with potential systemic implications, as witnessed in Japan in the early 1990s. Perhaps the answer is to be found less in a discretionary monetary policy response and more in prudential norms designed to limit further lending against assets whose price has become highly inflated. Indeed, recent history seems to indicate that the most serious

problems affecting asset markets and banking systems, in both industrial and emerging market economies, have arisen in the wake of financial market deregulation which has been either too rapid or poorly conceived.

In some countries, the conduct of monetary policy in recent years has also had to deal with significant changes in the exchange rate. Even disregarding the external balance issue discussed above, a, for example, appreciating nominal exchange rate tends to lower domestic prices. Should policy rates respond to this or not? Ideally, the answer would be couched within the framework of an explicit inflation forecast which would identify why the exchange rate was rising. If the cause is some expansionary shock, such as a positive change in the terms of trade or an increase in exports, there should be more of an inclination to leave interest rates unchanged. Conversely, if the exchange rate appreciation is not so caused, interest rates might be lowered, or raised less than would otherwise be necessary. Since forecasts are made only at discrete intervals, some countries have chosen to systemise their response to exchange rate movements in the intervening period by setting an interim target for a monetary conditions index, that is, a weighted average of interest rates and exchange rates. This is a sensible approach given two assumptions: that exchange rate shocks do not normally reflect forces having an independent effect on inflationary conditions, and that the exchange rate change lasts long enough to have effects on the domestic economy. Needless to say, not all central banks would agree that these assumptions are correct in their particular case.

Nor are these the only factors complicating the conduct of macroeconomic policy in current circumstances. For example, in several industrial countries uncertainty prevails as to whether there has been a shift in the "natural" rate of unemployment. Furthermore, as stocks of assets and liabilities have expanded rapidly in recent years, the possibility of new forms of interaction in response to interest rate changes has also risen. In some English-speaking countries in particular, high levels of household debt of relatively short duration could imply an unusually sharp response to monetary tightening. In a number of emerging market economies, structural and environmental limits to growth are being revealed and deficiencies in the data needed to carry out an effective monetary policy are becoming increasingly evident.

Given all these uncertainties, two policy conclusions would seem justified. First, considering how easily things can go wrong, and the asymmetric consequences of policy errors, perhaps basic macroeconomic objectives should be set in a more demanding way. Viewed from this perspective, the objective of simply stabilising government debt/GDP ratios must be seen as inadequate, since at some time there will inevitably be another recession which will push them back up. Similarly, inflation reduction targets which lack ambition also lack conviction, and may fail to play the desired anchoring role in the face of inflationary shocks. Secondly, policy-makers should commit themselves more firmly and publicly to their basic objectives. Temporary deviations from desired paths are then less likely to be interpreted as a permanent abandonment of goals.

Over the last few years, many central banks have indeed become more transparent regarding both their objectives and their views about the transmission mechanism of monetary policy. Moreover, there has also been a more recent

trend towards greater transparency in the implementation of monetary policy, as indicated by the increasing use of fixed rate tenders and explicit announcements of the authorities' desires with respect to short-term interest rates. Allied with a growing willingness to change interest rates in advance of a rise in measured inflation, some support may also be emerging for the view that warnings about prospective policy changes are likely to foster earlier and smoother reactions in longer-term markets. Such trends may eventually culminate in policy changes becoming so effectively pre-emptive as to be just as likely to be followed by a reversal of the policy move as by further moves in the same direction. This would imply that needed action had indeed been promptly taken, which would be a welcome development in the pursuit of both price stability and cyclical stabilisation.

Pursuing and maintaining financial stability

The liberalisation of financial markets, as of any other market linked to production and consumption, has an upside and a downside. Financial deregulation contributes to faster economic growth through a more efficient allocation of resources and a more cost-effective provision of financial services. Yet liberalised financial sectors are also more prone to costly misadventures, particularly if encouraged by a climate of macroeconomic instability. In a large number of industrial and emerging market economies, taxpayers have in recent years paid out a significant share of GDP to support and recapitalise failed banking systems. All too frequently, the subsequent macroeconomic effects in terms of lost output and rising unemployment have been considerably more costly. While we have not yet experienced the economic losses that might be associated with a major failure in payment systems, which now routinely process several trillion dollars' worth of payments a day, a few close calls in recent decades were wake-up calls as well.

Recent bouts of financial instability have had less to do with new financial instruments than with familiar shortcomings observed in liberalised banking markets. Violent asset price swings, generated by excessive credit expansion, often, but not always, accompanied by generalised inflationary pressures and capital inflows, have been a major source of recent turbulence. Weak governance of financial institutions, both internal and external, has also been a common problem, with excessive state interference and directed lending being important contributing factors. Deregulation without adequate training of managers and supervisors has also been commonly observed. All such problems have been particularly acute in the financial systems of emerging economies.

As if familiar shortcomings were not enough, prospective problems may arise from sharp increases in global competition in a world which is already overbanked and where rents from established franchises are being threatened by new technology. Electronic trading has reduced margins in foreign exchange, while an increasing number of firms now possess the sophistication to compete in the "plain vanilla" end of derivatives markets. The physical proximity to customers provided by branches is less and less required. Sophisticated over-the-counter instruments have put exchange-based trading on the defensive. Traditional intermediation faces intense competition from collateralised lending and

securitisation. Finally, deregulation and the active encouragement of international competition between different types of financial institution will add to the pressure for adjustment. Indeed, we already seem to be well on the way towards a world with no barriers to universal banking and significantly greater competition from securities markets than hitherto. The introduction of the euro is likely to reinforce all of these trends in Europe.

In itself, a need for adjustment is no bad thing; it is the process of competition that produces the benefits noted above. However, the adjustment should be orderly. Firms must be allowed to respond to competitive pressures by increasing efficiency even if it involves reduced employment. Capital that earns an inadequate rate of return should be withdrawn and firms must be allowed to merge, even with foreign partners, or to disappear. The problem, and it applies to many emerging markets and perhaps even more to some industrial countries, is that these preconditions are currently not always fulfilled. The resulting danger is that the whole financial system may weaken and that firms under pressure will be increasingly inclined to take more risk to "gamble for resurrection". Whether or not this already partly explains the greater appetite for risk evident in today's financial markets, it would be consistent with patterns of behaviour seen in the banking systems of industrial countries during the last 20 years.

What, in addition to providing a more stable macroeconomic environment, still needs to be done to strengthen the financial system in these changing circumstances? The first answer is that individual financial institutions need to be better governed. This calls for a complementary mixture of more internal discipline, more market discipline and more supervisory discipline. Since each of these approaches has its drawbacks, there is an important role for all. The second answer is that the market infrastructure, particularly but not exclusively in emerging economies, needs to be strengthened to lessen the dangers of contagion across markets and across countries. The third answer is that a process needs to be initiated to make this happen. Simply recognising problems and appropriate solutions is not enough; action must follow.

Better internal governance of financial institutions is the first place to start. This requires that the money and jobs of owners and managers be self-evidently at stake. Capital adequacy standards contribute importantly to the former objective and should apply to all firms, both domestic and internationally active. Indeed, they are increasingly doing so as the Basle Capital Accord gains worldwide acceptance. Moreover, it should be recognised that the incentives to monitor yields on invested capital closely, and to withdraw capital if yields are not commensurate with perceived risk, mount each time a financial firm is allowed to fail. From the systemic perspective, not all failures are bad.

As for managers, it should be noted that most of the well-publicised trading losses of recent years had accumulated undetected over a very long period. Clearly, some internal risk management systems remain deficient in important respects, particularly when business is being conducted in geographically distant centres. The incentive systems for traders and other bankers also encourage inappropriate behaviour if gains (in profits or volumes) are rewarded but losses are borne by the firm as a whole. Finally, internal controls over exposure to individual sectors, such as property loans, need to be strengthened to limit the

exuberance that normally emerges when a particular sector is doing especially well. And closely related to this, greater attention needs to be paid to exposures to new instruments and to settlement risk as transaction volumes continue to expand rapidly.

Market discipline relies on good information being provided to counterparties and others who would be affected should a financial institution encounter stress or fail. The most fundamental requirement is that all firms adhere to accounting principles that ensure that financial balances are fully and accurately reported in a transparent way. In many emerging markets this is not the case, and even in industrial countries differing accounting standards render comparisons difficult. Renewed efforts in the International Accounting Standards Committee (IASC) have the strong encouragement of the BIS and the Basle Committee on Banking Supervision, which has also established an accounting task force to liaise with the IASC in the banking area.

Yet the market discipline fostered by disclosure requires more than just good accounting. Experience with enhanced disclosure concerning activities in derivatives markets may have parallels in many other areas. The basic dynamic is for a few well-respected firms to be persuaded by the authorities to improve their disclosure practices, thus making firms which do not disclose look as if they have something to hide. A similar process of peer group pressure is expected to be put in place with the finalisation in September this year of the Core Principles for Effective Banking Supervision. Moreover, rating agencies are likely to play a major role in helping the market enforce standards established either by supervisory authorities or by self-regulatory bodies in the industry itself. Rating agencies have in fact substantially extended their interest in the financial institutions of emerging markets in recent years.

Despite the welcome support from market forces, it must be recognised that market discipline will never be sufficient on its own. First, the markets themselves are subject to excessive swings of sentiment, as recorded in several chapters of this Annual Report. Secondly, information will inevitably arrive late and be uneven in quality. Finally, in many countries safety-net provisions are either large or so indeterminate as to be thought large. Such provisions dull the incentives for markets to exert discipline even when they have the information needed to do so. Thus, there will always be a role for supervisors, even if the discipline they impose becomes over time less the direct product of traditional regulation and increasingly the indirect product of their support for better internal governance and market discipline.

Structural changes affecting both time and space pose many challenges for supervisory authorities. In the dimension of time, change is occurring very rapidly, making it increasingly difficult for supervisors to keep detailed regulations up to date, particularly when short of personnel. This desire to keep close to evolving market practices is one of the motivations behind the decision to allow the use of internal models for the calculation of capital requirements for market risk. At some time, the supervisors will also face the issue of whether similar models should be used for the evaluation of credit risk, and the still broader question of what dangers are inherent in reducing the measurement of all risks down to just one number. Still in the dimension of time, exposures can now be changed almost

instantaneously and crises can erupt with equal speed. It is not clear that the information channels between all those public officials responsible for coping with such problems are yet up to the task.

Finally, and now in the dimension of space, as the roles played by financial institutions and financial instruments increasingly overlap, the maintenance of separate regulatory bodies for different categories of institution can create complications. In a number of countries, notably in Scandinavia, "umbrella" supervisory agencies have been formed, and lively debate on this issue is in progress in some other countries. In recognition of these trends, closer cooperation is being developed between the Basle Committee, IOSCO and the IAIS in the framework of the Joint Forum on Financial Conglomerates. However, differences in national supervisory arrangements and in the banking, securities and insurance culture make rapid progress difficult.

The second major requirement for strengthening the financial system is, as mentioned above, to improve the infrastructure supporting the international financial system. Payment and settlement systems worldwide need to be made risk-proof to ensure timely completion of all transactions. As in the supervisory area, more emphasis needs to be, and is being, put on disclosure and the exercise of market discipline. Participants in securities markets now have access to a questionnaire to help them determine the safety of local settlement arrangements. Moreover, participants in the foreign exchange markets have been urged to find ways to reduce the risks involved in settling foreign exchange transactions.

The last requirement is a more general one of process. Having determined what needs to be done, how do policy-makers ensure that it happens? The report recently released by the Working Party of the Group of Ten Deputies on Financial Stability in Emerging Market Economies is particularly instructive in this regard. The report concludes that international norms and understandings about principles of sound practice should be developed through an international consultative process involving national experts with extensive experience and knowledge of the matter at hand. In this context, the efforts of the Basle Committee on Banking Supervision and the Committee on Payment and Settlement Systems constitute textbook examples of how such a mechanism can work and how experts from emerging markets can be increasingly drawn into the process. National authorities must then bear the responsibility for adopting and implementing the norms. International institutions such as the IMF and the World Bank should support this process by monitoring developments and providing the advice, technical assistance and training necessary for the adoption and implementation of sound principles and practices. In addition, they, as well as others with relevant experience or insight, should suggest to those responsible for drawing up these norms ways in which they might be further improved. The challenge for the next few years will be to move this process forward in practice, and in so doing help make the global financial system both more efficient and more safe.

Activities of the Bank

1. International monetary and financial cooperation

During the past year, the Bank has continued to play its traditional role in fostering international monetary cooperation. It organised periodic meetings of central bank and supervisory officials on a wide variety of subjects concerning monetary and financial stability. Monetary topics included financial indicators as guidelines for monetary policy, issues in inflation targeting and recent developments in the operating procedures of monetary policy. Several meetings and study groups focused on the development of electronic money and its implications for central banks (see below). Discussions on ways to strengthen financial and banking systems were also pursued, largely within the framework of the various committees which meet in Basle to examine different aspects of these questions. Finally, in recent years many central banks have been reorganising their activities with a view to increasing cost-effectiveness. The organisation and governance of central banks was therefore an area of growing interest in a number of meetings.

The globalisation of financial markets, and the need for international cooperation to extend to all the major players affected by joint decisions, were reflected in the increasing involvement in the Bank's meetings of central banks and other supervisors from emerging markets. The most visible sign of the more global nature of central bank cooperation at the BIS was the accession to shareholding membership of nine central banks in Asia, Europe, Latin America and the Middle East (see Section 7). Moreover, several important papers aimed at enhancing the stability of financial markets were prepared as a joint effort by committees based in Basle and elsewhere and representatives of central banks and supervisory agencies of emerging markets. The more global reach of cooperation was also mirrored by the growing collaboration with regional groups of central banks and other supervisors, inter alia through an increasing number of seminars organised by secretariats based at the BIS.

As usual, the Bank participated as an observer at meetings of the Interim Committee of the Board of Governors of the International Monetary Fund, and of the Finance Ministers and central bank Governors of the Group of Ten countries. Moreover, it contributed to the work of the Deputies of the G-10 Ministers and Governors referred to below. The Bank also provided the secretariats for various committees and groups of experts concerned with international monetary and financial stability. Finally, the decision in 1996 by the International Association of Insurance Supervisors (IAIS) to locate its newly founded Secretariat at the BIS provides the basis for broader cooperation between supervisory bodies in the future.

Basle Committee on Banking Supervision

Over the last few years, the Basle Committee on Banking Supervision has

progressively extended the focus of its activities beyond the G-10 countries. This process was taken further at the biennial International Conference of Banking Supervisors, organised by the Committee, which was held in Stockholm in June 1996 and attended by supervisors from around 140 countries. Conference participants welcomed the Committee's intention to intensify its efforts towards strengthening prudential supervision in all countries. In September 1996, the Committee decided to build on its earlier work by preparing two separate publications: a comprehensive set of Core Principles for Effective Banking Supervision applicable in both G-10 and non-G-10 countries; and a Compendium which brings together the existing Basle Committee recommendations, guidelines and standards. Both documents were released in April 1997 with the strong endorsement of the G-10 central bank Governors.

In developing the Core Principles, the Basle Committee worked closely with non-G-10 supervisory authorities. The document sets out 25 basic Principles that must be in place for a supervisory system to be effective, covering seven broad topics: (1) preconditions for effective banking supervision; (2) the licensing and structure of institutions; (3) prudential regulations and requirements; (4) methods of ongoing banking supervision; (5) information requirements; (6) the formal powers of supervisors; and (7) cross-border banking. The Core Principles represent minimum requirements and in many cases they may well need to be strengthened or supplemented to address particular conditions and risks in the local financial system. The Principles are intended to serve as a point of reference for supervisory and other public authorities in all countries, many of which are actively seeking to reinforce their current supervisory regime.

The Core Principles have been published as a consultative paper and it is expected that the text will be finalised by September 1997. Following the wider consultation process, supervisory authorities throughout the world will be encouraged to give their formal endorsement. Implementation would include an examination of current supervisory arrangements and, where they are found to be inconsistent with the Principles in any material respect, the establishment of a timetable to remedy the deficiencies. The Basle Committee will conduct a survey to determine whether the Principles have been implemented and the result will be reviewed at the next International Conference of Banking Supervisors in October 1998. The Compendium of Basle Committee recommendations, guidelines and standards will serve as a companion piece to the Core Principles insofar as existing Committee documents elaborate on many of the Principles.

Another important step in international supervisory cooperation was the endorsement by delegates at the 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 the Offshore Group of Banking Supervisors. The paper, released in October 1996, contains 29 recommendations designed to strengthen the effectiveness of supervision by home and host-country authorities of banks which operate beyond their national borders. In particular, the report reaffirms the principle that (subject to suitable safeguards) home-country supervisory authorities should have full access to necessary information, and it sets out procedures for the conduct of cross-border inspections at

branches or subsidiaries owned by banks headquartered in their jurisdictions. The report also addresses the need to ensure that all cross-border banking operations are brought under effective home and host-country supervision, and makes recommendations for the monitoring of supervisory standards in host countries and for dealing with corporate structures which create potential supervisory gaps.

The Basle Committee has recently made further progress in building a truly worldwide network of banking supervisors and promoting the dissemination of Basle Committee documents, recommendations, guidelines and standards. Two new initiatives to strengthen relationships with non-G-10 supervisors are the holding of regular joint meetings with groups of banking supervisors from non-G-10 countries at each of the Committee's quarterly meetings and a significant increase in supervisory training undertaken by the Basle Committee Secretariat, mostly in cooperation with regional groups of banking supervisors.

With regard to capital adequacy standards, the Basle Committee is currently overseeing the implementation of the January 1996 Amendment to the Capital Accord to incorporate market risks. The Amendment, which will take effect no later than the end of 1997, requires banks to calculate their capital charges against market risk using one of two methods: a standardised methodology or an approach based on the results of their own internal models. The latter method allows banks to use risk measures derived from such internal models, subject only to a defined set of qualitative and quantitative standards. The Amendment is designed to ensure that banks hold a prudent level of capital against the risks associated with their trading activities, and to reinforce banks' efforts to improve risk management techniques with respect to their overall market activities. Since the Amendment was agreed, the Basle Committee has conducted further work on the impact of the two approaches on banks' capital requirements. The results, which were reviewed in November 1996, confirm the Committee's view that the internal models approach appropriately recognises the benefits of risk diversification strategies and provides incentives for firms to enhance the soundness and precision of their internal models on an ongoing basis. The Committee expects banks to make further advances in the modelling and coverage of complex components of market risk. Accordingly, the Committee is continuing to work closely with the industry.

At the end of 1996, the Committee completed a paper concerning the management of interest rate risk which establishes 12 principles that the Committee's members will use as standards in evaluating the effectiveness of banks' management of their interest rate risk. The principles relate to oversight by the board and senior management, appropriate policies and procedures for managing the risk, the system for measuring and monitoring the risk, the comprehensiveness of controls and the methods to be used by supervisory authorities to monitor interest rate risk. The paper is now going through a consultation process and it is expected that it will be finalised later this year.

In November 1996, the Basle Committee and the Technical Committee of the International Organization of Securities Commissions (IOSCO) published a survey of the disclosures that internationally active banks and securities firms made in their 1995 annual reports concerning their trading and derivatives

activities. The document provides large banks and securities firms with an overview of the advances in disclosure practices over the 1993–95 period and recommends enhancements at the international level. The Basle Committee and IOSCO's Technical Committee will continue to monitor disclosure by banks and securities firms and to encourage them to improve their disclosure practices further.

The Basle Committee is currently engaged in identifying supervisory issues raised by banks' participation in payment systems as well as by electronic money and electronic banking. The Committee is drawing on ongoing work by other BIS committees and in international forums. With regard to payment systems, the joint task force established by the Basle Committee and the Committee on Payment and Settlement Systems (CPSS) is considering issues of common interest to banking supervisors and G-10 central bank officials responsible for payment and settlement systems. In the area of electronic money and electronic banking, the Basle Committee has conducted a preliminary analysis of the implications both in terms of the various risks posed for banks and in terms of the supervisory issues. The Committee intends to complete a report on these questions by the end of 1997, while constantly monitoring, in association with the CPSS, a rapidly changing situation.

The Committee has also played a leading role in the work of the Joint Forum on Financial Conglomerates, which it views as the principal focus of its efforts to enhance cooperation with securities and insurance supervisors so as to strengthen the supervision of financial institutions. The Committee fully supports and continues to participate actively in the Joint Forum's examination of complex supervisory issues arising from the activities of internationally active financial conglomerates. In accordance with its mandate, the Joint Forum has been pursuing practical means to facilitate the exchange of information among supervisors, both domestically and internationally. It has identified legal and other impediments to such exchanges, several of which appear not to be justified and which it advocates removing. Furthermore, a task force of the Joint Forum has been conducting an analysis of 13 international financial conglomerates in order to improve the understanding of how such groups are managed and organised. It is anticipated that this effort will help the Joint Forum in finding ways to promote communication among supervisors and in preparing principles for information-sharing. The Joint Forum is also carrying out valuable work on developing principles of supervision, in particular with regard to elaborating techniques for group-wide capital measurement. The intention is to assist in the supervision of regulated institutions within financial conglomerates.

In April 1997, the Governors of the G-10 central banks appointed Mr. Tom de Swaan, Executive Director of the Netherlands Bank, as the Chairman of the Basle Committee. He succeeds Mr. Tommaso Padoa-Schioppa, who resigned from the Bank of Italy to become Chairman of CONSOB, the Italian securities regulatory body.

Euro-currency Standing Committee

The Euro-currency Standing Committee continued to monitor developments in international financial markets and to discuss issues bearing on their functioning

and stability. Among other matters, the Committee exchanged views on the recent growth of credit derivatives markets, factors behind the increase in collateralised transactions in wholesale markets and the rapidly growing capital flows to a number of emerging markets, together with the marked decline in spreads on their new bond issues (see Chapter VII). It also discussed the wider implications for the banking industry of forces for change emanating from technological progress, product innovation and globalisation, as well as the challenges that have arisen in resolving situations of financial distress in a globalised environment given differences in national bankruptcy procedures. It also examined sources of comovements in bond rates across markets and the causes and sustainability of the recent strength of asset prices.

The Committee set up two task forces in the course of the year. One of these is examining the implications for the nature of systemic risk of recent structural changes in financial markets, including, inter alia, the emergence of non-bank financial institutions as providers of services traditionally carried out by banks and the changing role of banks in the provision of intermediation services. The task force will assess whether these and other changes have altered the sources and distribution of risk in the financial system, the potential for contagion among financial institutions and markets, and the interrelationship between financial and macroeconomic vulnerability. It will also consider whether the traditional emphasis on banks in the analysis of systemic risk needs to be modified in the light of their evolving roles and the growing importance of non-bank financial institutions and markets.

The other task force is examining changes in portfolio management practices with a view to developing an improved understanding of cross-border capital flows. International portfolio flows have grown significantly in recent years, reflecting the opening-up of new investment opportunities and an increased desire on the part of investors and fund managers to diversify risk and enhance returns. This expansion has also been facilitated by the variety of instruments that fund managers can use in gaining or adjusting desired exposures. Many of these transactions modify the economic content of recorded flows and some are not adequately integrated into traditional frameworks for analysing and interpreting cross-border flows. The task force will review funding, positioning and hedging practices applied in international fund management and will seek to integrate knowledge of these practices into an enriched methodology for interpreting such flows.

In January 1997, the Governors of the G-10 central banks approved, for implementation by end-June 1998, a framework drawn up by the Committee for the regular collection of statistics on over-the-counter derivatives markets on the basis of reporting by leading market participants. The reporting framework is based on the report entitled Proposals for Improving Global Derivatives Market Statistics, prepared by a working group of the Committee and published in July 1996, and was finalised after a period of consultation with market participants and supervisory authorities. The design of the framework draws on the results of the 1995 Central Bank Survey of Foreign Exchange and Derivatives Market Activity, which found that these markets were much larger than suggested by previous estimates. The framework seeks to capture information requirements

identified in previous studies by the Committee of the macroeconomic and macro-prudential implications of derivatives markets. These studies concluded that, while derivatives play a valuable role in strengthening the financial system by facilitating the reallocation and management of risk, improved information on the size and structure of these markets is needed to enhance their transparency and to help market participants, central banks and other authorities to better monitor patterns of activity and the distribution of risks in the global financial system. The statistics will be compiled by national central banks and published by the BIS, initially on a semi-annual basis.

Under a mandate from the Euro-currency Standing Committee, the Bank continued to compile, analyse and publish various other statistical data on developments in international banking and financial markets. The Committee initiated a number of enhancements to its semi-annual statistics on countries' external indebtedness to internationally active banks.

In September 1996, the Governors of the G-10 central banks appointed Mr. Toshihiko Fukui, Senior Deputy Governor of the Bank of Japan, as the new Chairman of the Euro-currency Standing Committee as from January 1997. Mr. Fukui succeeds Mr. Andrew Crockett, General Manager of the BIS, who had held the chairmanship from January 1994.

Committee on Payment and Settlement Systems

The Committee on Payment and Settlement Systems continued its efforts to identify, define and promote ways to reduce risks and improve efficiency in payment and settlement arrangements.

In the course of 1996 the Committee played a central role in the work carried out by the G-10 central banks on electronic money issues. Various reports were prepared, covering the security of electronic money products, implications for monetary policy and seigniorage, legal and law enforcement questions and regulatory approaches to issuers of e-money value. The reports were discussed by the G-10 Governors, who have asked the BIS, in cooperation with the Committee, to monitor closely developments in this area around the world. The analysis carried out by the G-10 central banks has provided useful input to the work of other international groups dealing with e-money issues, including the G-10 Deputies and the Financial Action Task Force.

The Committee finalised reports on various issues which were presented to the G-10 Governors in early 1997. In February the Committee and IOSCO jointly published a report containing a disclosure framework for securities settlement systems. The framework is structured in the form of a questionnaire and is designed to assist market participants in obtaining information from operators of securities settlement systems to allow them to make an informed assessment of the risks involved in participating in such systems. The joint CPSS/IOSCO working group that drew up the framework comprised representatives from central banks, securities regulators and private sector organisations in both G-10 and other countries, including emerging markets.

As well as issuing and publicising the report, the Committee and IOSCO have transmitted it to central banks and securities market regulators worldwide,

encouraging them to ask system operators in their jurisdictions to complete the questionnaire and make the responses available to market participants. The CPSS and IOSCO Secretariats will serve as clearing houses for the responses.

In March 1997 the Committee published reports on large-value interbank funds transfer systems and clearing arrangements for exchange-traded derivatives. These reports are a continuation of the Committee's earlier work on the payment and settlement infrastructures that underpin financial markets, including netting schemes, securities settlement systems and foreign exchange settlement arrangements. The first report concerns real-time gross settlement (RTGS) in large-value interbank payment systems, which now routinely settle the equivalent of several trillion dollars per day in the G-10 countries. The report provides a general overview of key concepts and risks related to payment systems and considers the principles and design features of RTGS systems. It also touches on a number of policy issues connected with the development of such systems, including monetary policy aspects and the broader implications of RTGS for wholesale payment and settlement systems. The report outlines the major differences between the RTGS systems already implemented or being planned in G-10 countries and examines the management of liquidity in RTGS systems. More technical aspects such as operational procedures for processing payment instructions and message flow structures are also discussed.

The second report describes the structure of clearing arrangements for derivative contracts traded on organised exchanges and analyses the risks associated with such arrangements and the way that they are typically managed. It identifies possible weaknesses in the clearing arrangements, including the potential inadequacy of the resources of clearing organisations in the event of member defaults, a lack of intraday controls on members' positions and reliance on the use of payment procedures that do not ensure timely intraday settlement. At the same time, the report suggests possible ways to deal with these weaknesses. These include the use of stress testing by clearing organisations, more timely trade matching for the calculation of margin requirements and the strengthening of the internal payment arrangements.

Following the publication in March 1996 of a report which set out a strategy to reduce settlement risk in foreign exchange transactions, the Committee has been actively monitoring the progress made in implementing the strategy. The report, which was endorsed by the G-10 Governors, has attracted considerable publicity and has contributed to initiatives by individual banks, industry groups and central banks. It has been brought to the attention of the Basle Committee on Banking Supervision and a number of individual supervisory authorities have already begun taking specific action, for example by introducing guidelines on foreign exchange settlement risk for bank examiners. Developments such as the introduction of new RTGS systems and the prospect of longer opening hours for existing systems are also helping the market to reduce foreign exchange settlement risk.

The Committee extended its cooperation with other international regulatory authorities, as in the case of the joint initiative with IOSCO. With the Basle Committee on Banking Supervision, it is in the process of identifying and analysing issues of common concern. Closer collaboration has also been sought

with non-G-10 central banks, particularly those of emerging market economies. Meetings have been held between the Committee and various non-G-10 central banks, and payment system seminars and workshops have been organised in conjunction with the BIS for various regional central bank groups (see below). The Committee and its Secretariat at the BIS intend to strengthen these efforts in the years to come.

Coordinating Service for Central Banks and International Organisations

In line with the expanded global role and membership of the BIS, the Coordinating Service for Central Banks and International Organisations has recently begun to focus on contacts between the BIS and regional central bank groupings. This will involve a deepening of relations with those groups which already have links with the Bank and the establishment of contacts with other major groups. The BIS has had contact in Latin America with CEMLA (Centro de Estudios Monetarios Latinoamericanos), in Asia with EMEAP (Executive Meeting of East Asian and Pacific Central Banks), SEANZA (Central Banks of South-East Asia, New Zealand and Australia), SEACEN (South-East Asian Central Banks) and SAARC (South Asian Association for Regional Cooperation), in the Gulf region with the GCC (Gulf Cooperation Council) and in South Africa with the SADC (South African Development Community). The BIS has contributed to the activities of these organisations and has conducted seminars together with some of them.

The Service also continued its traditional activities, in particular the organisation of seminars at the Joint Vienna Institute for countries in transition. These seminars covered specialised areas of central banking, including monetary policy, banking supervision, payment and settlement systems, legal issues and reserve management.

The traditional role of the BIS in helping to coordinate the training and technical assistance provided by a large number of central banks to their counterparts in countries in transition has been evolving as a result of the progress witnessed in several countries. Increasingly, the pattern is one of cooperation among equal partners. In this framework, representatives of central banks from Central and Eastern Europe and from the CIS republics continue to meet annually at the BIS.

Group of Computer Experts

The exchange of views which took place during the meetings of the Group of Computer Experts confirmed that central banks' information systems are moving further in the direction of distributed processing, albeit without completely eclipsing mainframe systems, whose reliability and security are still considered desirable for certain critical applications. In general, the workload of information technology (IT) departments has risen, in particular owing to the need to adapt information systems for the changeover to the year 2000 and, for the central banks of the European Union, to make preparations for economic and monetary union (EMU). Central banks' IT systems are increasingly being opened up to the outside world, notably through wider access to the Internet and the setting-up of central banks' own Web sites permitting information to be distributed to the general public. Internet techniques are, moreover, being used by a growing

number of central banks in order to develop internal networks which allow staff easy access to information (intranets).

In the context of the analysis of electronic money products undertaken by the Committee on Payment and Settlement Systems (see above), a study group examined the security aspects of these new products and submitted a report which was published in August 1996. Based on a detailed review of the principal e-money systems in the G-10 countries, the report assesses security measures designed to prevent counterfeiting risks, detect fraudulent operations and limit the extent of any fraud should it occur. It concludes, inter alia, that the risks involved can be effectively reduced if a wide-ranging set of security measures is properly implemented and strictly enforced.

Group of Experts on Monetary and Economic Data Bank Questions

The Group of Experts on Monetary and Economic Data Bank Questions continued to direct its attention to the possibility of broadening the scope of secure electronic information exchange among central banks to include data, documents, voice and video. There was strong support for following up on the favourable results of a questionnaire on this subject which had been developed by Strategy and Technical Working Groups and circulated widely to central bank participants in BIS committees and groups of experts. Steps were also taken to identify possible overlapping developments in the field of electronic information exchange, as a result of EU central banks' preparations for EMU, with a view to avoiding duplication of effort wherever possible. The Group also discussed the current use of computers by central bank economists and statisticians and emerging technology, focusing on opportunities for greater efficiency in database management and analytical techniques.

2. Functions as Agent and Trustee

During the past financial year the Bank continued to act as Agent and Trustee in connection with international financial settlements.

Agent for the private ECU clearing and settlement system

Since October 1986 the Bank has performed the functions of Agent for the private ECU clearing and settlement system in accordance with the provisions of successive agreements concluded between the ECU Banking Association (EBA), Paris, and the BIS, the most recent of which was signed and entered into force on 16th September 1996. A description of the structure and operation of the clearing system is contained in the 56th Annual Report of June 1986. During the period under review, two further banks were granted the status of clearing bank by the EBA and joined the system at the beginning of May 1997. The total number of ECU clearing banks thus increased to 49.

Trustee for international government loans

With regard to the funding bonds 1990–2010 of the Dawes and Young Loans, the Deutsche Bundesbank, as Paying Agent for all uncertificated bonds of all issues of the Dawes and Young Loans, notified the Bank that it had paid out

approximately DM 3.4 million to bondholders in respect of redemption at the maturity date of 3rd October 1996 and DM 6.8 million in respect of interest at the maturity dates of 3rd April and 3rd October 1996, as well as interest arrears. The newly calculated redemption values and conversion factors in respect of the aforementioned interest maturity dates were published by the German Federal Debt Administration (Bundesschuldenverwaltung) in the Federal Journal.

Concerning the application of the exchange guarantee clause for the Young Loan by the German Federal Debt Administration, the Bank has repeated its earlier reservations stated in the 50th Annual Report of June 1980, which also extend to the funding bonds 1990–2010. The Paying Agents have been advised to take the appropriate precautionary measures in order to safeguard the rights of the bondholders.

Details of these bond issues and the Bank's functions may be found in the Bank's 63rd Annual Report of June 1993.

Collateral Agent for Brazilian bonds

In accordance with two Collateral Pledge Agreements signed on 15th April 1994, the BIS acts in the capacity of Collateral Agent to hold and invest collateral for the benefit of the holders of certain US dollar denominated bonds, maturing in either 15 or 30 years, which have been issued by Brazil under the external debt restructuring arrangements agreed in November 1993.

Collateral and Escrow Agent for Peruvian bonds

Similarly, in accordance with Agreements signed on 7th March 1997, the BIS acts in the capacity of Collateral Agent to hold and invest collateral for the benefit of the holders of certain US dollar denominated bonds, maturing in either 20 or 30 years, which have been issued by Peru under the external debt restructuring arrangements agreed in November 1996. The BIS also acts as Escrow Agent under these Agreements.

3. Financial assistance to central banks

Although there were no international financial support programmes coordinated by the BIS during the period under review, the Bank nevertheless continued to grant bilateral short-term credits to central banks. These are usually collateralised but on occasion, subject to normal credit considerations and depending on the extent of the banking relationship, they may be uncollateralised.

4. Cooperation with official commissions in research on wartime activities

In connection with the widespread increase in interest in the issue of assets looted during the Second World War, the BIS received a number of enquiries concerning its wartime activities from official commissions, including the US House of Representatives Committee on Banking, Housing and Financial Services, the US Senate Committee on Banking, Housing and Urban Affairs, the Independent Committee of Eminent Persons and the Independent Commission

of Experts: Switzerland – Second World War. While some of the questions raised were of a general nature, attention centred on the Bank's gold transactions with the Reichsbank during the war. The BIS responded to these enquiries by providing detailed information and pledged to cooperate fully with all official commissions, inter alia by granting access to all relevant material. The Bank's historian, who had been classifying and indexing the archives for almost two years, prepared a report on the wartime activities of the Bank that was subsequently audited by Coopers & Lybrand. This report has been made available to the public and can be accessed on the BIS Web site (http://www.bis.org). In view of the general public interest in these matters, the Board of Directors has also decided to open the BIS archives in early 1998 and to make a number of key documents available from July 1997.

5. Operations of the Banking Department

As at 31st March 1997 the Balance Sheet stood at 66,793 million gold francs, a record level for the end of a financial year. This represents an increase of 8,175 million gold francs, or 14%, over the total of 58,618 million reached a year earlier. The year-on-year rise would have been significantly greater (by a further 2.5 billion gold francs) but for the impact of valuation changes resulting from a strengthening of the US dollar.

Liabilities

The BIS's borrowed resources primarily reflect its role as a bank for central banks. During the financial year under review, the BIS took a number of steps to improve the competitiveness of the various banking and investment facilities which it offers to more than 100 central banks and international financial institutions worldwide.

On 31st March 1997 borrowed funds in gold and currencies totalled 62,097 million gold francs, compared with 54,271 million a year earlier. Without the negative effect of exchange rate movements on the overall volume of deposits, the recorded increase of 7,826 million gold francs would have been greater by some 2.6 billion. This marked expansion in borrowed funds was largely attributable to new currency deposits received from central banks.

The share of total central bank deposits in borrowed funds was virtually unchanged, with a slight reduction in 1996/97 to 93.9% against 94.2% a year earlier and 95% at end-March 1995. Correspondingly, the share of other depositors (mainly international financial institutions) rose from 5.8% to 6.1% over the financial year, totalling 3,758 million gold francs, compared with 3,133 million on 31st March 1996.

The past financial year was characterised in particular by a substantial increase (37%) in funds received in US dollars. As a result, the share of the US dollar in total borrowed funds in currencies rose to 61.6% (compared with 52.3% at end-March 1996 and 61.1% at end-March 1995); in contrast, owing partly to exchange rate movements, the share of Deutsche mark deposits fell from 32.8% on 31st March 1996 to 20.5% on 31st March 1997, close to the figure of 22.2% recorded two years previously.

On 31st March 1997 deposits with a residual maturity not exceeding three months accounted for 98.2% of total resources in currencies; this compares with 95.1% a year earlier.

Deposits in gold declined by 409 million gold francs to 3,836 million, a level which represented 6.2% of total borrowed funds on 31st March 1997, against 7.8% at the end of the previous financial year.

Assets

The bulk of the reserve assets held by central banks with the BIS are at short notice and one of the Bank's prime objectives in employing these resources is therefore to preserve a high degree of liquidity. The Bank conducts its operations in a highly prudent manner to ensure the safety of the deposits entrusted to it; credit risk, maturity transformation and exchange rate risk are rigorously monitored.

With a year-on-year increase of 8,504 million gold francs, assets in currencies amounted to 62,088 million on 31st March 1997, compared with 53,584 million gold francs at end-March 1996. These assets represent deposits with first-class financial institutions of international standing as well as short-term negotiable securities, including Treasury bills. The Bank's own funds are largely held in gold or investments in sovereign securities issued by the major industrial countries.

The Bank's assets in gold declined from 5,001 million to 4,504 million gold francs during the financial year 1996/97, primarily reflecting the decrease in gold deposits received.

The Bank also makes use of certain derivative instruments, essentially with a view to managing its own funds more efficiently and hedging risks on its borrowed funds (see Note 7a to the Balance Sheet).

6. Net profits and their distribution

The accounts for the 67th financial year ended 31st March 1997 show a net operating surplus of 203,289,449 gold francs, compared with 187,937,032 gold francs for the preceding financial year. The Bank's net operating surplus increased despite a fall in income from borrowed funds operations resulting from a narrowing of the average margin earned on deposit intermediation. On the other hand, income from own funds investments rose slightly, since the volume of own funds increased as a consequence of the issue of 44,000 new shares during the second half of the year. In addition, higher earnings were recorded from gold investments and foreign exchange operations undertaken on behalf of customers. Finally, a reduced amount was set aside by the Board of Directors to the provision for banking risks and other eventualities, following a reassessment of the credit and market risks to which the Bank's investments are exposed.

This year's result is shown after deduction of 60,530,595 gold francs in respect of costs of administration, a 9% decrease compared with the previous year's figure of 66,347,998 gold francs. This decrease was due entirely to valuation changes, resulting from a significant depreciation of the Swiss franc against the gold franc during the course of the year. In terms of Swiss francs, the currency

in which most of the Bank's expenditure is incurred, total administrative costs actually increased by just under 2%.

The Board of Directors has decided to transfer from the net operating surplus 3,000,000 gold francs to the provision for exceptional costs of administration and 6,000,000 gold francs to the provision for modernisation of premises and renewal of equipment. As a result of these transfers the net profit amounts to 194,289,449 gold francs, against 181,333,300 gold francs for the previous financial year.

On the basis of Article 51 of the Statutes, the Board of Directors recommends that the net profit of 194,289,449 gold francs be applied by the General Meeting in the following manner:

(i) an amount of 48,780,923 gold francs in payment of a dividend of 280 Swiss francs per share (the dividend payable in respect of the 44,000 new shares which were issued during the latter half of the financial year 1996/97 being settled on a pro rata basis according to the relevant date of subscription);

(ii) an amount of 41,018,778 gold francs to be transferred to the general reserve fund;

(iii) an amount of 3,000,000 gold francs to be transferred to the special dividend reserve fund; and

(iv) an amount of 101,489,748 gold francs, representing the remainder of the available net profit, to be transferred to the free reserve fund. This fund can be used by the Board of Directors for any purpose that is in conformity with the Statutes.

If the above proposals are accepted, the dividend will be paid on 1st July 1997 to the shareholders whose names are contained in the Bank's share register on 20th June 1997.

The Balance Sheet, the Profit and Loss Account and summary statements showing the movements during the financial year in the Bank's capital and reserves will be found at the end of this Report. The Bank's accounts have been audited by Price Waterhouse, who have confirmed that the Balance Sheet and the Profit and Loss Account, together with the Notes on pages 190–195, give a true and fair view of the Bank's financial position at 31st March 1997 and of the results of its operations for the year ended on that date. Their report is to be found immediately following the accounts.

7. Increase in the number of shareholding central banks

With a view to further strengthening central bank cooperation under the aegis of the BIS, the Board of Directors decided on 9th September 1996 to invite nine additional central banks to become members of the Bank. As a result, the Banco Central do Brasil, The People's Bank of China, the Hong Kong Monetary Authority, the Reserve Bank of India, The Bank of Korea, the Banco de México, the Central Bank of the Russian Federation, the Saudi Arabian Monetary Agency and The Monetary Authority of Singapore were invited to subscribe shares of the third tranche of the capital of the BIS. Before the close of the financial year all nine institutions had taken up the Board's offer, thereby becoming members of the BIS.

The Board's decision to issue further shares of the third tranche of the Bank's capital was taken in accordance with the provisions of Articles 6 and 8(3) of the Statutes. Moreover, the founder central banks represented on the Board exercised their rights under Article 8(2) of the Statutes to subscribe for a proportion of the new issue of shares and, in accordance with the provisions of Article 9 of the Statutes, immediately placed the shares so subscribed at the disposal of the Bank for cancellation and the issue of an equivalent number of new shares to other central banks represented on the Board.

On the occasion of this fourth issue of shares of the third tranche, a total of 44,000 new shares were subscribed by the close of the financial year. The issue price for all the shares offered for subscription was fixed by the Board at 3,643 gold francs per share, which is the equivalent of 1,057.645 grammes (or 34 fine ounces) of gold per share. As the Bank's shares are paid up to the extent of 25%, or 625 gold francs per share, the issue price of 3,643 gold francs per share thus included a premium of 3,018 gold francs per share. The subscribing institutions were given the option of settling the issue price for the new shares either in gold or by paying, in a convertible currency acceptable to the BIS, the amount which would be necessary to purchase the same weight of gold on the market on the date of the subscription (the convertible currency countervalue being calculated on the basis of the London morning fixing price for gold two business days before the value date of the payment).

As a consequence of the issue of 44,000 new shares of the third tranche of the Bank's capital, the number of the Bank's issued shares has risen from 473,125 to 517,125 shares, and the amount of the paid-up capital of the Bank appearing in the Balance Sheet at 31st March 1997 has increased by 27.5 million gold francs to stand at 323.2 million gold francs. The aggregate premium received from the subscribing central banks amounted to 132.8 million gold francs, of which 2,250,000 gold francs has been allocated to the legal reserve fund and 130,542,000 gold francs to the general reserve fund.

8. Changes in the Board of Directors

At its meeting on 10th March 1997 the Board elected Alfons Verplaetse, Governor of the National Bank of Belgium, as Chairman of the Board of Directors and President of the Bank for a period of three years commencing on 1st July 1997, when W.F. Duisenberg will relinquish those offices.

In May 1996 Carlo Azeglio Ciampi relinquished his seat on the Board and therefore his position as Vice-Chairman of the Board. At its meeting on 10th June 1996 the Board elected Lord Kingsdown as Vice-Chairman of the Board and took note that Antonio Fazio had appointed Vincenzo Desario to the Board under Article 27(2) of the Statutes. In November 1996 this appointment, which had been made originally for the unexpired period of Carlo Azeglio Ciampi's term of office, was renewed for a period of three years. Similarly, the appointments of Helmut Schlesinger and Philippe Wilmès under the same Article of the Statutes were renewed, in December 1996 and January 1997 respectively.

In September 1996 Alan Greenspan appointed Alice M. Rivlin as his Alternate.

Balance Sheet and Profit and Loss Account

at 31st March 1997

Balance Sheet at 31st March 1997

(in gold francs – see Note 2(a) to the Accounts)

1996	Assets	1997
	Gold	
4 364 194 019	Held in bars	*3 547 261 289*
637 302 466	Time deposits and advances	*956 662 444*
5 001 496 485		4 503 923 733
9 761 421	Cash on hand and on sight account with banks	384 413 644
4 105 690 444	Treasury bills	2 813 409 132
	Time deposits and advances in currencies	
29 998 320 757	Not exceeding 3 months	*34 201 692 134*
7 329 811 023	Over 3 months	*8 153 458 323*
37 328 131 780		42 355 150 457
	Government and other securities at term	
3 539 879 228	Not exceeding 3 months	*3 441 537 565*
8 600 477 193	Over 3 months	*13 093 749 660*
12 140 356 421		16 535 287 225
32 771 184	Miscellaneous	200 780 130
1	Land, buildings and equipment	1
58 618 207 736		66 792 964 322

After allocation of the year's net proft		Before allocation of the year's net profit	After
1996	Liabilities	1997	
295 703 125	Paid-up capital	323 203 125	323 203 125
1 783 483 397	Reserves	1 916 275 398	2 061 783 924
373 473 506	Valuation difference account	351 129 995	351 129 995
	Deposits (gold)		
4 079 409 773	Sight	*3 471 145 991*	*3 471 145 991*
42 095 720	Not exceeding 3 months	*186 971 696*	*186 971 696*
123 463 527	Over 3 months	*178 283 536*	*178 283 536*
4 244 969 020		3 836 401 223	3 836 401 223
	Deposits (currencies)		
1 129 229 959	Sight	*2 166 693 892*	*2 166 693 892*
46 437 189 005	Not exceeding 3 months	*55 074 556 745*	*55 074 556 745*
2 459 422 087	Over 3 months	*1 019 098 838*	*1 019 098 838*
50 025 841 051		58 260 349 475	58 260 349 475
283 079 270	Staff pension scheme	252 630 204	252 630 204
1 558 325 067	Miscellaneous	1 658 685 453	1 658 685 453
	Profit and Loss Account	194 289 449	
53 333 300	Dividend payable on 1st July		48 780 923
58 618 207 736		66 792 964 322	66 792 964 322

Profit and Loss Account

for the financial year ended 31st March 1997
(in gold francs)

	1996	1997
Interest and discount, and other operating income	3 692 892 528	3 524 961 970
Less: interest and discount expense	3 438 607 498	3 261 141 926
Net interest and other operating income	254 285 030	263 820 044
Less: costs of administration		
Board of Directors	*1 460 882*	*1 328 950*
Management and staff	*46 568 445*	*42 944 303*
Office and other expenses	*18 318 671*	*16 257 342*
	66 347 998	60 530 595
Net operating surplus	187 937 032	203 289 449
Less: amounts transferred to		
Provision for exceptional costs of administration	*3 529 792*	*3 000 000*
Provision for modernisation of premises and renewal of equipment	*3 073 940*	*6 000 000*
	6 603 732	9 000 000
Net profit for the financial year	181 333 300	194 289 449
The Board of Directors recommends to the Annual General Meeting that the net profit for the year ended 31st March 1997 be allocated in accordance with Article 51 of the Statutes as follows:		
Dividend: 280 Swiss francs per share on 473 125 shares (1996: 260 Swiss francs)	*53 333 300*	*47 247 209*
on 44 000 newly issued shares (pro rata as from the value date of share subscription)	—	*1 533 714*
	53 333 300	48 780 923
	128 000 000	145 508 526
Transfer to general reserve fund	38 400 000	41 018 778
	89 600 000	104 489 748
Transfer to special dividend reserve fund	3 000 000	3 000 000
	86 600 000	101 489 748
Transfer to free reserve fund	86 600 000	101 489 748
	—	—

Movements in the Bank's paid-up capital and reserves

during the financial year ended 31st March 1997
(in gold francs)

I. Paid-up capital

	Number of shares	Gold francs
Shares of 2 500 gold francs, of which 25% is paid up:		
Balances at 1st April 1996	473 125	295 703 125
Shares issued during the financial year 1996/97	44 000	27 500 000
Balances at 31st March 1997 as per Balance Sheet	517 125	323 203 125

II. Development of the reserve funds

	Legal reserve fund	General reserve fund	Special dividend reserve fund	Free reserve fund	Total of reserve funds
Balances at 1st April 1996, after allocation of net profit for the financial year 1995/96	30 070 313	803 316 157	56 530 055	893 566 872	1 783 483 397
Add: allocations of the premium received on the issue of 44 000 new shares	2 250 000	130 542 001	—	—	132 792 001
Balances at 31st March 1997 before allocation of net profit	32 320 313	933 858 158	56 530 055	893 566 872	1 916 275 398
Add: allocations of net profit for the financial year 1996/97	—	41 018 778	3 000 000	101 489 748	145 508 526
Balances at 31st March 1997 as per Balance Sheet	32 320 313	974 876 936	59 530 055	995 056 620	2 061 783 924

III. Paid-up capital and reserve funds at 31st March 1997 (after allocation) were represented by:

	Paid-up capital	Reserve funds	Total of capital and reserves
Net assets in			
Gold	323 203 125	338 697 628	661 900 753
Currencies	—	1 723 086 296	1 723 086 296
Balances at 31st March 1997 as per Balance Sheet	323 203 125	2 061 783 924	2 384 987 049

Notes to the Accounts

for the financial year ended 31st March 1997

1. Introduction

The Bank for International Settlements (BIS) is an international financial institution which was established pursuant to the Hague Agreements of 20th January 1930. The headquarters of the Bank are in Basle, Switzerland. The objects of the BIS, as laid down in Article 3 of its Statutes, are to promote the cooperation of central banks, to provide additional facilities for international financial operations and to act as trustee or agent for international financial settlements. Forty-one central banks are currently members of the Bank and exercise the rights of representation and voting at General Meetings in proportion to the number of BIS shares issued in their respective countries. The Board of Directors of the Bank is composed of the Governors of the central banks of Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, the United Kingdom and the United States of America, as well as appointed directors from six of those countries.

The accounts for the financial year 1996/97 are presented in a form approved by the Board of Directors pursuant to Article 49 of the Bank's Statutes.

2. Significant accounting policies

(a) Unit of account and currency translation

The unit of account of the Bank is the gold franc, which is equivalent to US$ 1.941 49... . Article 4 of the Bank's Statutes defines the gold franc (abbreviated to GF) as representing 0.290 322 58... grammes of fine gold. Items representing claims on gold are translated into gold francs on the basis of their fine weight. Items denominated in US dollars are translated into gold francs on the basis of a gold price of US$ 208 per ounce of fine gold (this price was established by the Bank's Board of Directors in 1979, resulting in the conversion factor of 1 gold franc = US$ 1.941 49...). Items denominated in other currencies are translated into US dollars at the spot market rates of exchange prevailing at the balance sheet date, with the resulting US dollar balances converted into gold francs accordingly.

Exchange differences arising on the translation of currency assets and liabilities denominated in currencies other than the US dollar are taken to the valuation difference account.

The net balance resulting from exchange differences on the translation of forward currency contracts and swaps is included under miscellaneous assets or liabilities.

(b) Basis of valuation and determination of profit

Except as otherwise stated, the accounts of the Bank are drawn up on the historical cost basis and income and expense items are recorded on the accruals basis. Profits and losses are determined on a monthly basis, translated into US dollars at the spot market rate of exchange prevailing at each month-end and translated into gold francs as set forth above; the monthly profits thus calculated are accumulated for the year.

Profits and losses arising on the sale of investment securities are taken to the securities equalisation account, which is incorporated within miscellaneous liabilities. Credit balances accumulated in this account are amortised to the Profit and Loss Account over a period corresponding to the average term to maturity of the Bank's investment portfolio; a net debit balance at the year-end would be charged immediately to the Profit and Loss Account.

(c) Gold

Gold assets and liabilities are stated on the basis of their fine weight.

(d) Treasury bills; Government and other securities at term

Treasury bills and Government and other securities at term which are owned outright are stated at cost, plus accrued interest where applicable, adjusted for the amortisation of premiums or discounts over the period to maturity; interest and discount income includes such amortisation.

Securities included under either of the above headings which are acquired in connection with purchase and resale agreements are stated at the amount advanced to the counterparty plus accrued interest.

(e) Time deposits and advances in currencies

Time deposits and advances are stated at their principal value plus accrued interest.

(f) Land, buildings and equipment

These are stated at the value of 1 gold franc. Capital expenditure on land, buildings or equipment is charged to the provision for building purposes or to the provision for modernisation of premises and renewal of equipment.

(g) Valuation difference account

The valuation difference account records the effect of exchange differences as described under (a); these valuation changes relate essentially to that portion of the Bank's own funds held in currencies other than the US dollar.

The movements in this account in the financial year 1996/97 were affected by transactions of an exceptional nature made in connection with the issue of new shares by the Bank. These transactions gave rise to book gains on gold, which were credited to the valuation difference account.

(h) Deposits

Deposits are book claims on the Bank and are stated at their principal value plus accrued interest. Certain claims are issued at a discount to the value payable on the maturity of the deposit; in such cases the accounting treatment is analogous to that applied to dated securities held by the Bank (see item (d) above).

(i) Staff pension scheme

The staff pension scheme represents the Bank's liability in respect of current staff members and pensioners, based on annual actuarial advice.

(j) Provisions

(i) General
The Board of Directors sets aside an amount each year to a provision for banking risks and other eventualities; this provision is incorporated in miscellaneous liabilities.

(ii) Specific
Amounts may be allocated from the Bank's net operating surplus by the Bank's Board of Directors for the following purposes:

1. Provision for exceptional costs of administration
2. Provision for building purposes
3. Provision for modernisation of premises and renewal of equipment.

The transfers to specific provisions are shown in the Profit and Loss Account and the unspent amounts of these provisions are included in miscellaneous liabilities.

Notes to the Balance Sheet

for the financial year ended 31st March 1997

1. Gold holdings

The following table shows the composition of the Bank's total gold holdings:

Assets	*1996*	1997
Gold bars held at central banks	*4 364 194 019*	3 547 261 289
Gold time deposits:		
Not exceeding 3 months	*236 533 897*	450 480 089
Over 3 months	*400 768 569*	506 182 355
	5 001 496 485	4 503 923 733

The Bank's own gold holdings at 31st March 1997 amounted to GF 661 900 753, equivalent to 192 tonnes of fine gold (1996: GF 661 882 392; 192 tonnes).

2. Treasury bills

The Bank's holdings of Treasury bills were as follows:

	1996	1997
– Owned outright	*4 105 690 444*	2 813 409 132

The market value of Treasury bills owned outright at 31st March 1997 was GF 2 812.7 million (1996: GF 4 105.8 million).

3. Government and other securities at term

The following table shows the breakdown of the Bank's holdings of these securities:

	1996	1997
– Owned outright	*10 488 115 419*	15 651 114 800
– Held under purchase and resale agreements	*1 652 241 002*	884 172 425
	12 140 356 421	16 535 287 225

The market value of government and other securities owned outright at 31st March 1997 was GF 15 720.1 million (1996: GF 10 532.7 million).

4. Capital

The Bank's share capital consists of:

	1996	1997
Authorised capital:		
600 000 shares,		
each of 2 500 gold francs	*1 500 000 000*	1 500 000 000
Issued capital: 473 125 shares	*1 182 812 500*	
517 125 shares		1 292 812 500
of which 25% paid up	*295 703 125*	323 203 125

During the financial year 1996/97, 44 000 shares were issued at GF 3 643 per share. The paid-up portion of GF 625 per share has been credited to share capital, and the balance – representing the premium of GF 3 018 per share – to reserves (see also the tables entitled "Movements in the Bank's paid-up capital and reserves").

5. Reserves

The Bank's reserves consist of:

	1996	1997
Legal reserve fund	*30 070 313*	32 320 313
General reserve fund	*803 316 157*	974 876 936
Special dividend reserve fund	*56 530 055*	59 530 055
Free reserve fund	*893 566 872*	995 056 620
	1 783 483 397	2 061 783 924

The yearly allocations to the various reserve funds are governed by Article 51 of the Bank's Statutes. The amounts transferred are also shown in the table entitled "Development of the reserve funds".

6. Deposits

Gold deposits placed with the Bank originate entirely from central banks. The composition of currency deposits placed with the Bank was as follows:

	1996	1997
Central banks		
Sight	*1 060 459 178*	2 107 217 697
Not exceeding 3 months	*43 770 492 278*	51 736 873 597
Over 3 months	*2 062 276 087*	658 294 838
Other depositors		
Sight	*68 770 781*	59 476 195
Not exceeding 3 months	*2 666 696 727*	3 337 683 148
Over 3 months	*397 146 000*	360 804 000
	50 025 841 051	58 260 349 475

7. Off-balance-sheet items

a) Derivatives

In the normal course of business, the Bank is party to off-balance-sheet financial transactions including forward exchange contracts, currency and interest rate swaps, forward rate agreements, futures and options. These instruments are used to hedge the Bank's interest rate and currency exposure on assets and liabilities, and to manage the duration of its liquid assets. The Bank applies the same credit criteria in considering off-balance-sheet commitments as it does for all other investments.

Notional principal amounts

(in millions of gold francs)	*1996*	1997
Exchange rate contracts:		
Foreign exchange swaps and forwards	*17 194.8*	9 917.3
Currency swaps	*842.5*	1 263.7
Interest rate contracts:		
Interest rate swaps	*6 312.1*	8 338.2
Forward rate agreements and futures	*9 896.0*	3 391.8

The notional or contracted principal amounts of the various derivatives reflect the degree to which the Bank is active in the respective markets but give no indication of the credit or market risk on the Bank's activities. The gross replacement cost of all contracts showing a profit at prevailing market prices on 31st March 1997 was GF 565 million (1996: GF 371 million).

b) Fiduciary transactions

Fiduciary transactions are not included in the balance sheet, since they are effected on behalf of and at the risk of the Bank's customers, albeit in its own name.

(in millions of gold francs)	*1996*	1997
Nominal value of securities held in safe custody	*11 537.9*	12 281.4
Gold held under earmark	*982.5*	972.0

Report of the Auditors

Report of the Auditors
to the Board of Directors and to the General Meeting
of the Bank for International Settlements, Basle

We have audited the accompanying Balance Sheet and Profit and Loss Account, including the notes thereto, of the Bank for International Settlements. The Balance Sheet and Profit and Loss Account have been prepared by the Management of the Bank in accordance with the Statutes and with the principles of valuation described under significant accounting policies in the notes. Our responsibility under the Statutes of the Bank is to form an independent opinion on the Balance Sheet and Profit and Loss Account based on our audit and to report our opinion to you.

Our audit included examining, on a test basis, evidence supporting the amounts in the Balance Sheet and Profit and Loss Account and related disclosures. We have received all the information and explanations which we have required to obtain assurance that the Balance Sheet and Profit and Loss Account are free of material misstatement, and believe that our audit provides a reasonable basis for our opinion.

In our opinion, the Balance Sheet and Profit and Loss Account, including the notes thereto, have been properly drawn up and give a true and fair view of the financial position of the Bank for International Settlements at 31st March 1997 and the results of its operations for the year then ended so as to comply with the Statutes of the Bank.

Price Waterhouse AG

Ralph R. Reinertsen Jack W. Flamson

Auditors in charge

Basle, 25th April 1997

Five-year summary of the Balance Sheet

(in millions of gold francs)

Financial year ended 31st March	1993	1994	1995	1996	1997
Gold					
Held in bars	*4 726.9*	*4 338.3*	*4 373.4*	*4 364.2*	*3 547.3*
Time deposits and advances	*413.0*	*579.8*	*541.8*	*637.3*	*956.7*
	5 139.9	4 918.1	4 915.2	5 001.5	4 504.0
Cash on hand and on sight account with banks	7.5	12.0	9.8	9.8	384.4
Treasury bills	2 175.4	3 510.7	5 520.3	4 105.7	2 813.4
Time deposits and advances in currencies	41 183.9	41 370.4	42 478.7	37 328.1	42 355.1
Government and other securities at term	11 428.3	15 087.9	12 284.3	12 140.3	16 535.3
Miscellaneous assets	31.4	76.6	19.2	32.8	200.8
Land, buildings and equipment	–	–	–	–	–
Total assets	59 966.4	64 975.7	65 227.5	58 618.2	66 793.0
Paid-up capital	295.7	295.7	295.7	295.7	323.2
Reserves *(after allocation of the net profit for the year)*					
Legal reserve fund	*30.1*	*30.1*	*30.1*	*30.1*	*32.3*
General reserve fund	*703.1*	*732.2*	*764.9*	*803.3*	*974.9*
Special dividend reserve fund	*47.5*	*50.5*	*53.5*	*56.5*	*59.5*
Free reserve fund	*668.8*	*733.7*	*807.0*	*893.6*	*995.1*
	1 449.5	1 546.5	1 655.5	1 783.5	2 061.8
Valuation difference account	270.3	273.1	449.5	373.5	351.1
Deposits					
Gold	*4 367.3*	*4 061.1*	*4 157.0*	*4 245.0*	*3 836.4*
Currencies	*52 147.7*	*57 164.9*	*56 934.4*	*50 025.8*	*58 260.4*
	56 515.0	61 226.0	61 091.4	54 270.8	62 096.8
Staff pension scheme	172.1	200.2	271.0	283.1	252.6
Miscellaneous liabilities	1 224.9	1 393.1	1 411.0	1 558.3	1 658.7
Dividend	38.9	41.1	53.4	53.3	48.8
Total liabilities	59 966.4	64 975.7	65 227.5	58 618.2	66 793.0

Five-year summary of the Profit and Loss Account

(in millions of gold francs)

Financial year ended 31st March	1993	1994	1995	1996	1997
Net interest and other operating income	211.7	195.7	229.3	254.3	263.8
Less: costs of administration					
Board of Directors	*0.8*	*0.8*	*1.2*	*1.5*	*1.3*
Management and staff	*32.2*	*34.1*	*40.2*	*46.6*	*42.9*
Office and other expenses	*16.3*	*15.5*	*17.4*	*18.3*	*16.3*
	49.3	50.4	58.8	66.4	60.5
Net operating surplus	162.4	145.3	170.5	187.9	203.3
Less: amounts transferred to					
Provision for exceptional costs of administration	*3.3*	*3.3*	*3.4*	*3.5*	*3.0*
Provision for building purposes	*–*	*–*	*–*	*–*	*–*
Provision for modernisation of premises and renewal of equipment	*19.2*	*3.9*	*4.7*	*3.1*	*6.0*
	22.5	7.2	8.1	6.6	9.0
Net profit for the financial year	139.9	138.1	162.4	181.3	194.3
Dividend	38.9	41.1	53.4	53.3	48.8
	101.0	97.0	109.0	128.0	145.5
Transfer to general reserve fund	30.3	29.1	32.7	38.4	41.0
	70.7	67.9	76.3	89.6	104.5
Transfer to special dividend reserve fund	5.0	3.0	3.0	3.0	3.0
	65.7	64.9	73.3	86.6	101.5
Transfer to free reserve fund	65.7	64.9	73.3	86.6	101.5
	–	–	–	–	–

Board of Directors

W. F. Duisenberg, Amsterdam
Chairman of the Board of Directors,
President of the Bank

Lord Kingsdown, London
Vice-Chairman

Urban Bäckström, Stockholm
Vincenzo Desario, Rome
Antonio Fazio, Rome
Edward A. J. George, London
Alan Greenspan, Washington
Hervé Hannoun, Paris
William J. McDonough, New York
Yasuo Matsushita, Tokyo
Hans Meyer, Zurich
Helmut Schlesinger, Frankfurt a/M.
Gordon G. Thiessen, Ottawa
Hans Tietmeyer, Frankfurt a/M.
Jean-Claude Trichet, Paris
Alfons Verplaetse, Brussels
Philippe Wilmès, Brussels

Alternates

Jean-Pierre Patat or
Armand Pujal, Paris
Ian Plenderleith or
Terry R. Smeeton, London
Jean-Jacques Rey, Brussels
Alice M. Rivlin or
Edwin M. Truman, Washington
Carlo Santini or
Stefano Lo Faso, Rome
Helmut Schieber or
Bernd Goos, Frankfurt a/M.

Management

Andrew Crockett	General Manager
André Icard	Assistant General Manager
Gunter D. Baer	Secretary General, Head of Department
Malcolm Gill	Head of the Banking Department
William R. White	Economic Adviser, Head of the Monetary and Economic Department
Marten de Boer	Manager, Accounting, Budgeting and ECU Clearing
Renato Filosa	Manager, Monetary and Economic Department
Mario Giovanoli	Legal Adviser, Manager
Guy Noppen	Manager, General Secretariat
Günter Pleines	Deputy Head of the Banking Department
André Bascoul	Deputy Manager, Monetary and Economic Department
Joseph R. Bisignano	Deputy Manager, Monetary and Economic Department
Zenta Nakajima	Deputy Manager, Monetary and Economic Department
Jean-Marc Andreoli	Assistant Manager, General Secretariat
John A. Bispham	Assistant Manager, Monetary and Economic Department
Paul C. Bridge	Assistant Manager, Banking Department
Yukio Iura	Assistant Manager, Banking Department
Daniel Lefort	Assistant Manager, Legal Service
Alexander Radzyner	Assistant Manager, General Secretariat
Claude Sivy	Assistant Manager, Internal Audit
Frederik C. Musch	Secretary General of the Basle Committee on Banking Supervision, Monetary and Economic Department