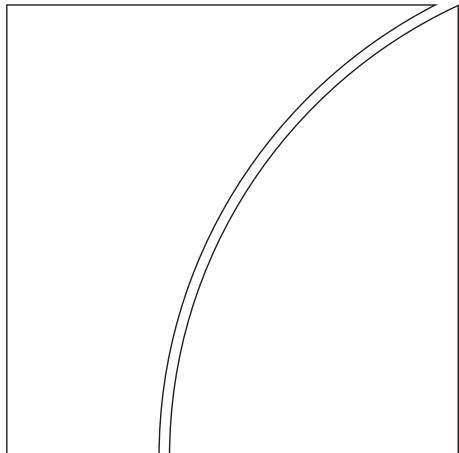




BANK FOR INTERNATIONAL SETTLEMENTS



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Conventions used in this Report

lhs, rhs	left-hand scale, right-hand scale
billion	thousand million
...	not available
.	not applicable
\$	US dollar unless specified otherwise

Differences in totals are due to rounding.

74th Annual Report

*submitted to the Annual General Meeting
of the Bank for International Settlements
held in Basel on 28 June 2004*

Ladies and Gentlemen,

It is my pleasure to submit to you the 74th Annual Report of the Bank for International Settlements for the financial year which ended on 31 March 2004.

This is the first financial year for which the Bank has prepared its financial statements using the Special Drawing Right (SDR) as its unit of account in place of the gold franc. More importantly for the longer term, the Bank has enhanced its accounting framework, by bringing its policies and disclosures more into line with developments in international financial reporting. The net profit for the year on this basis amounted to SDR 536.1 million, compared with the equivalent figure for the preceding year of SDR 592.8 million, which has been restated to reflect these changes. Details of the results for the financial year 2003/04 may be found on pages 181–3 of this Report under “Net profit and its distribution”. The amended accounting policies are disclosed in note 2 to the financial statements on pages 196–8 and their financial impact is described in note 31 on pages 209–12.

The Board of Directors also recommends that the dividend be declared for the first time in SDRs. It therefore proposes, in application of Article 51 of the Bank’s Statutes, that the present General Meeting apply the sum of SDR 104.0 million in payment of a dividend of SDR 225 per share, payable in any constituent currency of the SDR, or in Swiss francs.

The Board further recommends that SDR 86.4 million be transferred to the general reserve fund, SDR 20.5 million to the special dividend reserve fund and the remainder – amounting to SDR 325.2 million – to the free reserve fund.

If these proposals are approved, the Bank’s dividend for the financial year 2003/04 will be payable to shareholders on 2 July 2004.

Basel, 10 June 2004

MALCOLM D KNIGHT
General Manager

I. Introduction: time to rebalance?

In the wake of the economic slowdown that began in early 2001, there was an extended period of both disappointment and puzzlement that the unprecedented degree of monetary and fiscal stimulus applied was not having more evident success in rekindling global growth. Of particular concern to central bankers was the fact that some of the main channels of monetary stimulus appeared to be blocked by heightened risk aversion on the part of both markets and financial institutions. Subsequently, these dark clouds lifted as financial markets again found grounds for optimism, while continuing to be buoyed by extremely accommodative macroeconomic policies. Indeed, at 0%, 1% and 2% in Japan, the United States and the euro area respectively, policy rates in the major industrial economies were at or near postwar lows. Moreover, these forces for global expansion were augmented by another unprecedented development. In large part to prevent the appreciation of their currencies against the US dollar, several governments intervened massively in foreign exchange markets during the period under review. In addition, there was a general easing of financial conditions in many emerging markets.

Looking back over the last year or so, as this Introduction will chiefly do, it seems clear that these policies played a key role in stimulating a strong recovery in global output. In virtually every region other than the euro area, growth has markedly exceeded the consensus forecasts of a year ago. Moreover, more robust growth has not to date led to any significant pickup in core consumer inflation. Looking forward, as the Conclusion of this Annual Report will do, the consensus forecast is for a continuation of this happy combination of circumstances, underpinned in particular by relatively strong growth in productivity in some industrial countries. What then is there to worry about, besides the usual problems of measurement error, and the fact that forecasts are as often wrong as they are right?

One potential worry would be an unexpected acceleration in inflation, perhaps already being presaged by the recent sharp increase in commodity prices and associated inflation in China. Another could be the re-emergence of asset price bubbles and unprofitable investments, as often seen in past periods of excessive credit growth. Indeed, the widening of spreads for sovereign and high-yield corporate issues which began in April 2004 could even be an early sign of embedded excesses unwinding. However one chooses to assess the likelihood of financial tensions in the near term, it is clear that the current level of policy stimulus is not sustainable over time. The crucial challenge facing policymakers, as the cycle turns up, will be how best to tighten without destabilising a global economy already exhibiting various economic and financial imbalances.

Longer-term questions must also be raised about the profound implications of three interacting structural changes in global policy regimes. First, deregulation

and globalisation in the markets for goods and services have made the world more productive and arguably less inflationary. Second, financial liberalisation may have increased the potential for booms and busts in credit and asset prices. The third change is the growing focus of policymakers on inflation control, and their growing credibility. Against the backdrop of the first two changes, this last one might imply significantly less policy tightening in response to unusually rapid growth or to suspected excesses in the financial system. In contrast, again assuming inflation is under control, policymakers might feel they could afford to respond much more aggressively than in the past to either an economic slowdown or financial difficulties associated with earlier excesses.

Such an asymmetric application of monetary policies, and fiscal policies for that matter, has contributed to the welcome reduction in cyclical volatility observed in recent years. However, this approach could also have downside risks if treated as a repeated game. Indeed, with government debt levels still very high by recent standards, and nominal interest rates close to zero, policymakers' room for manoeuvre in response to further unwelcome shocks has already become quite limited.

For the moment, we are fortunate that a global economic recovery is under way, and that shocks remain possibilities rather than realities. Nevertheless, once the robustness of the expansion has been confirmed, the need to re-establish policy flexibility will call for an unusual degree of fiscal and monetary rebalancing going forward. In addition, the analytical assumptions that have underpinned policy formulation to date would merit rigorous re-examination. With the structure of the economic and financial world having changed so quickly and dramatically, and perhaps with further change still to come, it could well be dangerous for policymakers to simply assume that their old answers will remain the right answers.

Faster growth at last

The global slowdown earlier this decade was met with unusually strong fiscal and monetary stimulus in the major industrial countries, especially in the United States. This degree of stimulus was made possible by the prevailing low level of inflation, which generally continued during the period under review.

In the United States, fiscal policy was remarkably expansionary as a result of both expenditure increases and tax cuts. Monetary policy became and remained highly accommodative. Not only was the federal funds target rate held at 1%, but extensive efforts were also made to convince the bond markets in particular that this stance was likely to be maintained for a considerable period. A somewhat different, but still expansionary, set of policies was seen in Japan, where a very large government deficit and high debt levels constrained any further recourse to fiscal stimulus. Against this background, the monetary policy of "quantitative easing" was intensified, as were attempts to convince the public that all arms of government were now working together to bring Japanese deflation to an end. In the euro area, fiscal deficits in three countries (including the two largest economies) rose above ceilings stipulated

in the Stability and Growth Pact. While this drew harsh criticism from countries which had respected the rules, the effects on spending were supportive, as was the continued accommodative stance of the European Central Bank (ECB).

Consistent with the relative easing of US monetary policy, and the accumulating weight of US external deficits and debt, the US dollar trended downwards last year. This effective exportation of US disinflationary pressures was strongly resisted by some, in particular by countries which had adopted a fixed exchange rate regime against the dollar. The Japanese authorities also undertook an unprecedented amount of foreign exchange market intervention to prevent too rapid an appreciation of the yen against the US dollar and the Chinese renminbi. Other governments, especially elsewhere in Asia, intervened heavily as well. In response to the upward pressure on their currencies against the dollar, many emerging market countries also eased monetary policy. Finally, some countries in Latin America, as well as in central and eastern Europe, put on hold plans for fiscal restraint and structural reform that had previously seemed necessary in the light of downward pressures on their currencies. Whatever the longer-term implications, this too was conducive to expansion.

Virtually all financial markets responded vigorously to this general easing of monetary policy, although the lags involved varied substantially. Long bond yields in the United States, having trended down over a number of years, essentially plateaued at unusually low levels during the period under review. This overall stability, however, concealed alternating periods when the markets reacted to forces calling for higher rates and then for lower ones. Among the former were expectations for growth and prospective government deficits that were being revised upwards. Factors tending to restrain rates were massive purchases of US Treasuries by Asian central banks and the guidance provided by the Federal Reserve as to its prospective policy actions. Yields in the euro area moved closely with US rates over much of the period under review, but decoupled somewhat at the end as US rates rose sharply. This was not inconsistent with the region's more muted growth prospects.

In most other financial markets, there was much less equivocation. Asset prices increased strongly for most of the period and this further contributed to confidence and encouraged economic expansion. Equity markets worldwide were particularly strong, with technology and emerging market stocks leading the way. Spreads on high-risk corporate bonds declined sharply, as did those on credit default swaps. The spreads on sovereigns also narrowed, and capital again became more readily available to emerging market economies, including a significant number with questionable credit records. And perhaps most important, the price of residential properties continued to rise in many countries, as did related levels of indebtedness. Only in the last few months of the period under review did these trends begin to reverse in some markets and become significantly less pronounced in others.

In part, these increases in asset prices could be associated with low bond yields. Lower nominal mortgage rates changed the payment profile of borrowers and eased cash constraints up front. It is thus neither surprising nor unsettling that this was eventually reflected in both higher house prices and higher debt levels. However, a more disturbing effect of the lower bond yields

is that they may have induced a growing appetite for risk. In the case of insurance companies, with contractual obligations to pay high rates of return on their liabilities, such behaviour became almost a matter of survival. Pension funds with target rates of return exceeding government bond yields might have been similarly tempted. Moreover, as memories of past financial losses began to fade, it was natural for confidence to recover. And finally, as prices began to rise, extrapolative expectations appeared to set in, as had often occurred in the past.

But if these interest rate related explanations for asset price increases have some weight, so too does the argument that, in many markets, the underlying fundamentals were improving at the same time. For example, in the industrial countries, the rate at which corporations have been defaulting has been declining, as have the losses suffered when defaults did occur. In a number of emerging market countries, particularly in Asia, government policies now seem more appropriate and conducive to growth than a decade ago. As for house prices, in many countries they have been boosted by a varying mixture of zoning regulations, immigration and the focus of purchasers on specific geographical areas. Such forces are not likely to recede soon, though other forces could still overwhelm them.

What can be said with more certainty is that the combination of easy macroeconomic policies and more buoyant financial markets contributed to a pickup in the pace of global economic growth. Among the industrial countries, the United States was the star performer, closely followed by Australia and the United Kingdom. The expected rotation of spending into investment began to materialise under the influence of sharply rising profits, but consumption also held up. Households either withdrew and spent equity arising from higher house prices or refinanced their mortgages so as to lower monthly interest payments. Very robust growth was also the norm in a number of other industrial countries, including some of the smaller euro area economies. Japan, too, showed signs of impending recovery as exports soared, to China in particular. Still more encouraging, investment spending by large Japanese corporations also turned up, after a decade of restraint during which positive cash flows were used primarily to reduce debts built up in the boom of the 1980s.

Signs of recovery were distinctly fainter in a number of the larger continental European economies. In spite of the effective appreciation of the euro, these countries still benefited from the stimulus provided by rising exports, and business confidence seemed buoyed in turn. The real problem was that consumers remained reluctant to spend, even though household balance sheets looked quite healthy by international standards. The uncertainties generated by proposals to urgently confront structural deficiencies in labour markets, pensions, health care and tax administration may well have played a role here. So too might public perceptions of higher inflation after the introduction of the euro. The fact that housing wealth cannot be liquefied as easily in these countries as in, say, the United States and United Kingdom also implies that consumption is more constrained by cash flow. It was thus more vulnerable to the setbacks in labour markets discussed below.

Most emerging market economies also showed improved growth in the period under review. Positive international influences, in particular higher commodity prices and more welcoming financial markets, often interacted with stronger domestic demand to push up growth. China's performance was impressive, producing knock-on effects throughout the Asian region and even beyond. With massive capital inflows and very rapid rates of growth of domestic credit, business investment rose to over 40% of GDP. Elsewhere in emerging Asia, investment levels remained well below earlier peaks, perhaps reflecting continuing excess capacity in some countries and the pressures of international competition. However, a number of countries saw an acceleration of consumption, often under the influence of government policies to stimulate domestic demand. India's performance also stood out. While good weather supported greater agricultural production, slow but steady structural reforms seemed increasingly to be improving productive potential and India's international competitiveness.

Growth in other emerging market regions was mostly less strong than in Asia, even if sometimes underpinned by idiosyncratic forces. The recovery in the Middle East, Africa and Russia was obviously encouraged by higher prices for oil and other commodities, while growth in Latin America owed a lot to the rebound from the earlier crises in Argentina and Venezuela. That said, the nascent but still uncertain recovery in Mexico had deeper roots as the pickup in the United States had a material, though lagged, impact on growth. The favourable global interest rate environment also helped Brazil until very recently, although evidence of a broad recovery remains mixed.

In central and eastern Europe, possibly due in part to the slower pace of euro area recovery, growth was maintained but did not increase. The new EU members in particular continued to be influenced by optimism surrounding their accession and associated capital inflows on the one hand, and the need to address long-standing and difficult structural problems on the other.

Other developments – some expected and some not

As the global recovery gained strength, other economic trends became more clearly defined. While most were more welcome than not, some were also more surprising than not. Whether any of these unexpected outcomes increase the vulnerability of the global economy going forward, and, if so, what policymakers might do about it, will be dealt with in the Conclusion.

One widely expected consequence of faster growth was a sharp rebound in global trade, in particular intra-Asian trade. China is now a heavy importer of primary and intermediate products required for the assembly and subsequent export of finished goods, and is rapidly becoming the world's manufacturing centre. In this context of expanding trade, it is a landmark change in attitude that the emergence of China now seems to be viewed in Japan and India more as an opportunity and less as a threat.

Another development accompanying the recovery was a further worsening in the external trade position of the United States. While this is consistent with the relatively faster growth of the US economy, it confounded the views of

those who had been expecting US growth to falter under the weight of perceived internal and external imbalances. Moreover, while the effective depreciation of the dollar helped contain the deterioration of the trade balance, the size of the effective exchange rate movement itself was limited by the exchange market intervention carried out by many foreign governments for a variety of reasons. In fact, to the extent that the subsequent investment of foreign reserves in US securities helped to lower US bond yields, it could be contended that both the "elasticity" and "absorption" channels of the prospective trade adjustment were attenuated. It remains an open question how long this uninterrupted joint flow of goods and capital into the United States from Asia, vendor financing in all but name, can be sustained.

In spite of the strength of the global recovery, upward pressures on CPI inflation only became clearly perceptible towards the end of the period under review. Even in the rapidly growing United States, and in the presence of a lower dollar, inflation continued for the most part at a very low level under the influence of remaining, though fast declining, output gaps. In the euro area, albeit aided by currency appreciation, inflation slid below the 2% level in the early months of 2004 before rebounding under the influence of higher oil prices. And in Japan, deflationary pressures seemed to ease, even after adjustment for measurement bias and the effects of sharp increases in various regulated prices.

Among the larger economies, China provided the clearest evidence of an increase in inflation. Given a deflationary starting point, some upward movement in prices was initially not unwelcome, and was actually encouraged by government efforts to expand credit creation and raise investment. In recent quarters, however, the Chinese authorities have become much more concerned about overheating, and have taken a combination of market-based and administrative steps to slow down both lending and spending. In several other economies in the industrial world, policy rates have risen in the face of rapid demand growth and signs of financial excess, in spite of current CPI inflation seeming to be under control.

This relative quiescence of global CPI inflation to date has in fact been accompanied by a number of divergent price trends. The prices of finished goods have generally been easing for some time now, under the influence of productivity gains in global manufacturing as well as exports from newly emerging economies. In contrast, the prices of services have generally risen faster. This general trend was complemented in the period under review by a new and still more dramatic development. There was a very sharp increase in the price of oil and other raw materials, reflecting not only the global expansion, but also the growing weight of commodity-intensive investment in China. Fortunately, it has, to date at least, been relatively easy to absorb such increases into profit margins, particularly in countries where cost cutting in response to earlier economic and financial difficulties has advanced most.

Consistent with the desire to keep costs under control in a fiercely competitive international environment, the recent upturn in growth in many industrial countries has been met by both muted wage growth and an unusual reluctance to hire. In the United States, corporations seem to have used the

new technology embedded in recent investments to markedly increase labour productivity. Moreover, the sharply decreasing cost of capital, allied with a rise in medical costs and other employee benefits, has further tipped the scales in favour of capital deepening rather than job creation. In Europe and Japan, similar forces have also been at work recently, abetted by more traditional structural impediments to hiring the young and the old in particular. In general, those hurt the most by the weak demand for labour in the industrial countries have been the less well educated, who cannot be easily retrained when technological advances make their jobs redundant. Furthermore, through the labour content embodied in traded goods and services, they increasingly find themselves in a losing battle with lower-paid workers in emerging market economies. To date, however, soft labour market conditions have not caused a general retrenchment in consumer spending outside continental Europe. This has been both surprising and welcome, even though accompanied by a continuing build-up of household debt levels in several countries.

Another side effect of higher growth and more optimistic financial markets has been their contribution to improving the health of financial institutions. Particularly helpful has been the increased ability to dispose of non-performing loans in continental Europe and Japan. In the industrial countries, concerns about banks, insurance companies, reinsurance companies and pension funds have been significantly mitigated by a combination of unusually steep yield curves, rising asset prices, lower costs and increased revenues. In contrast, as growth gathered pace in China in response to officially encouraged increases in credit creation, fears began to mount that many of these loans might go bad, further weakening lending institutions that already had sizeable problems. Loans made to local authorities and state-owned enterprises, where profits were not the primary consideration, seemed most at risk.

Many financial institutions with a focus on consumer products, especially mortgages, fared particularly well in the period under review. This fostered a general reorientation of the activities of financial institutions in many industrial countries. Even in Japan, there was evidence that banks were starting to take more interest in lending to consumers and smaller enterprises where interest margins were greater. The trend towards lending to households was also observed in a number of emerging market economies, notably in Asia and in central and eastern Europe. While this has been especially welcome in the context of continued high levels of domestic savings, as in many Asian countries, the experience of Korea over the last year or two also shows that it is possible for this process to get out of hand. After an earlier consumer boom, fuelled by very rapid credit extension by both banks and credit card companies, consumer spending weakened last year as personal bankruptcies soared. The Korean government has tried to improve workout procedures for individual creditors as well as debtors, but the restraining effects on domestic demand growth may persist for some time.

In addition to the generally supportive impact of faster growth on their health, financial institutions benefited for the most part from general improvements in risk management. The cultural shift in the financial industry, associated to a considerable extent with the process of finalising the new

capital adequacy framework ("Basel II"), continued to gain in intensity. Nevertheless, some developments over the past year revealed disturbing laxities in internal governance, of both corporations and financial institutions, as well as in oversight and market discipline. The Parmalat affair, for example, indicated shortcomings at every possible level: senior management, internal audit, external audit, bank lenders, bond underwriters, rating agencies, investment bank analysts, and the overseers of many of the above. And yet the costliest corporate failure in history had no effect whatsoever on the market pricing of loans to corporates. Whether this was the appropriate reaction to the *sui generis* nature of a massive fraud, or the unfortunate by-product of the recent heightened appetite for risk in financial markets, remains a question. The answer, however, may become increasingly evident as markets prepare themselves for an eventual raising of policy rates.

II. Developments in the advanced industrial economies

Highlights

Output revived in the advanced industrial countries in 2003 with the support of substantial policy stimulus in the United States and stronger demand in Japan. At the same time, growth in the euro area remained subdued. A feature of the recent expansion has been a shift from household to corporate spending. In addition, fears of deflation have eased.

The global recovery is projected to gain further strength this year, while inflation is expected to remain low (Table II.1). Nonetheless, the sustainability of the expansion is subject to a variety of risks. First, the weakening in budget positions in several countries makes it increasingly necessary to restore credible medium-term frameworks aimed at reducing fiscal deficits. Second, household debt has continued to rise, in contrast to the recent improvement in corporate balance sheets. Third, global current account imbalances have widened and how any future adjustment will proceed is unclear.

Assumptions about productivity trends play a crucial role in assessing whether these medium-term issues need be a source of serious concern. While cross-country comparisons are imprecise, the improved performance of productivity in the United States gives some grounds for optimism looking forward.

Growth and inflation

Average annual changes, in per cent

	Real GDP					Consumer prices ¹				
	1991–2000	2001	2002	2003	2004 ²	1991–2000	2001	2002	2003	2004 ²
Advanced industrial countries ³	2.6	1.0	1.5	2.1	3.2	2.3	2.1	1.5	1.8	1.6
United States	3.3	0.5	2.2	3.1	4.6	2.8	2.8	1.6	2.3	2.2
Euro area	2.1	1.6	0.9	0.4	1.6	2.4	2.3	2.3	2.1	1.8
Japan	1.5	0.4	-0.3	2.7	3.1	0.8	-0.7	-0.9	-0.3	-0.2
United Kingdom	2.4	2.1	1.6	2.2	3.1	2.7	1.2	1.3	1.4	1.5
Canada	2.9	1.9	3.3	1.7	2.6	2.0	2.5	2.2	2.8	1.5
Australia	3.4	2.5	3.8	3.0	3.9	2.2	4.4	3.0	2.8	2.2
Other countries ^{3, 4}	2.1	1.5	1.5	0.7	2.4	2.1	2.2	1.8	1.7	0.9

¹ For the euro area and the United Kingdom, harmonised index. ² Consensus forecast published in May. ³ Weighted average based on 2000 GDP and PPP exchange rates. ⁴ Denmark, New Zealand, Norway, Sweden and Switzerland.

Sources: Eurostat; © Consensus Economics; national data.

Table II.1

The global recovery in 2003

Pickup in growth

The recovery in the industrial countries that began in 2002 firmed last year, especially in the second half. This strengthening was somewhat unexpected, given the shallowness of the preceding downturn, an investment correction after the boom in the late 1990s, and high risk aversion at the beginning of 2003 in a context of geopolitical tensions and high-profile scandals concerning corporate governance.

The recovery gained strength

The upturn spread across many of the main economies via a sharp acceleration in global trade. Unsurprisingly, a major impetus emanated from the United States, where the recovery became more secure, but global demand also benefited from a boom in emerging Asia. As analysed in Chapter III, the rapid development of this region has been a key feature of recent years and accounted for around one half of world output growth in 2003 (Table II.2).

Two pillars for global growth

This rebalancing of global growth has several implications. On the one hand, faster export growth in emerging Asia has focused attention on the possibly adverse effects for the industrial countries, as it will amplify the pressure on low-skilled workers already arising from technological advances. On the other hand, domestic demand has gained significant strength in some Asian countries more recently, and it has become evident that Asia also has a growing demand for exports from the industrial countries. China has become one of the world's largest importers, and Chinese trade surpluses with the United States and the European Union have been redistributed in favour of neighbouring Asian countries, including Japan. At the global level, moreover, the increased division of labour in manufacturing and services should lead to greater efficiency and lift living standards everywhere. In particular, all

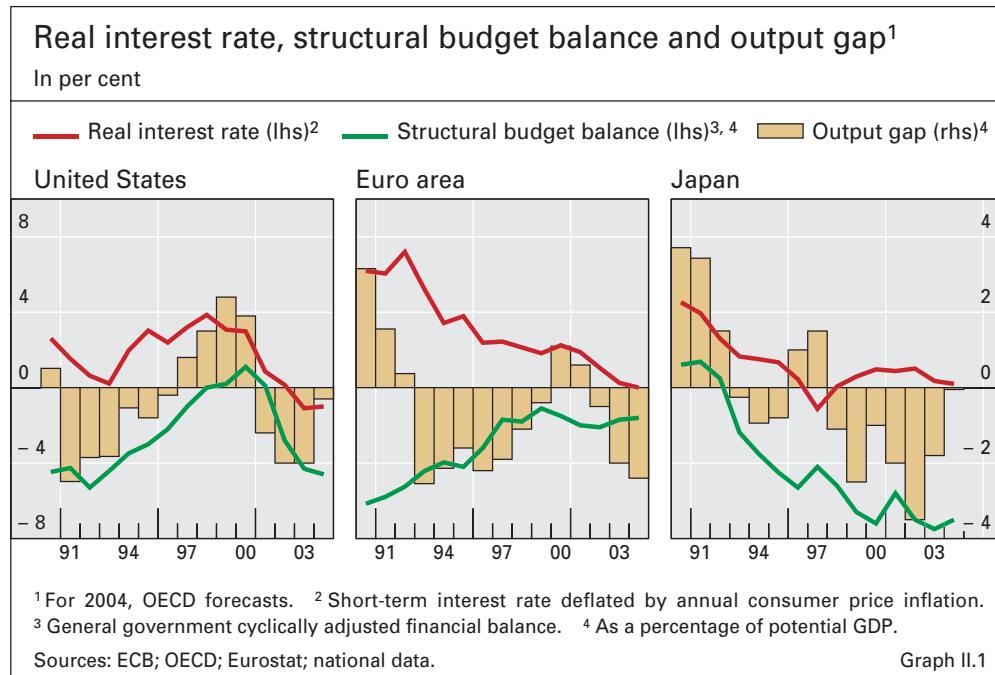
The role of China

Contributions to world growth					
In percentage points					
	Average 1991–2000	2001	2002	2003	2004 ¹
Advanced industrial countries	1.5	0.6	0.8	1.1	1.7
<i>Of which:</i>					
Household demand ²	1.0	0.8	0.7	0.8	1.0
Corporate demand ³	0.3	-0.5	-0.2	0.2	0.6
Public demand ⁴	0.2	0.3	0.3	0.3	0.2
<i>Of which:</i>					
United States	0.8	0.1	0.5	0.7	1.0
Euro area	0.4	0.3	0.1	0.1	0.3
Japan	0.1	0.0	0.0	0.2	0.2
Emerging Asia ⁵	1.6	1.3	1.6	1.9	1.9
<i>Of which:</i>					
China and India	1.2	1.0	1.2	1.5	1.5
Rest of the world	0.2	0.5	0.6	0.9	1.0
World growth ⁶	3.3	2.4	3.0	3.9	4.6

¹ Based on IMF and OECD forecasts. ² Private final consumption expenditure plus private residential gross fixed capital formation. ³ Private non-residential gross capital formation. ⁴ Government final consumption expenditure plus government gross fixed capital formation. ⁵ Asia excluding Japan. ⁶ In per cent.

Sources: IMF, *World Economic Outlook*; OECD; national data.

Table II.2



consumers will benefit from lower prices for manufactured goods and services, as high productivity gains in Asia are passed through to export prices.

During 2003, demand in the advanced economies was buttressed by expansionary policies. Cyclically adjusted fiscal deficits widened as rising public expenditures and tax cuts continued to support GDP growth (Graph II.1). The main exception was the euro area: although the fiscal deficit widened in a context of weak growth, the structural deficit narrowed. Financial conditions were also favourable in an environment of continued low policy interest rates and long-term yields. Real interest rates, already near or below historical lows, declined further. Corporate spreads tightened and equity prices increased in major markets, driven by positive economic news and earnings reports, and a broad-based search for yield (see Chapters IV and VI).

Despite deepening international linkages, growth was uneven. The output recovery was strong in the United States, where policies were particularly expansionary. The revival in Japan was also notable, with the rate of growth exceeding potential and the output gap narrowing rapidly. Although the current Japanese recovery has owed much to the strength of external demand, it appears to be more promising than previous rebounds in that – for the first time since the bursting of the asset price bubble in the early 1990s – domestic demand has risen without significant fiscal stimulus. The main disappointment was the euro area. Domestic demand remained weak and the contribution of net exports to GDP growth turned sharply negative. As a result, output in the euro area as a whole barely grew in 2003; in Germany and the Netherlands it actually fell. Switzerland was also in recession. Canada faced a major deterioration in real net exports as currency appreciation more than counterbalanced the effect of strong US growth. Sizeable terms-of-trade gains, however, sustained domestic demand despite large and adverse idiosyncratic shocks. Australia continued to expand briskly.

Policy played a major role in the global recovery

Divergent economic performances among major industrial countries

Shift in the composition of growth

A salient feature of the period under review was the gradual shift of demand growth from household to corporate spending. Private consumption growth, the main source of support in 2002, decelerated slightly in the United States and remained weak in the euro area. Likewise, residential investment was bolstered by favourable financing conditions but did not gain much further strength. Higher growth was mainly due to increased corporate spending, with a long-awaited rise in business investment and a continued positive contribution from stockbuilding.

Growth has begun to shift from household to corporate spending

Private consumption remained relatively resilient, even though it had been surprisingly strong during the previous downturn. Spending was supported by the persistence of only moderate inflation, while households were the main beneficiaries of stimulative fiscal policies. Positive wealth effects, following the recovery in equity markets and the continued rise in house prices, also helped. The average ratio of net wealth to household disposable income, which had declined from 1999 to 2002, rebounded in the major OECD countries in 2003 to above its 1990s average. Low borrowing rates directly fuelled demand for durables and, together with higher house prices, encouraged households to refinance existing mortgages and extract housing equity. Those who refinanced to lower their interest payments saw their spending power increase. Those who took on more mortgage debt acquired additional funds, not only for consumption, but also for paying off more expensive debt or investing in other assets. Housing equity withdrawal, defined as the difference between net mortgage borrowing and residential investment, rose to 3½% of household disposable income in the United States in 2003 and 7% in the United Kingdom.

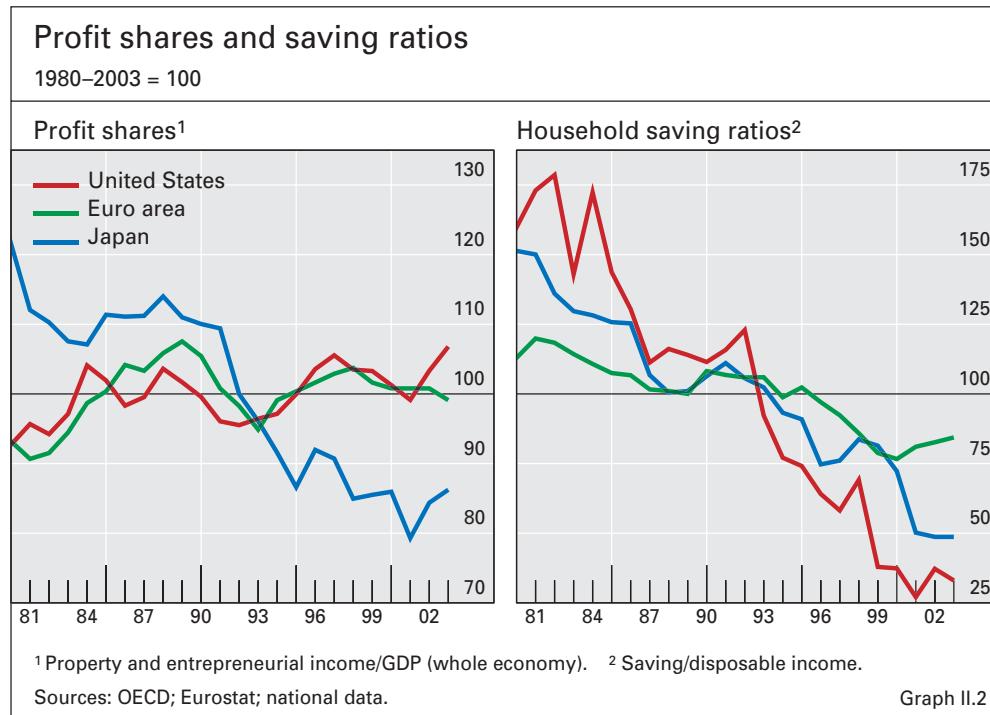
Resilient consumption ...

Nonetheless, private consumption was held back to some degree by the weakness of labour markets. That unemployment rose only moderately was mainly due to lower participation rates, especially in Japan and the United States. In aggregate, there was practically no net job creation in the OECD area over the past three years. Despite a strong recovery in demand, employment fell further in Japan and grew little in the United States. The Japanese performance can be attributed to continued restructuring, while the low job creation in the United States, quite unlike previous cycles, is more difficult to explain. Employment in the euro area was virtually flat and actually declined in Germany. Even so, the labour intensity of euro area GDP growth continued to increase, cushioning the job market, but also limiting measured productivity gains.

... but no acceleration in the face of weak labour markets ...

The adverse impact of soft employment on household incomes was compounded by subdued wage developments. Despite stronger aggregate productivity gains in recent years, real compensation per employee in the OECD area rose only moderately, implying that wage shares declined in the business sector. This was evident last year in the United States, where higher non-wage benefits appear to have been partly offset by lower earnings growth. Earnings barely grew in Japan in 2003, but at least they stopped falling. The main exception to the general trend was the euro area, where real compensation per employee accelerated in the business sector despite weak cyclical developments and low productivity growth.

... and wage moderation



Business spending started to pick up

Business investment gradually recovered during the second half of 2003 in a context of better demand prospects, favourable financing conditions and rising aggregate profit shares in the industrial countries (Graph II.2). Temporary tax cuts might also have triggered some front-loading of investment plans in the United States. An additional factor supporting corporate spending has been the growing importance of IT equipment, which has led to a marked acceleration in the rate of obsolescence of the capital stock. In the United States, for instance, the gross investment required just to maintain the existing business capital/GDP ratio has almost doubled since the late 1980s. Investment rose particularly sharply in Japan and Australia and progressively strengthened in the euro area in the course of the year.

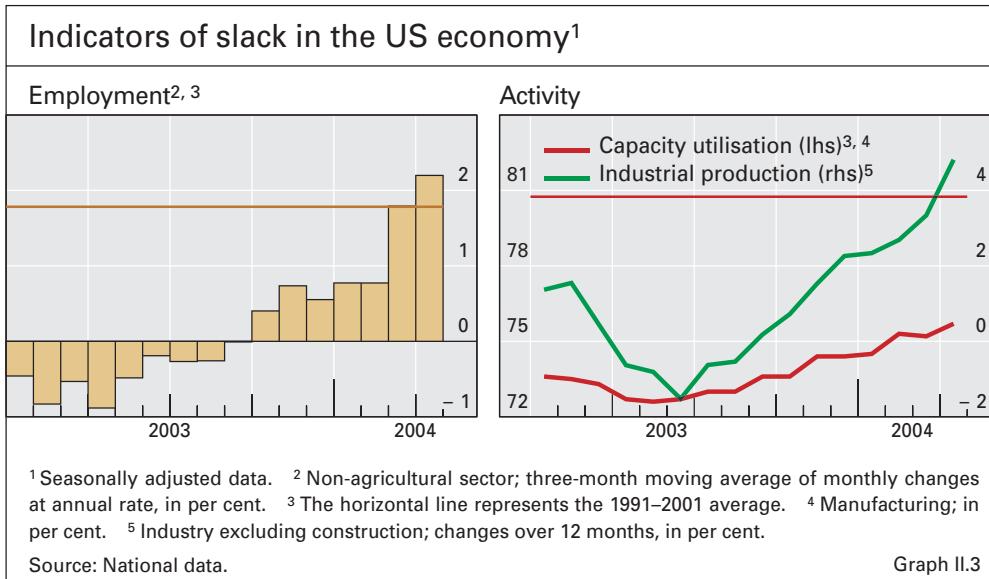
The near-term outlook

The consensus view is for further expansion ...

The consensus view is for the recovery to gain further strength in the near term, with global growth expected to reach 4½% this year. The latest US data on industrial production and capacity utilisation suggest that, while a significant amount of slack has already been absorbed, the current capital stock still provides room for a non-inflationary expansion (Graph II.3). Japan also entered 2004 with strong momentum, and output growth seems likely to exceed most estimates of potential growth this year. But the conditions for a significant recovery in domestic demand are not yet in place in the euro area, which is forecast to continue lagging the global upturn.

... but uncertainties remain regarding external developments ...

Despite the generally positive outlook, some uncertainties remain. Currency appreciation since 2002 has hurt prospects for net exports in the euro area and, more recently, also in Japan. Higher commodity prices, especially for oil, could also depress real incomes in the industrial countries, although



the adverse terms-of-trade effects have been partly mitigated in countries whose currencies have appreciated against the US dollar.

The current policy support is also expected to fade over time, as budgetary plans point to some stabilisation of the structural budget deficit at the OECD level. In addition, long-term interest rates have risen significantly since March 2004, and financial markets' expectations of higher policy rates in the United States have firmed.

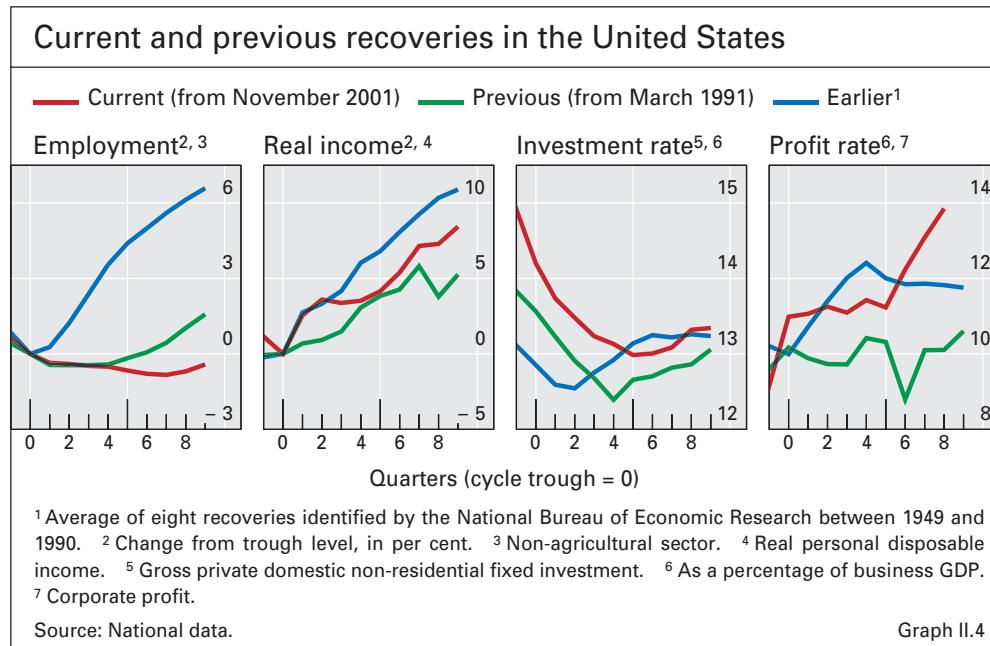
In the United States, business spending is expected to recover further. However, the link between profits and investment has been loose in recent years and the current degree of slack is difficult to measure precisely. In Japan, prospects might be less favourable. The investment/GDP ratio is still high compared with other countries and the capital stock has continued to increase steadily. The outlook is mixed in the euro area: current investment ratios look moderate, but capital productivity and profits have been weak.

With only limited signs that labour markets are reviving, could high rates of productivity growth be a cause for concern? Attention has focused on the "jobless recovery" in the United States, where employment has started to rise only very recently (Graph II.4). On the one hand, confidence might be hurt by the seemingly poor prospects for future wage income and firms might retain profits to reduce their debt. On the other hand, the productivity-led recovery in output has been reflected in higher real incomes, which should progressively boost spending, regardless of how such income increases are initially distributed. For example, the recent weakness in wage earners' nominal incomes could eventually lead to lower consumer prices and greater purchasing power. Alternatively, lower wage growth could be offset to some extent by higher dividends, since households are the ultimate owners of firms. Non-wage household income in the United States has indeed grown significantly in the recent past, in particular proprietors' and personal dividend income. Finally, higher profits should support equity price rises that could trigger positive wealth effects on spending.

... policy support ...

... investment decisions ...

... and job prospects



Issues for the sustainability of the recovery

Several issues arise regarding the sustainability of the current recovery beyond the near term. One is whether expansionary fiscal and monetary policies could, at some point, lead to inflationary pressures. Another issue is whether balance sheets are sufficiently healthy to underpin spending, given the already high debt levels of both private and public agents. A third is whether the current situation of large external imbalances is sustainable. A crucial factor pertinent to the assessment of each of these issues is the pace of productivity growth that industrial countries can expect to achieve in the longer run.

Productivity prospects

Productivity levels

Productivity is a key issue

It is hard to overstate the macroeconomic significance of trends in labour productivity, ie the amount of output produced per unit of labour. It plays a major role in determining a country's living standards and, as it influences earnings expectations and thus share prices, is also of great importance for financial markets. For policymakers, estimates of productivity growth and thus potential output are a key element in ascertaining the extent of inflationary pressures, with implications for interest rates, as well as in judging the stance of fiscal policy and the sustainability of budget positions. At the global level, different productivity growth rates across countries condition relative economic performance, though other structural factors such as the dynamism of the labour force are also important. In turn, the implications of different productivity growth rates for relative expected returns are a powerful driver of international capital flows. And the degree to which higher productivity levels or gains in some countries can be replicated in others influences global growth prospects.

Productivity levels ¹						
United States = 100						
	GDP per capita		Labour productivity			
			per person employed		per hour worked	
	1995	2003	1995	2003	1995	2003
Euro area	69	70	86	84	90	88
Of which: Germany	74	71	82	79	92	90
France	72	75	95	96	101	106
Italy	72	71	95	87	98	88
Spain	54	63	80	80	74	72
Ireland	62	87	88	99	81	97
Japan	81	74	78	74	70	67
United Kingdom	69	79	74	81	72	77
Canada	80	87	91	92	87	84
Sweden	73	75	80	80	84	84

¹ Whole economy; calculations made using purchasing power standards (PPS).

Source: Eurostat.

Table II.3

The first thing to note is the large differences in GDP per capita (PPS-adjusted; Table II.3). The United States tops the league, with a lead of around 30% over other main industrial economies. Compared to this measure, the euro area is better placed in terms of output per worker, the main reason being that employment rates are lower, reflecting social choices (eg early retirement) but also higher structural unemployment. When output is measured per hour worked, the euro area disadvantage narrows to around 10% relative to the United States, as euro area employees spend less time working. In other words, the euro area lags the United States in output per capita partly because its citizens are slightly less productive, but chiefly because of structural rigidities and more leisure. The relative position of Japan is still less favourable in terms of labour productivity.

High productivity levels in the United States

Productivity growth

For most of the postwar period, Europe and Japan steadily raised their productivity levels towards the US level. By the early 1990s, however, this convergence seemed to have halted, and subsequently might even have reversed. These differences have been particularly evident since the latest downturn, with US productivity rising markedly in 2002 and 2003.

US performance has recently improved in relative terms

Is this apparent reversal of trends genuine, or does it just reflect cyclical differences and/or measurement error? Because of the lags with which labour adjusts to changes in output, labour productivity moves procyclically. For instance, firms that have hoarded labour during a recession can raise output without much increase in measured employment once demand picks up: productivity growth therefore surges in the upswing phase. Empirical evidence suggests that the cycle does have a positive impact on productivity in almost all industrial countries. Since the United States has experienced the fastest growth in output in the recent period, this may

Traditionally, productivity gains have displayed significant cyclical movement

Comparisons of productivity changes as well as levels are imprecise ...

... while changes in productivity gains should be more comparable

Trend labour productivity gains in the business sector have diverged across OECD countries

have raised the “cyclical component” of US productivity gains relative to other countries.

As for measurement error, most international comparisons have focused on productivity changes because measurements of productivity levels are notoriously imprecise. However, even productivity changes are not free of measurement problems. Different methods of calculating value added in some sectors can influence their weight in GDP and thus their contribution to output growth. The fact that retail and wholesale trade, where value added might be harder to measure, has been a major contributor to the rise in US productivity growth in recent years is one example of this. In addition, the measurement of output growth appears to vary significantly across countries. One widely noted problem in this regard is the use of hedonic price indices, which allow better account to be taken of quality improvements, especially, but not only, in IT products. Another issue is the measurement of spending on software. These expenditures have been treated as investment (thus positively contributing to GDP growth, in contrast to intermediate consumption expenditures) to a much larger extent in the United States than in the other main industrial countries. A third measurement issue is the use of chained rather than fixed indices for deflating nominal growth rates. Several calculations suggest that measured GDP growth in Europe would be higher, perhaps by almost half a percentage point annually, if statistical methods were more similar to those used in the United States. Finally, a good deal of uncertainty also surrounds the measurement of employment growth, with some estimates showing that this could influence calculations of labour productivity gains by up to another half a percentage point annually in some countries.

If statistical measurements are time consistent, the most severe distortions present in the estimation of growth in both output and labour tend to disappear. This means that measures of changes in the rates of productivity growth should be more comparable. Even so, discrepancies may widen over time, although their contribution to changes in measured differentials in annual productivity growth rates among the main industrial countries seems to have been less than half a percentage point over the past few decades.

Business sector productivity measures

Restricting comparisons to the business sector avoids the special difficulties involved in measuring output in the public sector. On this basis, a general long-term trend in the industrial world has been that labour productivity gains have on average declined since the 1960s. This slowdown has been shared by most countries, though in very different ways (Table II.4). Some economies have experienced a steady slowing of trend labour productivity gains (eg Belgium and Spain); in others (eg Germany, Italy and Japan), the decline has been more uneven – productivity accelerated in the 1980s, but only temporarily. In a third group of countries (Canada, France and the Nordic countries), trend gains in output per hour dropped sharply after the 1960s but began to increase again in more recent years. A unique case is the United States, where output per hour worked has accelerated and now appears to be growing at the same pace as before the 1970s.

These divergent developments might reflect different patterns in capital accumulation ("capital deepening") as well as varying rates of technological progress (measured by the growth rate of total factor productivity – TFP). Leaving aside cyclical influences, trend gains in TFP differ considerably. A first group of countries (Canada, France, Sweden and the United States) has shown a clear improvement. The increase has been notable in the United States, where TFP accelerated in the 1980s and again in the 1990s and is now estimated to be growing by 2% per year (Graph II.5). A second group includes many countries of the euro area, Japan and the United Kingdom, which have experienced a marked decline in trend TFP. In fact, TFP appears to be flat or even decreasing in Japan and Italy, as output growth is mainly attributable to higher inputs of labour and capital deepening.

Technological progress and capital accumulation patterns differ

To sum up, the level of US labour productivity is the highest among the major industrial countries and has been rising the fastest in the recent past. Rather than just reflecting stronger capital accumulation, this performance has been associated with a higher rate of technological progress that was maintained during the latest recession. More importantly, perhaps, the US performance has improved in relative terms, as TFP growth has accelerated in the United States but decelerated in most other economies.

The US performance stands out

Productivity gains¹

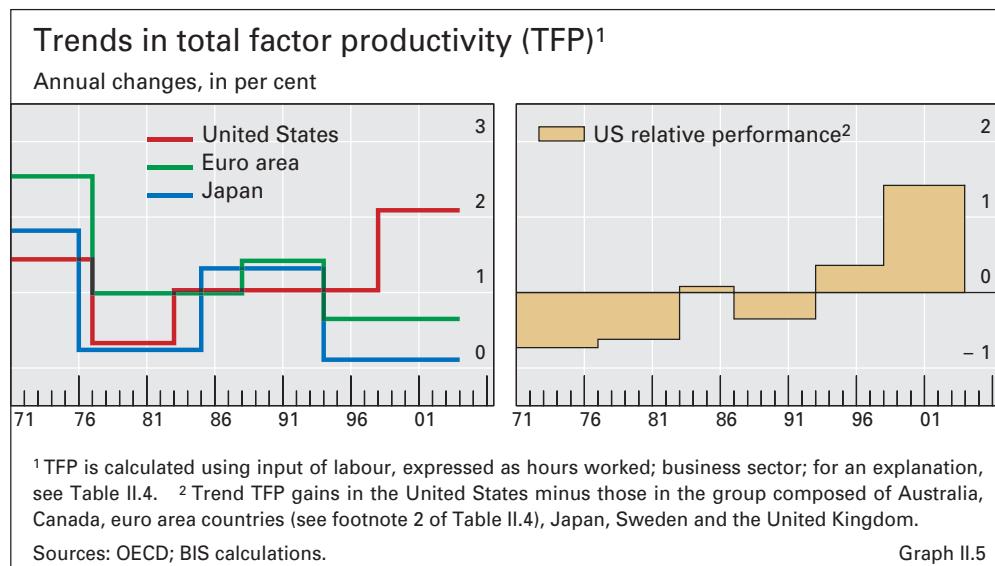
	Labour productivity				Total factor productivity			
	Previous trend		Current trend		Previous trend		Current trend	
	Start year	Average	Start year	Average	Start year	Average	Start year	Average
United States	1974	1.2	1998	2.8	1983	1.0	1998	2.1
Euro area ²	1979	2.6	1996	1.5	1988	1.4	1994	0.7
Germany	1989	3.5	1995	1.6	1988	2.4	1994	1.0
France	1993	1.7	2001	2.8	1992	0.4	1998	1.2
Italy	1991	2.8	1997	0.8	1990	0.9	1997	-0.2
Spain	1986	2.0	1996	0.7	1982	2.2	1988	0.2
Netherlands	1983	3.6	1993	1.5	1993	1.2	2000	0.4
Belgium	1976	4.0	1982	2.1	1976	1.8	1982	0.9
Finland	1989	4.4	1995	3.0	1993	3.7	2001	1.8
Ireland	1978	3.5	1988	4.8	1995	5.4	2001	2.7
Japan	1986	4.0	1994	2.0	1985	1.3	1994	0.1
United Kingdom	1985	0.8	1991	2.0	1970	2.1	1984	1.0
Canada	1973	1.2	1998	1.8	1974	0.6	1996	1.6
Australia	1991	2.3	2002	0.3	1992	1.9	2000	0.4
Sweden	1976	1.7	1991	2.3	1976	0.7	1992	1.6
Norway	1980	1.9	1989	2.9	1990	2.9	1996	2.1
All countries	1971	3.5	1977	2.0	1993	0.9	1999	1.4

Note: Trends in labour and total factor productivity are estimated by regressing their logarithm on time trends T^i (given that I break trends are allowed in the specification if they are significant at the 95% level) and CY , an indicator of the position in the business cycle (capacity utilisation in industry, normalised). For TFP, for instance, we have $\log TFP = \sum_{i=1}^{I+1} \alpha^i T^i + \beta + \gamma CY + U$, where α , β and γ are the parameters and U is the residual of the estimation.

¹ Business sector; productivity gains are calculated using input of labour, expressed as hours worked. ² Weighted average of Belgium, France, Germany, Italy, the Netherlands and Spain, based on 2000 GDP and PPP exchange rates.

Sources: OECD; BIS calculations.

Table II.4



Looking forward

The role of IT investment ...

Whether the growing gap between TFP in the United States and that in other countries will diminish is difficult to judge. What is clear is that the steady improvement in US productivity observed since the 1980s is not just a matter of greater use of IT equipment. IT use has also expanded in other countries without preventing a sharp deceleration in TFP. Instead, much of the acceleration in trend TFP in the United States could well have come from the previous deregulation of markets for goods and services. The resulting increase in competition might have spurred innovation by creating strong incentives to reduce production and distribution costs. Indeed, the United States has seen the emergence of large producers in the IT sector, a sector characterised by both fierce competition and a very high rate of technological progress. Sizeable productivity improvements have also been recorded in wholesale and retail trade, where competition has again been intense. In addition, the US labour market has been helpful; witness the long-term fall in structural unemployment since the 1970s and the ease with which workers move from declining to growing sectors. In short, the implementation of structural reforms might be one key prerequisite for creating stronger market incentives and duplicating the US innovation process.

... and structural reform in raising productivity levels

Will potential growth rise in the longer run?

Nonetheless, some uncertainty remains as to whether recent patterns in productivity growth will be maintained and whether industrial countries will be able to achieve stronger potential growth rates in the future. On the one hand, the recent improvement in US productivity gains may not last indefinitely. In particular, companies' willingness to cut costs, as well as the lagged impact of past large investments in IT equipment, may have raised the level of productivity, and thus its measured growth for a time. Eventually, however, such effects could fade away. On the other hand, the tendency for structural reforms, implemented in the past two decades, to increase the demand for less-skilled labour could also have held down measured overall productivity gains in a significant way in the United States and some European

countries (eg Ireland, the Netherlands and the United Kingdom). A related and positive consequence is that structural unemployment has now come down to lower levels. At some point, such transitory effects might begin to dissipate, possibly revealing higher underlying productivity growth in the coming years. All in all, the discussion above suggests that trend GDP growth rates diverge significantly among major industrial economies. According to several estimates, potential growth might be almost 3½% per year in the United States, compared to around 2½% in the United Kingdom, 2% in the euro area and 1½% in Japan.

Inflation

Concerns about deflationary pressures emerged in the early part of 2003 before easing in the rest of the period under review. Even in Japan, where both consumer prices and land values have fallen continuously in recent years, a feeling has progressively emerged that a turning point in the battle against deflation might be approaching. The rebound in the price of manufactured goods in 2003 and the spike in commodity prices have contributed to allaying deflationary fears.

Fears of deflation eased

Nonetheless, global inflation remains low. An important factor has been the influence of negative output gaps. The associated downward price pressures have been reinforced recently by the productivity gains discussed above, and subdued developments in wages. To a certain extent, an exception has been the euro area, where inflation has been slow to respond to a widening and negative output gap. Inflation has remained close to the ECB's 2% threshold, partly reflecting in some places the lagged effects of the introduction of the euro and, more importantly, sticky labour costs as well as governments' attempts to boost revenues by raising indirect taxes and charging more for public services.

Global inflation remains low

Inflation expectations have also remained well anchored at low levels. The difference between yields on index-linked bonds and those on traditional bonds suggests that inflation expectations out to a 10-year horizon have stayed in a range of 1½ to 2½% in the euro area and the United States during the period under review. This relative stability has persisted despite marked shifts in the outlook for growth as well as sharp adjustments in exchange rates. Indeed, in the larger industrial economies, the influence of currency movements on prices appears to have been very limited thus far. Consumer price inflation has remained at low levels in the United States despite a weaker dollar. Similarly, inflation has not come down in the euro area nor deflation increased in Japan, although currencies have strengthened. Nevertheless, the deceleration of consumer prices following the exchange rate induced decline in import prices in Canada and Australia has renewed debate about the size and dynamics of the pass-through in smaller open economies.

Anchored inflation expectations

The inflation outlook

The main proximate risk of inflation, if any, would seem to come from soaring commodity prices (Table II.5). Should industrial production in China continue to expand rapidly and major industrial countries start to grow synchronously,

Inflation is expected to remain low despite higher commodity prices

World trade and prices ¹					
Average annual changes, in per cent					
	1991–2000	2001	2002	2003	2004 ²
Trade volumes	7.3	-0.5	3.1	5.2	7.1
Trade prices (in US dollars)	-0.8	-3.5	0.9	11.6	6.1
Manufactures	-0.9	-2.8	2.4	14.5	7.7
Oil	2.1	-13.8	2.5	15.8	3.8
Other commodities	-0.5	-4.0	0.5	7.1	7.6
Terms of trade, advanced economies ³	0.0	0.4	1.1	1.3	0.3

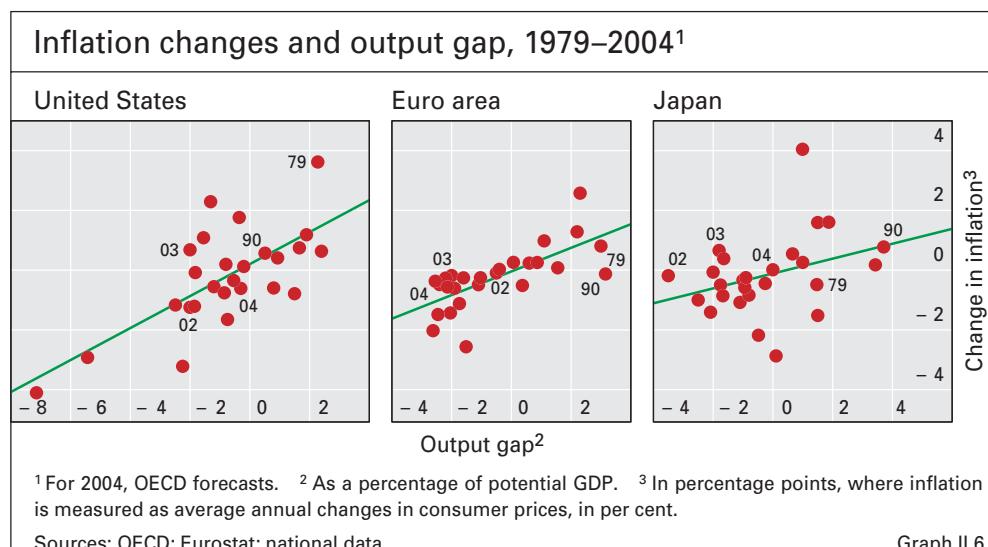
¹ Goods only. ² IMF forecast. ³ Advanced industrial countries plus newly industrialised Asian economies (Hong Kong SAR, Korea, Singapore and Taiwan, China).

Source: IMF, *World Economic Outlook*. Table II.5

commodity prices could well climb further. In addition, the prices of raw material-intensive exports from China could rise in turn. However, non-oil commodities represent a very small percentage of total costs in the advanced economies; the impact of higher commodity prices in US dollars is much weaker in countries with appreciating currencies; and a substantial part of the recent surge in oil prices has already been felt. Some observers have also pointed to rising liquidity in the global economy, which could spur inflation or lead to higher asset prices (see Chapters IV and VII). The fact that growth in monetary aggregates has slowed recently in the main industrial countries is more comforting.

Disinflationary forces are still working at this stage of the cycle

Another view is that underlying disinflationary forces will continue to exert their influence for some time. Historical patterns suggest that negative output gaps should be accompanied by a decline in inflation (Graph II.6). Spare capacity is particularly large in manufacturing and may be even larger than is suggested by national measures given increased global integration and the rapid expansion of Asian production capacity. A substantial degree of slack also remains in the main labour markets, suggesting that the growth of unit labour costs will stay moderate, notably in those countries where productivity gains have been strong.



Private sector balance sheets

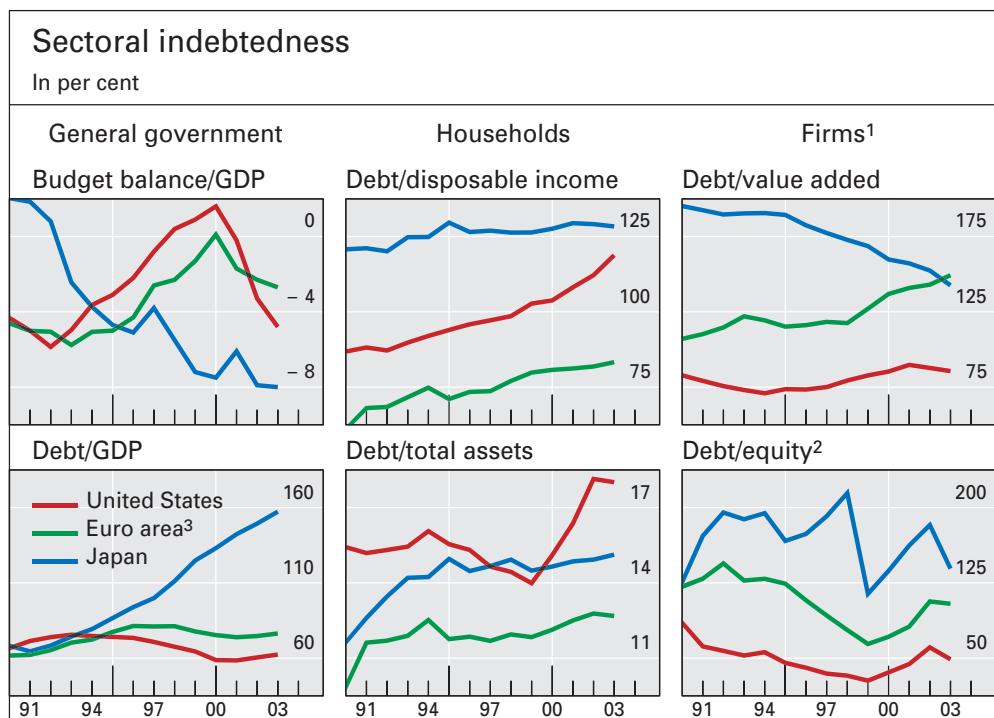
Corporate balance sheets

Reducing debt burdens became an important objective for many firms after the recent downturn, and much has been achieved at the global level. Higher demand, limited hiring, restrained wage increases and (perhaps) greater pricing power have helped boost profits. Firms' reluctance to spend on fixed assets, allied with the impact of low interest rates on the costs of debt servicing, has also improved their financial balances. Corporate balance sheets have further benefited from the rebound in financial asset prices; debt/equity ratios have generally fallen (Graph II.7), although they remain well above the levels observed when equity prices were at their peak.

This improvement has been particularly pronounced in Japan. Despite a marked pickup in investment, the financial surplus of enterprises surged to 7% of GDP in 2003. Corporate debt fell to around 140% of business value added, down from almost 200% in the early 1990s. A strengthening of financial positions has also been visible in the United States. Strong productivity gains have fed directly into earnings, and the profit share recently reached its previous peak of 1997 – well above its long-term average (see Graph II.2, left-hand panel). The expansion of corporate debt (more than 10% per year at the end of the 1990s) has slowed, reducing debt/value added ratios to levels closer to the 1990s average. In the euro area, on the other hand, corporate profitability has failed to improve significantly, reflecting weakness of demand, the appreciation of the currency, sticky labour costs and low productivity gains. As a result, debt/value added ratios have risen further.

Some improvement in corporate balance sheets ...

... especially in Japan



Sources: OECD; national data; BIS calculations.

Graph II.7

Risks remain

While the corporate situation has improved since the last downturn, several uncertainties remain. First, large sectoral differences still exist. In the United States, the sectors that have benefited the most from higher profits are financial institutions and IT firms. In contrast, profits have barely changed for trade, utilities and producers of non-IT durable goods. In Japan, the improvement has been concentrated on large export-oriented manufacturers. Second, credit conditions for small and medium-sized firms have remained difficult in both Japan and some European countries. A third source of concern is that both equity values (and thus debt/equity ratios) and debt servicing have benefited from unusually low interest rates on risk-free assets. Finally, uncertainty about the size of firms' pension liabilities and recent accounting scandals further cloud the outlook.

Household balance sheets

Household liabilities have been growing ...

The picture for household balance sheets is still more mixed. The ratio of household debt to personal income has risen steadily in the main OECD countries over the past decade. The bulk of this increase has reflected the large growth in mortgage debt in a context of continuing financial innovation. The growing importance of mortgage debt suggests that increases in household liabilities have generally been matched by rising household assets, with no effect on aggregate household net wealth. For instance, US home ownership went up by almost 5 percentage points from the mid-1990s to 2003. Moreover, the rise in debt should be seen against the backdrop of the secular downward trend in interest rates, which has raised households' "affordable" debt levels.

... while saving rates have steadily declined

The rise in household indebtedness has occurred in tandem with marked declines in household saving rates in most industrial countries over the last decade (see Graph II.2, right-hand panel). Attention has centred on the United States and the United Kingdom, where private consumption has recently been the most dynamic. Indeed, their household saving ratios look quite low in comparison with the rest of the OECD area. From a historical perspective, however, the fall in saving rates has also been sharp in Australia, Canada and Japan. The main exception to this global trend is the euro area. The French household saving rate has increased steadily since the late 1980s. Household saving ratios in the rest of the euro area have also rebounded over the last few years. This rebound has possibly reflected higher perceptions of inflation following the introduction of the euro, as well as adverse developments in labour markets, but also uncertainties regarding pension systems and public finances and the adoption of structural reforms more generally.

Saving ratios might not have to go up ...

The fact that OECD household saving rates are so low from a historical perspective could suggest that some past demand might have been "borrowed" from the future, and that a return to "normal" behaviour would reduce spending. However, historical norms might no longer be appropriate. The steady rise in household net wealth over the past few decades in most countries could imply that the equilibrium level of household saving has fallen. An important exception is Japan, where the saving ratio has halved since 1991 while the level of net wealth has significantly declined. Recent trends in saving might also reflect a more efficient provision of mortgage credit, notably in the

United States and other economies where households can more easily extract equity from their homes and borrow against unrealised capital gains. The availability of such collateral can greatly reduce the cost of credit and improve intertemporal smoothing of consumption, thus increasing welfare in the economy.

Nevertheless, it cannot be ruled out that homeowners might have overestimated their wealth and, through greater indebtedness, heightened their vulnerability to shocks (see Chapters VI and VII). One concern is the possibility of sudden increases in interest rates, which would particularly expose homeowners in the United Kingdom, Australia and Spain, where mortgages are mainly at flexible rates. However, if higher interest rates were to reflect expectations of stronger output, higher household income growth and lower unemployment, this would make household debt more sustainable.

... but households are vulnerable to adverse shocks

The fiscal outlook

Concerns about weak fiscal positions

The use of fiscal policy to support global growth in recent years has raised concerns about the sustainability of public debt. In only three years, the US general government fiscal surplus has turned into a deficit equivalent to 5% of GDP. Fiscal balances have also worsened in Europe, albeit to a much lesser extent. In Japan, the general government fiscal deficit has remained very substantial, at close to 8% of GDP.

While fiscal deficits always require careful monitoring, recent levels are not unprecedented – the main exception being Japan. In addition, fiscal policy has been used in a timely (though perhaps fortuitous) fashion to cushion the recent downturn. However, this very flexibility underscores the importance of a medium-term framework for fiscal discipline that ensures restraint in good times so that the public authorities can react countercyclically in bad times. Fortunately, the recent rise in public deficits has mainly occurred in those countries that had created sufficient room for manoeuvre during the previous expansion, in particular the United States and the United Kingdom.

Public deficits have helped cushion the downturn ...

Public debt levels in many countries are not yet clearly excessive. US general government gross liabilities, as a percentage of GDP, are still significantly lower than in the early 1990s. In the euro area, the situation has actually improved in those countries where public debt sustainability was most at risk (eg Belgium); all the same, public liabilities have risen on average in the past decade and now exceed the Maastricht ceiling of 60% of GDP in the three largest economies. In Japan, public debt is expected to reach 160% of GDP this year, and it is still growing by around 5 percentage points of GDP per year.

... and debt levels are not yet clearly excessive

It is self-evident that public sector debt cannot grow without limit. Weak fiscal positions can raise long-term interest rates and crowd out private investment if markets do not expect them to be corrected. If the government were to seek to offset such a process through monetary stimulus, inflationary pressures could rise. The lesson of the past few decades is that the longer

But public liabilities cannot grow without limit ...

... raising the need for fiscal consolidation at some point ...

... and for credible medium-term frameworks

fiscal consolidation is delayed, the greater is the need for a severe adjustment later on. The fiscal consolidation implemented in some highly indebted European countries, such as Belgium and Italy in the 1990s, required painful restraints on public expenditures and substantial tax increases.

From this longer-term perspective, budget balances in many large countries must improve significantly in order simply to stabilise current net debt/GDP levels (Table II.6). In addition, interest rates are at present very low and their return to levels more in line with historical averages would increase the cost of servicing a still growing debt stock. And some precautionary room for manoeuvre also needs to be restored, notably in those countries where structural deficits are relatively high. This need is compounded by the over-optimism of official fiscal forecasts, so evident in recent years, and the uncertainty about potential growth trends discussed above.

Several governments have already expressed their intention to cut public deficits in the coming years, assuming the current recovery endures. Yet some of these plans look rather ambitious and markets might well find them

Fiscal indicators in 2003							
	Financial balance	Structural balance ¹	Cyclical balance ²	Net debt	Gross debt	Debt stabilisation effort ³	Risk on interest payments ⁴
United States	-4.9	-3.9	-1.0	47	63	2.7	0.6
Euro area	-2.8	-1.6	-1.2	55	76	0.6	-0.3
Germany	-4.0	-2.4	-1.6	52	65	2.7	-0.5
France	-4.1	-2.9	-1.2	43	70	2.5	-0.8
Italy	-2.4	-1.4	-1.0	94	117	-1.5	0.4
Spain	0.3	1.0	-0.7	36	63	-2.6	0.9
Netherlands	-3.2	-2.1	-1.1	43	54	1.4	-0.8
Belgium	0.2	-1.0	1.2	93	102	-4.4	0.3
Austria	-1.2	0.1	-1.3	45	67	-0.6	-0.3
Greece	-2.7	-2.6	-0.1	...	103	-4.5	1.7
Portugal	-2.8	-0.9	-1.9	...	60	0.3	-1.6
Finland	2.1	2.8	-0.7	-47	53	-0.7	-1.4
Ireland	-0.3	1.0	-1.3	...	32	-2.0	-2.4
Japan	-8.2	-7.2	-1.0	79	155	9.2	1.1
United Kingdom	-3.0	-2.7	-0.3	32	54	1.3	0.3
Canada	1.2	1.8	-0.6	35	76	-3.3	1.1
Australia	-0.6	-0.5	-0.1	3	18	0.4	-0.2
Sweden	0.2	1.2	-1.0	3	63	-0.3	0.8
Denmark	1.2	2.3	-1.1	5	51	-1.4	-0.7
Norway	9.3	-3.0	12.3	-90	24	-5.3	-1.2
New Zealand	2.4	3.7	-1.3	15	38	-3.1	-0.2
All countries ⁵	-4.1	-3.2	-0.9	50	79	2.5	0.4

Note: All data are for general government and expressed as a percentage of GDP.

¹ Cyclically adjusted financial balance; for Norway, excluding revenues from petroleum activities. ² Financial balance minus structural balance. ³ Change in financial position necessary to stabilise net debt (gross for Greece, Ireland and Portugal), if nominal GDP were growing at its potential rate. ⁴ Potential minus actual gross interest payments; potential interest payments are those that would arise if the spread between the nominal GDP growth and the apparent interest rate on gross debt (net for Greece) were equal to its 1994–2003 average. ⁵ Weighted average of the countries shown, based on 2000 GDP and PPP exchange rates.

Sources: IMF; OECD; BIS calculations.

Table II.6

unrealistic as well as possibly insufficient. This has strengthened the argument for adopting a credible medium-term fiscal strategy in the main industrial economies, although such frameworks should also leave some space for discretionary policies. The recent relaxation of fiscal rules, which had been instrumental in achieving budget consolidation in the 1990s, is thus a matter of concern. In the euro area, for instance, the deficit limits set by the Stability and Growth Pact have been breached by several countries. In the United States, the authorities have abandoned the system of caps on discretionary spending introduced in the 1990s. And there is a growing need for adopting a long-term strategy in order to address the rising public debt in Japan.

The issue of ageing

There has been reluctant but growing recognition that the commitment of governments in the industrial countries to pay for pensions and medical care for the aged cannot be honoured without additional policy actions. This problem should be viewed in the broader context of the macroeconomic consequences of ageing. Assuming that current trends in birth rates and immigration remain unchanged, the active/inactive population ratio will worsen dramatically in the coming decades. Hence, the claims of future pensioners are expected to rise sharply. The risk this entails is that the implied tax burden on a relatively smaller future generation of workers will become excessive, leading to sweeping and disruptive cuts in such benefits or their effective reduction through higher inflation.

Fiscal
consequences of
ageing populations
are a major
concern

Three types of action could be considered in order to avoid this. The first and most crucial is to raise public awareness of the simple arithmetic. This suggests a full recognition of the implicit liabilities stemming from ageing, which often remain hidden under current public budget accounting. A second response, building on the first, is to cut promised benefits in an orderly way, thus limiting transfers between current and future working generations. A third measure often proposed is to complement public commitments with private savings, although a change in pension arrangements would be of little help in addressing the problem of previously acquired rights.

The key issue, however, is to increase the pool of resources (ie national incomes) from which future social benefits will be drawn. A first proposed solution is to raise saving rates, and therefore the capital available to support future workers, through a greater reliance on privately funded savings schemes. It is true that these schemes are often regarded as being better prepared to deal with the consequences of ageing, but whether national savings will effectively rise in aggregate, and whether this will effectively raise future incomes, is still a matter of debate. In addition, countries that will be facing the consequences of ageing earlier (ie European countries and Japan) already have a relatively high level of private savings, and still higher investment might not be very effective in raising potential output. A second proposed solution is to increase the labour force in the future, ie at the time when higher public transfers will have to be made. Many countries have already adopted measures to raise the retirement age, and some might well consider allowing more foreign workers to enter. Past experience suggests

The key issue is to
raise average living
standards

that policies aimed at curbing structural unemployment and raising labour force participation could also have a substantial impact on the level of potential output. A third proposed solution is to raise the amount of output generated by a given input of labour and capital. Higher gains for total factor productivity would leave more resources available for consumption by a declining group of working and an expanding group of non-working citizens. Assuming that it continues, the divergence in trend productivity gains noted above suggests that the United States is in a better position in this regard than most other industrial countries.

Current account developments

Widening global current account imbalances

The US current account deficit ...

Large current account imbalances continued to characterise the global economy in 2003 (Table II.7). The US payments gap increased to almost \$550 billion, around 5% of US GDP. Current account surpluses were found mainly in Asia but also in parts of Europe (essentially Germany, Switzerland and Norway). Statistical shortcomings imply that more than \$100 billion of global deficits were not accounted for in 2003. This has been a persistent pattern since the late 1990s that clouds any analysis of present current account positions.

... has tripled since the mid-1990s ...

Since the mid-1990s, the US deficit has more than tripled in percentage points of GDP, with emerging markets (particularly in Asia) accounting for the bulk of the corresponding increase in surpluses. The picture has been relatively more stable for the other main industrial economies. Sizeable and regular current account surpluses of around 2 to 3% of GDP have been recorded in Japan. The euro area has also been in a comparatively stable position, with only a slight surplus on average over the past decade.

In the United States, strong demand growth and the high value of the dollar widened the imbalance in the late 1990s. In recent years, however, a continued widening has occurred despite the weakening of the dollar.

Current account balances in major regions					
	Average 1991–2000	2001	2002	2003	2004 ¹
United States	-150	-394	-481	-542	-496
European Union	9	-6	67	36	48
Japan	107	88	113	138	144
Other advanced industrial countries	4	56	46	41	44
Emerging Asia	22	90	132	148	128
Rest of the world	-72	-3	13	58	33
<i>World</i> ²	-80	-169	-110	-121	-99

¹ IMF forecast. ² Reflects errors, omissions and asymmetries in balance of payments statistics.
 Sources: IMF, *World Economic Outlook*; national data. Table II.7

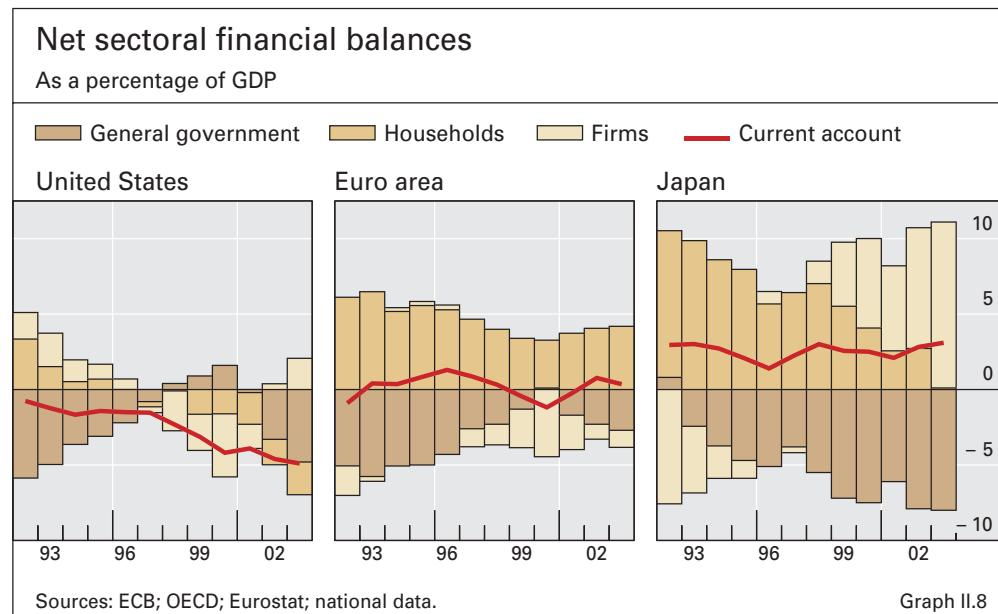
A classical J-curve effect (whereby the trade balance worsens in the initial phase of exchange rate depreciation) may have been at play, as well as the higher price of oil. However, developments in US import prices have been rather moderate, reflecting the widespread practice of pricing to market by foreign exporters. Indeed, the US trade deficit seems to have been driven by the fact that the US economy has been growing faster than most of its trading partners and by an apparently higher elasticity of imports to domestic demand in the United States, compared to the elasticity of US exports to external demand.

By definition, the marked rise in US external borrowing needs since the mid-1990s has been associated with a growing gap between investment and saving. Before the last downturn, saving by households fell and investment as a proportion of GDP increased. These two factors drove the current account deficits up, in spite of a sharp improvement in the fiscal accounts (Graph II.8). Following the recession, this picture changed as investment was cut back and business sector saving rose. Nevertheless, US foreign borrowing continued to increase as a large public sector saving deficit emerged. This raised concerns that a “twin deficit” problem had reappeared, echoing developments in the 1980s. However, a more persistent trend has been the association of large current account deficits with continued low levels of household net saving.

Patterns in saving have been somewhat more stable in Europe, although significant changes have occurred within the euro area since the mid-1990s. A large German current account surplus has emerged as investment has fallen. The ratio of investment to GDP has been steadier in Italy, but a substantial current account deficit has built up as household saving has declined. Japan has continued to experience a steady and parallel decrease in both saving and investment (Table II.8). In emerging Asia, investment was scaled back following the 1997–98 financial crisis and has risen only modestly in recent years, while saving rates have rebounded. Other emerging economies have

... reflecting a growing gap between investment and saving

Patterns in saving and investment outside the United States



Saving/investment balances

As a percentage of GDP

	Investment			Current account			Domestic saving		
	Change		Level	Change		Level	Change		Level
	1997–2000	2000–03	2003	1997–2000	2000–03	2003	1997–2000	2000–03	2003
United States	1.0	-2.4	18.4	-2.7	-0.7	-4.9	-1.6	-3.2	13.4
Euro area	1.7	-2.1	19.9	-2.0	1.6	0.4	-0.4	-0.5	20.3
Other European countries ¹	0.4	-1.8	16.6	-0.4	0.5	2.0	-0.1	-1.3	18.6
Other advanced countries ²	0.1	0.9	22.1	2.5	-1.3	-1.1	2.5	-0.4	21.0
Japan	-2.4	-2.3	24.0	0.2	0.7	3.2	-2.1	-1.6	27.2
Emerging Asia, main economies ³	-3.9	1.4	30.7	2.3	0.9	4.0	-1.6	2.3	34.6
Other main emerging countries ⁴	-1.0	-1.2	20.6	1.3	2.0	0.7	0.2	0.8	21.3
Total	-0.2	-1.8	21.0	-0.9	0.4	-0.5	-1.1	-1.3	20.5

¹ Denmark, Norway, Sweden, Switzerland and the United Kingdom. ² Australia, Canada and New Zealand. ³ China, Hong Kong SAR, India, Indonesia, Korea, Malaysia, the Philippines, Singapore, Taiwan (China) and Thailand. ⁴ Argentina, Brazil, Chile, the Czech Republic, Hungary, Mexico, Poland, Russia, South Africa and Turkey.

Sources: ECB; Eurostat; CEIC; national data.

Table II.8

seen an improvement in their aggregate current account balance matched by higher saving or lower investment.

Significant medium-term uncertainties

Risk of protectionism

Widening external imbalances, allied with a perception that employment in developed economies is threatened by the supply of low-cost goods and services from fast-growing Asian economies, have raised the risk of protectionism. Protectionist sentiment might also be exacerbated by the planned elimination of quotas on textile imports and the increasingly publicised outsourcing of IT services offshore (eg to India). These concerns are clearly exaggerated, given the relatively small size of the sectors considered. In addition, many countries have proved able to cope over many years with the secular decline in low-skilled manufacturing jobs. Indeed, structural unemployment in the OECD area has decreased since the mid-1990s.

The funding of US borrowing needs

A second issue is the way external imbalances have been financed (see Chapter V). The composition of US capital inflows has changed in the past few years, from private direct investment and equities towards foreign official holdings of US government debt, notably by central banks in Asia. The weakening of the dollar until February this year might indicate increased dependence on such flows.

How vulnerable capital flows to the United States are to shifts in investor sentiment is unclear. Some observers have expressed the concern that the demand for dollar assets could be undermined should foreign investors begin to worry more about US debt accumulation or by less favourable growth prospects. From this perspective, a key consideration is that, by the end of 2002, net US international liabilities amounted to 25% of GDP (at market values). This ratio is very likely to increase in the years ahead, since stabilisation of the

net debt/GDP ratio would require a large reduction of the US current account deficit, which appears unlikely at present.

There are, however, some more positive elements. Although high by historical standards, US external debt is still lower than in some other industrial countries – eg Australia (60% of GDP). Moreover, the rise in US foreign liabilities has occurred in a context of increased financial liberalisation and the associated development in cross-country ownership of capital stocks. This suggests that the international financing of even large saving/investment gaps is now appreciably easier than in earlier decades.

It should also be noted that the financial flows stemming from current account balances are not the only source of changes in net investment positions. Valuation effects also matter. For instance, the increase in the US net external debt from 1983 to 1990 (over \$400 billion) was less than half of the current account deficits cumulated over that period. This was due in large part to the increased dollar value of US assets denominated in foreign currency, as the dollar depreciated over most of the period.

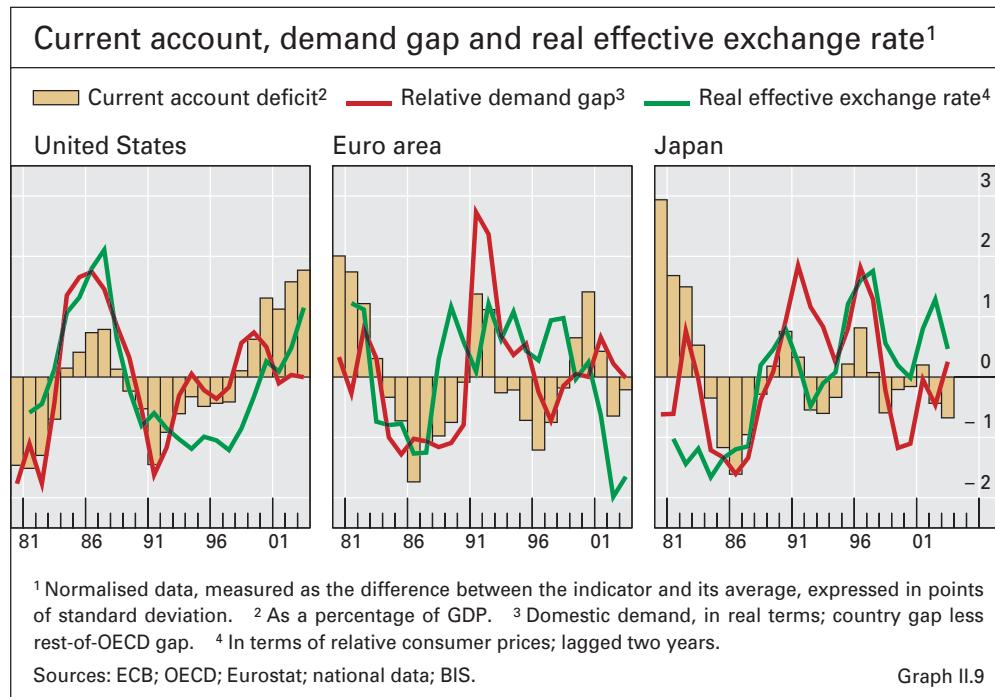
Valuation effects matter for the net external position ...

Perhaps more importantly, the case of the United States is unique for three reasons. First, the dollar has a prominent international role as an anchor, reserve and intervention currency (see Chapter V). This may have created a structural bias in favour of US assets as countries worldwide increased their holdings of foreign assets. Second, the United States still enjoys a small surplus on its net investment income balance, despite a large and rising foreign debt. Though the current situation of low global interest rates has certainly favoured net debtors at the expense of creditors, a more structural element is that the return on US direct investment abroad has been consistently higher than for foreign-owned assets in the United States. This suggests that US companies long established abroad may enjoy a structural advantage in terms of profitability. Third, the United States has been able to attract sizeable and growing long-term capital flows over the past decade. Looking ahead, the recent significant improvement in US productivity growth relative to other industrial countries might, if sustained, underpin such inflows in the medium term.

... and the case of the United States is unique ...

Continued large US current account deficits could still be consistent with a stabilisation of the US ratio of net external debt to GDP in the longer run, albeit at a markedly higher level than today. This would push the cost of debt servicing up; moreover, the problem is aggravated by the fact that, over time, the real rate of return on assets held by non-residents in the United States should come closer to the US growth rate, and also closer to the real rate of return on foreign assets held by US residents. Against this background, a stabilisation of the US net external debt ratio would require a more balanced current account position net of investment income, and thus a much lower US trade deficit with correspondingly lower trade surpluses elsewhere. Given its narrower negative output gap, the United States would undoubtedly have a smaller trade deficit were its main trading partners to return to potential. Nonetheless, any meaningful reduction is likely to require a further adjustment in relative prices (eg in real exchange rates) as well as a rebalancing of global domestic demand towards surplus countries (Graph II.9).

... but the US trade deficit needs to fall



Process of adjustment

Changes in
exchange rates

A lower dollar would obviously play an equilibrating role for the US trade deficit. The rest of the world would reduce its trade surplus with the United States and US absorption would fall in relation to output as the US trade deficit fell. However, the size and speed of such adjustments depend on relative trade elasticities. The impact of any currency adjustment might also be smaller than commonly thought, since changes in nominal exchange rates are often only partly matched by movements in competitiveness. For instance, the dollar appreciated in nominal effective terms by 34% between 1995 and 2001, but the US real effective exchange rate (as measured in terms of relative unit labour costs in manufacturing) increased by only 23%. In addition, US exporters started to lose market share only in 1998, suggesting that the impact of the dollar appreciation took quite some time to be felt. Moreover, while US export performance deteriorated sharply from 1998 to 2003, US imports did not grow any more rapidly over the period than would be suggested by historical patterns. Finally, with US imports currently about 50% higher than US exports, a significant dollar depreciation might be needed to narrow the US trade deficit.

Balance sheet
implications of any
adjustment of the
dollar

An adjustment of the dollar could have implications far beyond the United States. A first potential consequence might be weaker demand elsewhere. Many industrial economies have relied on US import demand as the driver of growth, while their demand for non-tradables has not grown in a self-sustained way. In addition, a sizeable dollar drop might trigger inflationary pressures in the United States, possibly leading to higher US and global interest rates, which would lower US net investment income. Finally, too extreme a depreciation of the dollar might generate excessive disinflationary pressures among US trading partners, which could go beyond the direct

impact on prices arising from an appreciating currency. About half of US assets held abroad are expressed in foreign currencies while almost all US liabilities are denominated in dollars. This implies that a dollar depreciation would improve the US net international investment position, despite the United States having net foreign liabilities. Given that the total stocks of US assets and liabilities have soared over the past two decades, to 62% and 87% of US GDP respectively, the valuation effect of a 10% decline in the dollar would lower the net external debt by around 3% of GDP, all other things equal. This would have significant adverse implications for balance sheets in creditor countries, which could slow spending there and impede the adjustment process.

Another way to rebalance domestic demand would be to raise national saving in countries with large external deficits and reduce saving in those recording surpluses. Traditionally, trade patterns have been more responsive to changes in demand than in relative prices. Fiscal policy has an obvious attraction in this context, at least in the United States. In addition, some tightening would help address the longer-term challenges posed by the growing US public debt. But a rapid and strong US fiscal consolidation could also have a global contractionary impact, and the alternative – allowing some fiscal easing in places where saving might seem too high – appears to have only limited appeal in the face of elevated government debt levels in most jurisdictions.

The present constellation of private saving also offers some room for adjustment, though it is more difficult to envisage which specific policy actions might be recommended. Household saving rates are particularly low in countries with current account deficits, such as the United States, the United Kingdom and Australia, but could move upwards, for instance if interest rates were to rise. Symmetrically, household saving might be encouraged to decline in some countries with large current account surpluses, especially in emerging Asia. In the euro area, consumer saving has recently increased and there might be some scope for reversing this trend. In Japan, the household saving rate has already fallen sharply but it is not clear whether this decline can or should be sustained. Finally, there seems to be little scope for an adjustment in investment patterns. The room for a further decline in the investment/GDP ratio seems limited in the United States, given the sharp correction that has already taken place. In Asia, investment/GDP ratios remain relatively high from an international perspective and unproductive investment could easily occur. Higher investment in non-Asian economies that are still in the early stages of economic development could raise their potential output in a decisive way.

The elements discussed above suggest that external imbalances could evolve in three different ways over the next few years. A first, and undesirable, scenario would be a potentially large and disorderly adjustment in exchange rates, say due to reduced willingness among foreign investors to invest in US assets. US consumption of now higher-priced imports would probably slow while long-term interest rates might rise. A second scenario would leave the present picture unchanged, for instance with Asian central banks continuing to

Higher saving in countries with large external deficits

Three scenarios of adjustment

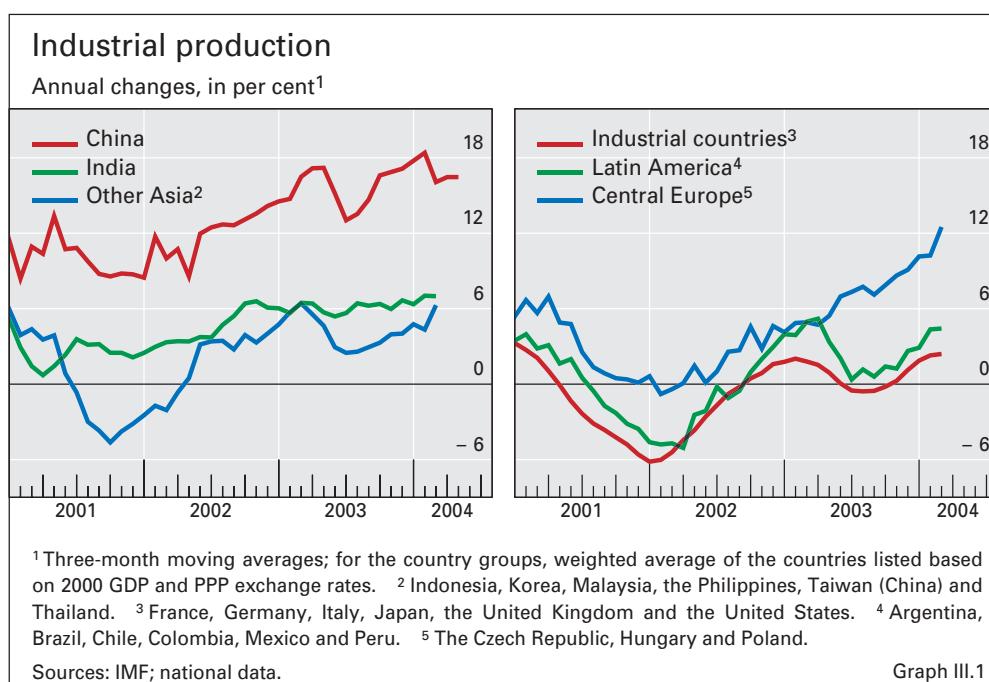
accumulate foreign reserves. However, this would distort the global allocation of capital and, by delaying needed adjustment, might increase the risk of a larger and more disruptive adjustment later on. In any event, sharp movements in a number of bilateral rates might be unavoidable, especially among industrial countries with floating exchange rates. The third and most welcome scenario would envisage a gradual reduction of global external imbalances due to the lagged impact of a moderate dollar depreciation on US trade, somewhat higher US saving (via household saving and fiscal tightening), greater exchange rate flexibility in Asia, and higher domestic demand outside the United States.

III. Developments in the emerging market economies

Highlights

Ample global liquidity, reflecting easy monetary conditions and a greater willingness on the part of investors to bear risks in international capital markets, strengthened growth in emerging economies from mid-2003. At the same time, the negative effects of several shocks wore off. A distinct reversal, however, took place in April 2004 as long-term interest rates rose sharply, emerging market credit spreads widened and equity prices fell.

During the expansion, which began around the end of 2001, China emerged as a major contributor to global economic activity, with growth in industrial production consistently surpassing that of other countries and regions (Graph III.1). In the rest of Asia, growth rebounded in most countries once the SARS outbreak was contained. In Latin America, however, there was some divergence in growth rates, notwithstanding the stimulus from stronger demand in the United States, much higher commodity prices and a progressive easing of monetary policy. In the first quarter of 2004, growth was still moderate in Brazil, had risen significantly in Mexico, and was strong in Argentina. In central and eastern Europe (CEE), the prospect of accession to the European Union and buoyant demand in other regions led to a substantial rise in industrial production in the Czech Republic, Hungary and Poland. The consensus of forecasts for 2004 (Table III.1) is for a marked pickup in growth in Latin America and continued strong growth in the other main regions.



Output growth, inflation and current account balances									
	Real GDP ¹			Consumer prices ^{1, 2}			Current account balance ³		
	Average 1999–2002	2003	2004	Average 1999–2002	2003	2004	Average 1999–2002	2003	2004
Asia ⁴	6.2	7.4	7.3	1.8	2.5	3.6	3.5	4.6	2.0
China	7.7	9.1	8.6	-0.3	1.2	3.4	2.1	3.3	1.0
Hong Kong SAR	4.0	3.1	6.0	-3.1	-2.6	-0.4	5.2	9.4	10.3
India	5.1	8.1	6.8	4.3 ⁵	5.4 ⁵	5.0 ⁵	-0.1	0.8	-0.1
Korea	7.6	3.1	5.6	2.5	3.5	3.3	2.9	2.4	2.4
Other Asia ⁶	3.5	4.4	5.4	4.8	2.9	3.2	7.7	9.8	5.8
Latin America ^{4, 7}	1.0	1.4	4.2	8.2	7.1	6.8	-2.2	0.6	0.6
Argentina	-4.7	8.7	7.7	9.2	3.7	7.1	-1.7	5.8	3.7
Brazil	2.1	-0.2	3.3	8.8	9.3	6.4	-3.8	0.8	0.3
Mexico	2.7	1.3	3.2	7.4	4.0	4.2	-2.8	-1.4	-1.9
CEE ^{4, 8}	2.9	3.7	4.5	10.3	4.0	5.0	-5.2	-4.4	-3.9
Russia	6.6	7.3	6.8	36.1	13.7	10.5	12.5	9.0	6.1
Turkey	0.8	5.8	5.0	54.8	25.3	12.4	-1.3	-3.0	-3.1
Africa	3.3	4.1	4.2	11.5	10.3	8.6	2.9	-0.7	-1.3
Middle East	4.1	5.4	4.1	8.5	8.6	8.9	2.7	7.3	6.0
<i>Memo: G7 countries</i>	2.2	2.2	3.4	1.7	1.8	1.7	-1.4	-1.6	-1.5

Note: Figures for 2004 are based on May consensus forecasts and IMF, *World Economic Outlook*.

¹ Annual changes, in per cent. ² For Latin America, end of period values. ³ As a percentage of GDP. ⁴ Weighted average of the economies listed, based on 2000 GDP and PPP exchange rates. ⁵ Wholesale prices. ⁶ Indonesia, Malaysia, the Philippines, Singapore, Taiwan (China) and Thailand. ⁷ Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela. ⁸ Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia.

Sources: IMF; OECD; © Consensus Economics; JPMorgan Chase; national data; BIS estimates. Table III.1

Growth was associated with very sharp and broadly based increases in oil and non-oil commodity prices, driven in part by the continued strong expansion of industrial production in China. While the pass-through to final prices has until recently been muted, the threat of deflation in the emerging market economies has receded. Inflation turned positive in China in late 2003, and rising prices for raw material inputs are squeezing margins or creating inflationary pressures in a number of Asian economies. Concerns that inflationary pressures might lead to a breaching of inflation targets prompted monetary tightening in Mexico and a temporary interruption in the lowering of interest rates in Brazil. Higher commodity prices also contributed to current account surpluses in some countries and produced terms-of-trade gains in Africa.

The global economic environment played a large role in shaping developments in emerging economies in 2003. Renewed capital inflows and much narrower credit spreads supported some highly indebted countries. However, they also put upward pressure on exchange rates, especially in Asia, and foreign exchange intervention was very heavy. In some cases this intervention helped fuel more rapid growth in money and credit. The sharp rise in commodity prices also had major implications for several countries, boosting revenues in some, and contributing to higher production costs or inflation in others.

Return of capital inflows

Net private capital flows to the 21 largest emerging market economies were estimated at about \$170 billion in 2003 (Table III.2), the highest level recorded since the peak of over \$200 billion in 1996. Both portfolio flows (equities and bonds) and other flows (commercial bank and other loans) were significantly higher than in 2002. Foreign direct investment (FDI), however, continued to decline, with its share in total flows falling below 45% from 70% on average during the 1990s. Asian economies attracted the bulk of the inflows last year,

Capital flows reached the highest level since 1996

Net private capital flows to emerging market economies				
	Annual average 1990–2000	2001	2002	2003 ¹
Emerging market economies²				
Total flows	111	57	66	171
Direct investment	76	129	96	76
Portfolio investment ³	50	-21	-28	29
Other private flows ⁴	-15	-51	-3	66
<i>Memo: Current account balance</i>	-24	45	107	142
<i>Change in reserves⁵</i>	-56	-89	-177	-282
Asia⁶				
Total flows	35	31	41	111
Direct investment	35	42	47	45
Portfolio investment ³	12	-12	-18	36
Other private flows ⁴	-12	1	12	30
<i>Memo: Current account balance</i>	14	66	99	123
<i>Change in reserves⁵</i>	-37	-82	-151	-215
Latin America⁷				
Total flows	62	36	-3	16
Direct investment	34	59	34	24
Portfolio investment ³	30	1	-13	-5
Other private flows ⁴	-2	-24	-24	-3
<i>Memo: Current account balance</i>	-39	-47	-8	9
<i>Change in reserves⁵</i>	-11	3	0	-27
CEE⁸				
Total flows	20	-10	28	43
Direct investment	12	16	14	6
Portfolio investment ³	9	-2	4	-2
Other private flows ⁴	-1	-24	10	39
<i>Memo: Current account balance</i>	-2	27	16	12
<i>Change in reserves⁵</i>	-12	-7	-23	-33

¹ Estimates of capital flows based on national balance of payments data and IIF. ² Comprises the economies in Asia, Latin America and CEE listed in the footnotes and South Africa. ³ Debt and equity assets and liabilities. ⁴ Includes net flows intermediated by commercial banks and other private sector agents (not including financial derivatives). ⁵ A negative value indicates an increase. ⁶ China, India, Indonesia, Korea, Malaysia, the Philippines, Taiwan (China) and Thailand. ⁷ Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela. ⁸ The Czech Republic, Hungary, Poland, Russia and Turkey.

Sources: Central banks; IMF; Institute of International Finance (IIF).

Table III.2

with China alone absorbing over 60% of FDI in all emerging markets. Brazil, China, India and Korea were important destinations for portfolio inflows, while countries in Asia and CEE benefited from a resumption in loan flows.

Bond, equity and loan flows remained strong in early 2004 and are expected to increase further this year compared with 2003. Emerging market borrowers issued an estimated \$26 billion of bonds and notes in international markets during the first quarter of 2004. Increased capital flows were accompanied until April 2004 by reduced volatility and a marked compression of sovereign bond spreads, particularly for lower-rated bonds.

Renewed capital inflows over the past few years have been accompanied by a widening of current account surpluses in Asia, a reversal of the large deficits in Latin America, and smaller surpluses in CEE. In 2003, for instance, the three key emerging market regions all recorded aggregate current account surpluses. The concurrent increase in private capital inflows and current account surpluses raises the question of the uses of capital inflows in the emerging market economies. Investment rates have been constant on average over the past three years. However, there has been a sharp increase in foreign exchange reserves since 2001, suggesting that a significant part of the inflows has boosted official reserves (discussed below).

The return of capital inflows and the compression of bond spreads raise questions about their sustainability. To the extent that they reflect macroeconomic and structural improvements – that is, better fundamentals attracting the flows to the emerging economies (the “pull” factors) – higher inflows and favourable external financing conditions could last. But to the extent that they reflect low industrial country interest rates, buoyant global liquidity and investors’ willingness to undertake riskier investments (the “push” factors), any change in these conditions in the industrial countries could renew concerns about emerging market vulnerabilities.

Determinants of recent capital inflows

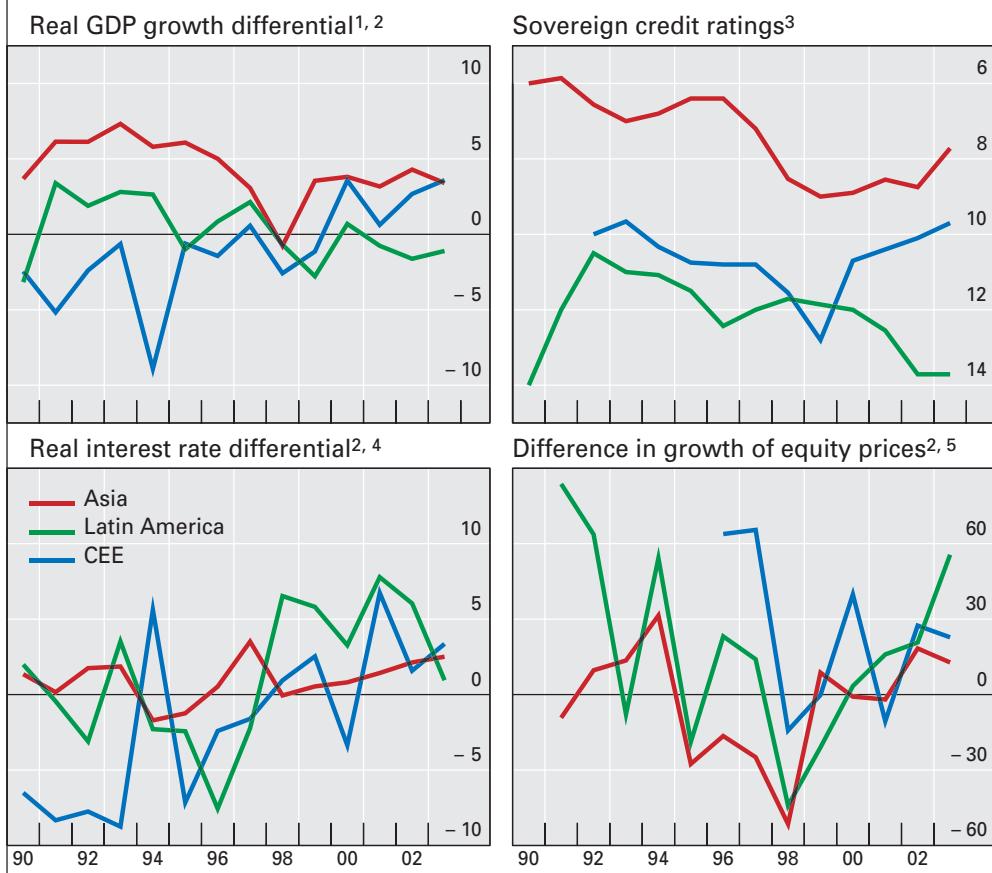
Empirical evidence is mixed on the relative importance of “pull” and “push” factors in influencing the recent capital flows to the emerging market economies. Other than relative growth performance, which has an effect on all capital inflows, the factors driving FDI seem to be independent of those influencing portfolio and loan flows.

Flows of FDI to Latin America have declined since 1999, largely as a result of slower growth (Graph III.2, top left-hand panel) reflecting the crisis in Argentina and the slowdown in Brazil and Mexico. The slower progress of privatisation in several countries has also held back FDI. Consequently, crisis-related events in Latin America may have magnified previously latent risks of investing in emerging market countries, in particular risks to FDI stemming from a possible abrogation of private contracts. In contrast, FDI has continued to flow to the Asian emerging economies, especially China, in a context of better growth performance and structural improvements. Similar factors also benefited the economies in CEE. However, after averaging 3–6% of GDP per year since 1995, cumulative FDI in CEE had reached such high levels that it became difficult to absorb further increases. Moreover, privatisations of

What factors have influenced recent capital flows?

FDI flows were affected by growth and privatisations

Determinants of capital flows to emerging market economies



Note: For an explanation of the regions, see Table III.2. For the top left-hand panel, regional averages using US dollar GDP weights. For the other panels, simple average.

¹Regional growth rates minus growth in the G7 economies. ²Percentage points. ³On a scale from 1 (highest) to 24 (lowest). ⁴Money market rates deflated by consumer prices minus US real rate. ⁵Regional growth rates of indices in US dollar terms minus US equity growth.

Sources: IMF; JPMorgan Chase; national data.

Graph III.2

state-owned assets, in particular sales of commercial banks to foreign-owned institutions, had largely been completed by 2002. Under the influence of these factors, FDI inflows to CEE fell sharply last year.

Detailed studies, such as recent reports by the Committee on the Global Financial System and the IMF Capital Markets Consultative Group, have established that, over the past decade, FDI flows have shifted towards countries with large domestic markets (including in the financial and services sectors) and those that participate in free trade agreements or regional trade integration schemes. To date, this shift has benefited Brazil, China, Mexico and EU accession countries in CEE, and it might well benefit India in the future (see below).

FDI benefited large economies or those in trade integration schemes

Portfolio flows have been much less stable and subject to greater influence from global factors than FDI flows. The decline in bond and equity flows during 2001 and 2002 thus reflected not only conditions in the real economy (lower growth in industrial countries, crises in Argentina and Turkey and weaker growth prospects), but also financial market factors such as the fallout from the bursting of the technology and telecoms bubbles and increased risk

Portfolio flows responded to push and pull factors

Ample liquidity influenced portfolio flows

Improved credit ratings and higher interest rates attracted loans

The risks that capital flows might reverse ...

... are moderated by improved performance ...

aversion on the part of investors. Similarly, the surge in portfolio inflows in 2003 seems to have resulted from a combination of such factors. Among the country-specific factors were improved credit ratings in many emerging economies (Graph III.2, top right-hand panel) as well as rising commodity prices and the prospect that emerging equity markets would benefit from strengthening global growth. This expectation helped underpin a sharp rise in emerging market equity prices (Graph III.2, bottom right-hand panel).

Yet favourable liquidity conditions in international capital markets have also played an important role. Very low policy interest rates in the main industrial countries encouraged investors to search for yield in the emerging markets, where bond returns and short-term real interest rates (Graph III.2, bottom left-hand panel) were higher, and equity prices were rising faster than in industrial countries. In addition, factors such as a low dispersion of spreads among differently rated emerging market bonds point to a greater "risk appetite" among industrial country investors (see Chapter VI).

Other private capital flows (mostly loans by commercial banks and trade credit provided by other private sector lenders) turned positive in net terms last year for the first time since the mid-1990s. As in the case of portfolio flows, economies with improved credit ratings and relatively faster growth attracted larger loan inflows. At the same time, higher domestic interest rates relative to industrial countries fuelled increased loan flows to Asia and CEE.

How sustainable are capital inflows?

The shift in the composition of capital flows towards more volatile portfolio investments and loans raises the question of vulnerabilities to possible reversals. For example, sovereign bond spreads widened significantly starting in April 2004, in part because of expectations that US interest rates would rise. In some countries, the interest differential between domestic bonds and comparable US Treasury securities also widened. Increased financial market volatility and the sharp widening of sovereign bond spreads between mid-April and mid-May 2004 demonstrated that, for countries with an uncertain fiscal outlook or those with high public debt levels, positive market sentiment can be quickly reversed. In addition, emerging market economies with floating rate debt or debt denominated in or linked to foreign currencies could find their debt burdens increased if interest rates rose or their currencies depreciated.

At the same time, several factors moderate such risks; some of these factors are discussed in more detail below. The global recovery has strengthened and broadened, with global commodity prices rising strongly. The favourable external financing environment has enabled many countries to meet a significant part of their financing needs for 2004. Some highly indebted countries, including Brazil, Mexico and Turkey, have taken advantage of the favourable market conditions to improve their debt profiles by lowering borrowing costs, extending maturities and reducing the share of short-term external debt and debt indexed to short-term interest rates and exchange rates. Low inflation, increased reserve holdings and the earlier shift to floating exchange rates should also help reduce vulnerabilities. Brazil, Turkey and

some other countries have, in addition, maintained tight fiscal policies and continued to implement structural and other reforms.

Nevertheless, some countries have loosened their fiscal stance and slackened the pace of adjustment, or have seen a significant expansion of private sector credit. In these countries, underlying vulnerabilities masked by the ready access to financing are likely to become more apparent if the external financing environment turns less favourable.

... but some countries remain vulnerable

Exchange rates and reserve accumulation

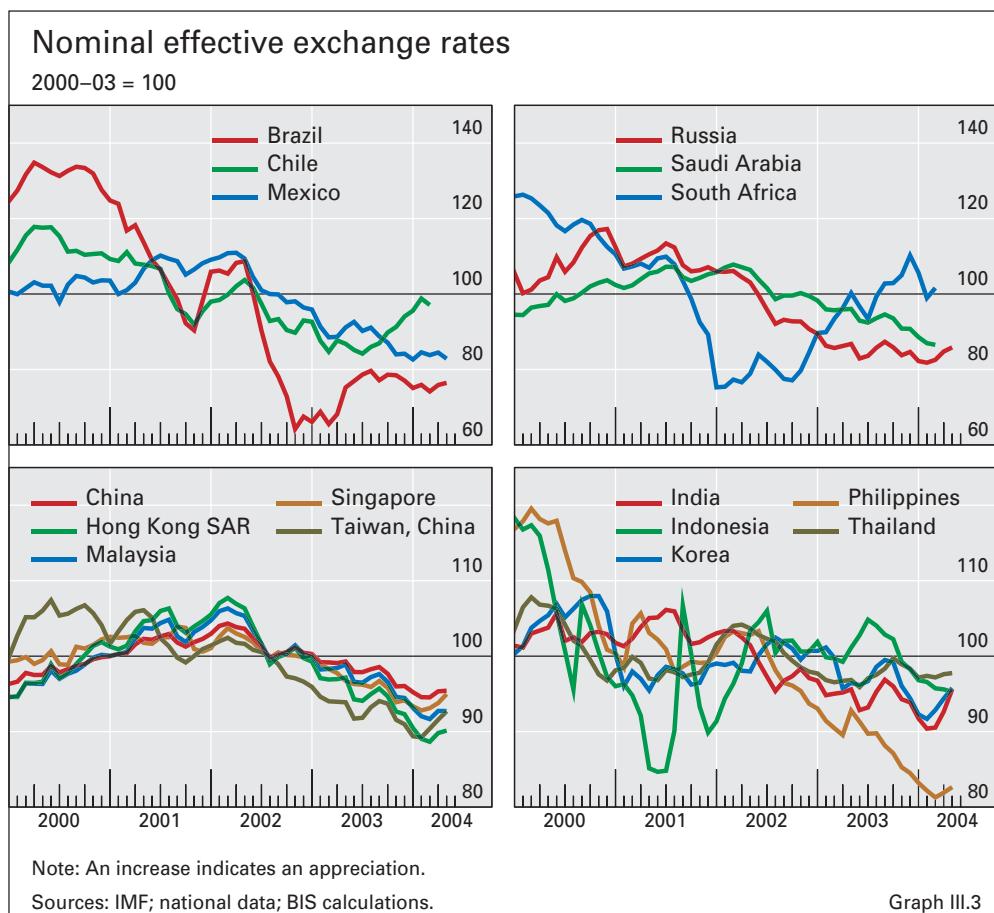
Policy responses

Countries responded in a number of ways to higher commodity prices and capital inflows. Some allowed their currencies to appreciate to an extent that was consistent with inflation targets. For example, in 2003, the currencies of Brazil and Chile recovered sharply from large depreciations. The Russian rouble and South African rand also appreciated throughout 2003, supported by rising exports and capital inflows. As a result, the nominal effective exchange rates of Brazil, Chile and South Africa appreciated last year (Graph III.3, upper panels).

Exchange rates tended to appreciate ...

Other countries relaxed restrictions on outflows or restricted inflows to dampen exchange rate appreciation. For instance, last year China liberalised

... and countries allowed more outflows



exchange restrictions on individual overseas travel, encouraged certain types of domestic firms to invest abroad, and initiated a scheme to induce domestic institutional investors to increase their outward investment. In order to curb inflows, the authorities temporarily suspended approvals of new investment under the qualified foreign institutional investors scheme and placed daily limits on the conversion of dollars into domestic currency by individuals. Similarly, India liberalised investment by domestic companies and financial institutions in overseas assets, allowed the prepayment of foreign currency debt by firms, and permitted residents to hold foreign currency accounts. Thailand limited non-residents' short-term baht lending in September 2003 and subsequently set limits on the amount and maturity of their baht deposits. Korea imposed restrictions (later partly relaxed) on non-deliverable forward markets to dampen currency speculation.

Reserves in Asia rose significantly

Still another response was to intervene in foreign currency markets, as reflected in a significant build-up of reserves in all major regions last year (Table III.3). Total reserves in emerging Asia rose by over \$350 billion between the beginning of 2003 and early 2004. China, India, Korea and Taiwan, China (hereafter, Taiwan) together accounted for over 85% of the increase. Motives for accumulating reserves among Asian economies have varied (see Chapter V), but central banks' attempts to resist appreciation against the US dollar in the face of large and mostly speculative inflows were important. In China, for instance, reserves have increased by an average of over \$10 billion per month since the beginning of last year. Countries with more flexible exchange rate regimes (India, Korea and Thailand) also intervened to slow appreciation. Given

Foreign exchange reserves ¹						
	In billions of US dollars					
	1996	2000	2001	2002	2003	March 2004
Asia ²	477.4	694.5	770.5	944.2	1,208.1	1,302.9
China	105.0	165.6	212.2	286.4	403.3	439.8
Hong Kong SAR	63.8	107.6	111.2	111.9	118.6	123.8
India	19.7	37.3	45.3	67.0	97.6	107.2
Korea	33.2	95.9	102.5	120.8	154.5	162.7
Taiwan, China	88.0	106.7	122.2	161.7	206.6	226.5
Latin America ³	141.3	136.1	135.9	140.1	170.7	178.8
Argentina	17.7	24.4	14.5	10.4	13.1	13.5
Brazil	58.3	32.5	35.7	37.4	49.1	51.6
Mexico	19.2	35.1	44.4	49.9	57.7	60.3
Central Europe ⁴	40.1	51.5	51.3	63.2	72.9	75.4
Russia	11.3	24.3	32.5	44.1	73.2	79.6
South Africa	0.9	5.8	5.8	5.6	6.2	7.9

¹ End of period; for the regions, sum of the economies listed in the footnotes. ² China, Hong Kong SAR, India, Indonesia, Korea, Malaysia, the Philippines, Singapore, Taiwan (China) and Thailand. ³ Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela. ⁴ The Czech Republic, Hungary and Poland.

Sources: IMF; national data.

Table III.3

the dollar's depreciation against other major currencies since the beginning of 2002, the trade-weighted exchange rates of most Asian economies depreciated significantly over the past two years (Graph III.3, lower panels).

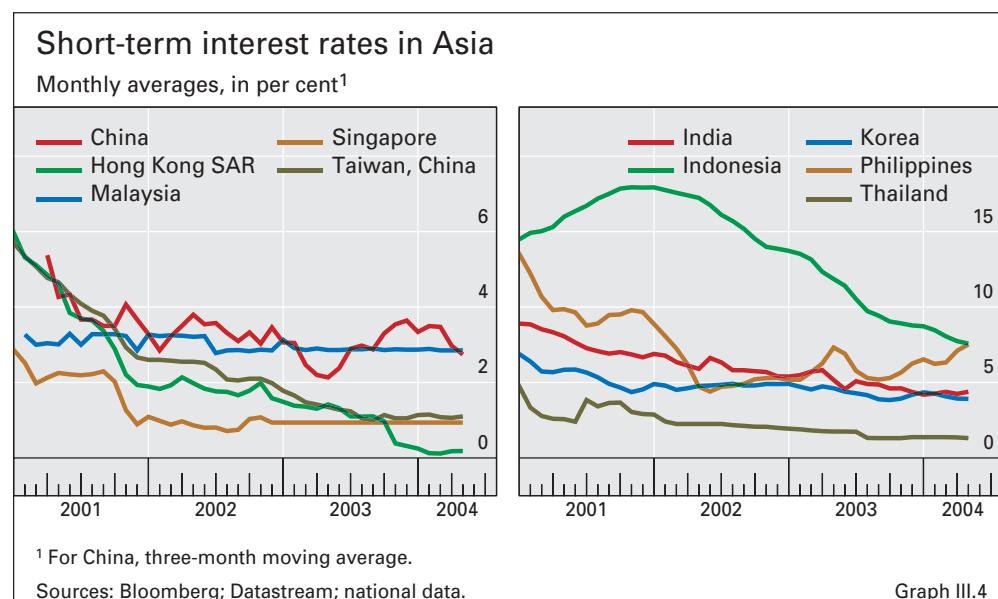
Reserve accumulation was also strong in Latin America, particularly in those countries that benefited from higher commodity prices and capital inflows. In Mexico, the authorities implemented a special mechanism (an auction of 50% of the reserve increases during a certain measurement period) to counteract the build-up of international reserves, largely arising from the growing revenues of the state oil company that had to be surrendered to the bank. Brazil's reserves exceeded \$50 billion by March 2004, although nearly half of this amount corresponded to debt owed to the IMF. In Argentina, the authorities attempted to rebuild some of the reserves lost following the 2001 crisis. In CEE, foreign reserves grew by relatively small amounts. Excepting a brief spell in the third quarter of last year, when the rouble came under depreciation pressure, the Russian central bank continued to purchase large amounts of surplus oil revenues from the market. In South Africa, the closure of the forward book in early 2004 has been followed by rising reserves held by the central bank.

Reserve accumulation was strong in Latin America

Challenges looking ahead

Reserve accumulation poses several domestic policy challenges for central banks (see Chapter V for the global implications). One such challenge is maintaining their desired monetary policy stance. To the extent that central bank purchases of reserves are not fully sterilised, they can create an unwarranted easing of monetary conditions. Nevertheless, such risks appear to have been contained so far. With inflation in most of Asia remaining low, many countries moved to cut interest rates or to hold them at low levels (Graph III.4). Hence central banks' desire to ease monetary conditions reduced the potential need for sterilisation of reserve accumulation. However, in some instances central banks intensified their sterilisation efforts by selling either

Many countries were able to avoid unwarranted monetary easing



government bonds or their own bills. As a result, except in China, and also in Hong Kong SAR (hereafter, Hong Kong) where deflation persists, both base and broad money growth in excess of output appeared to remain well contained (Table III.4).

However, potential challenges remain

However, a continued process of large-scale intervention could still raise significant domestic policy challenges. First, reserve accumulation might at some point compromise the ability of central banks to contain future monetary growth. China's experience raises questions in this regard. Despite effective sterilisation operations by the central bank, base money has risen rapidly over the past two years, increasing banks' lending capacity. At the same time, strong demand for credit, combined with banks' greater ability and willingness to lend, has contributed to strong growth in credit and broad money aggregates. To help offset such pressures, the central bank has raised reserve requirements by 1½ percentage points since September 2003 and has given repeated "window guidance" to banks to curb excessive lending to certain sectors. The central bank also tightened monetary policy by increasing interest rates on its rediscounting and uncollateralised lending facilities, and raised reserve requirements on weak banks by another ½ percentage point.

Technical difficulties in sterilising reserves

Elsewhere, large reserve accumulation has already led to increasing technical difficulties, such as finding eligible instruments with which to mop up additional liquidity. The Reserve Bank of India – which in the past had absorbed a significant proportion of government bond issuance – faced a shortage of instruments for sterilisation operations towards the end of last year. To overcome this problem, the government began to issue bonds under a special market stabilisation scheme, up to a certain limit, for exclusive use by the central bank for sterilised intervention.

Monetary aggregates: growth in excess of nominal GDP ¹						
	Base money ²			Broad money		
	2001	2002	2003	2001	2002	2003
Asia ³	1.0	2.7	4.5	4.1	7.0	3.8
China	1.1	4.5	5.6	5.8	10.9	7.5
Hong Kong SAR	8.2	8.0	21.3	-1.3	-0.1	10.6
India	0.9	1.0	2.1	4.7	7.9	1.0
Korea	10.0	7.0	3.1	2.3	5.4	-1.0
Taiwan, China	-6.5	-5.1	-4.0	6.1	0.1	4.8
Other Asia ⁴	-2.2	-3.4	5.3	-0.9	-2.6	-2.5
Latin America ^{3, 5, 6}	11.1	54.0	1.8	3.3	5.0	0.2
CEE ^{3, 7}	11.2	2.0	0.7	5.5	-1.6	0.6

¹ Rates of growth relative to growth in nominal GDP; end of period values. ² Notes plus bank deposits at the central bank. ³ Weighted average of the countries listed based on 2000 GDP and PPP exchange rates. ⁴ Indonesia, Malaysia, the Philippines, Singapore and Thailand. ⁵ Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela. ⁶ The very large rise in base money in 2002 is mainly due to Brazil (119%). ⁷ Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia.

Sources: IMF; national data.

Table III.4

A second major policy challenge is that perceptions of an undervalued currency associated with foreign exchange market intervention and reserve accumulation can have significant expansionary effects on the economy even if sterilisation is effective. The rapid growth in capital inflows and investment in China last year provides some evidence of such expansionary forces. Moreover, several other Asian economies have recently seen lower interest rate differentials vis-à-vis US dollar paper, reflecting growing market expectations of currency appreciation. In India, for instance, the long-term interest rate differential fell from over 5 percentage points at the beginning of 2001 to less than 2 points by February 2004. Differentials were close to zero or negative in Hong Kong, Malaysia and Thailand in the first quarter of 2004. Narrower spreads, related to large short-term capital inflows, have contributed to booming stock markets and rapid credit expansion in the consumer and housing sectors.

An undervalued exchange rate can be expansionary ...

Third, reserve accumulation exposes the financial system to several risks. For instance, to the extent that resisting appreciation proves unsustainable, large investments in the tradable sector might seem, with hindsight, to be a misallocation of resources. As demonstrated by the experience of previous investment booms in East Asia, such imbalances create the risk of excess capacity, with adverse implications for growth in the medium term. Furthermore, lower long-term spreads and the expansionary forces associated with them raise risks of a boom and bust cycle for the economy. Such a risk is particularly high in economies exposed to speculative capital inflows, which could reverse, triggering a sharp fall in asset prices and the exchange rate. Relatively illiquid financial markets, and the key role of foreign investors in stock markets in a number of cases, might make some economies particularly vulnerable to such risks.

... creating risks of overinvestment

Yet another risk arises from central banks' exposure to potential future losses from reserve accumulation. At present, the conventional carrying cost of reserves appears to be small because of very low domestic interest rates. Some estimates put such costs at less than ½% and 1% of GDP, respectively, in India and the Philippines in 2002 and at negative levels in Hong Kong and Korea. Were domestic interest rates to rise, however, costs of sterilisation would increase significantly. Moreover, large foreign reserves expose the official sector to sizeable currency risks.

Potential risks to central banks

Credit-led demand and household spending

Export-led growth strategies in many countries, particularly those with rising current account surpluses, are increasingly being seen as providing important benefits initially, but also as having inherent limitations. Over time, the encouragement of domestic demand might prove a natural complement. This shift in focus has advanced furthest in Asia and CEE. In contrast, higher saving was needed in Latin America, where current account deficits have recently turned to surpluses.

Domestic demand is a priority

With investment spending still sluggish in many emerging economies, after having fallen significantly following the Asian and Russian crises in 1997–98,

Attention has focused on higher consumption ...

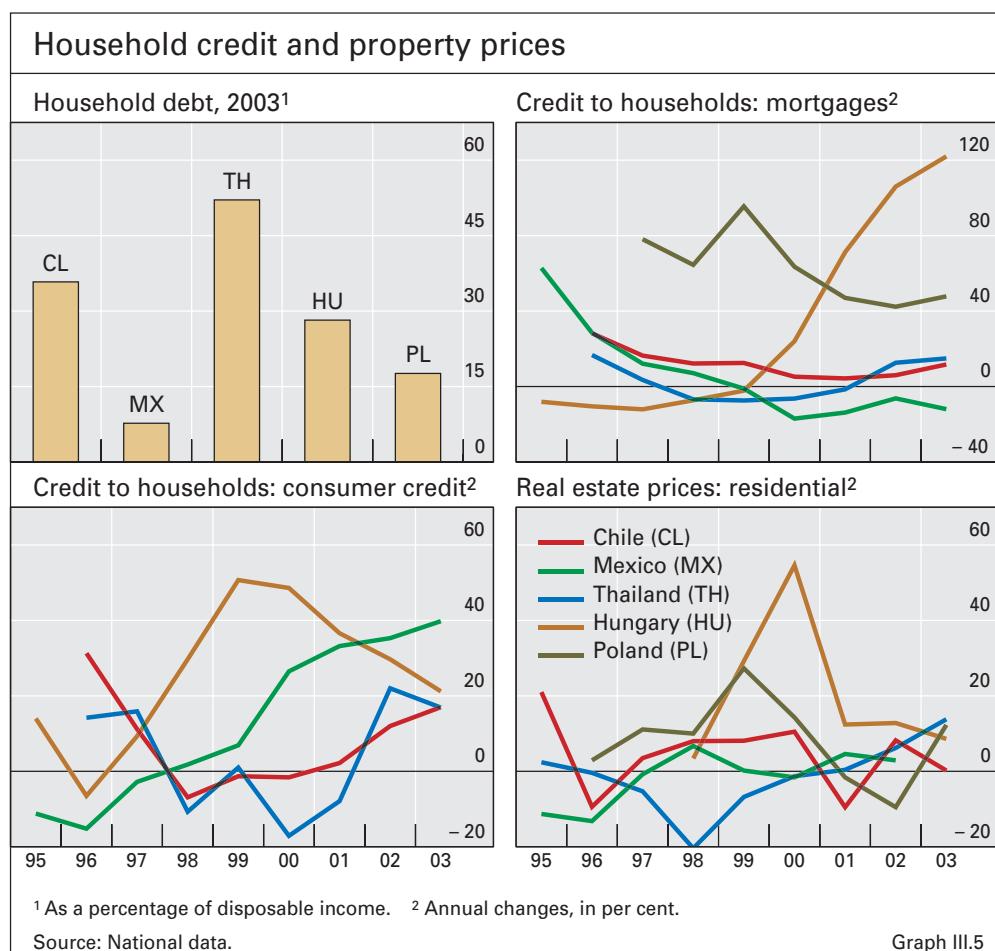
... supported by bank credit

Credit in CEE grew rapidly

attention has focused on the prospects for boosting consumption spending. Consumption/GDP ratios have risen significantly in Asia: between 1997 and 2003 they increased by 3 percentage points in China (to 61%); 8 percentage points in Korea (to 78%) and Singapore (to 55%); and 12 percentage points in Indonesia (to 81%). The average consumption ratio in CEE has also risen sharply. In Latin America consumption ratios have declined since 2001, but the decline slowed in 2003 as consumption revived in some of the larger economies, notably Argentina and Mexico.

Much of the rise in consumption has been driven by lower interest rates, and has been supported by an expansion of bank credit to the household sector and more liquid global conditions in 2003. Often with government encouragement, and in some cases spurred by competition and financial innovations associated with foreign bank entry, credit to households (mortgage lending and/or consumer credit, including credit card loans) has expanded in China, Korea and Thailand, in CEE and Russia, and to some extent in Mexico (Graph III.5). The growing importance of consumer credit is also reflected in FDI patterns, as foreign firms are entering the credit card or retail sectors in a number of emerging market economies (eg Brazil, Mexico and CEE).

The expansion in credit in CEE economies and Russia is particularly striking. In CEE, the growth in credit to households has been very rapid. For example, in Hungary, mortgage credit growth averaged 81% between 2000



and 2003, while consumer credit growth averaged 32% between 1998 and 2003. In Russia, mortgage credit grew by 118% in 2003, and consumer credit by 48%, starting from a low base.

Increased lending to households in emerging economies facilitates home ownership and provides households with an alternative source of finance to the informal sector. In countries where the infrastructure for delivering household credit is not well developed, such credit is still in effect rationed, with only a small (high-income) segment of the population having access to credit, and interest rates are often prohibitively high.

There are reasons to believe that household credit will continue to rise in the future. First, lending to households has provided an important source of diversification for financial sectors that have been too dependent on corporate lending. Second, in those countries where household credit was largely absent until recently, often due to lending restrictions, the pent-up demand for credit remains high. Third, such credit growth has been accompanied by a general increase in household income and wealth. The latter has been boosted in particular by rising stock prices – which has helped households sustain higher debt levels.

Nevertheless, the rapid growth in credit creates risks which may not be well managed. Households could become overextended and might then be unable to service their debt. Such difficulties would of course be accentuated should a housing market bubble develop and then collapse.

Overextended borrowers?

The vulnerability of households to higher debt levels differs widely across emerging market economies. In Mexico and CEE there appears to be less concern about such vulnerability for at least three reasons. First, ratios of private sector credit to nominal GDP are still low in these economies. To illustrate, bank credit to the private sector in 2003 was around 16% of GDP in Mexico and 33–42% in the Czech Republic, Hungary and Poland. This compares to 64% in Chile, 90% in Thailand and 112% in Korea. The corresponding ratios of household debt to income are also lower (Graph III.5). Second, banks in many of these countries are stronger now than they were some years ago when crises reduced the size of financial sectors. Third, a significant amount of credit is being extended by foreign banks with more effective risk management techniques. For example, in 2002, the share of foreign banks (50% or more foreign ownership) in total assets of the banking sector was over 80% in Mexico and ranged from 67 to 90% in Poland, the Czech Republic and Hungary. This compares to 6% in Thailand and 32% in Korea.

In contrast, the sharp growth in credit card debt in Thailand and Korea has been a major concern. In Thailand, the number of bank-issued credit cards increased by 23% in 2003 from a year earlier, to 4.2 million, while outstanding card debt was up 33% over the same period (to nearly \$2 billion, or 1.3% of 2003 GDP). Several million more cards are in circulation from non-bank issuers. Non-performing credit card debt is reportedly still low (3–4% of total debt). Nevertheless, in a pre-emptive move effective April 2004, the Bank of Thailand adopted a series of measures to restrict credit card issuance.

Household credit is likely to grow further

Rapid credit growth may create risks ...

... including high household debt levels ...

... which have raised concerns in Korea and Thailand

Korea is seeing the aftermath of a credit card boom

While Thailand is still in the midst of a credit card boom, Korea is experiencing its aftermath. After several years of rapidly rising credit card borrowing, Korean consumers began to face difficulties servicing their credit card debt, particularly cash advances that had to be paid back in full at the end of each month. Many consumers serviced their debt on one credit card by drawing on other credit cards, worsening their financial position and further exposing their lenders. The average credit card delinquency ratio in Korea (payments overdue one month or more as a percentage of total managed assets) rose to 14% at the end of 2003, from around 6% a year earlier. In 2003, the eight local credit card companies reported net losses of nearly 1.7% of 2003 GDP after posting profits a year earlier. Moreover, their capital adequacy ratios turned negative, falling from 13% to -5.5% over the same period in spite of significant additions to capital.

Overheated real estate markets?

Overheating real estate markets in Asia

Overheating in property markets in emerging economies is not generalised, but confined to certain countries and areas. For example, property prices have risen at double digit rates in Shanghai for three years in a row (18% over a year earlier in 2003), but price gains in some other urban areas of China have been modest. In Korea, property prices in Seoul increased sharply in 2002 but then levelled off somewhat following the adoption of measures to curb speculation in property markets. They subsequently picked up again from February 2003, but appear to have stabilised following the government's announcement in October 2003 of additional measures to curb speculation. Real estate prices in Thailand have risen since 2001, and available indicators suggest a significant pickup in recent real estate activity. In the last quarter of 2003, an index of the value of land transactions was up 142% (year on year) while an indicator of construction activity was nearly 55% higher (year on year). Nevertheless, housing rental values have fallen as easier financing conditions have increased the supply of housing, and vacancy rates in rental markets have risen as renters have been induced to purchase their own homes. A similar decline in rental values occurred in Mexico. Property prices in a number of CEE economies have been highly volatile. For example, in Hungary the rise in property prices peaked at 55% in 2000 but moderated to 9% in 2003.

Policy responses and outstanding issues

Targeted regulatory restrictions limit vulnerabilities

The vulnerabilities that might arise from rapid growth in credit to households could be addressed in two ways. One is to impose targeted regulatory restrictions in order to dampen growth in certain markets or limit price volatility. For example, to curb speculation in property markets in Korea, a government panel in October 2003 proposed sharp increases in capital gains taxes on property sales by owners of three or more residential properties. To reduce the vulnerability of the financial sector, ceilings on loan-to-value ratios on mortgage lending (targeting luxury properties) have been imposed in both Korea and Thailand. In the credit card sector, remedies attempted have included restricting or penalising aggressive marketing practices, prohibiting

new credit card issuance, imposing credit ceilings (based on income), and requiring a certain rate of repayment of credit card debt. Institutions engaged in the credit card business have also been required to increase provisioning against potential losses on a number of occasions.

The use of targeted regulatory restrictions may be warranted because of market imperfections; for example, in a number of emerging economies, property markets are thought to be vulnerable to speculators. Similar restrictions still exist in a number of advanced economies and were widespread a few decades ago.

Another approach is to rely on market discipline, which should encourage the survival of well managed firms. If such discipline is effective, individuals who are less creditworthy will find it more difficult to gain access to credit. In addition, a creditor taking excessive risks will face higher costs of financing (or ratings downgrades), or may incur such large losses that it goes out of business. Recent developments, however, suggest that four factors can undermine market discipline.

First, lenders in emerging markets commonly lack adequate information about the creditworthiness of borrowers. For example, while there are mechanisms for collecting data on delinquencies and other pertinent information about borrowers, the data are sometimes incomplete or are not shared among financial institutions for competitive reasons. A number of emerging market countries are therefore establishing credit bureaus or enhancing their effectiveness in order to remedy these problems. Second, the consumer credit business, including credit cards, is very lucrative. Thus, lenders have a strong incentive to build market share aggressively. The growth in the credit card business in emerging economies has also been fuelled by financial innovations that have facilitated access to low-cost financing, such as the securitisation of domestic credit card receivables in international markets. Third, in some countries, lenders appear to discount excessively the risk that borrowers might become overextended. For example, lenders have offered credit cards to individuals without first checking their credit histories, including to borrowers with no sources of income to service their debt. Finally, governments have at times been reluctant to allow financial institutions that have made poor lending decisions to fail, due to concerns about the impact either on the financial system or on borrowers. This raises the issue of moral hazard.

Market discipline
can strengthen the
financial system ...

... but is
undermined by
various factors

Economic booms in China and India

Sources of the recent expansion in China

Robust growth in China was a major element in the recovery of emerging economies in 2003. Despite the dampening influence of SARS in the first half of the year, industrial output grew by 16% in 2003, compared with 13% in the previous year. The rise was led by fixed investment spending, particularly in steel, aluminium, cement and real estate construction. While investment in new projects rose by a modest 10%, that on projects already planned in

China witnessed an
investment boom
last year

China's trade						
Annual changes, in per cent						
	Exports			Imports		
	2001	2002	2003	2001	2002	2003
Total	6.7	22.4	34.7	8.2	21.2	39.9
Of which:						
Primary products	4.1	7.5	22.3	-2.0	7.6	47.8
Crude materials	-6.0	5.0	14.3	10.6	2.7	50.1
Mineral fuels	8.6	-1.7	32.9	-15.1	10.2	51.6
Chemical and related products	11.2	14.0	35.8	6.4	21.5	25.5
Manufactures	7.3	23.7	35.8	10.9	24.4	38.3
Manufactured goods	3.1	20.7	30.3	2.8	15.6	31.8
Machinery and transport	15.1	33.6	47.9	16.3	28.2	40.8

Sources: CEIC; national data. Table III.5

previous years expanded by over 50%. Investment growth appears to be gaining further momentum this year. Thus, during the first quarter of 2004, nominal capital spending by private and state-owned enterprises grew by 40% (year on year) or more.

Growth was also supported by consumption, as increased bank lending and stronger household income fuelled spending on automobiles and other high-value consumer products. Fiscal policy remained favourable to growth as well. While buoyant revenues towards the end of the year reduced the fiscal deficit to 2.5% of GDP in 2003, public spending on SARS-related relief measures had underpinned demand during the first half. The reliance on fiscal stimulus is expected to decline this year, with the government having announced a reduction in the issuance of special bonds to boost infrastructure spending.

Exports grew strongly (up by almost 35% in 2003), stimulated by surging US demand. Front-loading of shipments by exporters ahead of the reduction of VAT rebates from January 2004 provided a temporary boost. Since the boom in investment and exports was to a large extent dependent upon the processing of inputs, it was accompanied by an even stronger rise in imports (40%), particularly of crude materials, minerals and machine tools and equipment (Table III.5). China's share in global consumption of such products has increased sharply. For instance, last year China accounted for 42% of global consumption of coal, 34% of iron ore, 20% of copper and 7% of oil. As a result, the trade surplus declined to \$25 billion in 2003 and turned into a deficit in the first quarter of 2004. Although the direct contribution of net trade to growth was almost zero in 2003, buoyant export earnings were transmitted to domestic demand via higher enterprise profits and household disposable income.

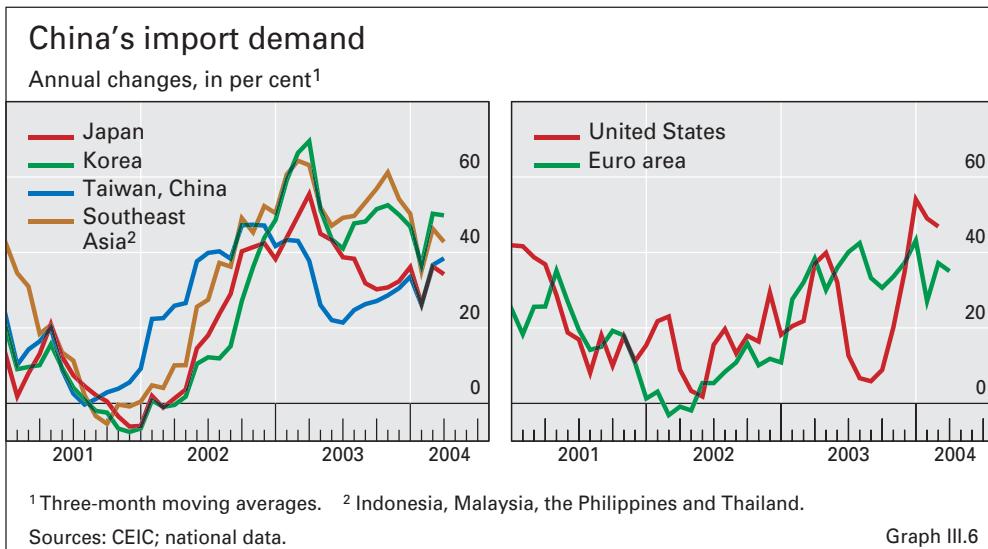
Regional and global implications

China's rapid growth reflects its emergence in recent years as a leading global supplier of manufactures. Its share in global manufacturing rose to 7% last year, with an increasing part of the value added accounted for by exports. Low labour costs and productivity improvements have strengthened China's

Consumption was strong

Both exports and imports grew

China is a global leader in manufacturing ...



competitiveness. As a result, its share in global merchandise exports doubled in the past three years to nearly 8% in 2003. At the same time, the increased vertical integration of the production process has raised imports from neighbouring countries and boosted intraregional trade in Asia.

The impact of China's recent boom has varied widely across countries and regions, with countries closely integrated with China's export processing industries gaining significantly. China's imports from Japan, Korea and Taiwan, for instance, increased by 30–50% last year (Graph III.6, left-hand panel). Exports to China contributed to the upturn in investment spending in Japan, while trade and tourism flows from China played a major role in Hong Kong's steady recovery from deflation. China's imports from other emerging East Asian economies also grew strongly last year, sharply increasing its contribution to their export growth. Nevertheless, from a long-term point of view, China has also exerted a competitive influence on others by raising its share in industrial country markets, particularly in low value added segments where other East Asian economies had earlier enjoyed competitive advantages.

... affecting trading partners ...

China's strong demand has also benefited other regions. For instance, boosted by demand for primary commodities, China's nominal imports from Brazil rose by 80% in 2003. China's imports from the United States and the euro area also increased significantly last year (Graph III.6, right-hand panel), but the impact on their economic activity was small given that China accounts for only 3–4% of their export markets. Reflecting rising import demand, China's trade deficit with the rest of Asia widened sharply by about \$30 billion between 2000 and 2003. At the same time, China's exports to the United States grew by 22% last year. This widened China's bilateral trade surplus to over \$100 billion and led to increased protectionist pressures in the United States (see Chapters II and V).

... as far as Latin America

Sustainability of the current expansion

The very rapid increase in fixed investment spending last year could be a particular source of vulnerability. At 0.45, China's investment/GDP ratio is one

Risks of overinvestment remain high

More loans also pose risks ...

... as do overheating and inflation

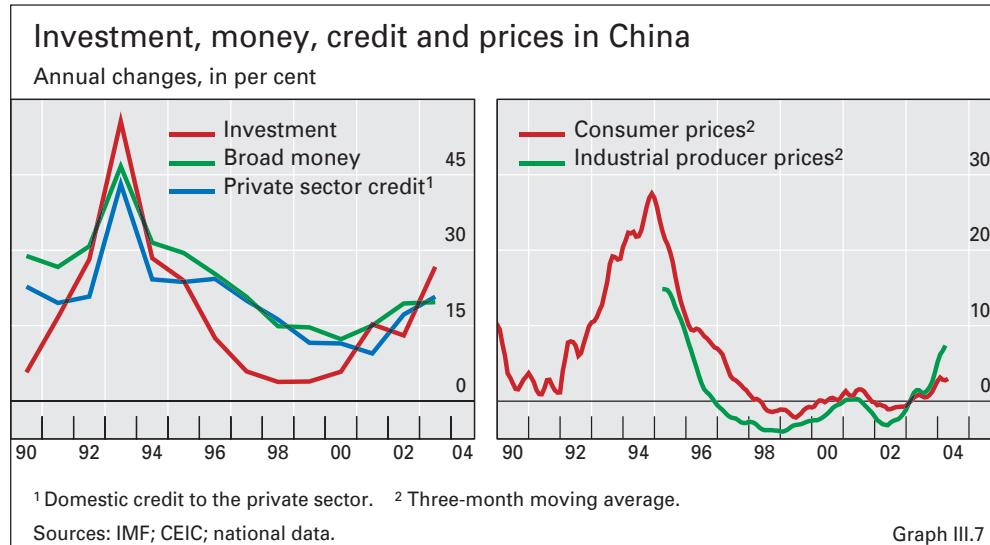
Rising inflation pressures ...

of the highest in the world. Not only does this create the risk of the economy overheating in the short run, but, if sustained, it could also lead to overinvestment and poor rates of return in the medium term. A large part of the growth in investment has also been concentrated in state-owned enterprises, where returns are lower than in the private sector. This might imply a rise in excess capacity and a strengthening of long-run deflationary forces in the economy. Moreover, to the extent that current investment rates are unsustainable, domestic demand might slow in the future, increasing China's reliance on exports to maintain its high growth.

Financial fragility is also a concern, since investment has been financed by strong growth in bank credit (Graph III.7, left-hand panel). In addition, lending to the property sector has been rising rapidly (45% in 2003), with a large part of the increase accounted for by loans to real estate developers. Such lending has been associated with steep rises in property prices in the major metropolitan areas such as Shanghai. The authorities responded last year by issuing guidelines to banks to limit loans to the property sector and to individuals for building a second home or luxury houses. A large liquidity overhang has also encouraged banks to step up consumer lending, for which credit appraisal standards tend to be poor. Such developments could imply higher default rates in the future and increase the level of non-performing loans in the banking system. These were estimated at 15% of total loans last year.

High inflation is another potential risk. The current expansion has relied on the intensive use of resources, resulting in widespread shortages of metals, power and basic inputs in the economy. For instance, last year China's consumption of steel accounted for 90% of the increase in global steel demand and outstripped domestic supply. Its consumption of nickel and copper also exceeded domestic supply by wide margins.

These developments have marked an end to deflation and led to a pickup in consumer price inflation (Graph III.7, right-hand panel). Inflation in industrial producer prices has been higher, with prices of steel and other metals rising by between 25 and 80% by March 2004. In the past, producer price inflation had



generally stayed below consumer price inflation, reflecting strong productivity gains and firms' inability to pass on cost increases due to weak demand. This seems to have changed last year as inflation expectations strengthened, prompting firms to pass on a larger part of their cost increases. It is also worth noting that, historically, China's price cycles have been closely associated with those of investment and money growth (Graph III.7, left-hand panel). A sharp acceleration in investment and credit in the early 1990s led to high rates of inflation, while subsequent monetary tightening resulted in a prolonged period of deflation. Economic activity also slowed to more sustainable rates.

Recognising these risks, the authorities recently introduced reforms to strengthen the banking system as well as a series of steps to cool the economy. In December 2003, the government recapitalised two of the four large state-owned commercial banks, using \$45 billion in foreign exchange reserves. In an effort to improve governance, these two banks are to be listed on the stock exchange and securities will be issued to private investors. Similar measures are planned for the remaining state-owned commercial banks.

... triggered
measures to cool
the economy

The central bank also began tightening monetary policy in September 2003, raising reserve requirements several times and stepping up administrative controls to restrict the financing of investment in some sectors. Signalling its intention to achieve slower and more balanced growth, the government lowered its GDP growth forecast for 2004 to 7%, and at the same time announced a gradual unwinding of public construction projects combined with measures to promote rural incomes.

Nevertheless, data for the first quarter of 2004 suggest that growth is accelerating. Bank credit growth (above 20% in March) and inflation have also remained high. Investment demand continues to rise, partly reflecting already planned projects, as well as a sharp reduction in real interest rates. Further tightening might, therefore, be required to prevent the economy from overheating.

The effects are yet
to be felt

Growth accelerates in India

The Indian economy grew by over 8% last year, the second fastest rate in Asia after China. Growth has been led by a strong rebound in agriculture, owing to a good monsoon, and a steady recovery of industry, whose performance had lagged. The services sector, accounting for over 55% of GDP, grew by 8%. On the demand side, higher rural incomes, low interest rates and rising stock prices have boosted consumer and investment spending. Growth forecasts for the next two years remain strong.

India was the
second fastest
growing Asian
economy last year

The recent optimism reflects a number of factors. Increased foreign competition has led many firms to restructure, raising profitability. Net profits of large companies grew at an annual rate of 30% in the last two quarters of 2003. The authorities have taken steps to accelerate privatisation, cut import tariffs and further open the economy to foreign investors. The current account balance has been in surplus since 2001 and net FDI and portfolio investment inflows have more than doubled since 2002, although such inflows remain well below those of China. Moreover, increased income and access to bank credit in the past two years have strengthened household purchasing power, driving consumption of durables and housing investment.

Conditions favour
continued high
growth

Growing software industry and outsourcing boost outlook

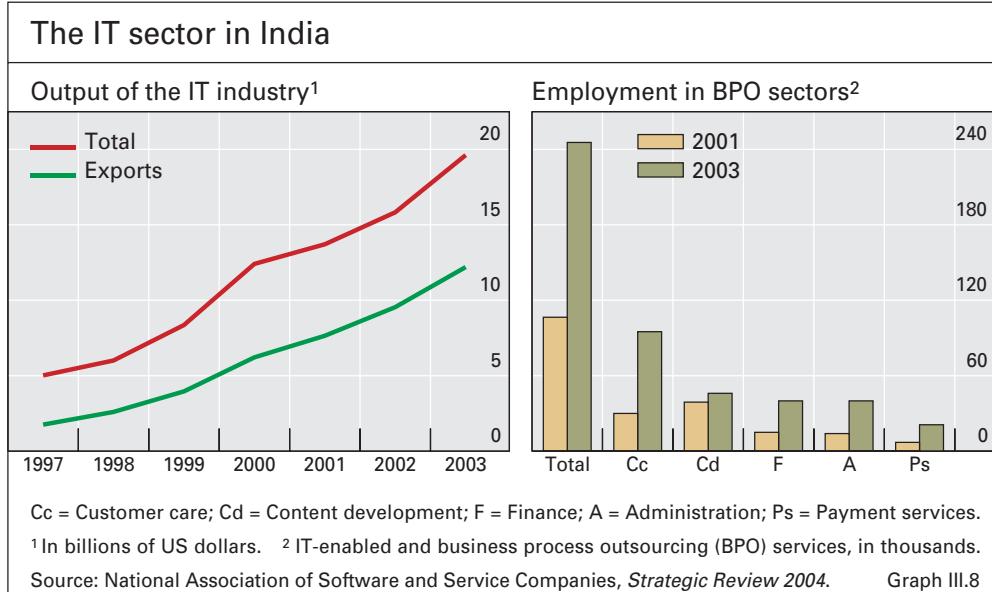
Another important factor boosting India's future prospects has been its growing software and other service-related industries. Benefiting from its cost advantages and a large and highly skilled workforce, as well as cost cutting in industrial countries, India has attracted increasing amounts of global software and offshore outsourcing business. As a result, the IT and software-related sectors have grown rapidly during the past five years, raising their share of GDP to 4% and contributing significantly to exports (Graph III.8, left-hand panel). Revenues from the outsourcing business were projected to have increased by over 50% to reach \$4 billion in 2003. The potential for future growth is large since global outsourcing is forecast to rise substantially in the next decade.

Outsourcing to India is still a small part of global employment

Outsourcing to India has raised concerns that it adversely affects job prospects, particularly in the United States, which is the most important market for India's outsourcing business. Such concerns have prompted some state authorities in the United States to place restrictions on the transfer of jobs to low-cost centres (similar legislation is pending at the federal level). However, while job growth in a number of business process outsourcing (BPO) sectors in India has more than doubled during the past two years (Graph III.8, right-hand panel), it remains small compared to the number of job losses in the United States. According to some estimates, even if job transfers from the United States were to grow at a high rate over the next few years, their equivalent share in total US employment would probably remain below 1% by 2010. Moreover, outsourcing can yield considerable gains in the industrial countries by reducing costs. In the future, as labour shortages emerge in industrial countries, outsourcing can help mitigate the problem.

Significant challenges remain

Nevertheless, there are challenges to maintaining high growth in India. Given that its potential rate of growth is estimated at about 6%, maintaining the current higher rate of growth will require either increasing the present investment rate (24% of GDP) or significantly raising productivity. Both would be fostered by further opening up the economy to foreign investment. India's



infrastructure also needs to be improved, and the privatisation of state-owned enterprises accelerated. In addition, at over 9% of GDP, India's fiscal deficit remains very large. This has contributed to a high real interest rate and the crowding-out of more productive private investment.

Commodity markets and prices

Recent developments and long-term trends

Last year saw a further rise in commodity prices measured in US dollars. By spring 2004, prices had increased by over 70% since their trough in late 2001 (Table III.6). The higher oil price has already been reflected in retail energy prices in the industrial countries (see Chapter II). The rise in non-oil commodity prices has raised "upstream" producer prices but has not significantly affected global retail prices. Nonetheless, some analysts interpret the price surge as evidence of inflation expectations more generally and see it as a sign that the period of low global inflation might be about to end. Others view higher non-oil commodity prices as a sign of increased demand but, given their low weight in total costs, not as a reliable predictor of future inflation. Analysing commodity price behaviour from a longer-term perspective gives reason to believe that the price rise has not yet peaked. It also raises questions about how this might affect growth prospects in commodity-exporting countries. In particular, countries in Africa – heavily reliant on exports of oil or non-oil commodities – will have a unique opportunity to turn terms-of-trade gains into sustainably higher growth.

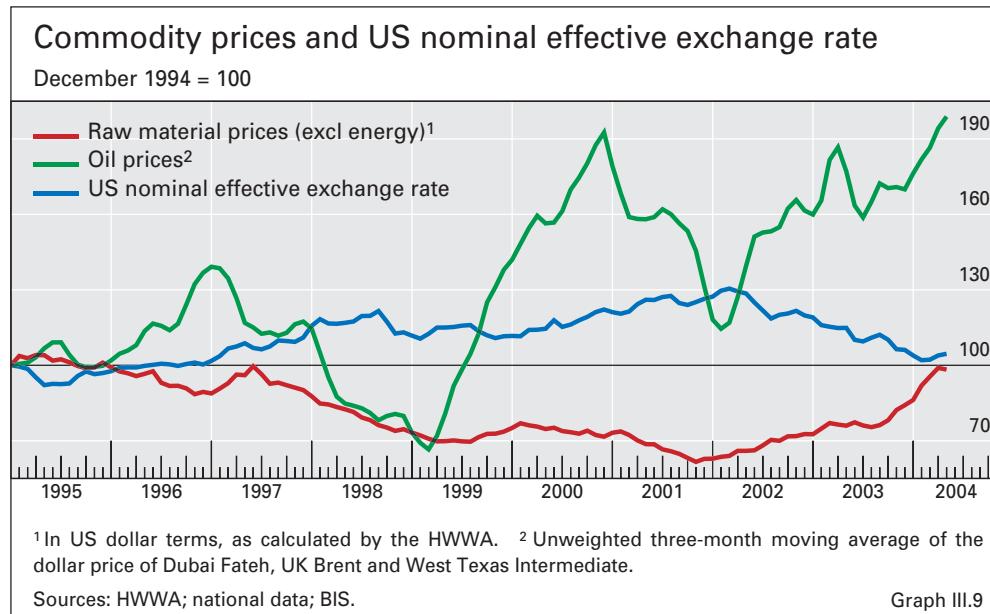
Sharp rise in commodity prices

In contrast to earlier expectations, as expressed in futures quotations, the price of crude oil has increased sharply since mid-2003 (Graph III.9). An unexpected rise in demand (notably in China but also in other emerging Asian economies and the United States) was one factor. In addition, delays in restoring oil exports from Iraq and political unrest in Nigeria and Venezuela tended to reduce supply. The unexpected rise in demand, together with a persistent negative spread between spot and futures prices ("backwardation"), brought commercial inventories to a historical low, resulting in increased price volatility. Although production in Iraq has now been restored to prewar levels, oil prices in US dollars are likely to remain high or might even rise further this year, given the projected recovery in global growth and heightened concerns about terrorist attacks on oil facilities. The effect of OPEC's decision

The higher oil price reflected strong demand ...

Selected commodity prices, March 2004							
In US dollar terms, December 2001 = 100							
Total	Oil	Non-oil materials	Industrial materials	Foodstuffs	Cotton	Soybeans	Wheat
172	182	157	162	133	169	219	136
Wool	Coal	Iron ore	Aluminium	Copper	Lead	Nickel	Zinc
141	140	126	123	204	182	259	145

Sources: IMF; Hamburg Institute of International Economics (HWWA). Table III.6



to cut supply as from 1 April is uncertain, given that most members still produce above target and that Saudi Arabia has since encouraged members to increase their supplies.

It must be emphasised, nevertheless, that making accurate forecasts of future oil prices is difficult because both supply and demand are highly uncertain and swings in net demand can be large. For instance, the projected increase in supply over the next five years is conditional on substantial new investment in production capacity and pipelines. On the demand side, the gradual rise in the share of services in GDP and increased energy efficiency should help to moderate consumption of oil. However, if the shift in global GDP in favour of China and India (where energy efficiency is still relatively low) continues, demand for oil could rise more than currently forecast, and prices too. In fact, while China accounts for only 7% of global oil consumption, it is already the world's second largest oil importer. Considering also that OPEC's share of global production is likely to increase over the medium term (given that it controls over 60% of total oil reserves), a reversal of the downward trend in the real price of oil observed since 1980 cannot be ruled out.

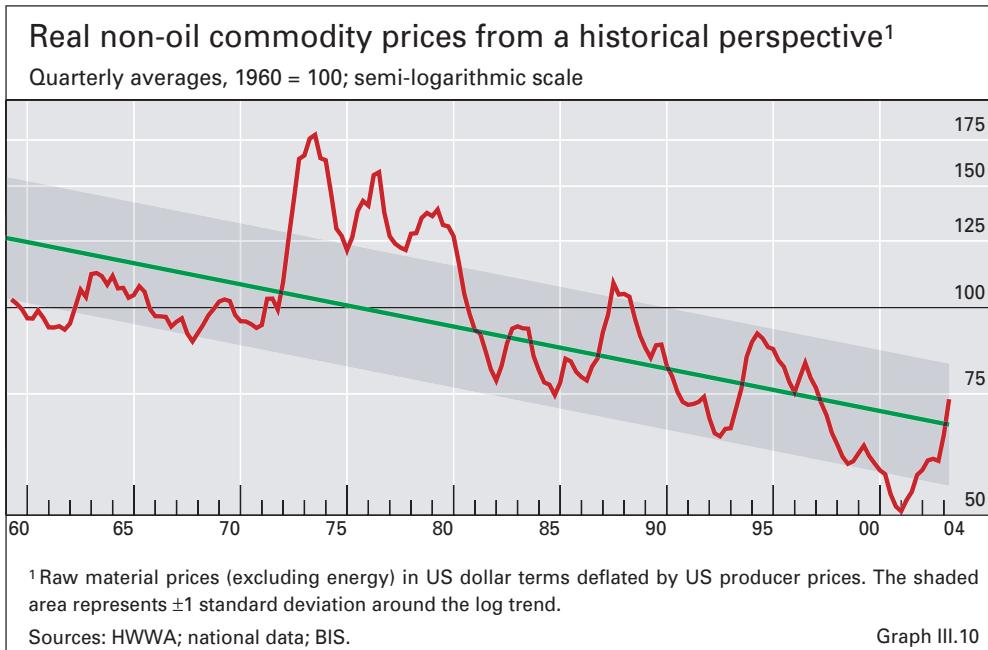
... but the
medium-term trend
is uncertain

Non-oil prices also
recovered ...

... partly due to the
weaker dollar

Even after the recent rally, the nominal dollar price of non-oil commodities is virtually at the same level as it was 40 years ago. This implies that, in real terms (ie deflated by an index of producer prices or export unit values in the industrial countries), such prices have declined at an annual rate of nearly 1.5% over the last 40 years. This is not far from a trend observed over the last 150 years. Seen from this longer-term perspective, real non-oil commodity prices were at a historical low at the end of 2001 (Graph III.10). Thus, one reason for the recent recovery might be the tendency of such prices to return, albeit slowly, to their long-run trend.

Yet other factors have also been at play. Since the end of the Bretton Woods period, real commodity prices have tended to move inversely with the effective value of the US dollar. This was particularly evident during the first



half of the 1980s and the second half of the 1990s, when the appreciation of the dollar and high real interest rates forced producers of non-oil commodities to increase supply to service their dollar-denominated debt. The resulting downward pressure on commodity prices was amplified by lower demand in countries with currencies depreciating against the dollar. Conversely, in the more recent period of dollar depreciation, increased demand from importers, combined with lower supply, has caused prices to rise. The marked growth in manufacturing (a commodity-intensive production sector) in China and, more recently, in the United States has also contributed. In addition, the higher price of oil (an important input in the production of many commodities) has reinforced upward price pressures.

What are the short- and medium-term prospects for non-oil commodity prices? While the demand for such products is likely to increase further this year as the global recovery spreads to more countries, supply side factors might have an attenuating effect. Last year, for instance, inventories of some metals fell to historical lows and weather-induced reductions in the supply of certain food products led to an unusually sharp price acceleration. Moreover, the surge in prices appears to have been aggravated by speculative purchases by investors using commodities to hedge against the declining dollar. However, as supply and demand adjust, most of these forces might become less influential later this year. For instance, metal prices weakened in April in response to both higher inventories and rumours that China would tighten bank lending.

The prospects for non-oil commodity prices beyond the next year are still more uncertain. On the one hand, the emergence of China as an important producer of manufactured goods and user of commodities suggests that the price of non-oil commodities relative to that of manufactured goods could rise over the medium term, possibly reversing the negative trend observed in the

Despite possible price moderation this year ...

... the medium-term negative trend might flatten

Non-oil commodity price prospects are uncertain

past. On the other hand, numerous empirical analyses of commodity price behaviour over the last 150 years have been unable to identify any breaks in the negative trend. It is true that the short-run supply elasticity for commodities is rather low and that fluctuations in demand can have large short-run effects on relative prices. However, over the longer run, both demand and supply tend to respond to such changes and the trend is then restored.

Potential policy implications

Price volatility a challenge to policy

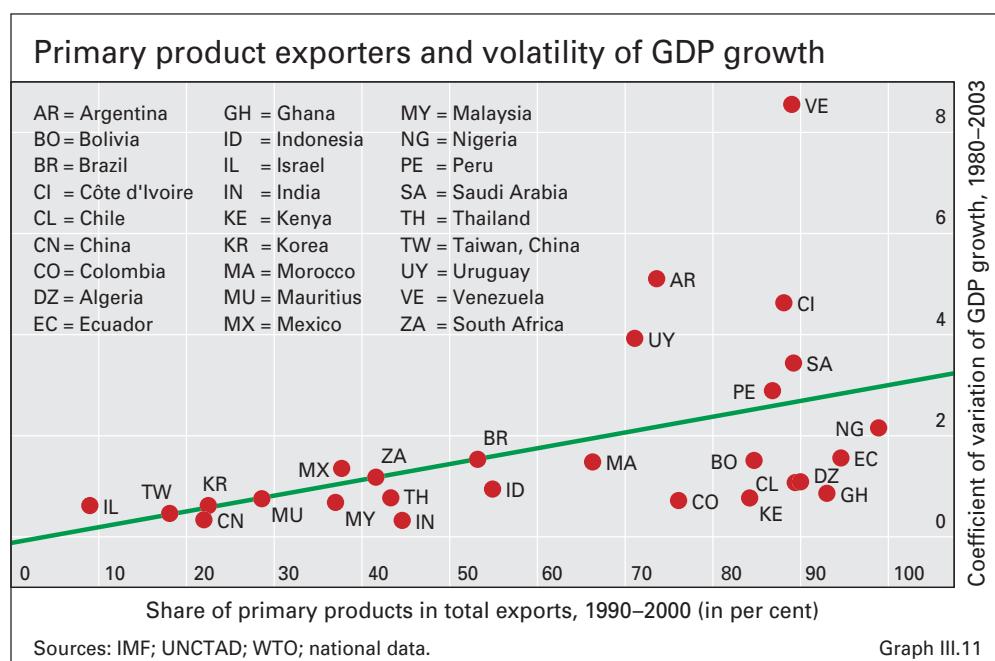
The long-run declining trend of non-oil commodity prices has meant that exporters of such products have faced a secular reduction in their real disposable income. More importantly, perhaps, the fact that price volatility dominates long-run trends for both oil and non-oil commodities means that their short-run movements are highly unpredictable. In fact, as Graph III.11 shows, there is a positive correlation across countries between the share of primary products in total exports and the volatility of GDP.

A flexible exchange regime could act as a shock absorber ...

Might appropriate policies ameliorate this problem? Some have argued that the adoption of a flexible exchange rate regime could act as a shock absorber as currency appreciation (depreciation) in response to a rise (fall) in export prices would dampen the effect on the domestic economy. Indeed, the experience of African commodity exporters with currencies linked to the euro (previously the French franc) shows that they have suffered larger output disruptions as a result of terms-of-trade changes than countries with flexible rates.

... but is only a partial solution

Yet relying on a flexible exchange rate to dampen the effects of commodity price movements is subject to several caveats. A flexible exchange rate cannot solve the problem of a secular decline in the real price of commodities. Moreover, for other export or import-competing sectors (for instance manufacturing), there is no "optimal" exchange rate regime. If the exchange rate is flexible and appreciates in response to higher commodity prices,



manufacturers' profit margins are squeezed through lower prices. Conversely, if the exchange rate is fixed, such firms are likely to face cost pressures, as higher profits in the commodity sector will push up wages. Finally, and perhaps most importantly, there is a trade-off between reducing variations in output and inflation. Thus, African commodity producers with a fixed exchange rate have experienced lower and more stable inflation rates than countries with flexible regimes.

Because earnings from commodity exports often constitute a very high proportion of government revenue, fiscal policy or fiscal rules might be needed as a complementary instrument for macroeconomic stabilisation. Indeed, many commodity exporters have displayed not only a procyclical fiscal policy but also a strong deficit bias; temporary increases in commodity prices have often been followed by a permanent rise in government spending and eventually a weaker budget balance. In Nigeria, for instance, the recovery of oil prices during 1998–2000 led to a budget surplus of 6½% of GDP. However, because increased oil revenue raised government spending substantially, the budget balance deteriorated by 12% of GDP in just two years and the current account balance by over 20%.

In such circumstances, a fiscal rule could decouple government expenditure from fluctuations in the revenue from commodity exports. Taking the petroleum fund in Norway (widely regarded as the most advanced and sophisticated scheme of its type) as a model, several emerging market countries have created (or are planning to create) stabilisation funds as a first step towards reducing the procyclicality of their fiscal policy. Chile, for instance, established a copper stabilisation fund several years ago, and this fund is now integrated into the government's medium-term target for fiscal policy. Algeria's oil stabilisation fund is of more recent origin but has already contributed to stabilising the budget balance in the face of volatile oil prices. Nonetheless, with the current oil price well above the reference price embedded in the scheme, and strong political pressures to meet social needs and increase spending on construction, this year might provide a crucial test of the fund's ability to stabilise fiscal policy.

Procyclicality of
fiscal policy ...

... could be
reduced by a fiscal
rule

IV. Monetary policy in the advanced industrial economies

Highlights

With inflation pressures subdued during the period under review, policy interest rates were kept steady at very low levels in the major economies to help support the recovery. In the early part of the period, the Federal Reserve dealt effectively with its concerns about the possibility of an unwelcome disinflation. It kept short-term interest rates at 46-year lows and signalled to markets its intention to maintain them there for a considerable period. As the US recovery appeared to gain strength, markets' attention increasingly turned to the Federal Reserve's strategy for adjusting the policy stance to a more neutral setting. Policy in the euro area was also accommodative, although the ECB had to balance supporting a fragile recovery with its concerns over inflation, which hovered near the upper bound of the central bank's price stability range. The sizeable appreciation of the euro and regional discrepancies in economic performances posed additional policy challenges. The Bank of Japan maintained its zero interest rate, as well as its policy of quantitative easing. With deflationary pressures in Japan having moderated, progress in re-establishing more normal policy settings will be necessary and unusual challenges could emerge in the process.

In contrast, policy concerns varied more across smaller industrial economies. Some central banks lowered policy rates to help support growth, while others raised them in response to domestic demand pressures and, in some cases, risks associated with the build-up of financial imbalances.

The latter part of this chapter considers two policy issues that attracted increasing attention during the period under review. One key question is whether the current highly accommodative policy stance of the major central banks, while clearly having had a positive impact on the global recovery, could become a source of longer-term vulnerabilities. The other important issue has been central bank communication with the public. The last section reviews progress towards improving communication strategies and highlights future challenges.

Review of developments

United States

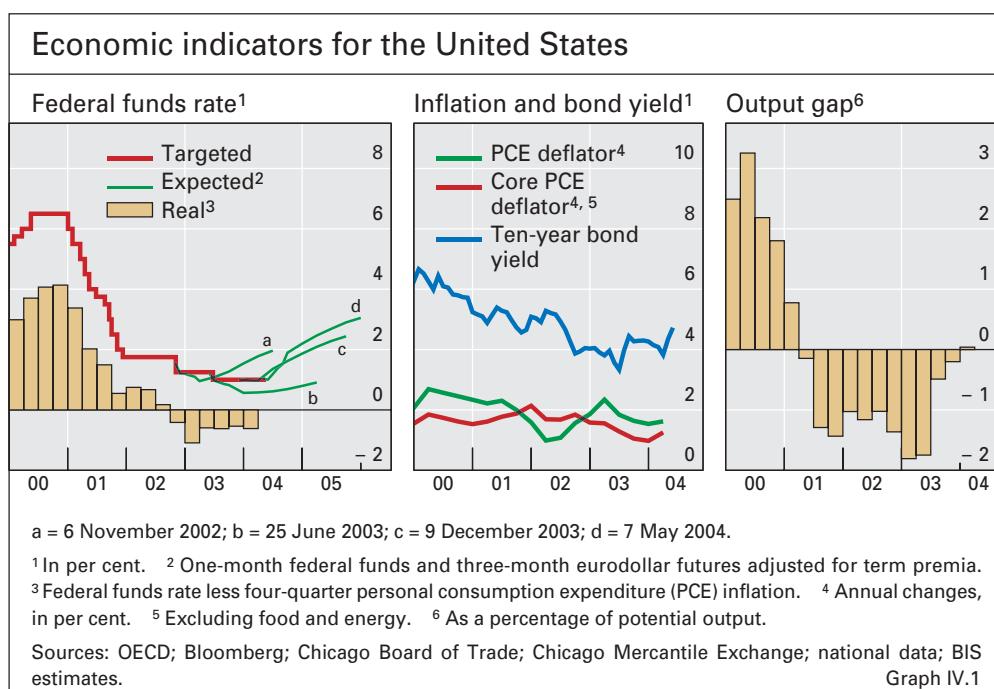
US monetary policy was highly accommodative	The Federal Reserve maintained its highly accommodative monetary policy stance over the past year, with the federal funds rate held steady at 1%. The economic backdrop was a large but rapidly shrinking degree of economic slack and low inflation. With the Federal Reserve having clearly stated its policy intention of keeping the federal funds rate low for a considerable period, the
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(ex post) real federal funds rate continued to be negative (Graph IV.1). As this real policy rate was well below its long-run neutral level – a gap further enlarged by recent productivity trends – the Federal Reserve indicated that at some point the policy rate would have to move to a more neutral setting. An ongoing question for the Federal Reserve throughout the period under review was whether this low policy rate remained appropriate given the economic conditions or whether tightening should begin.

One key development affecting policy deliberations during the early part of the period under review was the risk of an unwelcome fall of inflation into deflation. This perception of the risk of deflation mainly reflected the combination of low actual inflation and the lingering hangovers from the abrupt adjustment of the financial and real imbalances built up in the previous decade. However, it also reflected favourable supply side developments as large productivity gains were particularly important in restraining a more rapid decline in slack. The Federal Reserve expressed its intention to fight this possible deflation aggressively using monetary policy. It simultaneously assured the public – through the minutes of Federal Open Market Committee (FOMC) meetings, speeches by Federal Reserve officials and published research papers – that it had ample measures at its disposal to address the threat, even if the zero lower bound for nominal interest rates materialised.

Deflation risks were present early on in the period

This approach of keeping the short-term policy rate low and pursuing a complementary communication strategy also proved effective in anchoring inflation expectations above the deflation zone, holding long-term interest rates in check. It thereby promoted a favourable economic environment for aggregate demand growth. The FOMC acknowledged, however, the risks of unbalanced growth in interest-sensitive sectors and of unwelcome asset price



Policy statements reinforced low interest rate expectations

As the recovery strengthened, the focus shifted towards returning the policy stance to neutral

Parallels with the policy cycle turning point in the 1990s

developments if the low interest rate environment were maintained for too long. During the period under review, these risks were judged to be acceptable.

The Federal Reserve's communication strategy, while successful overall in avoiding the shoals of potential deflation, did face some challenges. For example, in early 2003 market participants interpreted statements from Federal Reserve officials as suggesting the possibility of even further cuts in the policy rate. This led to a decline in long-term bond yields in late spring. Against this background, the 25 basis point cut in the policy rate in June 2003 disappointed markets and contributed to a sharp upward correction across the whole term structure. This episode heightened awareness – both inside and outside the Federal Reserve – that the central bank would have to find some means of conveying its policy intentions even more clearly.

Naturally, as the recovery gained momentum, the threat of deflation faded. In this environment, the focus shifted to the upside risks to short-term inflation arising from the depreciation of the dollar, the sharp increase in commodity prices and buoyant housing prices. Such developments led to a sharper market focus on when, and how quickly, policy rates would be raised. Indeed, the Federal Reserve faced intense scrutiny of the exact wording of its press releases as the public searched, possibly unduly, for clues about how long policy rates would stay on hold. The phrase that characterised policy as being on hold "for a considerable period" received much attention. In January 2004, when the Federal Reserve changed its characterisation to "could be patient in removing its policy accommodation", Treasury yields initially rose and equity prices declined. Markets eventually came to read less into the change, seeing it more as a difference in wording than a distinction in policy thrust. By May, the FOMC judged that its policy accommodation could be removed at a "measured" pace, raising the prospect of some increase in rates in the near term.

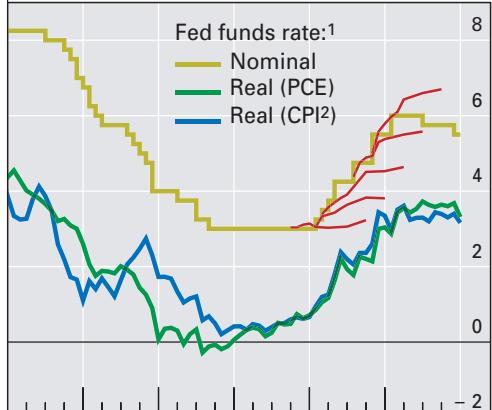
An important issue for the Federal Reserve was how best to maintain the proper balance of private sector expectations about future changes in policy rates. Given high household and corporate debt, large cumulated current account deficits and rapidly building fiscal imbalances, a fast run-up in long-term interest rates raised the risk of increased financial market volatility and overshooting. This would complicate the transition and could pose a threat to the recovery in various ways. On the one hand, it needed to keep the private sector from bidding up long rates before it would be appropriate. On the other hand, the Federal Reserve needed to keep markets from getting too far behind the curve, allowing inflationary pressures to build, since this might demand a sharp and possibly destabilising tightening of policy later. These conditions put a premium on the Federal Reserve preparing the markets adequately for future policy rate moves to prevent long rates from rising either too soon or too late.

To put such policy risks into context, it is instructive to contrast the recent situation with that at the end of 1993 (Graph IV.2). In 1993, as today, the Federal Reserve had pursued a low interest rate strategy for a considerable period, with the real policy rate hovering near zero. One reason for the low rate was that financial factors were hindering a rapid and solid recovery. By the end of 1993, however, the recovery was on track, economic slack seemed to be

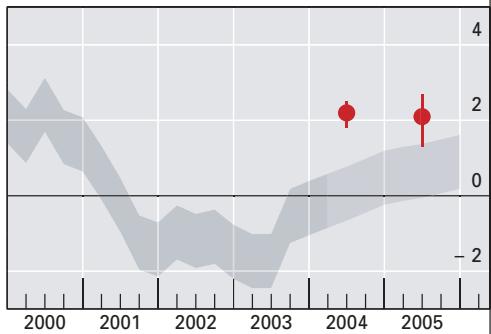
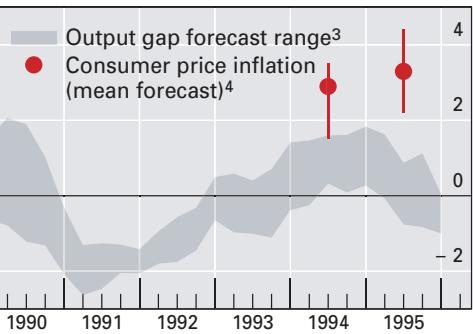
Exit strategies in the United States

In per cent

Early 1990s



Early 2000s



¹The thin lines represent expected rates (for an explanation, see footnote 2 of Graph IV.1). From 2004, based on futures rates on 7 May 2004 and, for real rates, deflated by the OECD's PCE deflator and CPI forecasts respectively. ²CPI research data series (BLS). ³Range of real-time estimates using a Hodrick-Prescott filter and GDP data vintages for the 1990s. ⁴Made in January 1994 and May 2004 respectively. The vertical lines represent the forecast range.

Sources: Bureau of Labor Statistics (BLS); OECD; Bloomberg; Chicago Board of Trade; Chicago Mercantile Exchange; © Consensus Economics; national data; BIS estimates.

Graph IV.2

disappearing and inflation forecasts were showing an upward trajectory. Beginning in early 1994, the Federal Reserve raised rates seven times over 12 months, in steps of 25–75 basis points, giving a cumulative increase of 3 percentage points. Initially, expectations of future rate hikes lagged behind the Federal Reserve's actual policy. However, towards the end of the policy cycle, market expectations of further rate increases exceeded the Federal Reserve's eventual policy rate target. These expectations had to be reined in by the FOMC adjusting its bias language and by subsequent rate cuts. Differences, of course, do exist between the earlier period and now. On the one hand, the real interest rate has been lower in this policy cycle, implying a larger need for adjustment than previously. On the other hand, inflation expectations appear to be better anchored and the Federal Reserve has been much more transparent in explaining its actual decisions and policy intentions.

Euro area

During the period under review, the stance of monetary policy also remained stimulative in the euro area, as indicated by low real interest rates and the

Euro area monetary policy remained stimulative ...

strong growth of broad money (Graph IV.3). As in the United States, short-term nominal interest rates in euro area countries hovered around post-World War II historical lows, contributing to low long-term government bond rates and forward swap rates.

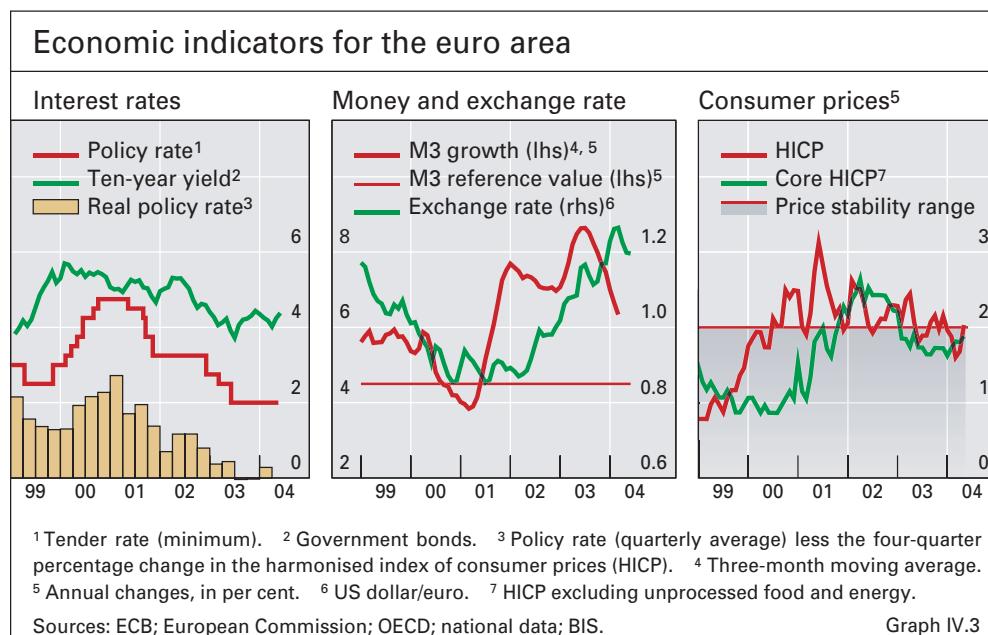
... as the recovery lost momentum ...

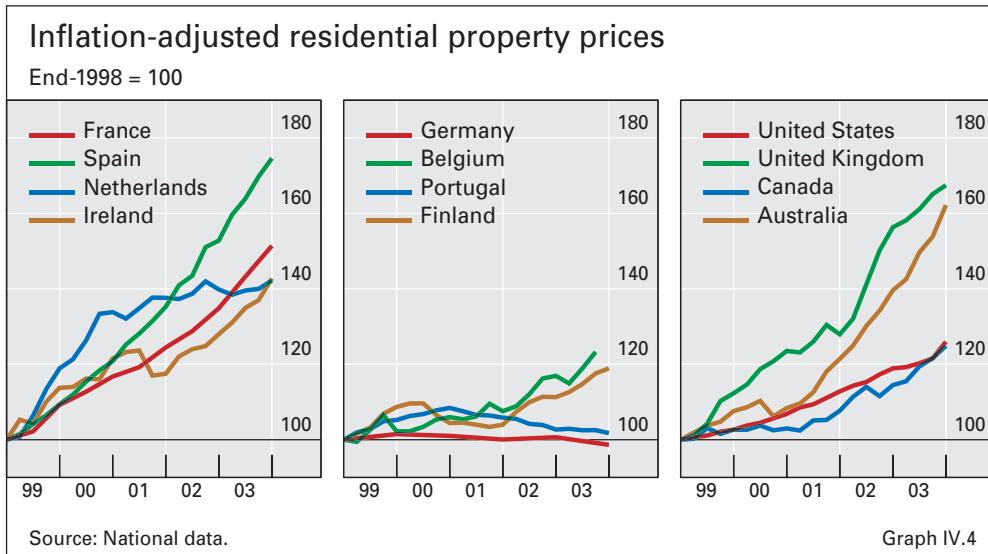
... and inflation remained near the upper end of its desired range

Policy trade-offs highlighted by the euro's appreciation

After reducing its policy rate by 50 basis points in June 2003, the ECB held it constant at 2% for the remainder of the period. The main factor behind the easy stance of policy was the fragile state of the recovery, as growth continued to be well below average in the largest euro area economies. One factor restraining the ECB from lowering its policy rate even further was that inflation remained near the 2% ceiling of the ECB's price stability range. Tax increases and relatively elevated unit labour cost growth, reflecting inertia in compensation growth and weak productivity gains, were two key elements that kept inflation from falling by as much as might have been expected given the degree of labour market slack. Moreover, there was little evidence that the sharp appreciation of the euro was putting much downward pressure on inflation.

The trade-offs that policymakers in the euro area faced during the period can be viewed in the context of the euro's appreciation, especially vis-à-vis the dollar. On the one hand, with the recovery stalling and unemployment high, the ECB came under pressure to lower interest rates as a result of the prospective loss of competitiveness due to a stronger currency. It did not help matters that policy in the United States was regarded by many as being more proactive in supporting growth. Policy rates were twice as high in the euro area as in the United States, and this was seen as one cause of the euro's strength against the dollar. On the other hand, the ECB had to contend with the fact that both main indicators in its two-pillar strategy presented obstacles to lowering the policy rate. As already mentioned, both headline and core inflation remained near the upper bound of the ECB's price stability range, and M3 growth continued to be much higher than the reference value of 4.5%. As





for the euro, the ECB generally viewed its strengthening as part of a process of adjustment to bring the value of the currency back to its normal historical range; the euro's appreciation was not seen as a risk that would warrant a further easing of monetary conditions.

The ECB also faced the ongoing challenge of large regional discrepancies. One concern had to do with inflation differentials across euro area economies, particularly since Germany was close to experiencing deflation. Another issue had to do with the sustainability of increases in household debt and the acceleration of residential property prices in only a subset of the euro area economies (Graph IV.4). In response to these challenges, the ECB maintained its position that changes in the policy rate for the euro area as a whole would not be an effective means for dealing with regional imbalances: raising interest rates in an effort to restrain inflation or excessive house price increases in one region would risk choking off the recovery in another.

Regional discrepancies persisted

This conclusion does not imply that the potential development of financial imbalances is not taken into account in the ECB's monetary policy. Indeed, as discussed in Chapter IV of the *73rd Annual Report*, one possible reason for the apparent difference in the degree of activism evident in ECB policy compared to the policy of the Federal Reserve has been the ECB's reliance on its two-pillar strategy. Excessive growth in money and credit aggregates has been seen as providing signals of potential inflationary pressures or of an underlying build-up of financial and other imbalances even when headline inflation measures have remained relatively subdued. The fact that M3 growth has been well above the reference value since late 2001 is indicative of such a risk, which might have restrained policy from being even more proactive.

Quantitative policy measures still a concern

Japan

The Bank of Japan continued its use of unconventional monetary tactics in pursuing its policy goals of overcoming deflation and fostering economic recovery. With the overnight interest rate anchored virtually at zero, both short- and long-term market interest rates remained near historical lows. Given

The Bank of Japan continued its unconventional policies ...

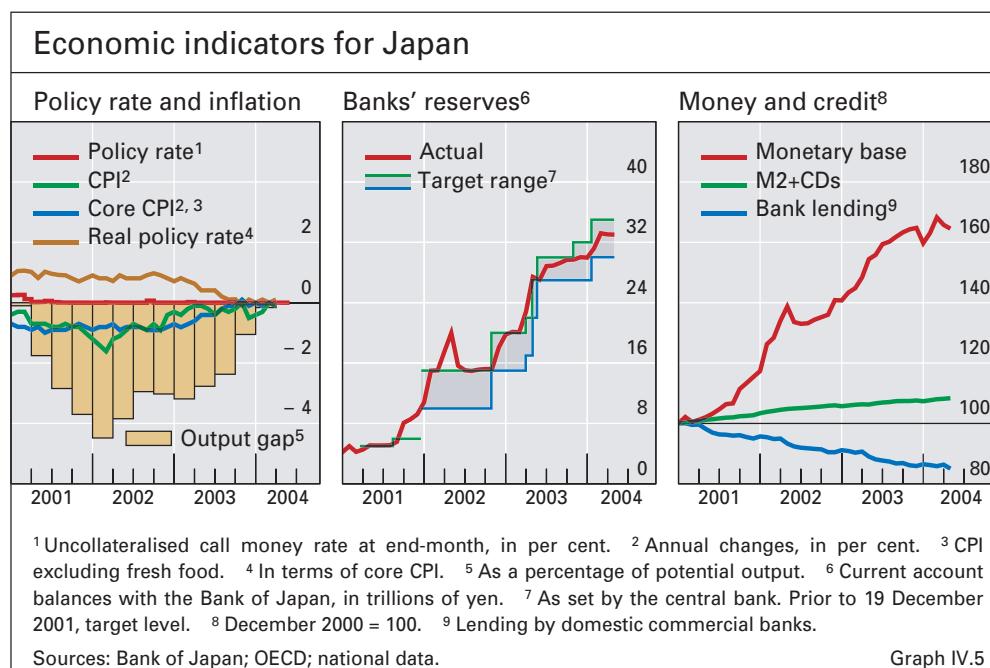
... and provided a very accommodative policy stance

Monetary transmission mechanism was still impaired ...

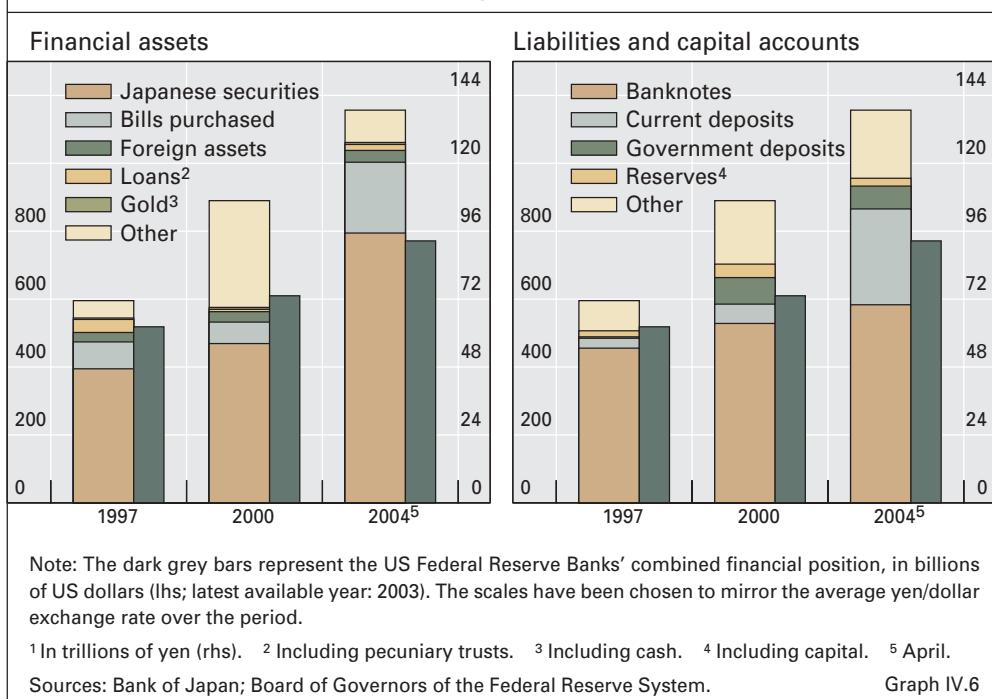
short-term nominal interest rates at the zero lower bound, the Bank of Japan was unable to directly reduce ex post real rates, which were determined by the actual rate of deflation. However, as deflation pressures eased somewhat, real interest rates declined modestly towards zero during the period under review (Graph IV.5).

The Bank of Japan complemented this low interest rate environment with a policy of quantitative easing, and twice adjusted upwards its target range for current account balances held at the central bank. The Bank raised the upper limit of the target range to ¥32 trillion in October 2003, widening the range to provide extra operational room for manoeuvre; in January 2004, the target range was raised again from around ¥27–32 trillion to a new range of around ¥30–35 trillion. The Bank of Japan also took the opportunity in October to clarify its strategy for exiting from quantitative easing: it stated that quantitative easing would continue until core CPI rose stably (on a year on year basis) for a few months and was also forecast to continue to rise. This clarification was intended to quash speculation of a premature end to quantitative easing, which was perceived to have contributed to volatility in long-term interest rates.

As had been true in previous years, the strong growth in the monetary base did not translate into appreciably faster growth for the broader aggregates. M2 expanded only moderately and the level of credit extended fell again. The continued impairment of the monetary transmission mechanism reflected the lingering effects of damage to the financial system in the past. Indeed, the Bank of Japan made further efforts to strengthen the transmission mechanism of monetary easing by purchasing stocks held by commercial banks and fostering alternative markets for financial intermediation. To this end, the Bank increased its holdings of pecuniary trusts (ie stocks purchased from financial institutions) and asset-backed securities (ABSs). In May 2004, its outstanding balances of pecuniary trusts stood at ¥2 trillion and those of ABSs at ¥150 billion.



Balance sheet of the Bank of Japan¹



As tentative signs began to emerge that deflation was easing, hopes were raised of a return to more normal monetary conditions. Actual increases in the price level, were they to materialise, would raise such hopes further. A full return to normality will, however, require that the health of the Japanese financial system continues to improve. At present, various structural impediments still represent significant challenges to the proper functioning of the financial system (see Chapter VII).

... but some positive signs emerged

One complicating factor on the road to a more normal monetary policy environment is the Bank of Japan's expanded balance sheet. The size of the balance sheet roughly doubled from about ¥72 trillion in 1997 (equivalent to 18% of GDP) to around ¥140 trillion in April 2004 (25% of GDP). This was due in large part to the quantitative easing policy, which included aggressive purchases of domestic assets (Graph IV.6). As part of the re-establishment of more normal monetary conditions, and depending on circumstances, the central bank might need to sell long-term fixed income securities from its portfolio. This could in turn adversely affect its capital position, possibly even requiring a recapitalisation.

Bank of Japan balance sheet concerns persist

Inflation targeting countries

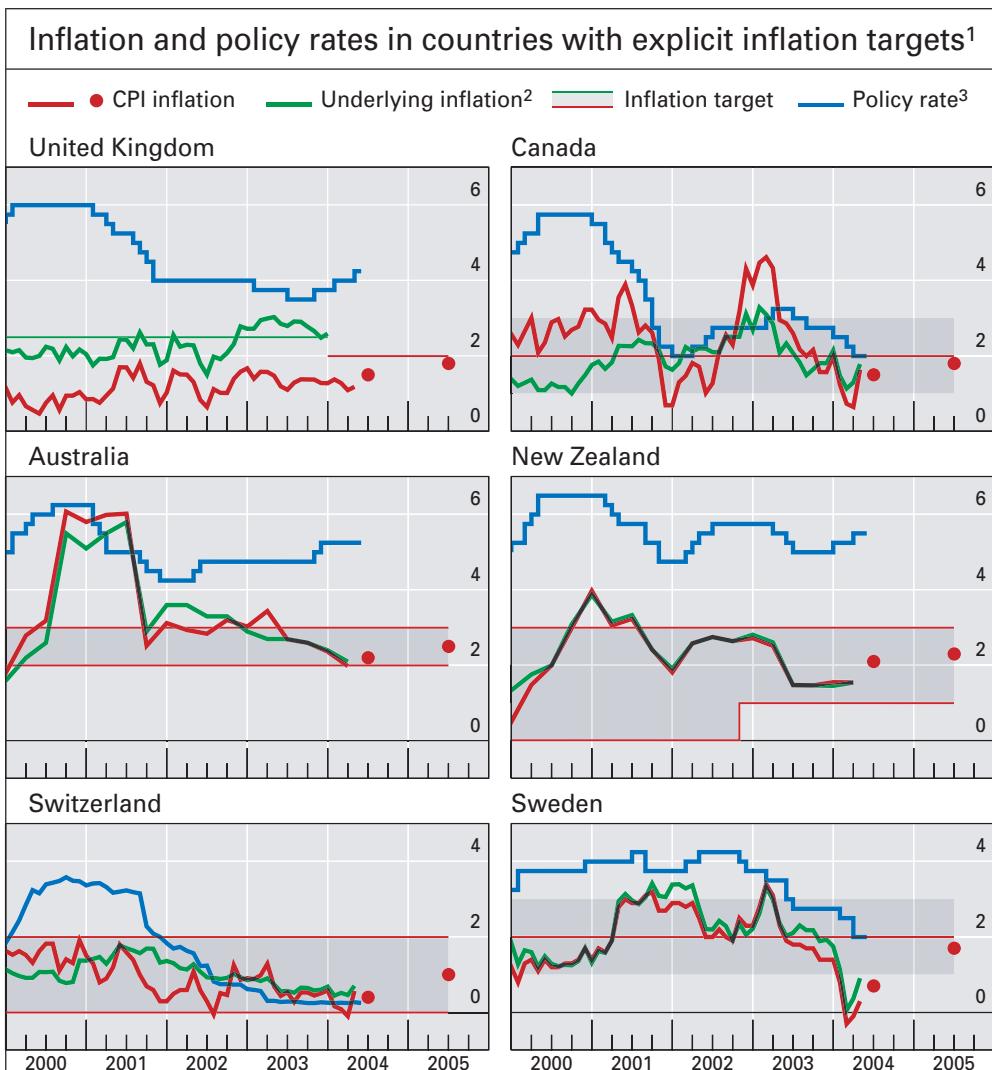
Central banks in countries with explicit numerical targets for inflation followed diverse policies during the period under review. Some central banks tightened policy, while others loosened. The asynchronous nature of the policy cycle across these and the larger industrial countries marked a divergence from recent years. At the onset of the global downturn in 2001, most central banks lowered policy rates. However, over the past year, the Bank of Canada and Sveriges Riksbank eased policy further, while the Swiss National Bank

Diverse policies in countries with inflation targets

Canada, Sweden
and Switzerland
pursued stimulative
monetary
policies ...

maintained rates at already low levels. In contrast, the Bank of England, Reserve Bank of Australia and Reserve Bank of New Zealand all raised their policy interest rates (Graph IV.7).

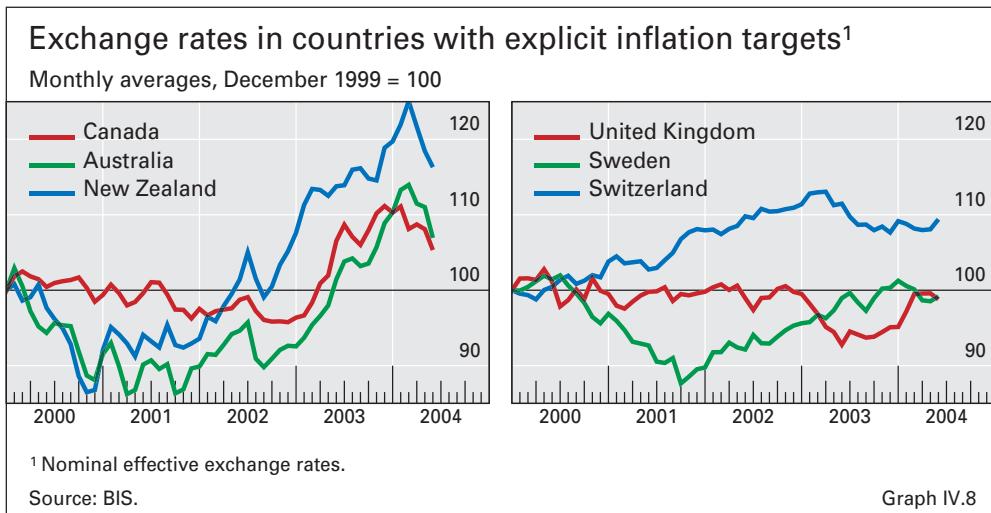
In Canada, Sweden and Switzerland, inflation was at or below target, growth in domestic demand was still below potential, and output gaps were negative. Against this background, the central banks of all three countries continued to foster stimulative monetary conditions. The drop in inflation was especially large and unexpected in Sweden, and actually resulted in declines in the price level in early 2004. As a consequence, the Riksbank lowered rates



¹ Inflation rates measured as annual changes, in per cent. CPI inflation is targeted by Australia, Canada, New Zealand, Sweden and, since 10 December 2003, the United Kingdom (previously, underlying inflation); Switzerland does not target inflation but instead uses a broad-based inflation forecasting strategy. The dots represent market forecasts from surveys conducted in May 2004. ² For Australia, CPI excluding volatile items (fruit, vegetables and automotive fuel); for Canada, CPI excluding eight volatile components and the effect of changes in indirect taxes on the remaining components; for New Zealand, CPI excluding credit services; for Sweden, CPI excluding household mortgage interest expenditure and the effects of changes in indirect taxes and subsidies; for Switzerland, core CPI (trimmed mean method); for the United Kingdom, retail price index excluding mortgage interest payments. ³ For Australia and New Zealand, cash rate; for Canada, midpoint of the operating band for overnight financing; for Sweden and the United Kingdom, repo rate; for Switzerland, three-month Libor.

Sources: © Consensus Economics; national data.

Graph IV.7



five times from March 2003, by a total of 175 basis points. This brought short-term real rates to roughly 2% by March 2004. In Canada and Switzerland, a key factor affecting policy was the exchange rate. The appreciation of the Canadian dollar (Graph IV.8), particularly vis-à-vis the US dollar, posed a threat to the recovery given trade links with the United States, and raised the risk of undershooting the inflation target. This threat was not thought to be fully offset by the contemporaneous increase in commodity prices, and the Bank of Canada thus reduced its policy interest rate five times during the period under review. The Swiss National Bank, also facing a currency appreciation, cut its policy rate in the first half of 2003 and intervened directly in foreign exchange markets. In the absence of evidence that the recovery had gained a firm footing and with inflation near zero, an easy policy stance was maintained throughout the remainder of the period.

In contrast, in response to worries that rapid domestic demand (and output) growth would exacerbate inflationary pressures, the central banks of Australia and New Zealand increased policy rates, despite the simultaneous appreciation of their exchange rates. By the end of 2003, the output gap had become positive again in Australia, and it remained large and positive in New Zealand for the third consecutive year. Similarly, the Bank of England tightened policy in the face of above average growth in domestic demand, along with concerns over the potential build-up of financial imbalances, particularly the continued acceleration of residential property prices and household debt. To be sure, it is far from clear what impact the associated changes in household balance sheets will have on spending and overall consumer price inflation, in both the short and long run. However, given the variable rate nature of mortgage financing arrangements in the United Kingdom, potential problems associated with the accumulation of household debt would be expected to worsen if interest rates were to increase sharply or house prices were to fall.

The experiences of these countries during the period under review – the combination of strengthening currencies, buoyant domestic demand, growing output gaps and increases in other asset prices, particularly in residential property – highlight the potentially difficult trade-offs sometimes faced by

... whereas
Australia, New
Zealand and the
United Kingdom
raised rates

Asset prices and
exchange rates
were key policy
risks

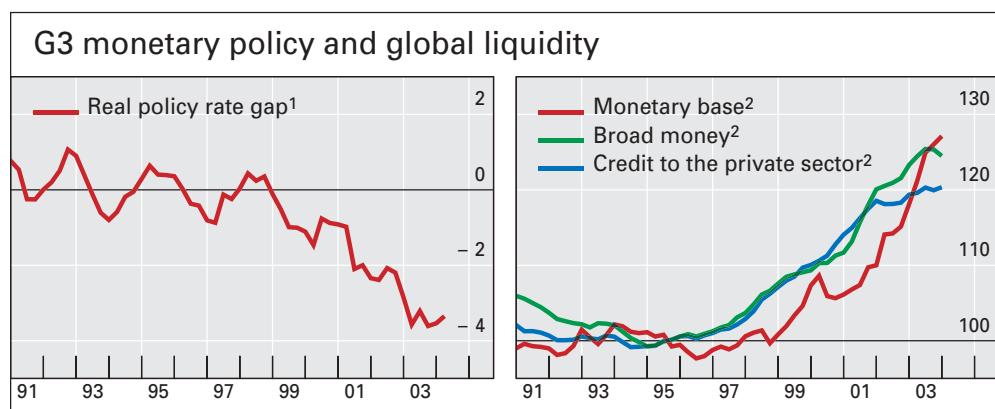
policymakers in smaller open economies. If domestic demand is growing at an unsustainable pace and property prices are displaying a sharp upward trend, policymakers would normally wish to raise rates to combat potential inflationary pressures. However, if the appreciation of the exchange rate helps to hold inflationary pressures at bay, then the need to raise interest rates may be much reduced. The problem is that, by keeping interest rates lower in the short run, policy could add to upward pressures on asset prices and feed financial imbalances in the longer run.

Global liquidity: the role of monetary policy in the G3

G3 policies could be feeding global liquidity

The accommodative monetary policy stance of the largest industrial economies – the United States, the euro area and Japan – raises the possibility that it has created excess liquidity in global financial markets. This is a difficult issue to assess, not least because it is hard to give a precise macroeconomic definition of liquidity, much less “excess” liquidity. What is known is that short-term nominal interest rates in the G3 have been reduced to such low levels that the (weighted average) real policy rate gap in the G3 – defined as the difference between the real policy rate and the natural real interest rate consistent with price stability in the long run – has widened significantly in recent years. This is certainly the case when compared to the 1990s (Graph IV.9). At the same time, quantitative measures of the stance of monetary policy, such as narrow and broad money and private sector credit, have also risen sharply. The question this raises is how far central banks should be concerned about such developments.

The reason for such concern arises from two types of risks. First, even if inflation is quiescent in the short run, very low policy rates could still increase the risks of higher inflation in the future. They might also feed growing financial imbalances, which could then unwind in a debilitating fashion. The rapid



Note: Data for the G3 (the United States, euro area and Japan) are weighted averages, based on 2000 GDP and PPP exchange rates. Prior to 1999, euro area data are calculated from member countries' statistics.

¹Defined as the real policy rate less the natural rate. The real rate is the nominal rate adjusted for four-quarter consumer price inflation. The natural rate is defined as the average real rate (1985–2003; for Japan, 1985–95) plus the four-quarter growth in potential output less its long-term average. Quarterly averages, in percentage points. ²Relative to nominal GDP; 1995 = 100.

Sources: IMF; OECD; national data.

Graph IV.9

growth of monetary and credit aggregates, rising asset prices and the unusual compression of yield spreads recently can be viewed as potential indicators of such risks in the G3 economies themselves. Second, these developments might have undesirable implications elsewhere because of the special role played by the G3 currencies as international currencies. Excessive liquidity creation in the G3 could potentially spill over to non-G3 economies, likewise raising the risks of higher inflation and unsustainable asset price developments there. One possible manifestation of this process is the increased flow of private capital to those countries whose exchange rates are seen to be good value, as investors try to exploit interest rate differentials by buying higher-yielding currencies (see Chapter V). These types of capital flows have been especially large in the current interest rate environment because low nominal rates in the G3 have, in part, driven investors to search for yield by purchasing assets in other countries. During the period under review, this behaviour was evident in the surge in private capital flows to emerging market economies (see Table III.2 on page 38).

Low interest rate
fosters search for
yield

In addressing the issue of spillovers from G3 monetary policies to the rest of the world, the exchange rate regime plays a pivotal role. In a purely flexible exchange rate regime, monetary policy is, in principle, solely a domestic affair. Any excess monetary stimulus would tend to be reflected in nominal exchange rate adjustments. Existing international arrangements, however, are quite at odds with the textbook treatment of flexible exchange rate regimes. Indeed, in some respects, current international arrangements resemble a fixed exchange rate system. Many emerging market economies have chosen to intervene in markets to keep their exchange rates, vis-à-vis the G3 currencies, in a relatively narrow range. The reasons authorities intervene in foreign exchange markets may be a direct concern about exchange rate volatility, a desire to maintain external competitiveness or a wish to mitigate the effect of currency movements on such other domestic policy objectives as low and stable inflation, balanced growth and financial stability. In addition, the fact that non-G3 economies have accumulated large holdings of international reserves provides a feedback mechanism through which the policies of emerging market economies can affect the G3. In most instances, they have used the proceeds to purchase dollar-denominated assets, such as US Treasuries. This may also have led to lower long-term interest rates in the United States than would otherwise be the case, although hard evidence on this issue is difficult to come by (see Chapter VI). Of course, it is not only non-G3 countries that have pursued such policies; Japan has also done so.

Transmission via
exchange rate
channels

The similarity between current international currency arrangements and earlier, more formal, global exchange rate regimes, such as the gold standard or the Bretton Woods system, suggests that these experiences might provide lessons for today. The gold standard, for example, worked well when the core economies followed credible monetary and fiscal policies that were largely consistent with the given constellation of exchange rates. If imbalances arose, either gold flowed to equilibrate the system or the dominant central banks would increase their foreign lending to dampen business cycles. However, both systems became vulnerable to realignments, and ultimately broke down,

Lessons from past
experience

when exchange rates became at odds with macroeconomic fundamentals. In effect, the associated adjustments in domestic labour and goods prices necessary to hold the existing systems together were deemed too costly.

Policy implications

What are the main implications for monetary policy today? If the G3 central banks continue to follow expansionary monetary policies and other countries are disinclined to accept upward adjustments in nominal exchange rates, then central banks in non-G3 economies would be induced to pursue more expansionary monetary policies than would otherwise be the case. This would be likely to manifest itself in one of two possible ways. First, central banks could lower policy rates. Second, central banks could engage in sterilised interventions, as a number already have been doing. Even though such actions might help curb a currency appreciation, if effective, they might not be able to prevent a rise in inflation or excessive movements in asset prices in the medium term. The dilemma for policymakers is whether such longer-term risks are worth bearing in order to reap the benefits of stronger growth in the short run.

Financial vulnerabilities

Moreover, if a rapid increase in global liquidity were to lead to a build-up of financial imbalances in various parts of the world, many financial positions might become more vulnerable in the event of a rise in short-term interest rates. Indeed, there is some evidence that recent lending to emerging market economies has sometimes been undertaken without sufficient discrimination. Fortunately, compared with past episodes, emerging market countries have generally taken steps to strengthen their financial infrastructures and liquidity positions. At the same time, the corresponding adjustment need not be entirely smooth.

Monetary policy adjustments may be necessary

Various adjustments could mitigate the build-up of excessive global liquidity, were the implications of this judged to be significant. If the non-G3 economies were to bear the brunt of the adjustment, they would have to accept an appreciation of their currencies or the imposition of capital controls. In contrast, if the G3 economies were to bear the burden of the adjustment, then somewhat tighter domestic policies would be called for. A more comprehensive approach might be for both the G3 and non-G3 economies simply to commit to a credible international framework of more flexibly determined exchange rates, as recently recommended at a meeting of the G7 Finance Ministers and central bank Governors. In practice, however, this would probably involve some form of agreement about macroeconomic policies as well. Asian countries, for example, might be reluctant to accept appreciation of their currencies if they believed that the US fiscal deficit and low domestic saving rate were the crux of the many worrisome imbalances.

Communication in monetary policy

Clear communication is key to monetary policy

The importance of clear communication in monetary policymaking was underscored in the period under review. It is widely recognised that a good communication policy can strengthen the institutional independence of central banks as well as increase the effectiveness of monetary policy. This helps to explain why, over the past decade, there has been a trend for central banks to try to communicate more clearly. At the same time, it is also clear

that one size does not fit all when it comes to designing good communication strategies; different central banks face different constraints as they try to fine-tune their messages. These constraints are likely to continue to present challenges to central banks as they contemplate future changes in their communication policies.

The importance of good communication

Clear communication plays a critical role in a central bank's institutional policy framework because it provides a means for central banks to be transparent, accountable and credible. These three dimensions are interrelated and mutually reinforcing in the best of circumstances.

Greater transparency in monetary policy can enhance central bank accountability and credibility, and can reduce uncertainty about the central bank's objectives, strategies and decisions. For its part, clear communication is critical to increasing transparency. It is important to note, however, that more information is not necessarily synonymous with greater transparency; sometimes extra information can convey a false sense of precision or simply overwhelm its recipients. Thus, policymakers are faced with the task of determining what information can best characterise their views and how best to communicate them to the public.

Transparency and accountability go hand in hand. To be accountable, a central bank has to be clear about what it does and why. The importance of accountability, however, transcends the narrow confines of inflation and output stabilisation. Given the potential impact – both positive and negative – of monetary policy on economic welfare, central banks have a duty to be accountable to both the government and the general public. Being accountable promotes trust and confidence and is a natural counterpart to the operational independence of a central bank. Moreover, past studies confirm a positive relationship between central bank operational independence and welfare-improving inflation and output outcomes.

Similarly, greater transparency can help build credibility. Ultimately, central banks gain credibility by fostering conditions that contribute to the best economic outcomes. However, credibility can be established faster if sufficient information is provided to allow the public to assess the consistency of policy plans and their execution, and the link between the policies and objectives of the central bank.

Clear communication can also make monetary policy more effective. A major policy lesson, learned from experience over the past three decades, is that private sector expectations have a significant impact on the transmission of monetary policy. Well anchored private sector expectations, for example, contribute to making the economy more resilient to transitory supply and demand shocks and reducing the need for countercyclical adjustments which could, in less transparent environments, increase volatility. This means that central banks can best achieve their goals by setting short-term policy rates appropriately and by trying to shape public expectations in a way that reinforces their policy stance. Conversely, if policy actions are misunderstood by the private sector, then monetary policy is unlikely to fully achieve its intended outcomes.

Good communication aids ...

... transparency ...

... accountability ...

... and credibility

Clear communication makes policy more effective ...

... thereby complementing policy actions ...

... and reducing
macroeconomic
volatility

One way a central bank can help stabilise the economy is by reducing the private sector's uncertainty about its policy framework. It was not uncommon in the past, however, for central banks to see a strategic advantage in withholding information about decisions and intentions. Central bank secrecy was largely predicated on the view that monetary policy actions could be more effective if they were not anticipated by the public. Over time, this view was superseded by the belief that policies that are clearly explained to the public eliminate an extra source of uncertainty in private sector decision-making. Structurally, the rapid development and growing importance of financial markets in transmitting monetary policy have contributed to this shift, given that asset prices and yields are highly sensitive to expectations about policy actions.

While it is generally held that actions speak louder than words, when it comes to central bank communication, words can speak louder than actions if the central bank has a reputation for delivering what it promises. The past year has provided good examples of the potential gains from clearer communication. Concerns about financial imbalances in the United Kingdom and Australia, for example, led markets to bid up longer-term interest rates in advance of policy moves because the central banks were telegraphing their intentions. In a sense, clarifying their future policy intentions amounted to a verbal tightening: private sector expectations translated into forward-looking behaviour that helped to achieve a tighter stance of policy than would otherwise have been the case.

Trends towards greater openness

Central banks have
become more
open ...

Central banks are now generally quite open about most aspects of monetary policy. A brief summary of current communication practices is given in Table IV.1. At the cost of some oversimplification, practices can be broadly divided into means to improve the effectiveness of monetary policy and means to enhance central bank accountability. The former category can be further broken down between communication on policy decisions and on the central bank's assessment of economic conditions.

As is evident from the table, there is considerable uniformity across central banks on certain elements of strategies aimed at making monetary policy decisions more transparent; for example, the adoption of explicit short-term targets for instruments and the public announcement of policy decisions (eg press releases). In addition, most central banks now regularly publish detailed descriptions of their views on the current and prospective state of the economy. However, there is less agreement on the detail and timing of explanations of policy decisions. For instance, not all central banks publish the minutes of policy meetings, and the lags in publication vary for those that do.

Assessing the record

... and policy has
become more
predictable

To the extent that changes in communication policies over the past decade have increased the clarity of central bank intentions, then, all else equal, policy rates should now be more predictable. An analysis of the record is broadly consistent with this view.

Provision of information by central banks

	G3			Inflation targeters					
	US	ECB	JP	GB	CA	NZ	AU	SE	CH
Accountability									
Quantitative inflation objectives ¹	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Reports to legislature ²	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Policy decisions									
Decisions announced immediately	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes ³	Yes
Press conferences	No	Yes	Yes	No	No	Yes	No	Yes	Yes ⁴
Press releases	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Minutes published ⁵	Yes	No	Yes	Yes	.	.	No	Yes	No
Precise voting result published	Yes	No	Yes	Yes	.	.	No	Yes	No
Economic assessments									
Reports on monetary policy	H ⁶	M	M	Q	Q	Q	Q	Q	Q
Forecasts released	H	H	H	Q	Q	Q	Q	Q	H
Quantitative risk assessments	No	No	No	Yes	No	No	No	Yes	No

AU = Australia; CA = Canada; CH = Switzerland; GB = United Kingdom; JP = Japan; NZ = New Zealand; SE = Sweden; US = United States. M = monthly; Q = quarterly; H = half-yearly.

¹ ECB and Switzerland: definition of price stability; United Kingdom: inflation point target; Canada and Sweden: inflation point target with tolerance interval; New Zealand: inflation target band; Australia: target range for medium-term average inflation. ² United States: reports/testimony to Congress; ECB: reports/testimony to EU bodies; Japan and Canada: reports/testimony to Parliament; United Kingdom: reports to Treasury Committee; New Zealand: reports to/hearings in legislature; Australia: reports to Parliament/testimony to House of Representatives Committee; Sweden: reports to/hearings in Parliament (Finance Committee); Switzerland: no statutory requirements, but periodic reporting to parliamentary committees. ³ A press release is published the day after the decision of the Executive Board. ⁴ After the June and December reviews of monetary policy. ⁵ Publication lag: United States (five to eight weeks); Japan (one month); United Kingdom (13 days); Sweden (two weeks). ⁶ The *Monetary Policy Report* is provided semiannually; the *Beige Book* is published eight times a year.

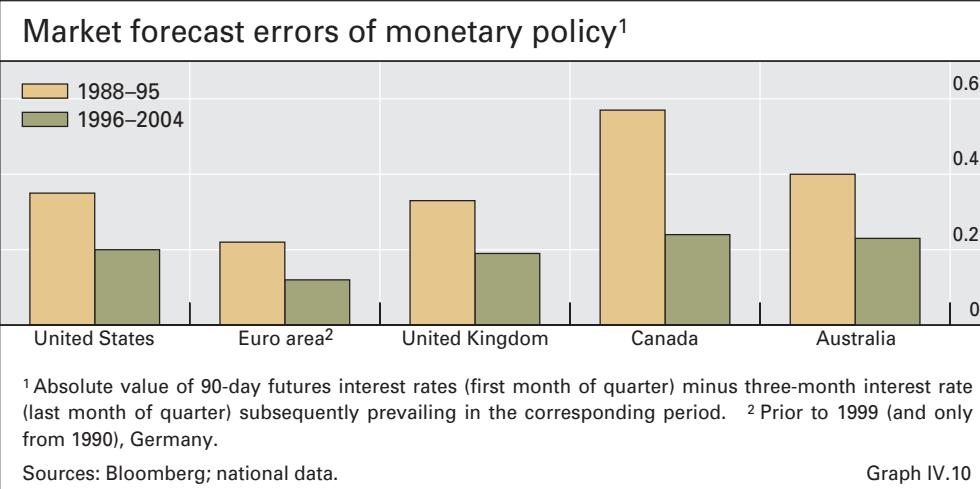
Source: Central banks.

Table IV.1

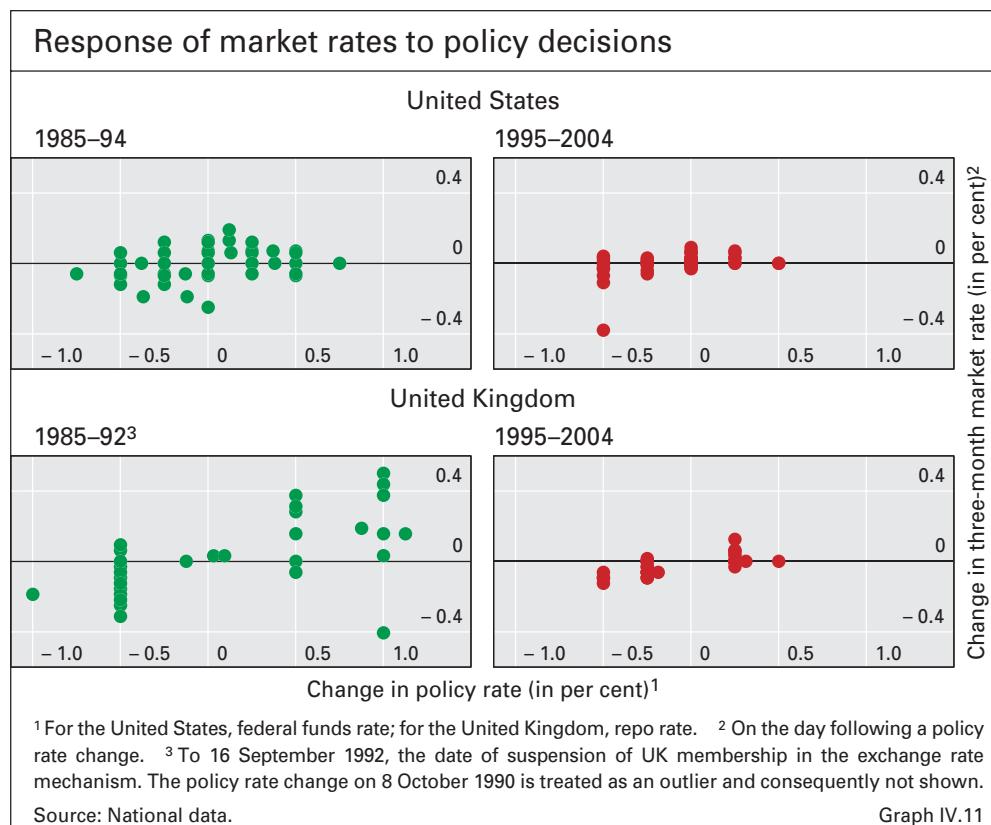
In particular, two pieces of evidence are supportive of greater predictability. First, average forecast errors of short-term rates have become smaller since the mid-1990s, as gauged on the basis of the rate implicit in futures markets (Graph IV.10). Second, a similar message emerges from the reaction of market interest rates at the time of decisions on policy rates. Graph IV.11 shows that three-month money market rates have reacted less to policy announcements since 1995, consistent with policy decisions being better anticipated by markets.

Although better communication may have made central bank actions more predictable, it is important to recognise that central bank communication strategies allow for a two-way flow of information. Central banks provide information about policy actions and future intentions; the private sector then reacts and provides feedback on how the information about policy is being received. To some extent, the hallmark of a good communication policy is that the central bank and the private sector end up having consistent views; such a situation is likely to promote an environment where the best economic outcomes can be achieved. However, there will be times when financial

Communication is bidirectional



markets indicate to policymakers that their view of what monetary policy is likely to do is different from the view held by the policymakers themselves. In those critical times, when markets go off track, the central bank might wish to shepherd them back. Moreover, a gentle nudge from a transparent central bank is generally thought to be preferable to radical swings by an opaque central bank. Of course, in such circumstances, the policymakers will also have to reflect seriously on whether the markets' view of appropriate policy looking forward may not be better than their own. That is what two-way communication is really about.



Understanding differences in communication strategies

While there has been a common trend across central banks towards greater transparency about most aspects of monetary policy, the fact that significant differences remain should not be surprising. The history, audience and economic challenges specific to each central bank help shape the best communication strategy. One size does not fit all.

One size does not fit all because of ...

First, for those central banks with a long track record, from which the public can reasonably infer their policy framework and likely reaction to economic events, explicit communication may not be as important as it is for central banks operating under less well established regimes. Arguably, the long history of the Federal Reserve, and particularly the actions of the FOMC over the past decade or so, provide considerable information about how US monetary policy will be conducted going forward. In contrast, the ECB, as a new institution, and smaller industrial countries with new inflation targeting regimes, would face a demand for more comprehensive information about their policy frameworks.

... history ...

Second, different central banks face demands for different types of information. In part, this is because the main target audience may differ across countries. For instance, in countries where financial markets play a relatively large role in the transmission of monetary policy (eg the United States), policymakers may have to focus on ensuring that financial markets have easy access to information that could have a large influence on asset prices. In contrast, in countries that have more bank-dominated financial intermediation systems, this information might be less essential. Rather, the central bank might focus more on the general public, who need to be reassured of its commitment to price stability as they make longer-term decisions to work, save and invest.

... audience ...

Third, country-specific conjunctural circumstances may also call for differences in communication practices across central banks. For example, the Bank of Japan has responded to its deflationary environment by providing detailed information about its unconventional monetary policies as well as forward-looking information about when such policies may end. To a lesser extent, the Federal Reserve in the past year felt it was necessary to emphasise the policy strategies it could implement if an unwanted deflation were to occur. Facing still different circumstances, the Bank of England, for example, has devoted more effort to explaining its policy options in the face of potentially unsustainable increases in residential property prices.

... and special circumstances

Communication challenges

History shows that central banks strive for continuous improvement in their communication strategies. They also learn from the efforts of their peers, as has been evident in the trend towards the use of inflation targeting frameworks by many central banks around the world. Discovering new communication modalities, as well as refining existing strategies, remains integral to future progress. While this may sound straightforward, there are different types of practical constraints on central bank communication strategies.

Further progress is important but ...

Even if central banks might want in principle to release more information, there might be good practical reasons for not doing so. Apart from the obvious

... it will be costly ...

... and too much openness may stifle debate

Inherent limitations stem from ...

... the use of language ...

... the difficulty of describing all contingencies ...

... and potential conflicts with credibility

inappropriate release of proprietary information, which could have a chilling effect on the future flow of such information to policymakers, improving communication is not costless. Clear communication requires time, money and central bank resources. Subjected to a sober cost-benefit analysis, releasing certain types of information might simply prove to be wasteful. In addition, deliberations in policy meetings benefit greatly from full and frank discussions, which could be adversely affected by too much openness, such as broadcasting meetings or releasing complete transcripts as soon as would be possible. Similarly, enhanced transparency regarding policy deliberations, voting records and so on might induce the media to dramatise differences in opinion amongst policymakers, which in turn could politicise internal monetary policy discussions. All these concerns suggest that central banks must carefully consider what information they provide.

Another important issue is how the central bank can best get its intended message across clearly to the public. There are several reasons why this is so challenging. First, language may be imprecise and subject to various interpretations, especially when policymakers feel the need to be concise. Consider, for example, the recent changes in the FOMC's post-meeting press release. Starting in mid-1999, the Committee indicated a "bias", along with its policy rate target, which provided a signal of what deviations from target might be likely during the inter-meeting period. Its full meaning, however, was not well understood in financial markets. Consequently, in February 2000, the statement on bias was replaced by the "balance of risks" statement. This was meant to indicate the FOMC's view of likely outcomes for inflation and output over a horizon beyond the subsequent policy meeting. Moreover, wishing to keep its statement brief, the Committee has had to choose its words carefully in order to best characterise its views. Experience during the period under review suggests that even slight modifications in the balance of risks statement can cause a large, and sometimes unwanted, reaction in the markets. A longer statement, with greater emphasis on the conditions under which certain policy actions would be taken, might seem the obvious alternative but would necessarily delay its release to the public at the conclusion of an FOMC meeting. Moreover, it might unduly raise the sensitivity of markets to unfolding economic developments.

Second, while striving to be clear and predictable during normal circumstances, central banks might not find it feasible, or desirable, to describe all possible contingencies and what they might do in response. This is partly because of the impossibility of knowing the precise nature of events until they occur and partly due to concerns that the discussion of extreme contingencies might unduly influence the public and roil financial markets. In addition, the difficulties may reflect the reality that the public may be unwilling or unable to fully digest complex analyses and a substantial amount of policy information.

Finally, because a focal point of communication strategies is credibility, an ironic question arises: can central banks appear to be too credible? A central bank may face a "winner's curse" problem: if it is too credible, the public may place more weight on its pronouncements than the central bank intended.

This problem might be particularly relevant when policymakers make comments on low-probability outcomes, which the public then blows out of proportion. In such an environment, providing too much information may end up adversely affecting the central bank's credibility. Similarly, if the markets simply accept the central bank's assessment of how policy should evolve in the future, the two-way communication referred to above could become seriously compromised.

The payoffs to better communication are potentially significant but, if history is a reliable guide, attaining such gains will most likely involve careful and prudent efforts rather than quick fixes.

V. Foreign exchange markets

Highlights

The continued broad depreciation of the US dollar was the most notable development in foreign exchange markets in 2003 and the early months of 2004. The dollar depreciated markedly against the euro and a number of other floating currencies. Its decline was particularly pronounced vis-à-vis the pound sterling and the Australian, Canadian and New Zealand dollars. By contrast, its depreciation against the yen and Asian emerging market currencies was limited. Between February and mid-May 2004, the downward trend in the US dollar partially reversed.

Three main factors appeared to drive exchange rate movements during the period under review. First, market participants focused on the widening US current account deficit and changes in the composition of its financing as a key determinant of the dollar's decline. Second, against the background of ample global liquidity and uncertain trends in stock markets, interest rate differentials continued to be a major determinant of exchange rate movements. The search for yield often took the form of carry trades. Third, unprecedented intervention by the Japanese Ministry of Finance and large reserve accumulation by several central banks elsewhere in Asia limited the dollar's depreciation against Asian currencies. As in previous years, market participants focused on the Chinese monetary authorities' exchange rate policy.

The role of the US external imbalance and that of official reserve accumulation in Asia are examined in more detail in the second half of the chapter. An empirical analysis of the financial flows associated with current account adjustments since the mid-1970s reveals sizeable swings in a number of categories of capital flows during these episodes. Nonetheless, an analysis of the experience in the United States around 1987, in the light of somewhat different conditions today, suggests that the pattern of adjustment of the present US external imbalance cannot be predicted with confidence. This is particularly so given the role currently being played by public sector capital flows. While traditional determinants of official reserve holdings do provide some explanation of the extent of reserve accumulation observed in Asia, there is also some evidence of a change in the motivation behind reserve accumulation during the past two years.

Conditions in foreign exchange markets in the period under review were characterised by an unusually sharp rise in overall activity, driven mainly by speculative players. A notable exception was the yen/dollar market, which appears to have experienced a decline in liquidity.

Exchange rate movements: the facts

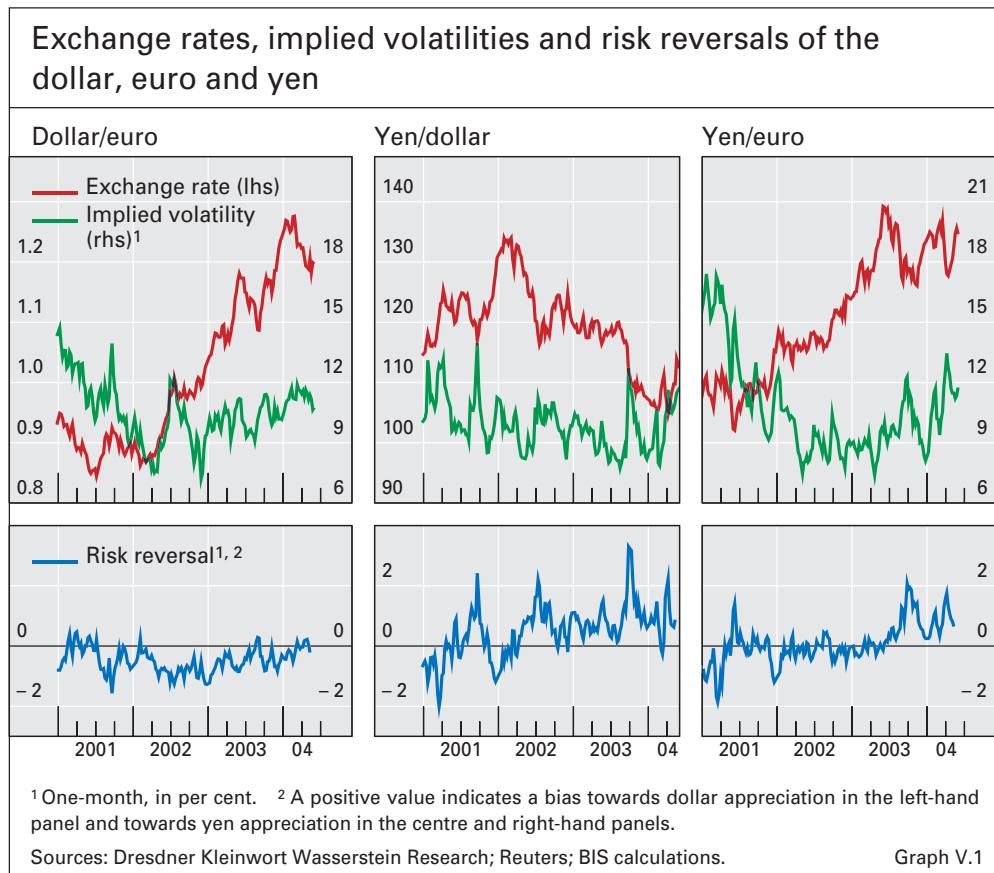
The broad depreciation of the dollar, which had started in January 2002, continued until early 2004, when the US currency began to recover some ground (Graph V.1). Between its peak in January 2002 and its trough in February 2004, the dollar depreciated by 22% in nominal effective terms. During the same period, the euro gained 12%, while the yen appreciated by around 6%. Between mid-February and mid-May, the dollar regained 6%, the euro depreciated by 2% and the yen declined by 4% in nominal effective terms.

Broad depreciation of the dollar ...

Between January 2002 and February 2004, the dollar declined by 43% against the euro, which on 17 February reached the highest value since its inception, at \$1.29. During this period, the dollar also depreciated vis-à-vis other floating currencies, in particular sterling (30%) and the Australian (51%), Canadian (20%) and New Zealand dollars (64%) (Graph V.2). Several emerging market currencies – especially the real, the rand and the Chilean peso – also appreciated substantially against the dollar (Graph V.3). The rise in all these currencies became less uniform around July–August 2003, as market participants reacted to various changes in expected and current policy rates.

Between mid-February and mid-May 2004, the downward trend in the US dollar partially reversed. The trough in the dollar's trend coincided with official remarks pointing to the excess volatility in recent exchange rate movements. Subsequently, the dollar appreciated by about 6% against the euro. Similar

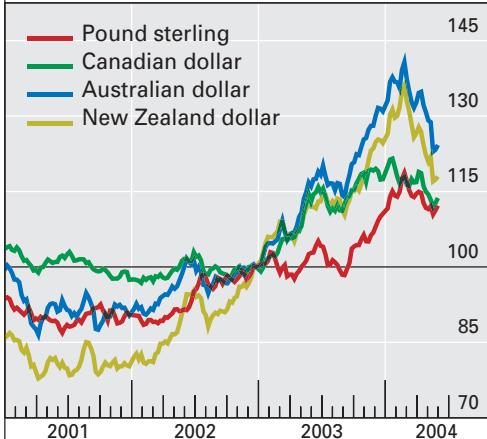
... partially reversed starting in February 2004



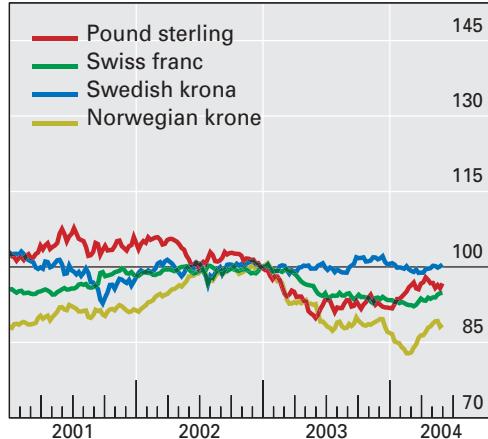
Exchange rates of other industrial countries

Weekly averages, end-2002 = 100

Against the US dollar



Against the euro



Note: An increase indicates an appreciation.

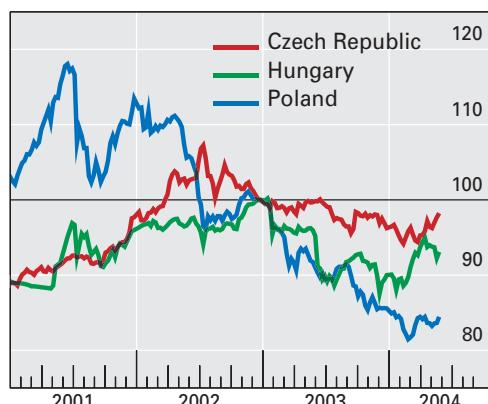
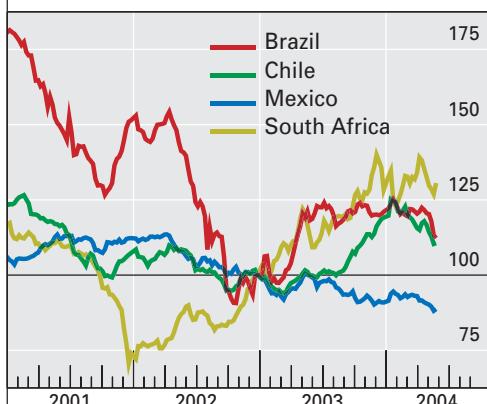
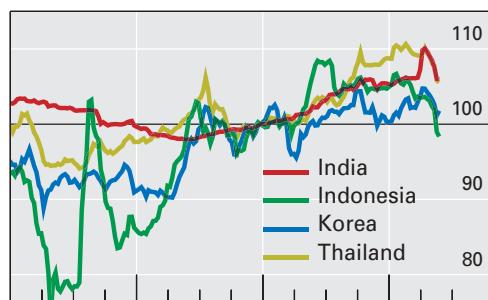
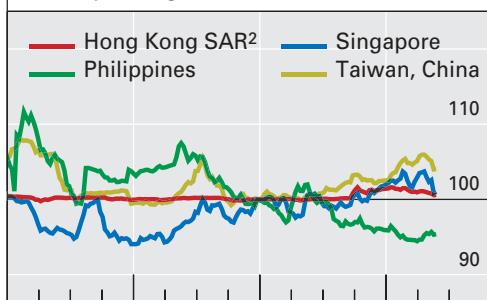
Source: National data.

Graph V.2

downward movements were recorded by the pound (-8%) and the Canadian dollar (-6%), while the Australian and New Zealand dollars depreciated by 14% and 15%, respectively.

Exchange rates in emerging markets¹

Weekly averages, end-2002 = 100



¹ Against the US dollar (in the bottom right-hand panel, against the euro); an increase indicates an appreciation against the dollar (euro). For the bottom left-hand panel, compressed scale. ² Twelve-month forward rate.

Sources: ECB; Bloomberg; Datastream.

Graph V.3

The principal exceptions to the general pattern of strong appreciation against the US dollar until February 2004 were the yen and most Asian emerging market currencies. A number of currencies in Asia are pegged to the US dollar, most notably the renminbi and the Hong Kong dollar, but even amongst those that are not pegged, the appreciation over this period was considerably more muted than, for example, that of the euro or the pound.

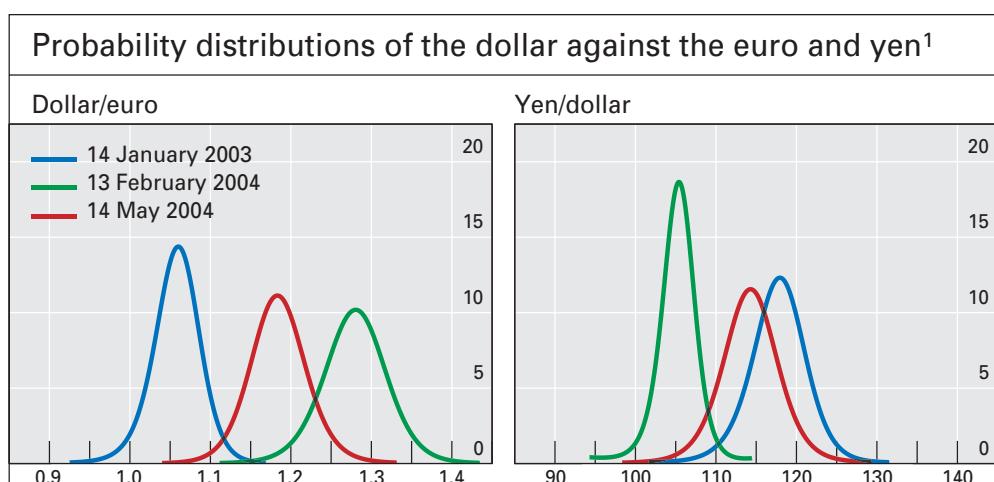
Limited appreciation of Asian currencies against the dollar

Visible changes in market sentiment accompanied the reversal of the trend of the dollar. During most of 2003, market participants' expectations of the future exchange rate of the currency, measured by the mean of estimated risk neutral probability density functions, continued to decline. Moreover, markets' assessment of the balance of risks between a much stronger and a much weaker dollar, described by the skewness of these density functions, was weighted noticeably towards the latter (Graph V.4). This pattern was particularly pronounced in the dollar/euro market. These expectations started to change in early 2004. Between February and mid-May, option prices suggested that the attitude towards the dollar became less negative. The previous skewness largely disappeared, with the market assigning approximately equal likelihood to a substantial strengthening or weakening of the dollar.

Significant shift in market sentiment

According to market participants, these broad exchange rate movements took place against the background of two noteworthy developments in foreign exchange market conditions. First, the volume of trading generally rose sharply, continuing a trend that had started in early 2001. This was reportedly driven to a large extent by the greater activity of the leveraged investor community. Particularly prominent was the increase in the activity of macro hedge funds, which base their strategies on views about fundamentals such as interest rate differentials, and momentum players, which typically track trends in asset prices. Institutional investors and corporate treasurers were also seen as being much more active. The rise in turnover appeared to be

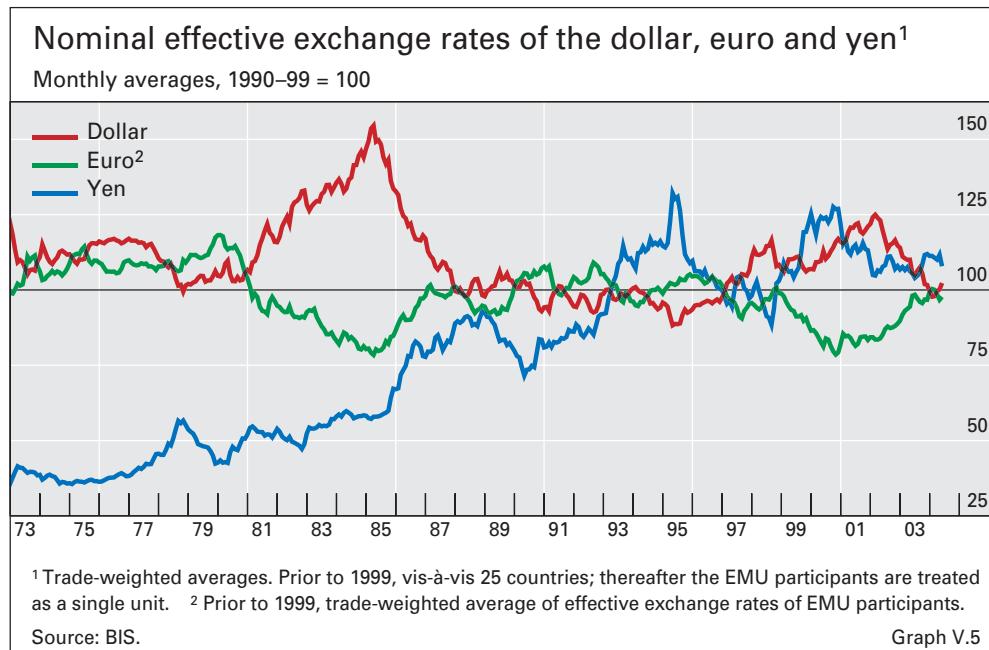
Two noteworthy changes in market conditions



¹The risk neutral probability density functions are estimated using the indicative quotes of a market-maker in London on three derivatives contracts: at-the-money implied volatility, the risk reversal and the strangle. The maturity of the options is constant and equal to one month. The calculation is based on weekly averages of daily estimated density functions for the weeks ending on the dates indicated.

Sources: JPMorgan Chase; BIS calculations.

Graph V.4



most pronounced in the dollar/euro market. Liquidity conditions in most foreign exchange markets did not seem to change noticeably over the period, with liquidity generally remaining very high. Second, and in contrast to the other main market segments, traders suggested that the yen/dollar market in 2003 was characterised by both a decline in activity and a lower level of liquidity, as indicated by reduced trading volumes and tighter intraday trading ranges. These changes were seen to be associated with the two-way risk introduced into that market by systematic official intervention.

Despite the large movements in exchange rates over the period, two points are worth noting from a longer-term perspective. First, in nominal effective terms the three main currencies are now very close to their averages for the 1990s (Graph V.5). Second, the dollar's depreciation between January 2002 and February 2004 was much smaller than the major correction in the mid-1980s, when the currency lost around 50% of its value against both the yen and the Deutsche mark, following a period of overshooting in the first half of that decade.

Exchange rate movements: determinants

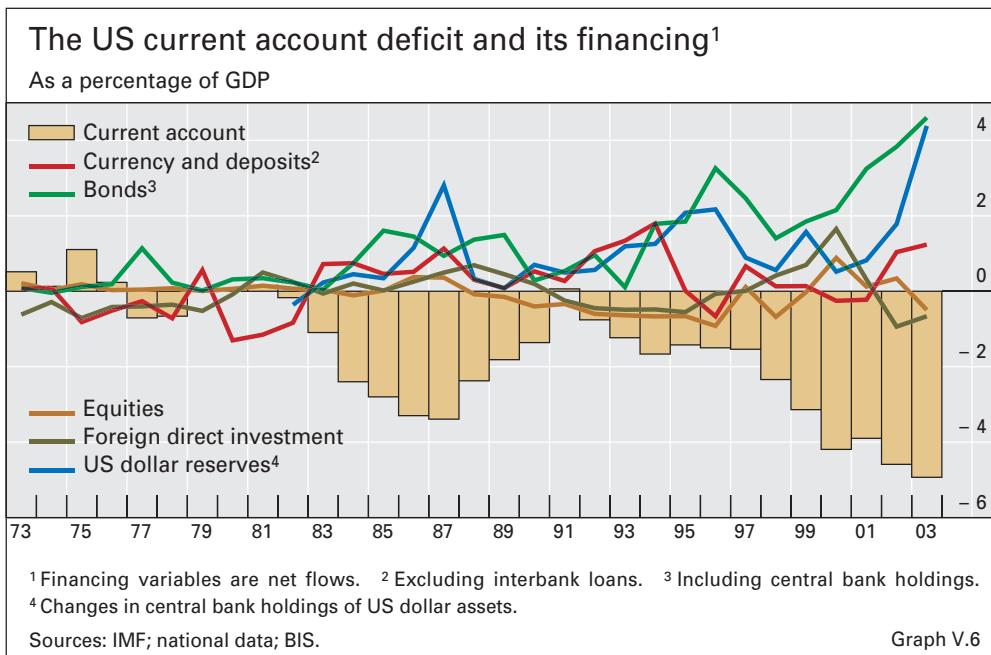
The longer-term perspective
 Three main determinants of exchange rate movements

The broad exchange rate movements during the period under review appeared to be driven by three main factors: the external imbalance of the United States, interest rate differentials, and exchange rate policies in Asia.

The US current account deficit

Until February 2004, markets focused on the US current account deficit

As had been the case in 2002, the focus of market participants on the increasing size of the US current account deficit was the main determinant of the dollar's broad depreciation up until February 2004. In 2003, the deficit reached 5% of US GDP (Graph V.6), and US net international liabilities rose to 25% of GDP. Even so, the rising stock of international liabilities did not constitute a significant burden for the United States, as the yields on US international



assets exceeded those paid on the US liabilities. Thus, net income flows continued to be positive.

Arguably the main influence of the US external imbalance on the dollar was through its impact on general market sentiment, in terms of a widespread expectation of the need for a depreciation of the currency. Two related considerations led to this expectation. First, with the US fiscal deficit rising further, the need to finance a large current account deficit appeared likely to persist for longer than previously expected. Moreover, the roots of the external imbalance were increasingly seen to lie in inadequate national saving rather than high levels of productive investment. Second, changes in the composition of financial flows into the United States – a fall in the share of private flows and, within private flows, a decline in the share of equity and foreign direct investment inflows – suggested that the private sector was becoming less willing to finance the US current account deficit (Graph V.6).

A key issue is what form an adjustment of the US external imbalance might take. While some changes in the exchange rate and capital flows have already taken place over the past two years, they have been orderly. An important question is whether these conditions will continue or whether there is a likelihood of a disorderly adjustment of capital flows that might disrupt financial markets. One way to address this question is to analyse the nature of capital flows during historical episodes of current account adjustments (see below).

Interest rate differentials

The second main factor determining exchange rate movements was interest rate differentials. The correlation between exchange rate movements and both prevailing and expected interest rate differentials was evident for a large number of economies (Table V.1). Among the G3 economies, the euro's rise against the dollar and the yen between January 2002 and February 2004 was underpinned by fact that the euro area had the highest interest rates and

Interest rate differentials influenced capital movements and exchange rates

hence attracted yield-driven capital (Graph V.7). Relatively high and rising interest rates in the United Kingdom contributed to the appreciation of sterling against the dollar and the yen.

The impact of interest rate differentials was felt most conspicuously in the markets for the Australian, New Zealand and, to a lesser extent, Canadian dollars (Graph V.2), which traditionally are also influenced by commodity prices. Until early 2004, the three currencies rose markedly against the US dollar. However, the appreciation of the Australian and New Zealand dollars vis-à-vis the euro was limited, notwithstanding favourable interest rate differentials and a 39% increase in commodity prices. The Canadian dollar even depreciated against the euro in spite of similar yields and the positive influence of commodity prices.

The global search for yield and interest rate differentials also played a prominent role for a number of emerging market currencies. In a context of cheap funding, as suggested by low short-term rates (see Chapter IV), and a high tolerance for risk, as indicated by narrow credit spreads and strong bond issuance in emerging market countries (see Chapter VI), the currencies of emerging market countries with a positive interest rate differential tended to appreciate against the dollar. Noteworthy examples were the Chilean peso, which rose by around 9% between early 2002 and early 2004, the rand, which gained some 44%, and the real, which appreciated in spite of some negative domestic developments.

As in the previous year, carry trades were a popular mechanism facilitating investors' search for yield. These trades involve borrowing in a low-yielding currency and investing in a high-yielding one. Over the period, such strategies were followed not only by macro hedge funds and CTAs (commodity trading advisers), but also by institutional investors and non-financial corporates. Reportedly, the three main funding currencies were the US dollar, the yen and

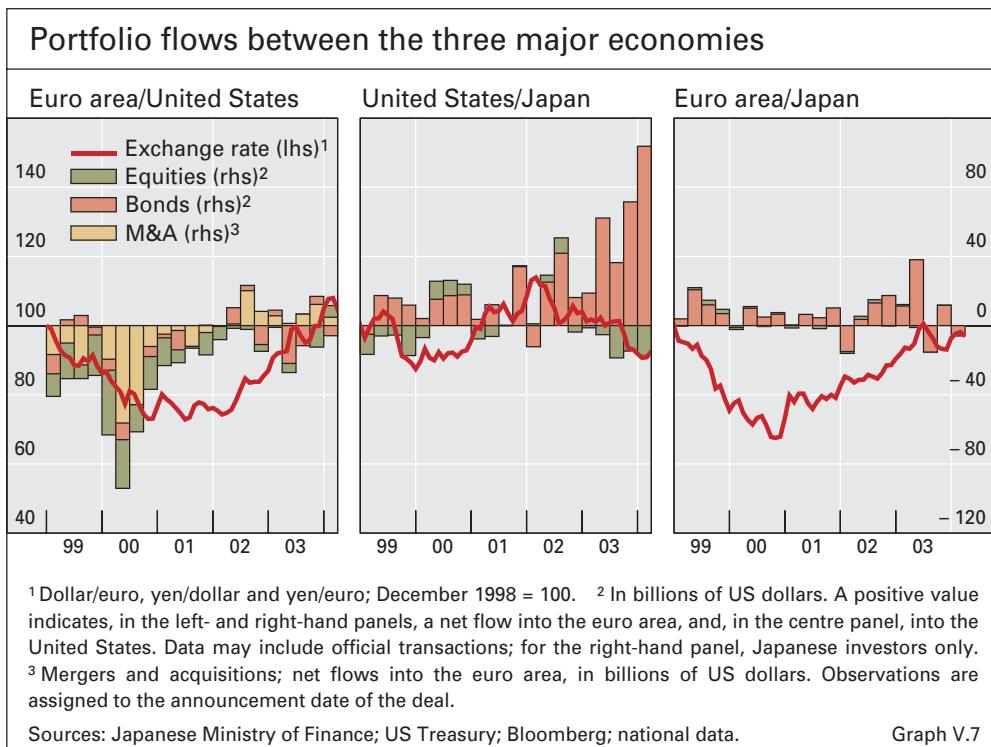
Carry trades were a popular investment strategy

	Exchange rates and interest rate differentials							
	Dollar ¹		Euro ¹		Interest rate differential against US rates ²		Interest rate differential against euro area rates ²	
	Jan 02–mid-Feb 04	Mid-Feb 04–mid-May 04	Jan 02–mid-Feb 04	Mid-Feb 04–mid-May 04	Jan 02–mid-Feb 04	Mid-Feb 04–mid-May 04	Jan 02–mid-Feb 04	Mid-Feb 04–mid-May 04
New Zealand	-51.9	15.9	-14.4	8.9	4.2	4.6	2.8	3.6
Australia	-43.6	14.4	-5.9	7.5	3.5	4.5	2.1	3.5
Sweden	-37.8	6.9	-0.8	0.0	2.3	1.3	0.9	0.3
Euro area	-36.7	6.9	.	.	1.4	1.0	.	.
Switzerland	-30.5	4.4	6.1	-2.5	-0.7	-0.8	-2.1	-1.8
United Kingdom	-26.8	7.6	10.8	0.8	2.5	3.2	1.1	2.2
Norway	-26.6	1.0	10.4	-5.9	3.9	0.9	2.5	-0.1
Japan	-20.6	7.6	17.2	0.9	-1.4	-1.0	-2.8	-2.0
Canada	-19.0	5.4	19.1	-1.3	1.4	1.1	-0.0	0.1

¹ Cumulative changes, in per cent; a positive value indicates a depreciation against the dollar (euro). ² Using three-month interest rates.

Source: National data.

Table V.1



the Swiss franc. The main recipients of the borrowed funds included sterling, the Australian, Canadian and New Zealand dollars, and a number of emerging market currencies.

When the generalised upward trend against the US dollar moderated in early 2004 and subsequently partially reversed, the influence of interest rate differentials became more complex. As the market reassessed the probability of policy rate changes in a number of countries, the importance of prevailing interest rate differentials as a determinant of exchange rate changes diminished, while that of expectations of future differentials increased (see Chapter IV). The euro declined noticeably from its peak level in February 2004, as market participants brought forward their assessment of the timing of a rise in US rates in response to strong employment and inflation data in the United States, and began to attach a higher probability to an easing in euro area interest rates. Moreover, by increasing the expected funding cost in US dollars, the revised expectations for the timing of changes in US monetary policy markedly reduced the attractiveness of carry trades involving the Australian and New Zealand dollars. This contributed to a notable depreciation of these currencies against the US dollar. The Canadian dollar, Norwegian krone and Swedish krona also experienced declines as policy interest rates in those countries were lowered and market participants came to expect still further monetary easing. This made the rollover of carry trade positions less profitable. The Swiss franc appreciated vis-à-vis the euro as traders came to anticipate a rise in Swiss rates and carry trades that used the Swiss franc as a funding currency started to be unwound. The movement of the US dollar against the yen, however, was less pronounced, given the continued signs of recovery in the Japanese economy (see Chapter II).

Change in trend in early 2004 as expectations of monetary policy shifted

Exchange rate policies played a key role in Asia

Large-scale foreign exchange market intervention in Japan

Exchange rate policies in Asia

A third significant factor influencing exchange rates was a high volume of intervention relative to past standards, especially in Asia (Table V.2). These activities helped to alleviate upward pressure on the currencies in the region, raising broader questions about their impact on the adjustment of global current account imbalances (see below). Because of their absolute size, intervention policies in Japan and China came under the spotlight.

In Japan, the Ministry of Finance purchased \$316 billion worth of US assets between January 2003 and March 2004, a large multiple of the amounts spent on foreign assets in previous years. Moreover, Ministry of Finance data show that the Japanese authorities entered the market more frequently

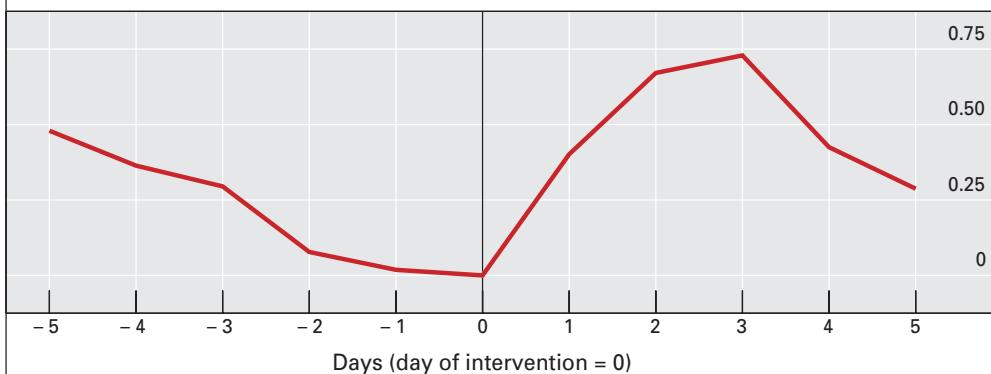
Annual changes in official foreign exchange reserves							
	In billions of US dollars						<i>Memo: Amounts outstanding at end-2003</i>
	1998	1999	2000	2001	2002	2003	
	At current exchange rates						
Total	27.2	138.0	155.0	112.3	351.9	616.6	3,010.9
Industrial countries	-32.8	52.1	54.7	3.0	108.0	215.8	1,103.6
United States	5.2	-3.8	-0.9	-2.3	4.8	5.9	39.7
Euro area	-32.9	-39.2	-9.4	-10.7	7.9	-27.8	188.0
Japan	-4.7	74.5	69.5	40.5	63.7	201.3	652.8
Asia	62.8	79.0	52.5	76.0	173.8	263.9	1,208.1
China	5.1	9.7	10.9	46.6	74.2	116.8	403.3
Hong Kong SAR	-3.2	6.6	11.3	3.6	0.7	6.7	118.6
India	2.6	5.0	5.3	8.0	21.7	30.6	97.6
Indonesia	6.3	3.8	2.0	-1.2	3.7	4.0	34.7
Korea	32.3	21.7	22.2	6.6	18.3	33.7	154.5
Malaysia	4.7	4.9	-1.0	1.0	3.7	10.2	43.5
Philippines	2.0	4.0	-0.2	0.4	-0.3	0.3	13.3
Singapore	3.5	1.9	3.4	-4.8	6.5	13.6	95.0
Taiwan, China	6.8	15.9	0.5	15.5	39.4	45.0	206.6
Thailand	2.7	5.4	-1.9	0.4	5.7	2.9	41.0
Latin America ¹	-9.8	-8.8	2.1	-0.3	4.2	30.6	170.7
Argentina	2.3	1.6	-1.7	-9.9	-4.1	2.7	13.1
Brazil	-8.2	-7.8	-2.3	3.2	1.7	11.7	49.1
Chile	-2.0	-1.1	0.5	-0.6	0.8	0.4	15.2
Mexico	3.3	-0.5	4.2	9.2	5.5	7.8	57.7
CEE ²	6.6	1.7	19.1	12.7	36.3	51.3	197.4
	At constant exchange rates ³						
Total	24.6	178.7	191.4	146.7	258.3	502.8	3,029.8
Dollar reserves	49.0	145.8	50.9	82.9	184.5	441.3	2,092.7
Non-dollar reserves	-24.4	32.9	140.5	63.8	73.8	61.5	937.1

¹ Countries shown plus Colombia, Peru and Venezuela. ² Central and eastern Europe: Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Slovakia and Slovenia. ³ Partly estimated; valued at end-of-period exchange rates.

Sources: IMF; national data; BIS estimates.

Table V.2

Impact of intervention in the yen/dollar market¹



¹ Exchange rate changes, in per cent, around intervention episodes in the yen/dollar market for the period 1 January–31 December 2003. Intervention episodes lasted on average 10 days.

Sources: Japanese Ministry of Finance; BIS calculations.

Graph V.8

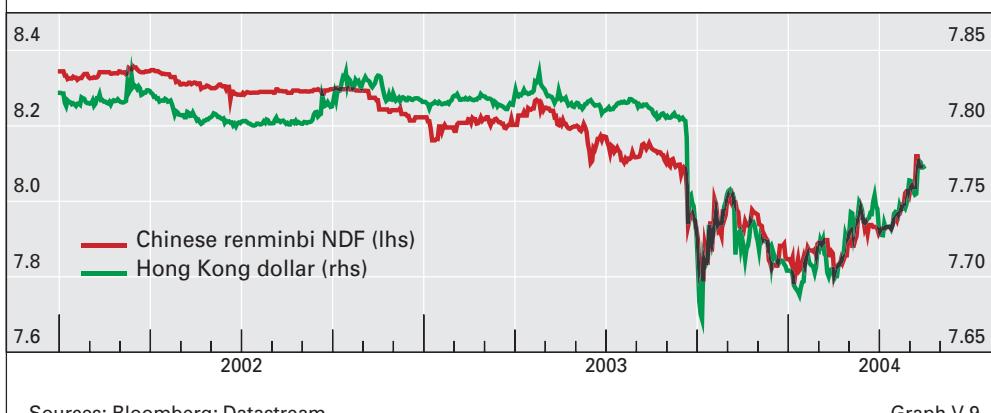
and for longer periods than in the past. Bouts of foreign exchange market intervention were followed by a noticeable reaction of the yen, suggesting that the intervention was effective, at least in the short term (Graph V.8). This outcome may have been related to a perception among market participants of a change in strategy by the Japanese authorities, which were seen to be using substantial intervention to introduce a sense of two-way risk in the market.

In China, the monetary authorities accumulated a sizeable amount of dollar reserves while seeking to preserve the fixed exchange rate vis-à-vis the dollar. Even as the peg was maintained, bouts of upward pressure were evident in the non-deliverable forward (NDF) market (Graph V.9), which provided an indication of the market's assessment of the likelihood of a change in the central bank's exchange rate policy. At times, the Hong Kong dollar came under similar pressure, and it experienced a short period of unusual volatility in the spot market in December 2003.

Chinese monetary authorities in the spotlight

In India, Korea and Taiwan, China, dollar reserves also rose substantially as the authorities intervened heavily to limit the appreciation of their currencies against the US dollar and, thereby, the renminbi.

Twelve-month forward rates



Sources: Bloomberg; Datastream.

Graph V.9

The financing of external imbalances and the role of foreign reserves

During the period under review, changes in the composition of private flows into the United States and a further increase in the share of official flows suggested a decline in private investors' willingness to finance the US current account deficit. This raises two questions. First, do changes in the pattern of private financial flows and the split between private and official flows help predict the start of a current account adjustment? Second, how do capital flows behave once the current account deficit starts to adjust? In particular, what is the likelihood of disorderly changes in capital flows, which might have a disruptive impact on financial markets? These two questions are addressed by examining the patterns of private financial flows and the share of official flows during 28 historical episodes of significant current account adjustments.

The financing of current account deficits in industrial countries since 1973

Historical episodes
of current account
adjustments

The 28 episodes of substantial and lasting current account adjustments in industrial countries that have occurred since 1973 (Table V.3) were characterised by two main features. First, on average, a country's current account deficit tended to be reversed when it approached levels around 4–5% of GDP. Second, the adjustment process was generally associated with both a depreciation of the domestic currency and a marked slowdown of growth. The mechanism through which the US current account deficit was reversed in the latter half of the 1980s broadly followed this pattern.

Little evidence of
systematic changes
in trend of financial
flows *before* ...

An analysis of the patterns of financial flows suggests that they do not have much predictive power for the timing or the characteristics of current account adjustments. This is evident from an inspection of the averages of

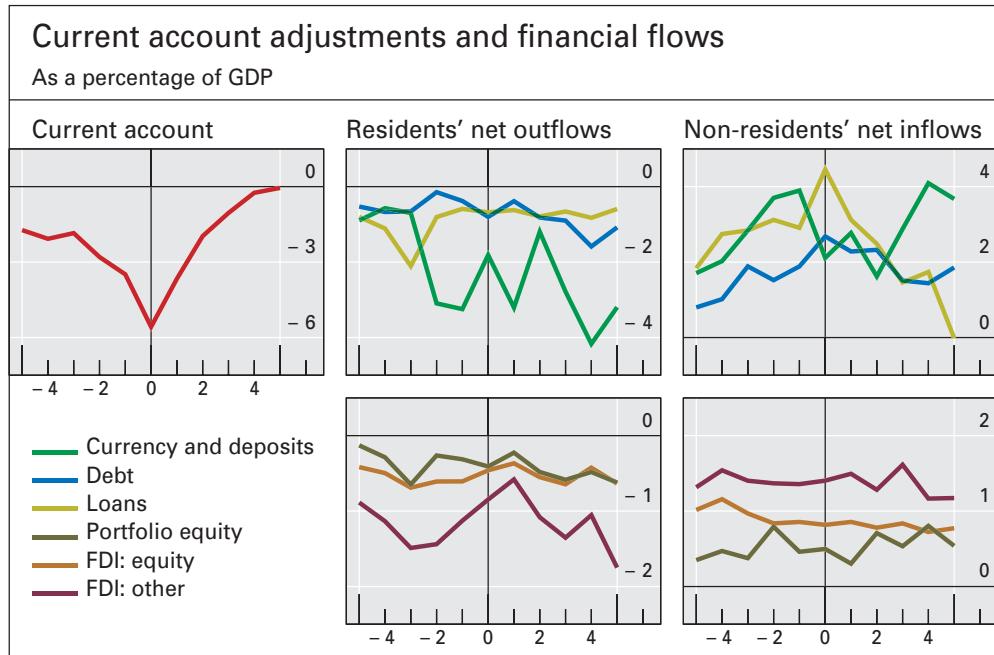
Financial flows and current account adjustments	
	Percentage of episodes in which the financing flow changed in line with the current account adjustment
Non-residents' holdings of domestic debt instruments	89
Loans by non-residents to residents	78
Non-residents' holdings of domestic currency and deposits	58
Residents' holdings of foreign currency and deposits	70
Inward foreign direct investment	36
Outward foreign direct investment	35
Reserve assets	68
Note: A current account adjustment is defined by three conditions: (i) the current account deficit should exceed 2% of GDP prior to the adjustment; (ii) the average deficit should decline by at least 2% of GDP over three years and be reduced by at least a third; (iii) the largest deficit during the five years after the peak should not be wider than the smallest deficit during the three years before the peak. The table covers 28 episodes of current account adjustments observed over the period 1974–2002, comprising: Australia (1989, 1999); Austria (1977, 1980); Belgium (1981); Canada (1981, 1993); Denmark (1986); Finland (1991); France (1982); Greece (1985); Ireland (1981); Italy (1974, 1981, 1992); New Zealand (1984); Norway (1977, 1986); Portugal (1981, 2000); Spain (1976, 1981, 1991); Sweden (1980, 1992); United Kingdom (1974, 1989); United States (1987).	
Sources: IMF, <i>Balance of Payments Statistics</i> ; BIS estimates.	

each category of financial flows across the 28 episodes during the five years before the current account trough (Graph V.10). While the behaviour of some types of financial flow changed on average during this window, there is little evidence of a systematic change in trend just prior to the beginning of the period in which the current account adjustment takes place, including for official flows. The only exception is non-residents' holdings of currency and deposits, which typically peaked one year prior to the start of the current account adjustment. Based on this evidence, the changes in the composition of financial flows to the United States observed during the past year might therefore not contain much information about the timing of the adjustment in the US current account.

By contrast, in terms of changes in the pattern of capital flows that coincide with the adjustment of the current account deficit, the 28 historical episodes share several interesting common features. First, the more volatile types of flows, which tend to be primarily influenced by interest rate differentials, generally adjusted the most. More specifically, after rising as the current account deficit grew, holdings of currency and deposits and debt typically declined markedly during the correction (Table V.3). While the more stable foreign direct investment (FDI) flows – both outflows and inflows – exhibited a similar pattern, these changes were less sizeable. For their part, portfolio equity flows, which are commonly perceived as volatile, on average did not change noticeably.

Second, the adjustment was driven to an important degree by the behaviour of non-residents. Foreign holdings of domestic deposits, foreign holdings of domestic debt and loans by foreigners to domestic residents changed markedly during the current account adjustments. These categories

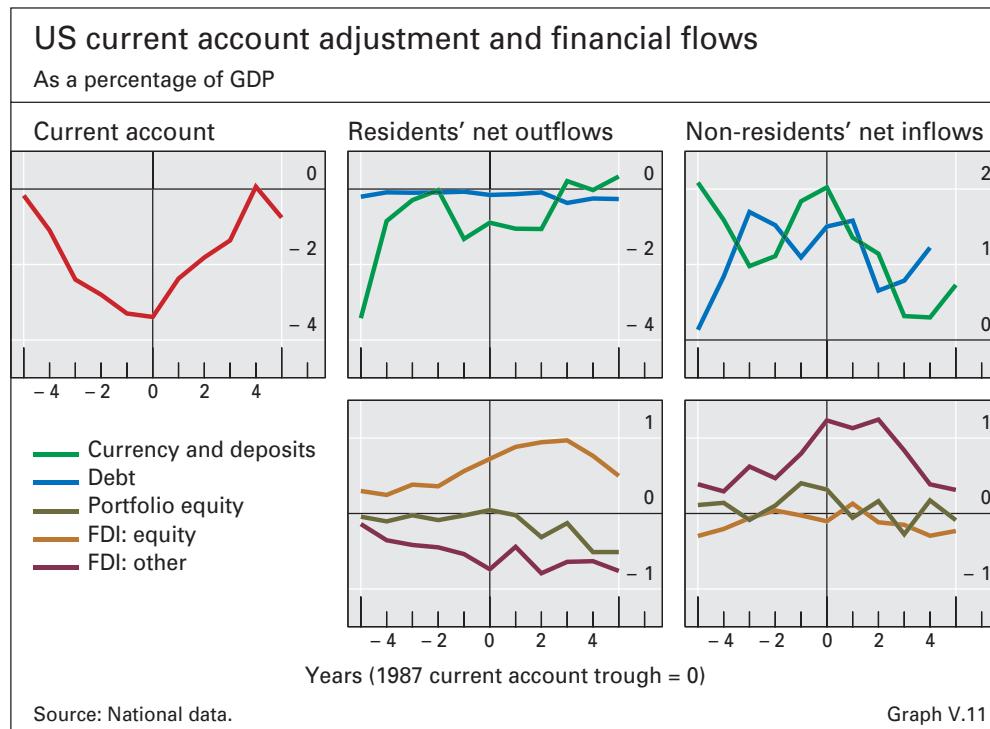
... but some *during*
the reversals



Note: Simple averages of capital flows in 28 current account adjustment episodes (see Table V.3 for a list of the episodes).

Sources: IMF, *Balance of Payments Statistics*; BIS calculations.

Graph V.10



of flows generally rose before the turning point of the deficit and tended to fall afterwards. By contrast, only one category of financial flows originated by residents (domestic holdings of foreign deposits) changed systematically during these episodes.

Third, the changes in current account financing were largely in private flows. Holdings of reserves by the home country also tended to change, primarily as a result of intervention in the foreign exchange market in support of the domestic currency and/or valuation effects. But importantly, for all countries that experienced substantial current account adjustments except the United States, purchases of domestic assets by foreign public sector entities were not sizeable and hence did not play a significant role in these adjustments.

Finally, in most cases the changes in the composition of financial flows described above were orderly. One notable exception was the current account adjustment in Sweden in 1992. It was accompanied by a sharp withdrawal of currency and deposits by foreign residents, in the order of 10% of GDP, and an equally sharp fall in foreign loans.

The behaviour of private financial flows during the reversal of the US current account deficit in the mid-1980s was consistent in several respects with the patterns observed in the adjustment episodes for other countries (Graph V.11). First, the two categories of financial flows that changed more visibly around 1987 were holdings of foreign deposits (by both residents and non-residents) and non-residents' holdings of US debt. These types of flows tended to rise before 1987 and fall in the following three years. Second, FDI by non-residents also contributed to the adjustment. Finally, the changes in private flows were orderly. The declines in inflows were smooth, and for each category of financial flows, the cumulative changes between 1987 and 1990 did not exceed 2% of US GDP.

Similarities
between the United
States and other
countries ...

That said, there is one important difference between the United States and other industrial countries. Since the dollar is the main international reserve currency, dollar assets account for a substantial fraction of foreign exchange assets in other countries' portfolios. In contrast to all other countries that experienced current account adjustments, both during the reversal of the US external imbalance in 1987 and in the current situation, purchases of dollar assets (particularly bonds) by foreign public sector entities financed a sizeable share of the US deficit build-up (Graph V.6). In both cases, official dollar reserves initially increased noticeably as the dollar declined under the weight of the widening deficit. In the 1987 case, the accumulation of official reserves subsequently reversed as the US current account narrowed and the need for external financing fell. Based on this historical precedent, the sharp increase in dollar reserves in the past two years could raise the question of whether the recent US current account deficit might be close to a correction.

... but the role of official reserves a key difference

Nevertheless, in terms of official financial flows, the current experience in the United States differs significantly from that of the 1980s. In the mid-1980s the dollar started to fall following a period of overshooting. In 1986 and 1987, the G7 monetary authorities engaged in a concerted effort to halt its rapid depreciation, culminating in the Louvre Accord of February 1987. As a result, dollar reserves were accumulated mostly by Japan, Germany and other industrial countries whose currencies floated against the dollar. Coordinated intervention ceased as the dollar stabilised at much lower levels. Over the past two years, by contrast, the accumulation of reserves has been the result of unilateral interventions by authorities in Japan and emerging market countries in Asia, which put a floor under the dollar's decline, thereby limiting the adjustment of the US current account. Their exchange rate policies have not been coordinated but rather interdependent.

Exchange rate policies very different now from the mid-1980s

The role of foreign reserves

To gain a better understanding of this kind of intervention, it is useful to focus on the role of foreign exchange reserves. What is the rationale for holding reserves and what explains the current behaviour? To what extent has the reserve accumulation been a target in itself, or a by-product of the pursuit of internal or external balance? What are the implications for the sustainability of the financing of the US current account deficit? The implications for the domestic financial system of building up large reserve holdings are discussed in Chapter III.

In a fixed exchange rate regime, be it official or de facto, foreign reserves play a central role. They are used by the monetary authorities to maintain the fixed exchange rate of the home currency in the face of devaluation pressures arising, for example, from capital outflows. In a symmetric fashion, the central bank accumulates reserves to stem upward pressure on its currency. In the absence of capital controls and interest rate adjustments, the amount of reserves accumulated is therefore determined by the monetary authorities' efforts to maintain the exchange rate peg. In the face of persistent capital inflows or outflows, the interest rate could also be used as an instrument.

In a fixed exchange rate regime, reserves play a central role

In a floating regime, reserves can be a target ...

In a floating exchange rate regime the role of reserves is much less clearly defined and it is useful to distinguish two cases. In the first case, monetary authorities may target a specific level of foreign reserves to achieve several objectives. One primary objective is to have sufficient reserves to permit intervention aimed at preserving liquidity in the foreign exchange market. This reduces undesired volatility while allowing the smooth adjustment of the exchange rate. Another possible objective is to create a "war chest" that can boost the creditworthiness of a country in international financial markets and thereby help lessen the risk of destabilising capital flows. The greater the risk of capital flight by domestic residents or non-resident withdrawal, the greater the need for a cushion of reserves.

... or a by-product of intervention for either external or internal goals

In the second case, reserves are accumulated as a by-product of intervention to stabilise the exchange rate, analogously to what happens in a fixed exchange rate regime. In this case, intervention could be directed at external or internal goals. The most common external goal is to resist appreciation in order to maintain the competitiveness of the domestic export and import-competing sectors; a depreciating trend would generally not be opposed on these grounds. In terms of internal goals, central banks might counter upward pressure on their domestic currency to prevent an excessively disinflationary impact, for example within an inflation targeting framework. Intervention could also be used to stabilise the exchange rate to prevent adverse consequences for domestic balance sheets.

Criteria to assess reserve levels

For countries that wish to hold reserves in their own right, different criteria have been used to assess the appropriate level. Traditionally, import cover has been used as a benchmark; that is, reserves should be some multiple of the value of imports. This criterion is more relevant in mitigating liquidity problems during current account crises. However, since the Asian crisis, criteria for the appropriate level of reserve holdings have tended to focus on the capital account. More emphasis has been placed on the cover for capital account flows that may be quickly reversed in a time of crisis, such as short-term external debt, where there is a risk that foreign creditors could stop rolling over maturing credits. An alternative criterion that is relevant for responding to capital account vulnerability is reserve holdings relative to broad money, which captures the risk of holders of domestic liquidity switching into foreign currency.

Some evidence on the different motivations for holding reserves

It is generally difficult to pin down the optimal level of foreign reserves empirically. However, an inspection of the rate of reserve accumulation and exchange rate volatility over the past five years, and of the different criteria used to assess the appropriate level of reserves, can shed some light on the relative importance of the various motivations for the continued Asian intervention.

Change in trend in reserves and exchange rate volatility in 2002

Based on recent trends of reserve accumulation and exchange rate volatility, it is possible to identify two periods with differing characteristics since the Asian crisis. In the immediate aftermath of the crisis (1998–2001), as the dollar was appreciating against the main floating currencies, exchange rates in most Asian emerging market countries were no less volatile vis-à-vis the dollar and in nominal effective terms than those of the main floating

Exchange rate volatility and changes in reserves

	January 1988–December 2001			January 2002–February 2004			Change in reserves ²	
	Exchange rate volatility ¹		Change in reserves ²	Exchange rate volatility ¹		Change in reserves ²		
	Bilateral	Nominal effective		Bilateral	Nominal effective			
Australia	9.6	8.2	0.4	7.3	5.7	12.7		
Canada	4.3	4.3	12.5	6.1	5.3	1.5		
Euro area	8.5	5.8	-85.9	8.0	4.1	-31.7		
Japan	10.8	9.9	179.0	7.4	5.3	369.9		
New Zealand	9.9	7.2	-1.7	8.1	6.2	2.5		
Norway	6.6	3.2	-8.1	9.8	5.9	8.8		
Sweden	7.6	4.4	3.3	7.9	3.5	6.3		
Switzerland	8.8	3.4	-2.4	8.3	2.7	17.8		
United Kingdom	5.5	4.6	4.9	6.5	4.2	5.1		
China	0.0	2.7	71.7	0.0	2.5	209.2		
Hong Kong SAR	0.1	4.7	13.1	0.5	4.5	12.2		
India	2.9	4.9	20.8	1.6	4.7	57.5		
Indonesia	47.4	46.3	9.4	7.2	7.2	7.7		
Korea	11.7	13.3	79.7	6.5	5.2	58.2		
Malaysia	11.7	10.7	10.7	0.0	3.6	17.8		
Philippines	10.3	10.5	6.3	4.1	4.8	-1.4		
Singapore	6.6	5.1	7.1	3.1	2.7	25.4		
Taiwan, China	5.4	4.9	38.2	3.1	3.3	101.2		
Thailand	14.9	14.0	7.0	4.2	2.8	8.7		

¹ Calculated as the standard deviation of annualised daily percentage changes in the exchange rate over the period. ² Cumulative change over the period, in billions of US dollars.

Sources: IMF, *International Financial Statistics*; national data; BIS.

Table V.4

currencies (Table V.4). During this period, Asian central banks arguably took advantage of favourable market conditions to rebuild their stocks of foreign reserves from the low levels they had reached during the crisis. Hence, to a large extent the accumulation of reserves appeared to be a target *per se*.

In contrast, over the past two years, as the trend in the US dollar has changed from one of appreciation to one of depreciation, exchange rate volatility vis-à-vis the dollar has fallen markedly in emerging Asian economies, and is now noticeably lower than that of other floating currencies. Nominal effective exchange rates have also tended to decline. In parallel, reserve accumulation has risen significantly. Closer examination indicates that all three of the reasons suggested above for reserve accumulation may now be playing a complementary role.

The criteria used to assess the appropriate level of reserves provide mixed evidence on a possible change in the nature of reserve accumulation during the past two years. In terms of import cover, reserve holdings in most Asian countries have not increased substantially over the past two years (Table V.5). By contrast, during the same period, reserve holdings as a fraction of domestic liquidity have grown by 40% or more in a number of countries. Moreover, in the majority of emerging market countries in Asia, reserves have risen appreciably relative to short-term external debt.

Mixed evidence concerning large levels of reserves

Intervention consistent with both external and internal balance

The change observed around 2002 in the pattern of exchange rate volatility and reserves relative to GDP, as well as to domestic liquidity and short-term debt, is also consistent with reserve accumulation being the by-product of intervention efforts aimed at external goals. The declining volatility of the currencies of China's neighbours could be partly explained by a desire to resist upward pressure vis-à-vis the renminbi in order to maintain export competitiveness, which has also implied stability with respect to the dollar.

At the same time, over the past two years, foreign exchange intervention by monetary authorities in Asia has in most cases not been inconsistent with monetary policy objectives of internal balance. In the majority of countries targeting inflation, actual inflation has remained within the target bands or close to the targeted level. In Japan, reserves have been accumulated largely as a by-product of the strategy to counter deflationary pressures. In China, while not necessarily inconsistent with monetary policy objectives, reserve accumulation has reflected concerns about the resilience of the domestic financial system if a more flexible exchange rate regime were adopted.

Three alternative scenarios

Looking ahead, Asian central banks might continue to resist upward pressure on their currencies and, in such circumstances, the resulting accumulation of dollar reserves would provide a significant source of financing for the US external imbalance. The risk, though, is that this source of capital flow could diminish. This might occur under a number of alternative scenarios.

Foreign exchange reserves and measures of adequacy									
	Reserves/imports ¹			Reserves/broad money ²			Reserves/short-term debt ³		
	1996	1998–2001 ⁴	2003	1996	1998–2001 ⁴	2003	1996	1998–2001 ⁴	2003
Canada	1	1	2	4	6	5	94	40	23
Australia	3	3	4	3	2	3	21	20	25
Norway	9	6	7	29	21	18	526	136	30
New Zealand	5	3	3	5	2	2	61	37	30
Sweden	3	2	3	15	12	13	69	24	15
Switzerland	6	5	6	10	11	11	...	208	14
United Kingdom	2	1	1	7	5	5	41	10	2
Asia ⁵	7	10	12	14	16	22	277	530	877
Japan	7	11	20	4	6	11	400	299	235
China	9	11	12	11	11	15	373	738	1,300
Hong Kong SAR	4	6	6	19	23	24	37	127	170
India	6	9	17	11	14	26	260	420	601
Indonesia	5	10	13	14	34	31	51	129	258
Korea	3	7	10	6	14	21	45	195	289
Malaysia	4	5	6	28	34	41	226	326	416
Philippines	4	5	4	21	27	30	122	141	132
Singapore	7	8	9	80	77	85	44	99	160
Taiwan, China	10	11	19	17	19	33	458	747	849
Thailand	6	7	7	25	26	30	80	215	404

¹ Months of imports. ² In per cent. ³ International debt securities and liabilities to BIS reporting banks with a maturity of less than one year. ⁴ Average of the period. ⁵ Weighted average of the countries shown based on 2000 GDP and PPP exchange rates.

Sources: IMF; BIS statistics.

Table V.5

In one scenario, the US dollar could continue its appreciating trend. In this case, the incentive to loosen the link of the Asian currencies to the dollar would increase, and hence the need to accumulate US dollar reserves to maintain currency stability would decrease. One example of such a change in behaviour was observed between 1999 and 2001, when a number of Asian currencies tended to co-move somewhat less with the rising dollar and somewhat more with the yen. However, the fact that the US dollar would be appreciating in this scenario would suggest that the absence of Asian financing of the US current account deficit might not be an issue, as the increase in the dollar would tend to be associated with a greater willingness by the private sector to invest in US dollar assets. In this scenario the US current account deficit might tend to widen even more and the adjustment process could be postponed further.

An alternative scenario would result if the Asian central banks decided to reduce their exposure to dollar assets at a time when the dollar was under renewed downward pressure. The likelihood of such a situation developing is difficult to gauge. On the one hand, such action would lead to further depreciation of the dollar and potentially a rise in US yields. There would then be two forces exacerbating the capital loss on the dollar assets held by central banks. On the other hand, individual central banks might feel they could liquidate their holdings before a more generalised outflow led to falls in prices.

In a third scenario, the upward pressure on Asian currencies could cease. If a shock were to hit the Asian economies that resulted in capital outflow from the region, or a decrease in the current level of capital inflow, the downward pressure on Asian currencies – and most importantly the renminbi – would remove the need to accumulate further dollar reserves and could even reverse the trend. The critical question in this scenario would be to which region the capital flows would be reallocated. In the past, in such circumstances, the United States has tended to be a primary beneficiary. Were this to occur in the present circumstances, private investors' willingness to finance the US current account deficit might compensate for the decline in public flows from Asia.

VI. Financial markets

Highlights

Global financial markets in 2003 saw investors regain their appetite for risk. In equity markets, this new appetite set off a strong rally even before favourable news began to emerge about company earnings and the global economy. In both corporate and sovereign debt markets, credit spreads tightened to near historical lows as investors continued to seek yields higher than the extraordinarily low yields available in safer government bond markets. While the improvement in economic fundamentals justified some rise in asset prices, market valuations near the end of the period also seemed to be supported by relatively thin risk premia. Investors appeared to increasingly discount the possibility of adverse events.

For much of the period under review, bond investors found it difficult to maintain firm views about the implications of macroeconomic conditions for monetary policy. This uncertainty had a strong impact on long-term yields, normally the most reliable of forward-looking indicators about aggregate economic prospects. Bond yields swung widely on a number of occasions, reflecting shifts in expectations rather than adjustments in the term premia demanded by investors. Yield movements were particularly pronounced in the United States and Japan, while those in the euro area were more subdued.

Investors in equity and credit markets were for most of 2003 unperturbed by shifts in the perceived course of monetary policy. In the early part of 2004, however, perceptions of the Federal Reserve's exit policy seemed to become an important factor in shaping risk appetite. In April and May, surprisingly strong numbers from the US labour market and a change in the Federal Reserve's language on policy accommodation heightened the prospect of a rise in policy rates. This time, the resulting backup in government bond yields led to declines in equity markets and emerging markets, highlighting the vulnerability of current valuations to a loss of risk appetite.

Yield curves and monetary policy

Yield curves sent mixed signals about economic prospects

For most of 2003 and the early part of 2004, government bond markets followed a course independent of other financial markets. While investors in equity and credit markets found reason to be optimistic about the macroeconomic outlook, yield curve movements did not support such an assessment as consistently. In the early part of the period, market participants seemed to overestimate the US Federal Reserve's concerns about deflation and its willingness to use unconventional policy tools. A sharp global sell-off during

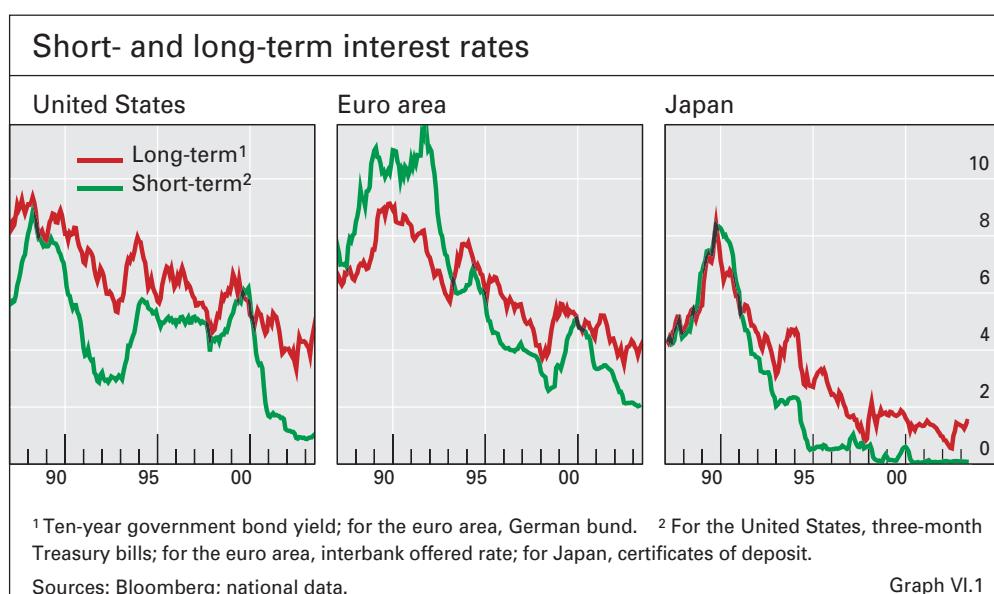
the summer appears to have mainly reflected a sharp revision in such market expectations rather than a sudden improvement in the economic outlook itself. Technical factors related to the hedging of mortgage-backed securities and other quantitative risk management techniques amplified the volatility. Yields subsequently eased in late 2003 and early 2004 despite upward revisions in growth forecasts, as the uncertain pace of job creation in the United States dominated the formation of expectations about future policy rates. Yields then rose sharply in April and May 2004 when sudden strength in US labour market data and signals from the Federal Reserve led market participants to expect US policy rates to start rising much sooner than they had thought.

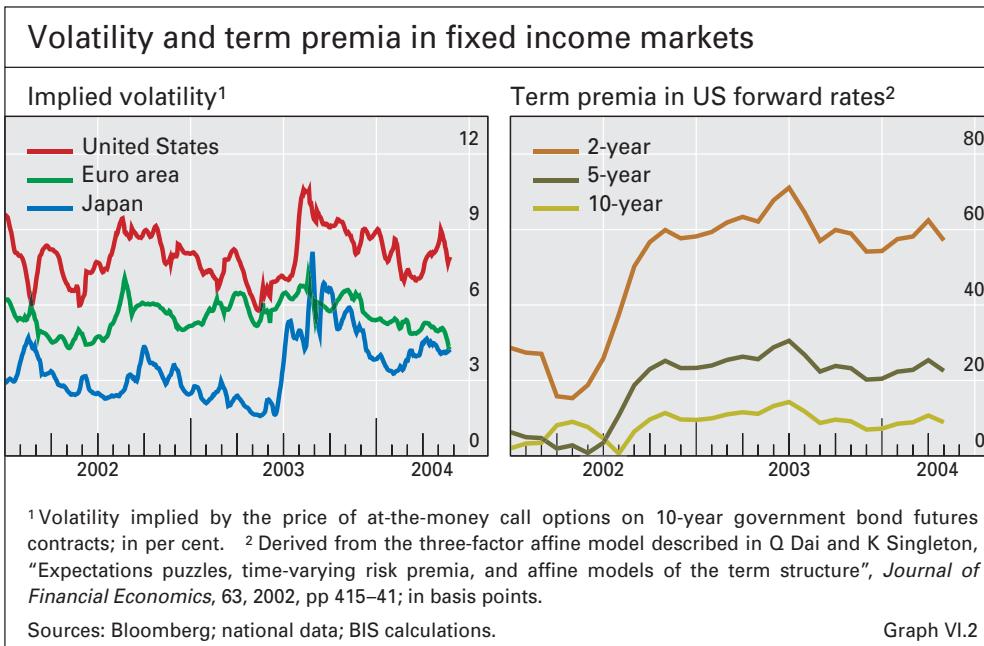
Yield curves and expectations

Yield curves in the euro area, Japan and the United States were characterised by low levels of interest rates, steep slopes between short and long maturities and high volatility at the longer maturities (Graph VI.1). The low levels of the overall curves were in large part accounted for by the pull of policy rates at the short end and expectations that these rates would remain fairly low for some time. Similarly, the steep slopes reflected the fact that rates so low would eventually have to rise significantly just to return to normal levels. The most remarkable feature of the yield curves was the volatility of longer-term yields given the relative stability of policy rates, especially after the most recent rate cuts by the ECB and Federal Reserve in June 2003 (see Chapter II). The fact that policy rates were extraordinarily low seemed to generate unusual uncertainty about their economic consequences and thus about the path of future interest rates.

Longer-term rates
were unusually
volatile ...

In markets where the central bank controls the short-term interest rate, yields on government securities through the intermediate maturities tend to be driven primarily by market participants' views about the course of monetary policy. Participants form these views by assessing the underlying macroeconomic conditions and considering the likely reaction of monetary





authorities. These views in turn give rise to expectations about the path of short-term interest rates and to term premia associated with the uncertainty surrounding these expectations. Yield curves at a given point in time imply forward curves that trace a notional path of short rates across time, with term premia driving a wedge between that notional path and the actual path of short rates expected by market participants.

While US term premia during the period were elevated relative to the experience of recent years, they tended to be stable (Graph VI.2). As estimated by a three-factor yield curve model, such premia were highest near the two-year maturity. This suggests that the primary risks seen by market participants had to do not just with policy rates in the next few months but with these rates over at least a two-year horizon. The estimated term premium for the two-year forward rate remained stable at around 60 basis points, about three times the average during 1988–2002.

Despite the stability in estimated term premia, forward curves shifted considerably during the period under review. The shifts tended to be most pronounced for the US and Japanese curves, with the euro area curve tending to follow that of the United States but in a restrained manner (Graph VI.3). These movements and the associated volatility seemed to largely reflect changes in expected future rates. In early June 2003, when the curves were at their flattest, the US three-month forward rate for the two-year horizon was about 2%. After adjusting for the estimated term premium, this indicated an expected rise in policy rates over two years of less than 25 basis points. By May 2004, the two-year forward rate had risen to about 4.6%, indicating an expected rise in policy rates of over 250 basis points. At the 10-year horizon, the shifts in US rates suggested significant volatility in participants' views about the Federal Reserve's target rate of inflation. Similarly, the sharp rise in Japanese forward rates seemed to indicate increased optimism about an eventual recovery from deflation.

... even as term premia remained stable

Yield swings reflected changes in expectations

The summer sell-off

During the summer of 2003, global bond markets experienced one of the most pronounced sell-offs in recent history. From a low of 3.1% in mid-June, 10-year US Treasury yields jumped above 4.4% by the end of July. The movement, the sharpest over a short period since 1994, was to a large extent synchronised across the major markets; over the same period, 10-year Japanese government bond (JGB) yields increased by 50 basis points to over 0.9%, and German bund yields by 70 basis points to 4.2%. Swap rates also rose significantly in the largest economies, peaking in early September (Graph VI.3). With money market rates anchored at low levels in the three major economies, yield curves steepened dramatically.

The summer sell-off was a global event ...

The Japanese market appears to have led the move in the first few weeks of the sell-off. A poorly received JGB auction in mid-June reportedly led to profit-taking by Japanese banks and selling by hedge funds. The resulting rise in volatility (Graph VI.2) caused domestic investors relying somewhat mechanically on quantitative risk management techniques, such as value-at-risk models, to make active efforts to reduce their interest rate exposure. This unwinding of positions further exacerbated price dynamics in both the JGB and yen swap markets.

... exacerbated by risk management ...

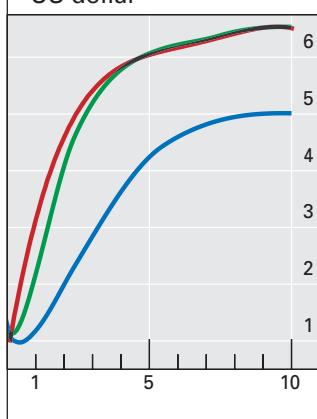
News related to US monetary policy was the key factor contributing to the continuation and momentum of the summer sell-off. Both the Federal Reserve's decision in late June to cut its target rate by less than expected and the Federal Reserve Chairman's monetary policy report to Congress in mid-July were followed by outsize increases in long-term rates. These events altered market expectations that the US central bank would resort to unconventional tools to guard against the risk of deflation. In particular, it was considered less likely that the Federal Reserve would purchase US Treasury securities to hold long-term rates down; perceptions of the likelihood of such a move had buoyed the US Treasury market after the central bank's policy meeting in May.

... and driven by shifting expectations

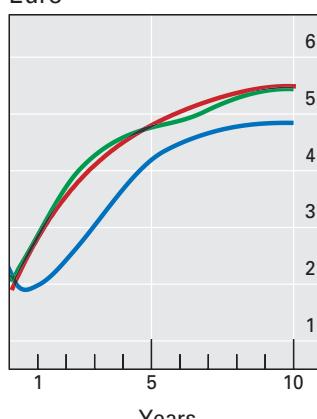
Forward curves¹

In per cent

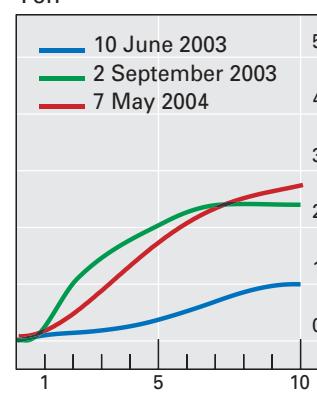
US dollar



Euro



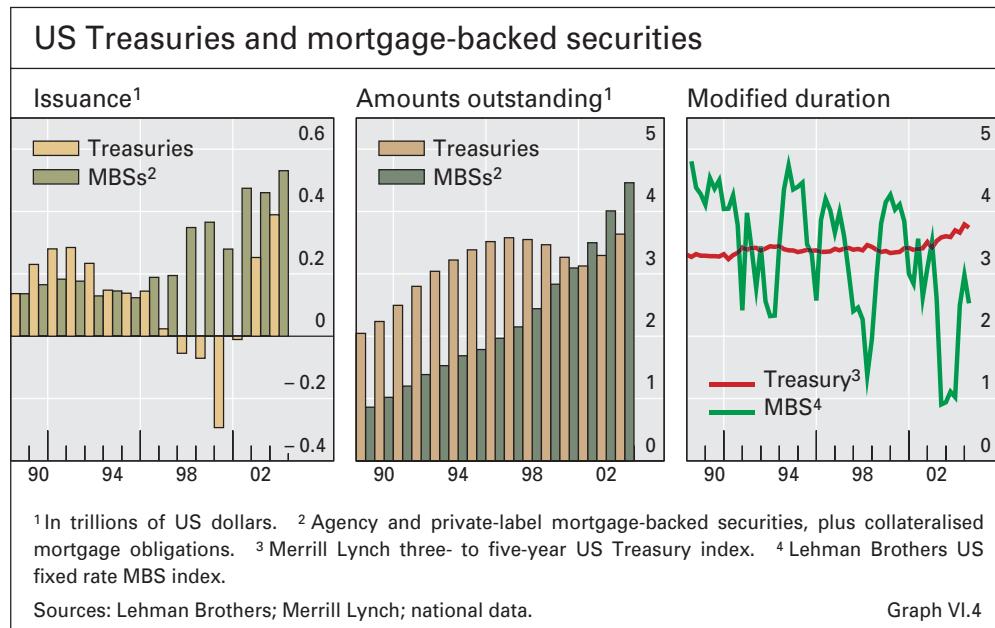
Yen



¹ Three-month forward rates derived from the Libor/swap curve.

Sources: Bloomberg; BIS calculations.

Graph VI.3



MBS hedging amplified the sell-off

Hedging of mortgage-backed securities (MBSs) amplified the rise in US Treasury bond yields. Owing to the prepayment option embedded in MBSs, movements in interest rates result in swings in duration that are much greater than for most other fixed rate instruments. Indeed, the duration measures of the MBS index rose dramatically during the summer of 2003, similar to earlier movements in 1994 and 1999 (Graph VI.4). Investors hedging the risks of MBSs thus needed to sell or take short positions in other long-term interest rate instruments, placing additional upward pressure on market interest rates.

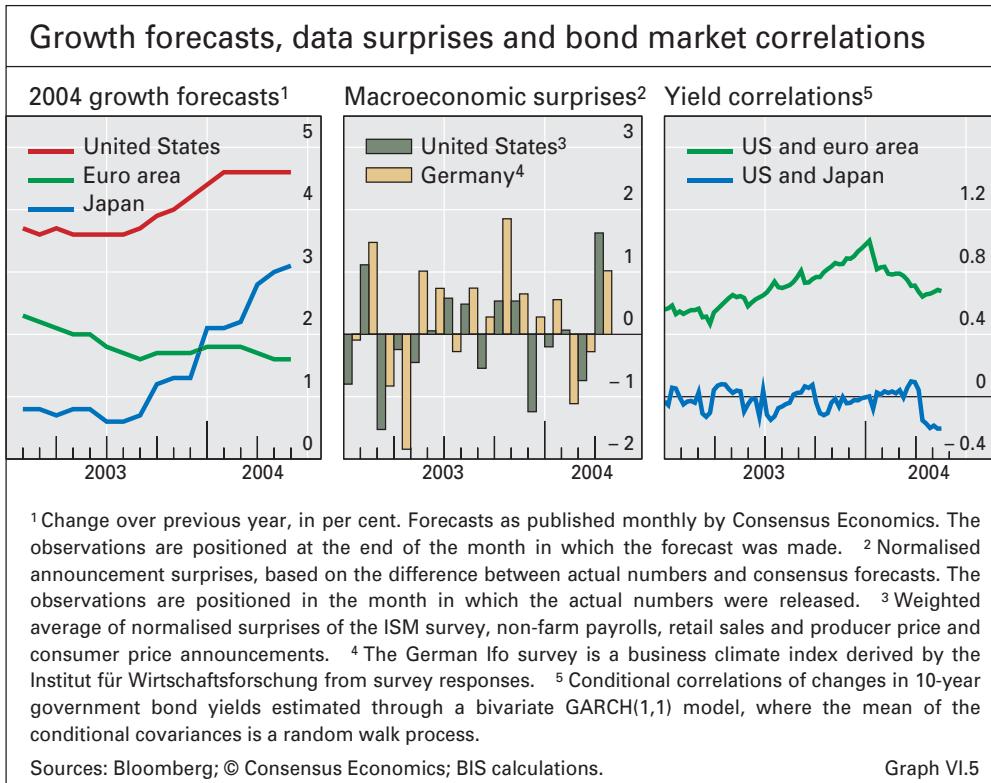
Hedging activity appears to have had a deeper and broader impact on cash market yields during the period under review than in previous episodes. One reason is that the US MBS market has grown considerably in both relative and absolute terms. It has doubled in size since 1995 and is now the largest fixed income market in the world: at end-December 2003, the outstanding stock of MBSs totalled no less than \$4.5 trillion, compared to \$3.6 trillion in outstanding Treasury securities (Graph VI.4).

Changing correlations between bond markets

US and euro area yields moved in lockstep in 2003 ...

Yields in all three major economic areas stabilised together at somewhat lower levels for most of the period from October 2003 to March 2004. Despite the divergence between euro area and US growth prospects and in the pattern of surprises in economic indicators, long-term yields in the two economies moved in lockstep for much of the period. Correlations in yield changes rose to exceptionally high levels into the spring of 2004 (Graph VI.5). By contrast, though broad trends in JGB yields matched those in the US market, the correlations of daily and weekly changes in JGB yields with changes in either euro area or US yields were consistently quite low.

The sell-off in the second quarter of 2004 was accompanied by a noticeable decoupling between the US and euro area bond markets. In this episode, the rise in yields was driven not by a change in views about the use of



unconventional tools by the Federal Reserve but by positive macroeconomic data that brought forward expectations of monetary tightening. While US yields rose sharply, however, euro area yields rose only modestly in what seemed to be a belated acknowledgment by market participants that growth in Europe lagged behind that in the United States.

... but decoupled during the sell-off in 2004

Official sector reserve accumulation

Many market participants thought that the efforts of Asian governments to resist appreciation of their currencies against the dollar exerted downward pressure on yields on US government securities during this period. What is certain is that the pace of reserve accumulation by Asian central banks accelerated in the latter half of 2003 and continued through the first quarter of 2004 (see Chapter V). Since a large portion of Asian reserves are held in US dollar assets, a common inference was that Asian central bank purchases represented a new and significant factor on the demand side for US Treasuries.

Uncertain impact on yields of Asian reserve build-up

However, the size of the direct price effect from this new source of demand has not been easy to document. A simple regression of weekly changes in Treasury yields on the weekly change in official reserves held in custody at the Federal Reserve Bank of New York suggests a statistically significant relationship only over limited periods in the year to the first quarter of 2004, despite continued reserve accumulation by Asian central banks during this period. The results of more precise tests on the announcement effect on yields of news related to Asian purchases are also mixed. The weekly Thursday announcement of custody holdings does not appear to have affected Treasury yields.

US non-farm payrolls and bond yields

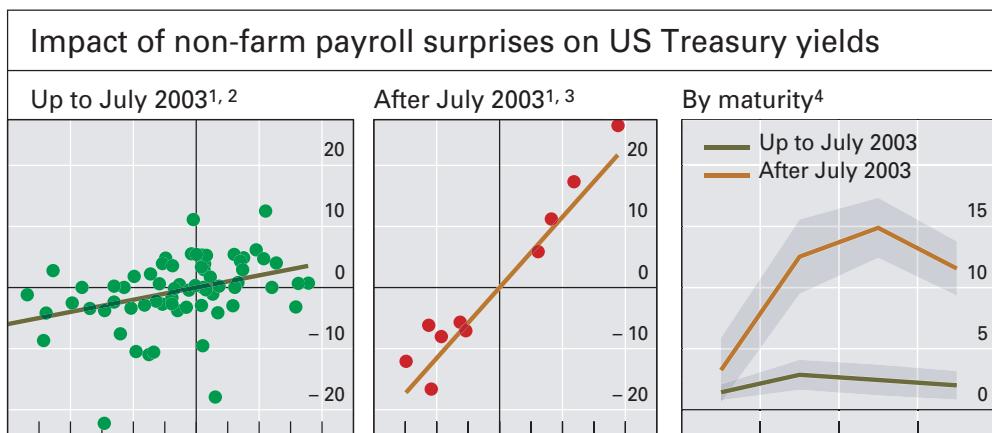
The Fed was seen to be focused on jobs ...

... and so bond markets swung with monthly payroll releases

A surprisingly sluggish job market in the United States was the primary reason for the subdued interest rate levels in the early part of 2004. During this period, market participants seemed to be fixated on the lack of job creation in the United States during what was otherwise a strong economic recovery. The perception took hold that the Federal Reserve would not raise rates until the recovery spilled over into the labour market. In the first three months of 2004, each report in which gains in US non-farm payrolls were less than expected generated sharp declines in Treasury yields. Conversely, the announcement of an unexpectedly strong gain in non-farm payrolls of more than 300,000 jobs in April 2004 immediately lifted the US 10-year yield by more than 20 basis points, and another robust job report in May led to a further outsize increase in yields to levels beyond their 2003 highs.

While US Treasury yields have always reacted more strongly to the monthly payrolls report than to any other regular US data release, the reaction appears to have intensified following the backup in bond yields in the summer of last year. From January 1998 to July 2003, a payroll surprise of 100,000 jobs resulted in an average announcement effect of 2 basis points on the five-year Treasury yield. Since that time, however, the impact of such a surprise has risen to an average of 12 basis points (Graph VI.6).

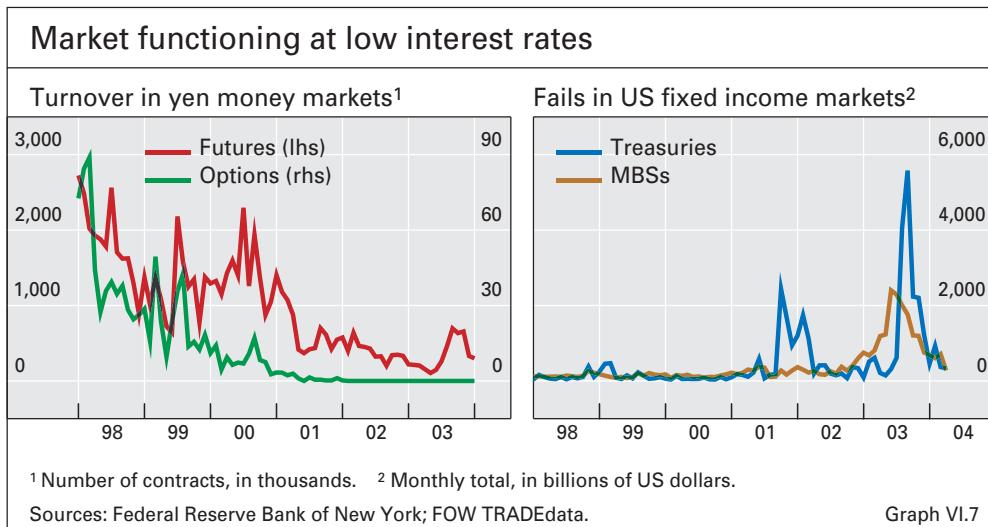
Another anomaly of the recent period is that the largest impact of payroll surprises was on Treasuries at the five-year maturity rather than at the two-year maturity as in the past. One potential explanation is that shifts in rates related to payroll announcements may have triggered more MBS hedging, which tends to be in securities (and swaps) of longer duration. Another possibility, with some anecdotal support, is that the steep slope of the yield curve during the period increased demand at longer maturities by more speculative carry trade oriented investors (see the discussion of fixed income trading strategies in Chapter VII), making long-dated Treasuries more sensitive to changes in expectations about short rates than previously.



¹ Regression of changes in the 10-year US Treasury yield, in basis points, on the non-farm payroll surprise, in thousands of jobs. Changes in the yield are measured over a 30-minute window around the release of the US employment report. ² January 1998–July 2003. ³ August 2003–May 2004. ⁴ Slope coefficients from the same regression, using different maturities. The shaded areas correspond to the 95% confidence bands.

Sources: Bureau of Labor Statistics; Bloomberg; GovPx; BIS calculations.

Graph VI.6



Market functioning at low interest rates

At a purely technical level, the low level of nominal policy rates was associated with problems of market functioning during the period under review. For example, in Japan the level of yen short-term rates has been at zero since the Bank of Japan initiated its quantitative easing policy in March 2001. Since that time, there has been greatly diminished turnover in yen money market options and futures, to the point where certain contracts and ancillary markets have virtually disappeared (Graph VI.7). When short-term rates eventually move significantly above zero, the infrastructure to support price discovery in yen money markets may be limited, and illiquid markets could conceivably complicate the adjustment of market participants to the end of the zero rate policy.

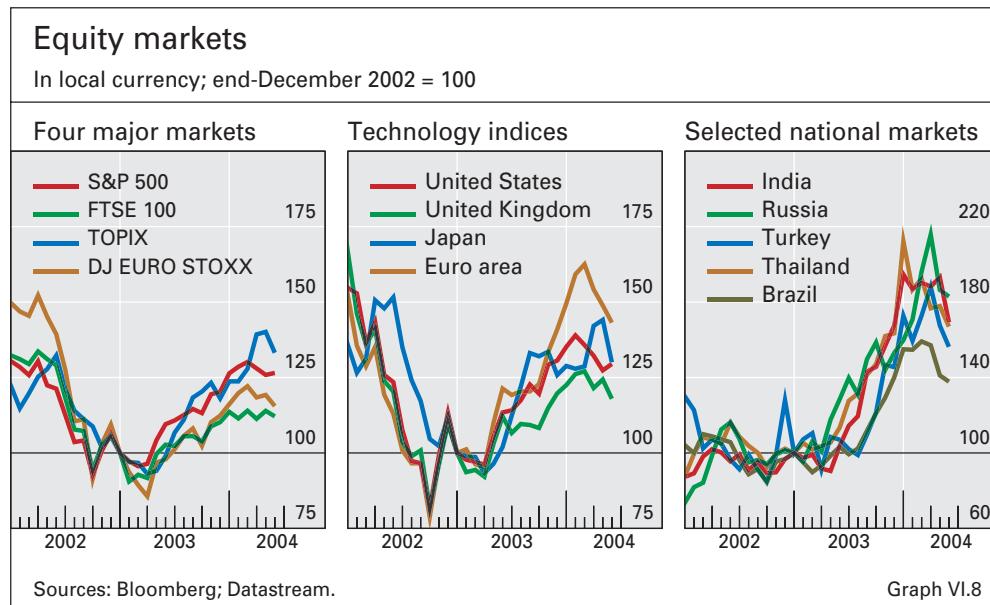
Diminished turnover in yen derivatives markets ...

A low level of nominal interest rates also raised market functioning issues in US fixed income markets, where the number of “fails”, or unsettled trades, surged in July and August 2003. Fails can occur because of operational difficulties with the delivery of securities, as happened after the events of 11 September 2001. But fails are also more likely to occur in an environment of low interest rates, because low rates reduce the opportunity cost of forgone interest resulting from failed delivery of collateral for a repo transaction. In combination with market volatility, which increased investor demand for borrowed securities to sell short, low interest rates contributed to a late summer spike in fails. Moreover, in contrast to 2001, there were sharp increases in failures to deliver MBSs as well as Treasuries. However, after the introduction in mid-September of “guaranteed delivery” on certain special repurchase agreements, which were often priced at negative interest rates, market stress and the number of fails fell off considerably.

... and unsettled trades in US fixed income markets

Equity markets and risk appetite

The global rally in equity markets marked the end of a three-year bear market. During the downturn from April 2000, equity markets worldwide had lost



The long bear market ended ...

\$13 trillion in capitalisation. The rally took hold in March 2003 and continued largely unabated for a year. In the 12 months to March 2004, the markets recovered \$10 trillion of that loss. Among the major economies, the European market increased the most, the DJ EURO STOXX soaring by 52% in local currency terms (Graph VI.8). The New York and Tokyo markets also posted impressive gains: the S&P 500 Index surged by 37% and the TOPIX Index by 43%. The best performing national markets included Brazil, India, Russia, Thailand and Turkey, each of which recorded price increases exceeding 100% in local currency terms. Just as the technology sector had led the broad market on the way down, it led the market on the way up. The rally ended only in April 2004, with investors worldwide suddenly becoming concerned about the prospect of US policy rate increases.

... with a surge in risk appetite ...

The global rally seemed to start with a surge in investors' risk appetite. This changed appetite reduced the risk premia investors demanded for assuming equity market risk. The rally was then sustained by improved expectations about corporate earnings prospects, and these expectations were increasingly supported by the arrival of information about individual companies and the global economy as a whole. The rally seemed to end as abruptly as it had started. Risk appetite ceased growing, and what would normally have been favourable news from the US labour market seemed to have the opposite effect. Markets fell apparently because the news was primarily associated with the more imminent approach of monetary tightening, a reminder of the importance of the Federal Reserve's exit policy (see Chapter IV).

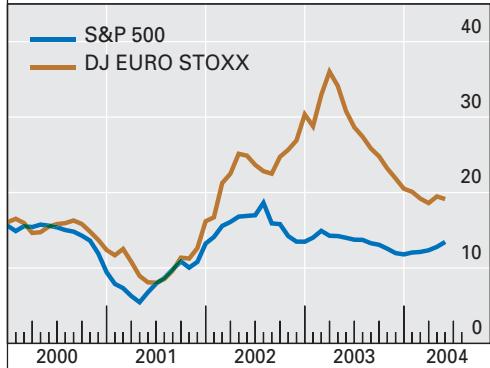
The role of fundamentals

... and without economic news to explain the turning point

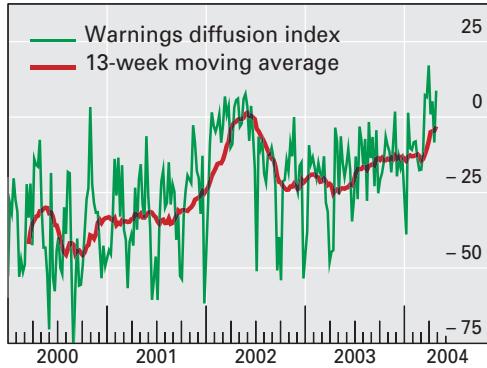
Just as there had been no identifiable important new information about economic fundamentals that could explain the timing of the collapse in global equity markets in April 2000, neither was there specific information to justify that of the upturn nearly three years later. The rally began on 12 March

Earnings growth and profit warnings

Expected growth in earnings¹



US profit warnings²



¹ Analysts' estimates of 12-month forward earnings over 12-month trailing earnings; in per cent.

² Difference between number of positive and negative warnings, expressed as a percentage of all announcements.

Sources: Bloomberg; I/B/E/S; BIS calculations.

Graph VI.9

2003, a full week before the start of the war in Iraq. Investors in equity markets initially seemed to be driven not so much by an assessment of the economic consequences of the war as by the expectation that market developments would echo those of January 1991, when stock prices jumped at the start of the Gulf war. Anticipating a similar surge, investors began buying in March 2003 without waiting for hostilities to break out. The rally continued in early April as the war seemed to be drawing to a quick end and investors perceived a decline in geopolitical risk. Only in late April, when a number of corporations delivered strong earnings reports, did markets resume their focus on economic developments.

The expansionary monetary policy stances of the major central banks no doubt contributed to the stock market rally, but their impact was felt only after a long delay. The most recent easing cycle in both the euro area and the US economy started in early 2001. In Japan, the "quantitative easing" period with a return to zero interest rates started in March 2001. Thus, it took about two years for low interest rates to exert their usual effect on the equity markets. By contrast, in 1991 an equity market rally in the United States had occurred roughly three months after the Federal Reserve had moved towards a cycle of easing interest rates, and in 1995 the market had rallied within a month of a move towards lower rates. In 2004, the mere anticipation of higher policy rates seemed to bring the most recent rally to an end.

Low policy rates had a delayed effect

The role of information about fundamentals in 2003 was largely to ratify an optimistic sentiment that equity markets seemed to have already priced in. Similar bouts of optimism in the previous two years had not been borne out by subsequent good news. During the long bear market, such optimism had generated a number of false starts, notably in April and May 2001 and again in October and November 2002, when strong rallies had been cut short by the lack of confirming evidence about corporate earnings and economic growth. In 2003, by contrast, the good news did arrive, and the rally was sustained.

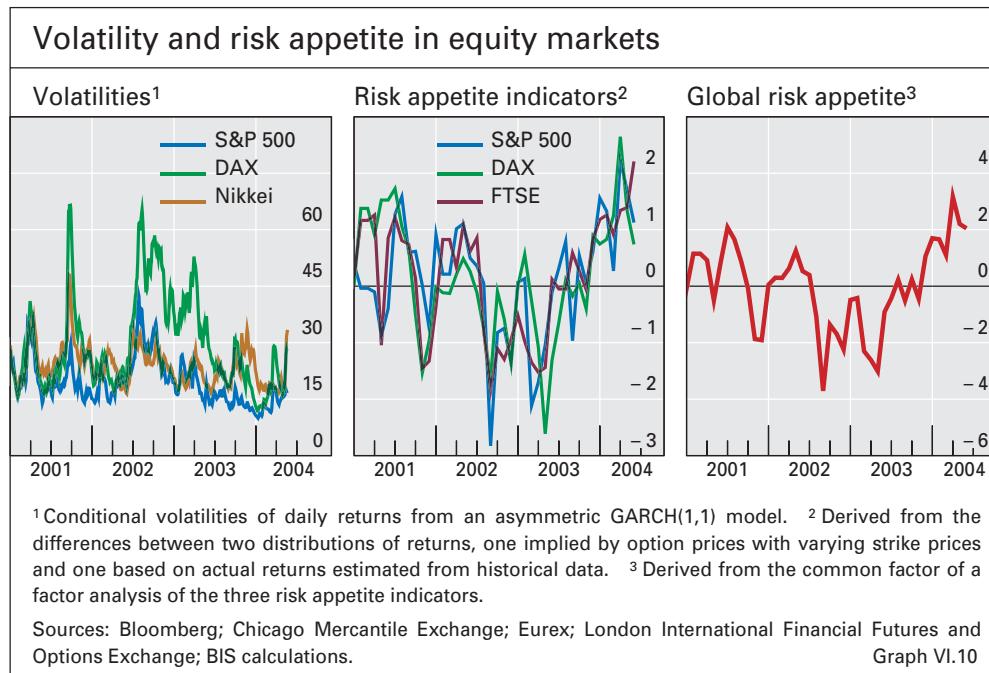
After a number of false starts ...

... investors responded to upbeat reports

The data that confirmed investors' optimism first came in the form of encouraging earnings reports from US and European companies and data about aggregate real activity in Japan. In the United States, profits reported by bellwether companies began in April 2003 to consistently exceed expectations. In Europe, while analysts were lowering their estimates of earnings growth for the corporate sector as a whole (Graph VI.9), investors seemed to focus on positive reports from technology firms, banks and insurance companies. Both in the United States and in Europe, companies themselves remained cautious about the strength of the recovery. In reporting their earnings, companies also provided profit warnings, and those issuing negative warnings continued to outnumber those issuing positive ones. Nonetheless, investors seemed to place more weight on upbeat reports from such firms as AOL, Cisco and Microsoft in the United States and Nokia, Philips and Siemens in Europe. In Japan, unexpectedly strong macroeconomic news contributed to a nearly 20% increase in the TOPIX from June until August. Price jumps followed the release of the *Tankan* on 4 July and the GDP report for the second quarter on 12 August. By the end of August, economists were raising their growth forecasts for both the Japanese and US economies.

The role of investor risk appetite

A sustained decline in equity risk premia played an important role in the global market upturn. Such risk premia reflect both the *underlying risks* as perceived by investors and the *prices* attached to those risks. During the period under review, perceived risk tended to decrease. As measured by the volatility of returns, equity market risk had spiked in the wake of the 11 September 2001 terrorist attacks (Graph VI.10, left-hand panel). Volatility rose again at the time of the revelations about WorldCom's restatement of earnings in late June 2002



and again during the run-up to the war in Iraq in early 2003. Since then, volatility has been relatively subdued.

Although the global equity market rally that started in March 2003 took place during a time of generally low and declining underlying risk, the rally seems to have been largely driven by a dramatic increase in investors' appetite for risk and thus a corresponding drop in the price assigned to that risk. An indicator of this changing risk appetite can be derived for different markets from the pricing of equity index options. This indicator is based on the idea that investors would be willing to pay more for an option that protects them against an adverse equity price change than for an option that allows them to gain from an equally likely favourable price change. The willingness to pay for such protection varies over time with changes in investors' appetite for risk. Risk appetite as measured in this way tends to move in parallel in different markets (Graph VI.10, centre panel). A measure of global risk appetite can thus be extracted from the common movements in the different indicators. Estimates based on index options on the S&P 500, DAX and FTSE show that global risk appetite started to rise in March 2003 before the onset of the war in Iraq and continued to increase for the rest of the period under review (Graph VI.10, right-hand panel). By February 2004, this appetite for risk seemed to have reduced equity risk premia to the point where markets would be relatively vulnerable to adverse events.

Equity index options reveal a rise in risk appetite ...

The types of events that affect risk appetite are difficult to anticipate. The single most important such event since 2001 was evidently the WorldCom earnings restatement in mid-2002. The build-up to the war in Iraq in early 2003 was also important, and the terrorist bombings in Madrid in March 2004 seem to have conditioned market reactions to subsequent news. However, the problems of Parmalat in late 2003 seem to have had little effect. Macroeconomic information events, such as the release of US non-farm payroll numbers, have been important in government bond markets but have had no discernible effect on the appetite for equity risk.

... which is affected by unusual events

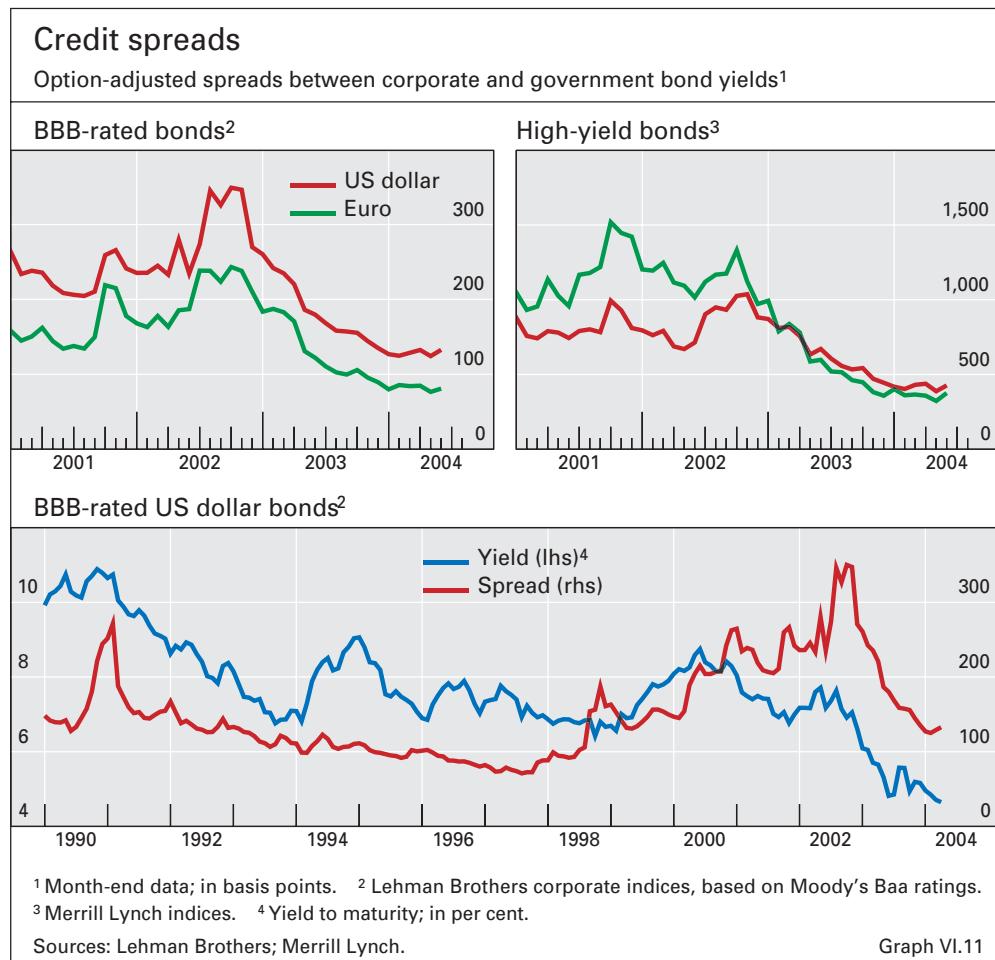
Corporate bond markets and credit risk

In credit markets as in equity markets, both an improvement in fundamentals and a rebound in investors' appetite for risk contributed to a dramatic turnaround in confidence starting in October 2002. In the year and a half to May 2004, spreads between BBB-rated corporate bonds and government securities tightened by over 200 basis points in the US dollar market to 130 basis points – only 50 basis points above the low reached towards the end of the previous credit cycle in July 1997 (Graph VI.11). At the same time, corporate bond issuance surged, especially issuance of lower-rated securities (Graph VI.12).

Improvement in fundamentals

The rally in credit markets was supported by signs of an improvement in the credit quality of the corporate sector. The incidence of defaults and credit rating downgrades, which had risen steadily between 1998 and 2001, fell noticeably

Signs of an improvement in credit quality ...



in 2003. The worldwide number of defaults by non-financial corporations declined from a peak of 184 in 2001 to 77 in 2003. While downgrades of US corporations by Standard & Poor's still exceeded upgrades in 2003, the share of downgrades fell to 74% from 82% in 2002. In Japan upgrades exceeded downgrades by a small margin in 2003.

... especially in the United States ...

In the United States, a rebound in corporate profitability contributed to a marked decline in the burden of interest payments on cash flows – a commonly referenced predictor of corporate distress (Graph VI.13). Whereas during the previous period of deleveraging in the early 1990s lower interest rates had been responsible for much of the decline in the ratio of interest payments to cash flow, in 2001–03 higher cash flows from operations made the largest contribution; the contribution of lower interest rates was relatively insignificant. Savings from lower interest rates were largely offset by the impact of the shift to longer-term debt. For the third consecutive year, corporations in 2003 refinanced short-term bank debt and commercial paper in bond markets, thereby reducing their vulnerability to changes in interest rates. Some firms also took advantage of the rally in equity markets to reduce their debt/equity ratios by raising new equity capital (Graph VI.12). The outstanding stock of corporate debt relative to cash flows declined to a level close to its 1990s average, although corporate debt continued to rise in absolute terms.

In contrast to the United States, debt repayments by non-financial corporations in Japan exceeded new borrowings for the eighth consecutive year. As a result, the interest burden on Japanese corporations remained exceptionally low, more than 20 percentage points below its 1991 peak. Lower interest rates had been the most important factor behind the decline in the ratio of interest payments to cash flow during the 1990s but had little impact in 2003.

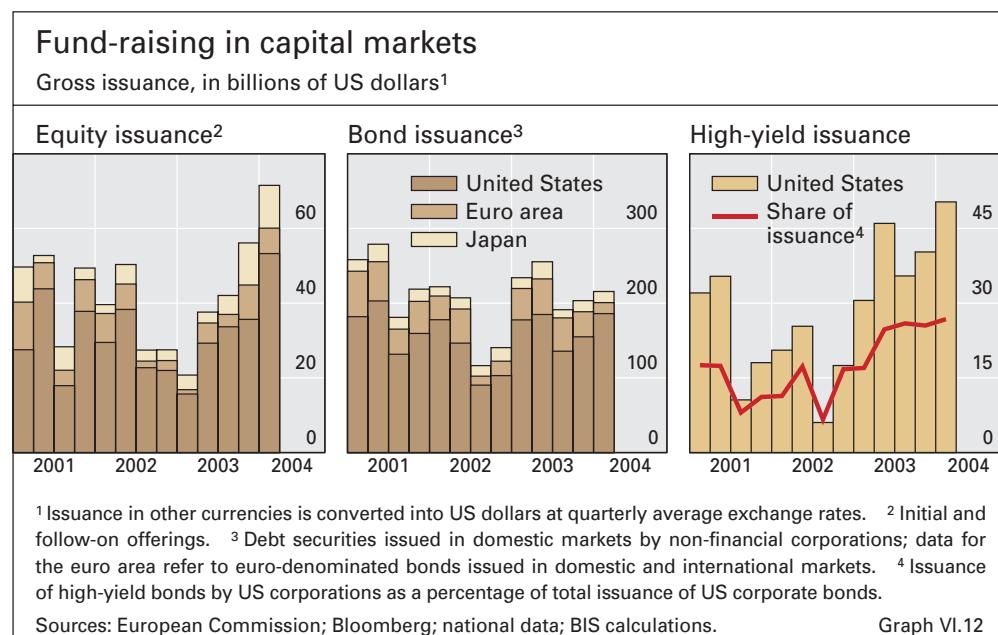
... and Japan

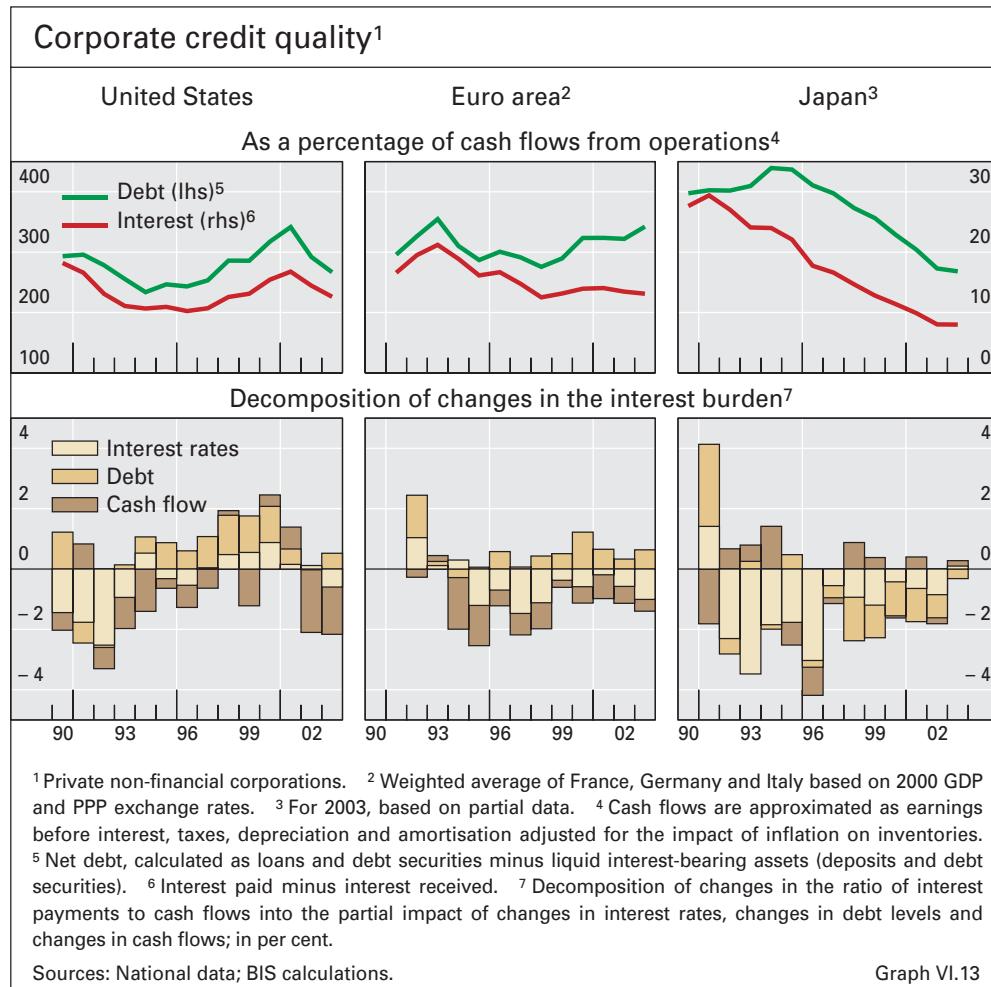
Efforts by European corporations to repair their balance sheets lagged those by corporations in other regions. Notwithstanding progress by some sectors, most notably telecoms, the growth of debt continued to outpace that of cash flows among euro area corporations in 2003, in part because the macroeconomic recovery remained sluggish. In Germany especially, there was little evidence of deleveraging. Lower interest rates offset the impact of higher debt levels, so that interest payments were more or less unchanged relative to cash flows. However, high levels of indebtedness appear to have left euro area corporations more vulnerable than those in other regions to a rise in financing costs. Despite the slower progress of European corporations in repairing their balance sheets, spreads on euro-denominated corporate bonds tracked closely those on dollar bonds, tightening by 160 basis points between October 2002 and May 2004 (Graph VI.11).

Slower pace of deleveraging in Europe

Rebound in risk appetite

As signs of an improvement in credit quality emerged, the risk premium demanded by investors for holding corporate debt declined from the elevated levels reached in mid-2002. At the time, investors' experience with WorldCom had made them wary of holding debt susceptible to being downgraded and had sensitised them to the prevalence of corporate governance irregularities. Investors' muted reaction to negative credit events in 2003 illustrates the shift in confidence over the period under review. The failure of the Italian food





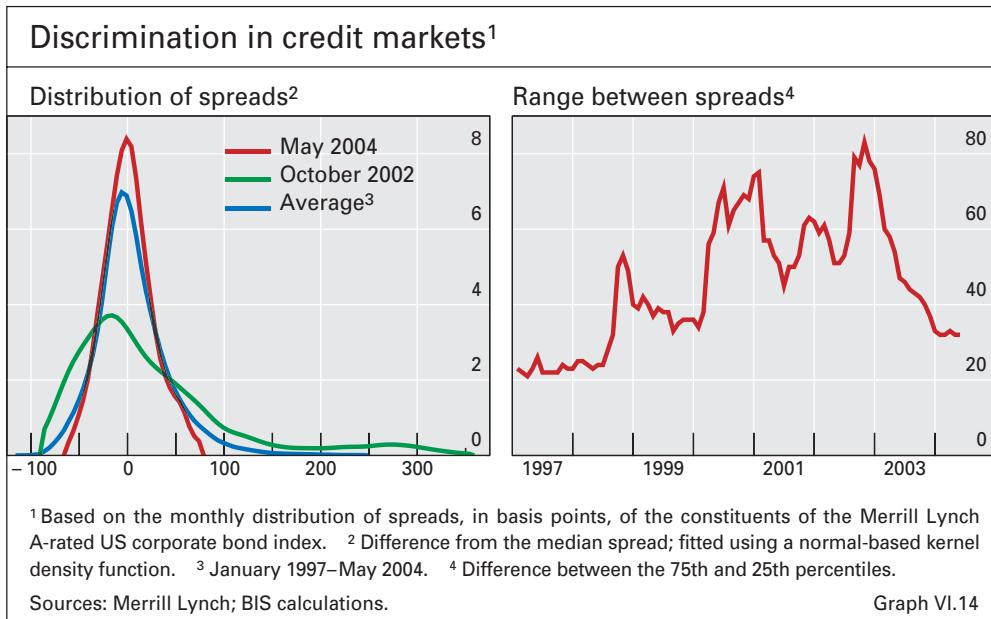
conglomerate Parmalat in December could have triggered a market-wide sell-off; the losses experienced by holders of Parmalat's bonds may have exceeded those suffered by the creditors of Enron or even WorldCom. In the event, contagion from Parmalat was short-lived and limited because the declining incidence of defaults and downgrades helped to reassure investors that Parmalat and other credit events were isolated cases.

By late 2003 investors exhibited a willingness to take on more credit risk seemingly regardless of the underlying risk of default. The low level of nominal yields led ordinarily conservative investors to shift into higher-yielding corporate and emerging market bonds (see below). Investors' search for yield was especially evident in the market for high-yield corporate debt. Investors bid up prices even as issuance soared (Graphs VI.11 and VI.12). In the latter half of 2003 and the early part of 2004, issuance by borrowers rated BB or lower accounted for somewhat more than one quarter of total corporate bond issuance in the United States, double the share of activity in 2001–02.

As a further sign of investors' willingness to discount risks in their search for yield, the distribution of credit spreads for issuers in a given rating class suggests that there was less discrimination in credit markets (Graph VI.14). In contrast to October 2002, when investors had differentiated carefully between those firms in a given rating class likely to be downgraded and those

Search for yield drove spreads down ...

... with less discrimination between firms



perceived to be more creditworthy, by early 2004 spreads clustered together far more closely. Among A-rated borrowers, for example, the tails of the distribution were significantly shorter in early 2004 than in October 2002 or even than the longer-term average. Moreover, the diffusion of spreads for A-rated issuers (as measured by the distribution between the 75th and 25th percentile spreads) was at its narrowest since mid-1998. However, this indicator remained above the levels seen in 1997 and the first half of 1998, when aggressively leveraged strategies attempting to profit from perceived anomalies in credit spreads had been especially popular among fixed income investors.

External debt financing for emerging markets

Emerging markets were among the biggest beneficiaries of the combination of an improved global macroeconomic picture with an increase in investors' risk appetite. Spreads on dollar-denominated emerging market bonds tightened by more than 500 basis points between October 2002 and January 2004. They sold off abruptly in April 2004, but as of May spreads were still not far above the lows reached in mid-1997 (Graph VI.15). At the same time, emerging market bond issuance increased to its highest level since 1997. The lowest-rated borrowers were especially active: issuance by borrowers rated B or lower, including Brazil and Turkey, rose from 18% of all issuance by emerging market borrowers in 2002 to 33% in 2003. Even sovereigns recently in default on part of their external debt, specifically Indonesia and Pakistan, found ready buyers for their new international offerings.

Vulnerability to changes in financing conditions

While the search for yield clearly played a role in these developments, the narrowing of spreads was also supported by an improvement in fundamentals

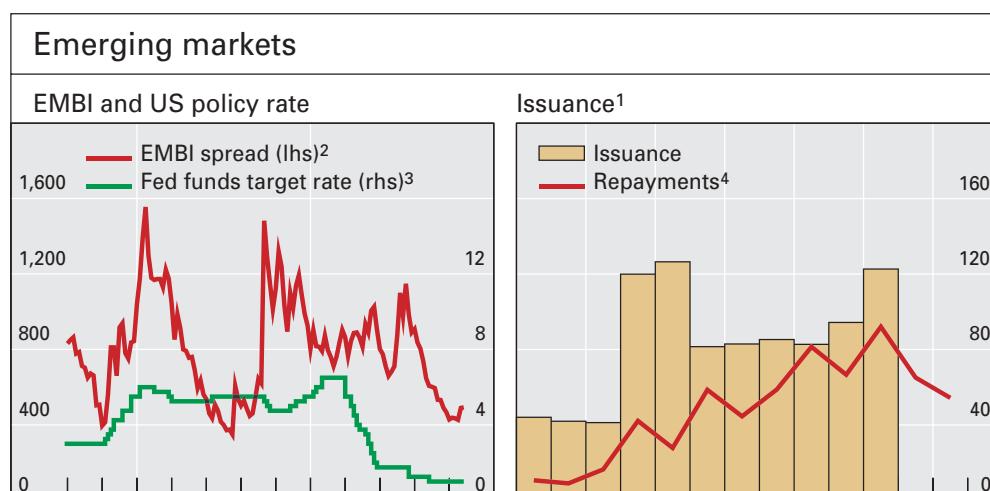
Fundamentals in many emerging markets improved

in many countries. Upgrades of emerging market borrowers by Standard & Poor's in 2003 exceeded downgrades for the first time since 1996. The most spectacular upgrade was the promotion of Russia to investment grade by Moody's in October 2003, a little more than five years after Russia had defaulted on the bulk of its bonds. Spreads on Russia's dollar debt had narrowed to investment grade levels over a year before the upgrade and by late 2003 were comparable to those of many A-rated sovereigns.

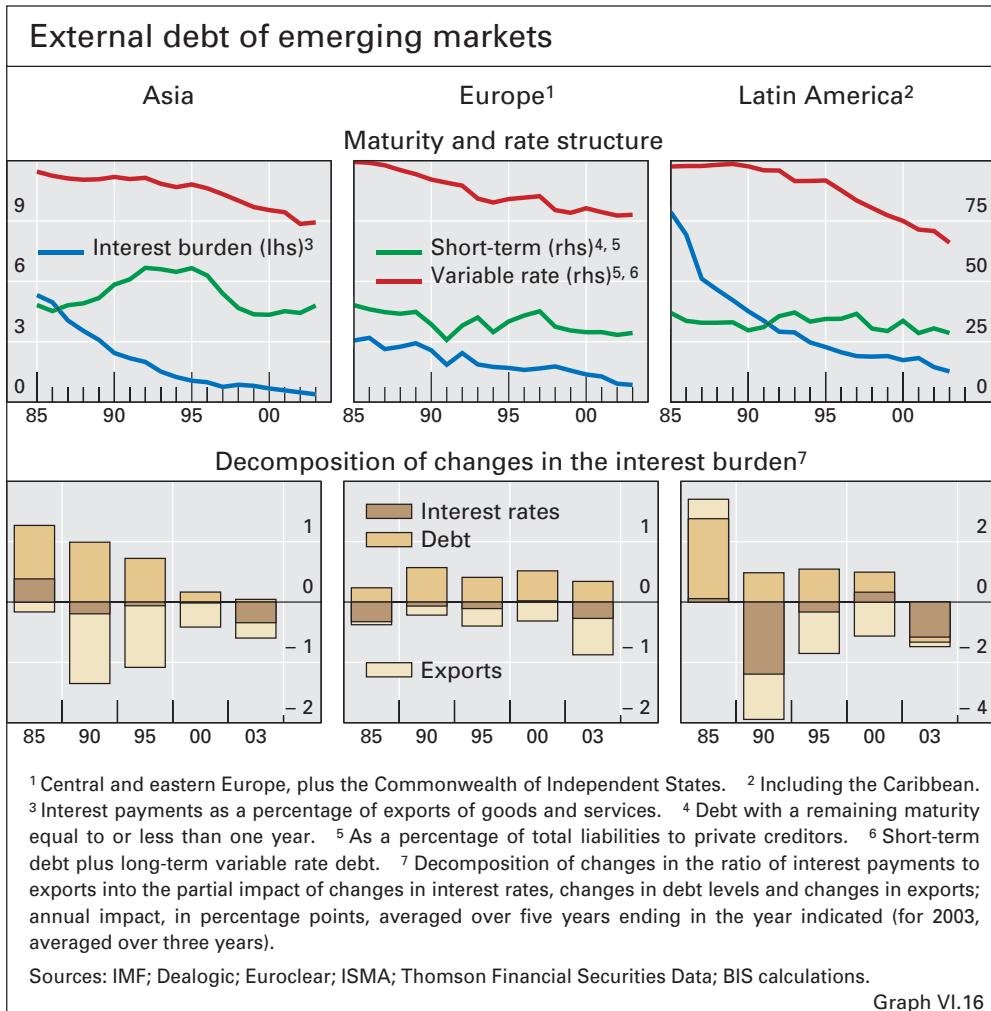
Many emerging markets are today less vulnerable to changes in financing conditions in international markets than they once were. In contrast to the early 1980s, when many heavily indebted countries defaulted, or 1994, when Mexico experienced severe financial difficulties, higher policy rates in the major economies seem unlikely to trigger a crisis in emerging markets. Nevertheless, emerging market borrowers remain exposed to interest rate risk. In 2001–03 the sharp decline in US policy rates did more to reduce the burden of interest payments than did changes in debt levels or export growth, especially in Latin America (Graph VI.16). However, external imbalances are now smaller and foreign exchange reserves higher than during previous periods when global liquidity conditions tightened (see Chapters III and V).

Emerging markets
rely less on short-
term variable rate
debt ...

Furthermore, emerging market borrowers are less dependent on short-term variable rate debt. Short-term debt, including amortisations, fell from 40% of debt owed to private creditors in the early 1990s to less than 30% by the end of 2003. Variable rate debt, including short-term debt, fell from almost 100% of outstanding debt to less than 70% over the same period, owing to the shift from bank borrowing to bond issuance following the Brady bond exchanges of the early to mid-1990s. (If debt owed to public creditors is included, the proportion of variable rate debt is higher.) Borrowers in Asia are more dependent on short-term debt than those in other regions, but this



Sources: Dealogic; Euroclear; ISMA; JPMorgan Chase; Thomson Financial Securities Data. Graph VI.15



reflects Asia's lower level of external indebtedness and greater share of trade finance in external financing. In 2003, Asia was the only region to see an increase in short-term (mainly bank) debt; many countries outside Asia took advantage of the favourable conditions in international markets to pay down their short-term liabilities.

While the shift from (variable rate) bank debt to (fixed rate) bond debt reduces borrowers' exposure to interest rate risk, it does not eliminate funding risk. Spreads on emerging market bonds are more volatile than the underlying yields and at times can widen so much that they effectively shut borrowers out of the market – as was the case for Brazil in mid-2002. This can create severe liquidity problems for countries with large financing requirements. Repayments of long-term debt by emerging market borrowers are scheduled to decline slightly in 2004 and 2005, which will help ease liquidity problems in the event of a widening of spreads (Graph VI.15). However, several heavily indebted countries, notably Brazil and Turkey, continue to face substantial amortisations.

The climate for emerging market finance deteriorated in the early part of 2004 following indications that the Federal Reserve might shift to a less accommodative policy stance sooner than market participants had been

... but remain exposed to changes in spreads

Prospect of higher US policy rates triggered a sell-off in early 2004

expecting. In April and May 2004, emerging market debt saw its most severe sell-off since mid-2002, with the EMBI spread widening by about 100 basis points in just four weeks. Notably, the US corporate high-yield market did not experience nearly the same rise in spreads. Hedge funds and other leveraged investors apparently played an important part in the sell-off, in that they suddenly unwound their positions in emerging markets on a larger scale than those in corporate high-yield debt. To the extent that these investors have retreated from emerging markets, the positive correlation evident during the sell-off between changes in spreads and changes in expectations about US policy rates could weaken. Even so, financing conditions could come under renewed pressure in the near term from changes in risk appetite in the major markets or policy setbacks in emerging markets.

Debt restructurings

To complement their efforts to reduce their vulnerability to crises, some borrowers also took steps to improve the process for resolving payment difficulties in the event of a crisis. In February 2003, Mexico became the first large emerging market issuer to include collective action clauses (CACs) in bonds issued under New York law. It was followed soon afterwards by Brazil and some other large borrowers. Consequently, whereas in 2002 no sovereign issues governed by New York law contained CACs, in 2003 approximately half of such issues included them. The clauses are intended to facilitate sovereign debt workouts by hindering the ability of small bondholders to obstruct restructurings supported by the majority of bondholders. Their incorporation in international issues had first been advocated following the Mexican debt crisis of 1994 and had been encouraged by the willingness of a number of G10 countries to include such clauses in their international bonds.

Even as emerging market borrowers enjoyed favourable financing conditions, the Argentine default loomed over international investors as a reminder of the risks of investing in emerging market debt. Difficulties in reaching an agreement on who could speak for creditors – exacerbated by the absence of CACs in many of the defaulted bonds and the large share of defaulted debt held by Argentine residents – delayed negotiations. Disagreement about the capacity of the Argentine government to pay is likely to prolong them. On the one hand, the government emphasised the fragility of the economic recovery and the magnitude of social problems in Argentina in support of its proposed 75% haircut on the nominal value of the defaulted debt and partial payment of interest arrears. On the other hand, creditors pointed to the strength of the economic recovery and improvement in the government's fiscal position in support of their demands for a higher recovery rate.

The Argentine restructuring is different in nature from many of those in the 1980s. The restructurings of the 1980s had been preceded by several rounds of reschedulings, as banks sought to avoid a writedown of principal by rolling over payments coming due. By contrast, in negotiations with Russia, Ecuador and other sovereigns recently in default, bond investors have demonstrated a greater willingness than had banks in the 1980s to write down

Restructuring of
Argentina's
defaulted debt
progressed
slowly ...

... but will hopefully
be quicker than
those of the 1980s

the face value of their bonds. This difference in behaviour stems in part from differences between the accounting rules applied to banks and those applied to most bond investors. In particular, whereas banks have some discretion over when to record losses on their loans, bond investors frequently value their portfolios at market prices each day and therefore must immediately recognise any loss in the net present value of their holdings. This gives bond investors – who hold most of Argentina's debt – a greater incentive than banks to agree on a comprehensive restructuring. Indeed, whereas eight years passed between Mexico's debt moratorium in August 1982 and the finalisation of its Brady plan in March 1990, Russia reached an agreement with its bondholders only two years after it defaulted and Ecuador in less than one.

Underpinnings and implications of the search for yield

The search for yield that drove spreads down in the markets for corporate and emerging market bonds was largely stimulated by the combined effect of two factors. First, many investors shifted from low-risk government bonds into higher-yielding but also riskier corporate and emerging market bonds in an effort to meet the nominal returns that they had been able to achieve when interest rates were higher. Second, many asset managers sought higher-yielding instruments to use in forming collateralised debt obligations (CDOs) in an effort to take advantage of the fact that credit spreads on such instruments remained wider than was implied by expected losses from default.

Nominal target rates of return

For various reasons, many investors seemed hesitant or unable to adjust their nominal target rates of return to changes in market conditions. Facing historically low nominal yields on highly rated government securities in 2003 and the early part of 2004, these investors sought higher yields in the markets for corporate bonds and emerging market debt in the hope of maintaining the high returns that positions in government bonds had previously provided.

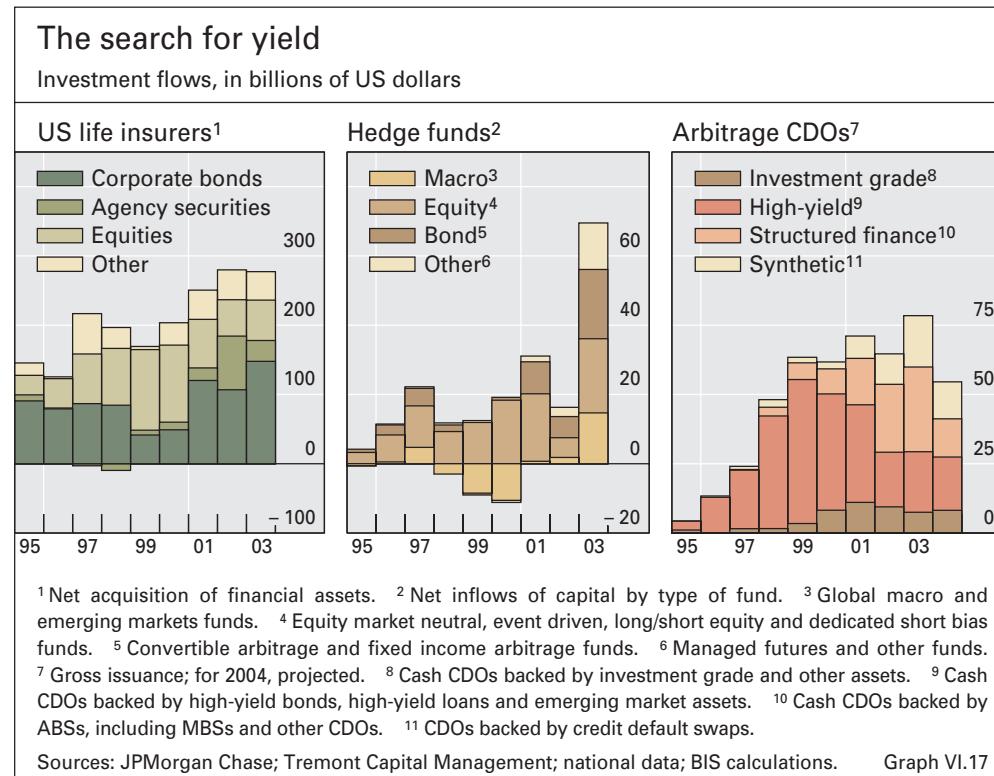
Investors were
reluctant to adjust
nominal return
targets ...

The refusal to adjust nominal targets at a time of lower interest rates may have reflected well known psychological factors. For example, some investors seemed to make certain decisions without considering other, more complicated factors, a phenomenon known in the behavioural finance literature as "narrow framing". In so doing, they possibly ignored the fact that nominal interest rates were lower in large part because expected rates of inflation had declined. Also, investors sometimes took their existing return targets as their reference point, a phenomenon known as "status quo bias" in which less weight is attached to the disadvantages of the status quo than to the disadvantages of alternative targets.

... because of
psychological
factors ...

The adherence to nominal target rates may also have been related to institutional or regulatory constraints. Life insurance companies and pension funds typically manage their assets with reference to their liabilities. In some countries, liabilities are linked to a minimum guaranteed return. This return might be fixed by statute, as in Switzerland, where there is a minimum interest rate to be paid on assets in defined contribution pension plans. Alternatively,

... and institutional
and regulatory
constraints



it might be fixed contractually, as in Japan and the United Kingdom, where in the 1970s and 1980s life insurance companies offered guaranteed annuity rates. After a period of declining interest rates, the guaranteed rates started to exceed the yields available on highly rated government bonds. The resulting funding gap led such institutions to invest in higher-yielding, higher-risk instruments.

Even in those countries with no guaranteed rates, changes in the value of liabilities tended to lead to risk-seeking behaviour. In the United Kingdom and the United States, the interest rate used to discount the liabilities of defined benefit pension funds is linked to market rates. Therefore, declines in interest rates can result in substantial increases in liabilities. Given the losses incurred on their equity portfolios in 2001–03 and their desire to match their liabilities more closely than before, this may have encouraged insurance companies and pension funds to invest in fixed income instruments yielding a higher expected return. In the United States, corporate and agency securities accounted for the bulk of these purchases because of the yield pickup they offered over Treasuries (Graph VI.17). Institutional investors also invested heavily in hedge funds – contributing to a record flow into this asset class in 2003 – attracted by the high returns realised by many funds in recent years.

The role of arbitrage CDOs

Unlike other investors in search of yield, asset managers of arbitrage CDOs were motivated not by the low level of interest rates but by the wide credit spreads on lower-rated debt. The structure of arbitrage CDOs allows the managers to take advantage of the fact that spreads on individual corporate

bonds tend to be much wider than would be sufficient to cover likely losses from default. A manager gathers lower-rated debt to form a pool of collateral against which several tranches of debt are issued, the bulk of which are triple-A rated debt. The lower-rated tranches are the first to absorb any losses on the collateral pool and thus protect the triple-A tranches. The required amount of protection depends on expected losses, estimates of default correlations and the degree of diversification in the collateral pool.

Even as credit spreads narrowed in 2003, they remained sufficiently wide on various forms of collateral to support a rise in the issuance of arbitrage CDOs. The more CDO managers sought collateral, the more spreads tightened. Not surprisingly, the preferred collateral in earlier years was high-yield debt, including emerging market bonds (Graph VI.17). As the availability of such collateral diminished, however, CDO managers increasingly turned to investment grade debt. By 2003, a large proportion of the new arbitrage CDOs were backed by asset-backed securities (ABSs), including mortgage-backed securities (MBSs) and other CDOs, on which spreads had been slow to tighten. In Europe, the market has been increasingly dominated by synthetic CDOs, which rely on credit default swaps instead of cash collateral. By early 2004, spreads in general seemed to have tightened sufficiently to reduce the issuance of arbitrage CDOs.

Issuance of
arbitrage CDOs
contributed to
spread tightening

Implications of the search for yield

The search for yield entails the assumption of risk; higher returns are normally accompanied by higher risk. Yet many investors seemed to discount the possible adverse consequences of taking on this additional risk. Some minimised their perceived risk exposure by emphasising the benefits of diversification. In doing so, they sometimes misapplied the tools used for analysing risk in equity markets. The standard deviation of returns, for example, was used by many investors to evaluate gains from diversification in corporate bonds. However, the importance of downside losses from default made such a symmetric measure of risk inappropriate for analysing credit risk. Other investors assumed that they could unwind their investment positions before suffering heavy losses. This was especially true of carry trades intended to profit from the low level of short-term interest rates. Hedge funds and other leveraged investors reportedly made large bets by borrowing at short-term rates and investing the proceeds in higher-yielding longer-term instruments.

The search for yield
might result in
excessive risk-taking ...

The search for yield is a process that has lowered the risk premia that investors receive for bearing credit risk. To the extent that such premia are greatly exceeded by unexpected losses from default, the process can have damaging consequences for both investors and issuers. Unusually heavy losses might cause financial difficulties for those investors not accustomed to managing such risks. This could also trigger a repricing of risk, resulting in a return of wide credit spreads and higher financing costs for all borrowers, including those whose credit quality is improving. Moreover, borrowers might become unusually highly exposed to a shift in investor risk appetite and so to a sudden loss of market access. Such a shift might occur if risk-free rates were

... which could
have adverse
consequences

to rise to a point at which lower-risk investments that offer nominal yields close to investors' target rates become available again. Indeed, the widening of emerging market sovereign spreads near the end of the period under review indicated the importance of the general level of nominal yields for such spreads. Finally, a mispricing of risk can damage overall economic efficiency through a misallocation of resources.

VII. The financial sector

Highlights

Financial sectors across the industrialised world registered stronger performance during the period under review. Commercial banks, having proved resilient to the recent economic slowdown, posted higher earnings supported by reduced credit losses. The improvement in countries with a recent history of banking sector strains was due partly to action taken to tackle long-standing problems and partly to a more benign macroeconomic background. Similarly, insurance companies made some progress in repairing their damaged finances, helped by favourable developments in asset markets.

While a firming recovery had an important influence on the performance of financial institutions, a number of structural factors continued to play a key role. Banking firms' efforts to enhance efficiency through the rationalisation of operations, consolidation and the adoption of new technologies bore fruit in the form of an improved cost base. In addition, the development and deepening of securitisation and risk transfer markets helped financial systems to spread strains across a larger and more diverse set of players, strengthening their resilience to adverse shocks.

Looking forward, the main concern is whether the financial sector, having escaped the slowdown relatively unscathed, might be moving ahead of the business cycle. In the pursuit of profitable uses for their accumulated capital, some institutions may have undertaken investments premised on tenuous assumptions regarding the outlook for growth and the level of interest rates.

Performance of the financial sector

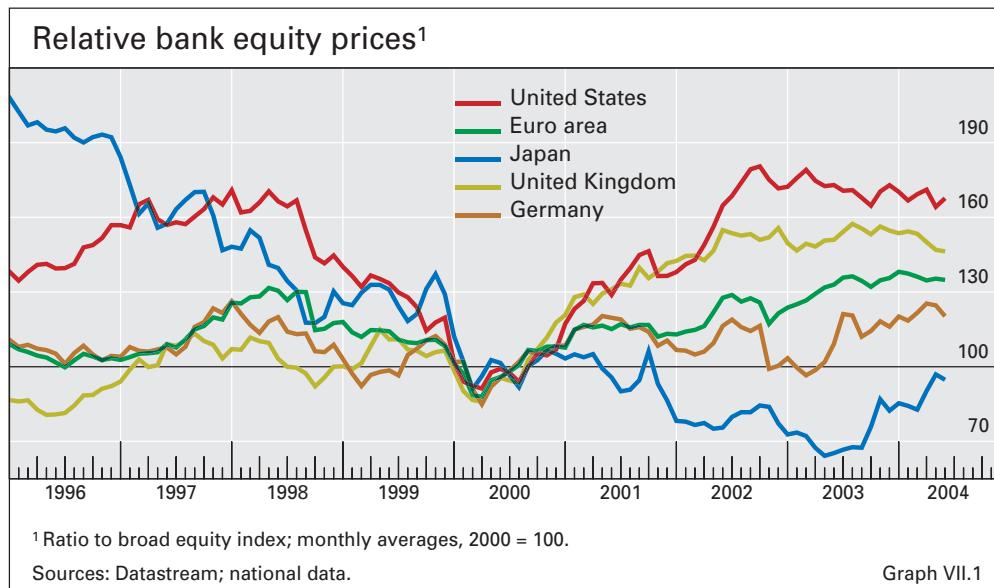
The improvement in the macroeconomic environment during the period under review translated into solid results for the financial sector in industrialised countries. As the signs of a general recovery multiplied, corporate profits stabilised, risks in the outlook subsided and financial asset prices staged a rebound (see Chapter VI). This environment supported better performance by commercial banks both in countries where the sector was building on a strong base and in those where institutions had been under strain (Graph VII.1). In addition, favourable asset market conditions boosted investment bank earnings and helped insurance companies make progress in repairing their weakened balance sheets.

Stronger performance in an improving economic environment

Commercial banks

Lower default rates, higher investment returns and better cost control contributed to the profitability of commercial banks on both sides of the

Higher profits for US and European banks ...



Atlantic. In general, solid earnings coexisted with reduced bad debt provisions as banks applied more conservative lending standards than in the early 1990s.

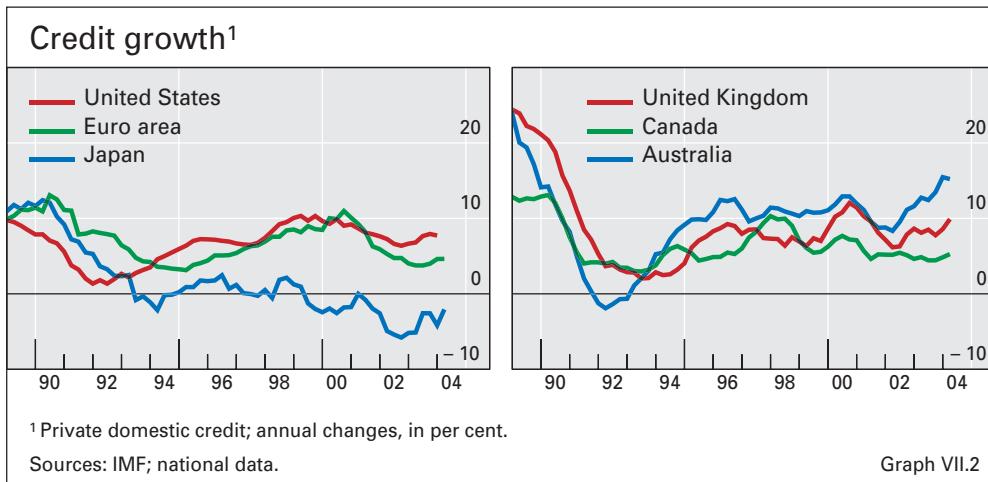
... despite sluggish growth in corporate lending ...

The resilience of commercial banks' profitability proved their ability to cope with downward pressures on revenues through prompt readjustment of the business mix. A first challenge to revenue growth was continuing subdued demand for credit by the corporate sector, notably in the United States. The challenge persisted despite the improved quality of outstanding loans, as corporations remained focused on balance sheet rebuilding and efficiency enhancements took precedence over expansion of capacity (see

Profitability of major banks ¹												
	Pre-tax profits			Provisioning expenses			Net interest margin			Operating costs		
	2001	2002	2003	2001	2002	2003	2001	2002	2003	2001	2002	2003
United States (11)	1.52	1.71	2.04	0.69	0.69	0.44	3.11	3.11	2.99	4.03	3.54	3.41
Canada (5)	0.91	0.61	1.00	0.41	0.58	0.23	1.96	2.07	1.99	2.84	2.75	2.78
Japan (11)	-0.69	-0.45	0.07	1.15	0.64	0.20	1.01	1.00	0.55	1.01	1.01	0.80
Australia (4)	1.47	1.49	1.49	0.27	0.26	0.21	2.22	2.16	2.13	2.15	2.04	2.30
United Kingdom (5)	1.24	1.08	1.22	0.32	0.36	0.32	2.04	1.96	1.82	2.38	2.24	2.12
Switzerland (2)	0.41	0.06	0.63	0.10	0.14	0.03	0.68	0.84	0.88	2.83	2.40	2.03
Sweden (4)	0.83	0.69	0.77	0.10	0.09	0.10	1.50	1.48	1.44	1.53	1.44	1.37
Austria (2)	0.44	0.46	0.53	0.39	0.39	0.36	1.66	1.80	1.72	1.76	1.92	1.85
Germany (4)	0.14	0.05	-0.20	0.24	0.39	0.28	0.90	0.82	0.79	1.77	1.68	1.66
France (3)	0.67	0.46	0.58	0.16	0.17	0.18	0.65	0.75	0.91	1.50	1.48	1.55
Italy (5)	0.90	0.53	0.81	0.53	0.63	0.51	2.21	2.25	2.05	2.42	2.44	2.52
Netherlands (3)	0.62	0.46	0.65	0.20	0.26	0.20	1.57	1.62	1.63	2.08	1.95	1.86
Spain (3)	1.20	1.05	1.27	0.56	0.55	0.44	2.92	2.72	2.38	2.61	2.37	2.12

¹ The figures in parentheses indicate the number of banks included. For Australia, Canada and Japan, fiscal years.

Source: Fitch Ratings. Table VII.1



Chapters II and VI). US banks reacted to the weak demand for business loans by boosting fee income on the back of sustained household spending and mortgage refinancing. Likewise, European lending institutions sought growth in consumer credit, a line of business accounting for 70% of their 2003 revenues. A robust household mortgage market, in which financing costs were low relative to revenues, contributed to the build-up of a capital cushion by European banks, and was particularly profitable in Spain and the United Kingdom.

A second challenge was posed by low policy interest rates and declines in credit spreads, which compressed the margin between lending and deposit rates. Depressed interest margins were a prominent issue in Europe, where margins account for more than half of banks' revenue base (Table VII.1). Spanish commercial banks, which faced strong competition from non-bank financial firms, and the fragmented Italian sector experienced quite pronounced revenue pressure but were successful in boosting asset management income. In France, where there has traditionally been less dependence on margins, a reduction of regulated deposit rates helped support profits. Margins in the United States continued to be the highest among industrialised economies, even though they remained at historically low levels and were offset by higher commission and fee revenues.

... and narrow margins

Germany proved the main exception to the generally buoyant condition of European banks. The combination of an intensely competitive environment and a weak role for market discipline in fostering sound risk management continued to act as a drag on performance. The economic slowdown depressed German bank profits to the lowest level in industrialised Europe. In addition, market commentators estimate that the banking sector harbours distressed debt amounting to 9.5% of total loans, a legacy of the earlier quest for revenue growth in high-risk lending. Against this backdrop, and in anticipation of the removal of explicit state guarantees in 2005, some rating agencies drew the market's attention to probable downgrades of public sector banks evaluated on a standalone basis.

German banks confronted their challenges

Notwithstanding these difficulties, the German banking sector witnessed some encouraging developments that primarily reflected initiatives by the larger

private sector institutions. In early 2003, the securitisation of loans to higher-rated credits improved the liquidity of bank balance sheets. Moreover, the restructuring of problem loans, destined eventually to be sold to international investors, provided a boost to capital adequacy later in the year.

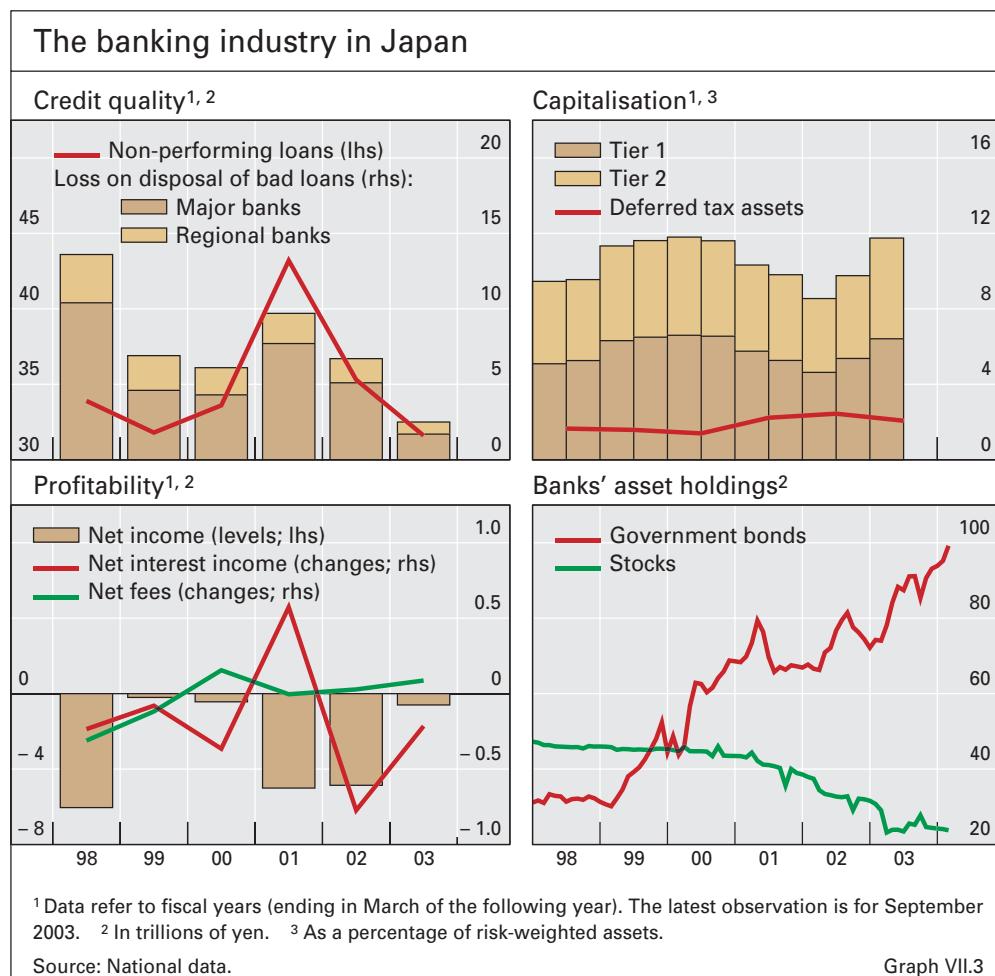
The Japanese banking system

Japanese banks returned to profit ...

... reduced the burden of bad loans ...

In the past year, Japanese banks showed encouraging signs of better health, despite the persistent influence of certain chronic sources of weakness. For the first time in 11 years, the operating profits of major banks exceeded their credit costs owing to a combination of the recovery in macroeconomic conditions, the easing of the non-performing loan (NPL) problem and the strong performance of the equity market.

The NPL problem, which has burdened the Japanese banking system for a decade, finally appeared to ease during the period under review. Major banks stepped up efforts to meet the regulator's goal of halving their NPL ratio in the three years to the end of March 2005. They look to be well on course to meet this goal, having already removed an estimated ¥13.2 trillion in the two years to end-March 2004. By contrast, progress was much slower for regional banks, as their NPLs declined only slightly from ¥14.8 trillion in March 2002 to ¥13.9 trillion in September 2003 (Graph VII.3).



The equity market rebound provided unexpected support for bank profits, facilitating the write-off of NPLs. To comply with the regulator's mandated guidelines, major banks had drastically reduced their equity holdings in previous years. In recent months, this sell-off was reversed to take advantage of the rising stock market. As their equity-related gains more than offset losses incurred in the bond market, banks posted a net gain from the revaluation of securities for the first time since mark to market accounting was introduced in April 2001. At the same time, with equity holdings standing only slightly above their Tier 1 capital, major banks were in a stronger position to deal with future equity price fluctuations.

... and benefited from an equity market recovery

Even so, risks remain. An improving economic environment may have lessened the vulnerability of banks, but it has had only a limited effect on interest margins that remained much lower than in other industrialised countries. Admittedly, the narrow margin problem is partly a result of deposit rates being constrained by the zero lower bound in the current deflationary environment. Moreover, structural obstacles, such as competition from the public sector and the lack of risk-based pricing schemes, also contribute. There is anecdotal evidence that individual banks may have taken some steps to tackle this issue. It is less clear, however, how the sector as a whole could do the same without some adverse impact on the supply of credit to the corporate sector.

However, margins remain thin ...

The quality of the banks' capital base also deserves special attention, with public funds and deferred tax assets still accounting for a major share of Tier 1 capital. Capital adequacy ratios fell slightly in the fiscal year ending in March 2003, before rebounding strongly in the first half of the following fiscal year. The improved ratios, however, conceal a marked decline in risk-weighted assets over this period.

... the quality of capital is uncertain ...

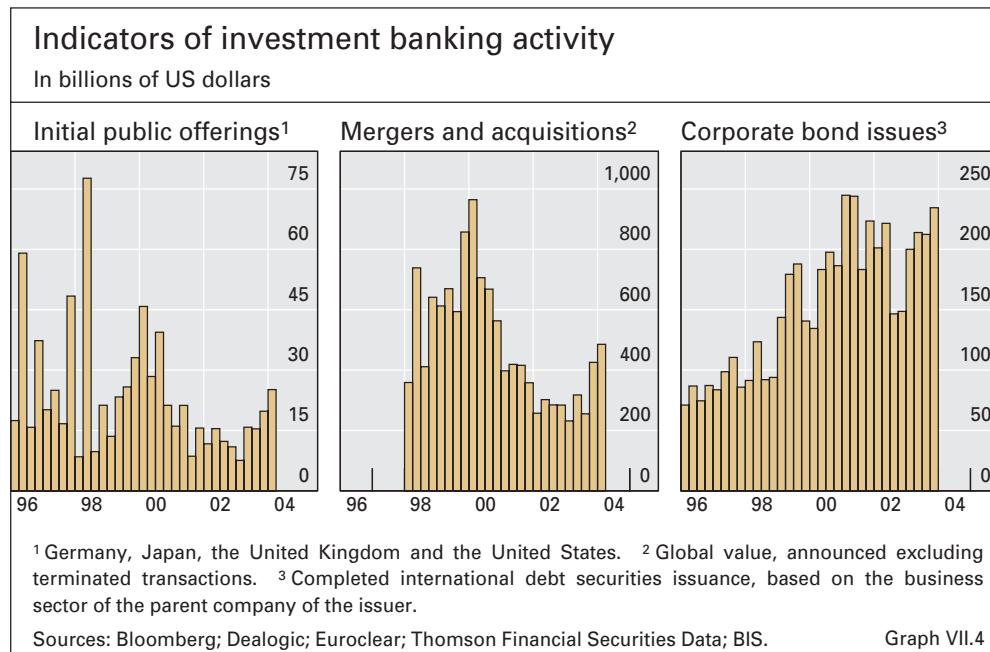
A related but more delicate issue is the role of the government in bank restructuring. The substantial injection of public funds to recapitalise weak banks and bail out distressed banks raised the concern that the extent of government subsidies could lessen the banks' commitment to reform. From this perspective, some recent initiatives aimed at phasing out other distortions caused by government intervention could be helpful in levelling the playing field and creating a more competitive environment in the long run. These measures include the incorporation of Japan Post in 2003 and, from April 2005, the imposition of a cap on deposit insurance and the discontinuation of the purchase of bad loans by the Industrial Revitalization Corporation.

... and the role of the public sector is unclear

Investment banking

Buoyed by a favourable asset price environment, investment banks in a number of countries recorded very positive results last year. The recovery in equity markets boosted trading revenue, primarily sustained in previous years by activity in the fixed income markets. Trading in mortgage-related securities was an additional important source of revenue. A tentative revival in the merger and acquisition and equity IPO (initial public offering) markets during the second part of the year, after three years of subdued deal flow, made only a moderate contribution to advisory revenue. By contrast, the intensification of primary market activity in fixed income securities, as borrowers eagerly

Investment bank profitability recovered ...



took advantage of low interest rates and reduced credit spreads, provided a significant boost to income (Graph VII.4).

... and firms pursued growth

The rebound in profitability prompted investment banks to start reversing the downsizing which had followed the collapse of the investment and equity market boom of the late 1990s. Employment numbers, which had declined sharply, began to increase. Institutions actively pursued growth by rebuilding their deal-making capacity and by expanding into new business areas.

The insurance sector

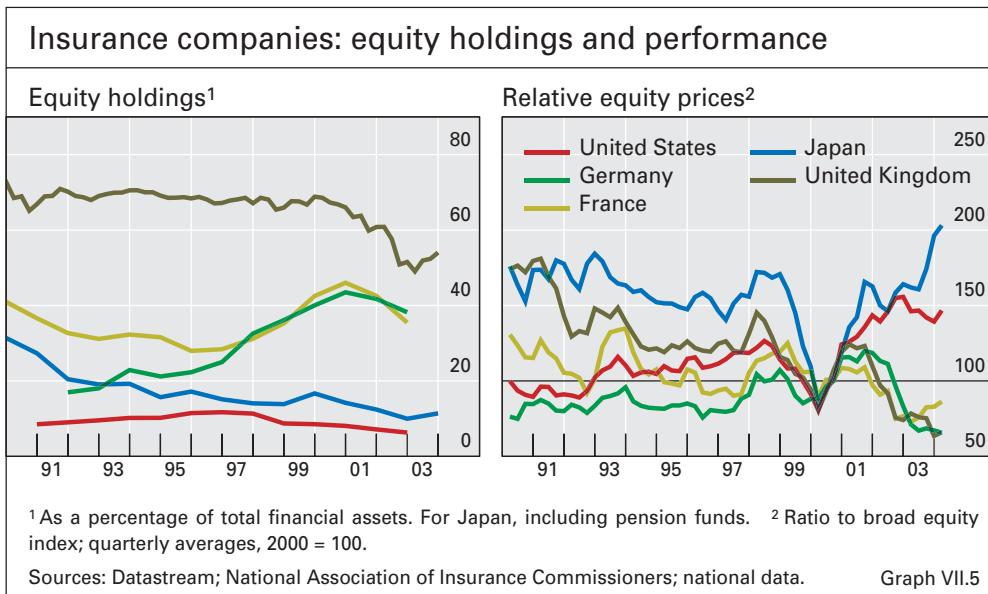
Insurance sector divergence between ...

A number of favourable macroeconomic developments in 2003 boosted the performance of insurance companies, but were in part offset by the legacy of liabilities side difficulties from previous years. In general, the non-life and reinsurance sectors entered 2004 in better shape than life companies, which still need to address challenges with respect to capital adequacy.

... life companies bearing the legacy of past losses ...

During the year under review, successful life insurers matched conservatively priced liabilities with low-volatility fixed income investments and took advantage of the equity market rebound. This approach underpinned the continued robust performance of French and Spanish companies. For its part, the US life insurance industry, with 74% of its assets in bonds, benefited particularly from a decrease in credit losses. At a more global level, the steepening of the yield curve supported life insurers' profits by widening the gap between investment returns and guaranteed policy rates. Further helped by a drop in mortality rates and by weakened pressure on margins from guaranteed yields, the Japanese sector outperformed the broad stock index by the largest margin among major industrialised countries (Graph VII.5).

However, the last year also revealed problems in the life insurance sector that seem likely to persist. In the United States, a shift away from traditional life products and competitive pressures increased revenue volatility and restrained capital accumulation. The German and UK sectors experienced



serious difficulties, including the failure of large national players, as a result of losses due to overly generous policies that had induced companies to look for higher returns in riskier investments.

Life insurance companies in the European Union face additional challenges in the form of proposed changes to the financial reporting and regulatory solvency rules. Proposed new international accounting standards aim at a more transparent match between returns on investments and policies sold but are also likely to heighten the volatility of reported earnings. The introduction of a new solvency framework is also expected to increase capital requirements for a number of companies across the European Union. Insurers in Germany, Sweden and the United Kingdom account for a large portion of the estimated €65 billion capital shortfall that the EU life insurance sector would have experienced had those requirements been in place in 2003. The latent shortfall represents roughly a quarter of the total capital base of the sector, but is concentrated in about one third of the companies. This led industry commentators to forecast substantial redistribution of market share towards those life insurers that maintain strong and stable balance sheets.

... as well as facing new regulatory challenges ...

Underwriting discipline, coupled with a below average incidence of natural catastrophes, resulted in a robust performance for the non-life sector. Better underwriting results at US non-life insurers cut their loss ratios, even as costs rose. However, increased reserve needs from obligations incurred in prior underwriting periods continued to be a drag on profitability. Unlike their life sector counterparts, European non-life companies were quite well insulated from equity market volatility and saw premium volumes grow faster than their historical trend. Similarly, an upward spike in premiums contributed to an improved performance by Japanese non-life insurers.

... and non-life companies in a healthier position

The improved overall performance of equity prices of reinsurance firms in both Europe and the United States was primarily the result of greater market confidence in companies that took bold steps to strengthen their capital base. In the United States, newly formed or recently recapitalised reinsurers

Reinsurers addressed weakness

boasted an annual return on equity of 20%. In Europe, the industry increased its profits in 2003, owing to abating reserve charges and a steep yield curve which boosted net investment returns.

Factors underpinning the positive performance

Cyclical factors

The financial sector benefited from the recovery and low interest rates

The positive performance of the financial sector owed much to the confluence of a number of cyclical factors. Chief among them were the strengthening of the pace of economic recovery and the accommodative stance of economic, especially monetary, policies. Low interest rates helped institutions fund their positions and cushioned their operating results from the impact of corporate distress during the recent downturn. Asset prices also played an important role in shaping the condition of financial institutions. The recent rebound in asset prices supported the earnings of investment banks and helped to restore the health of insurance company balance sheets. Booming housing market activity provided a significant source of income to banks in many countries, while the absence of problems with commercial real estate investments, which had often been a cause of major stress for banks in the past, also helped the bottom line.

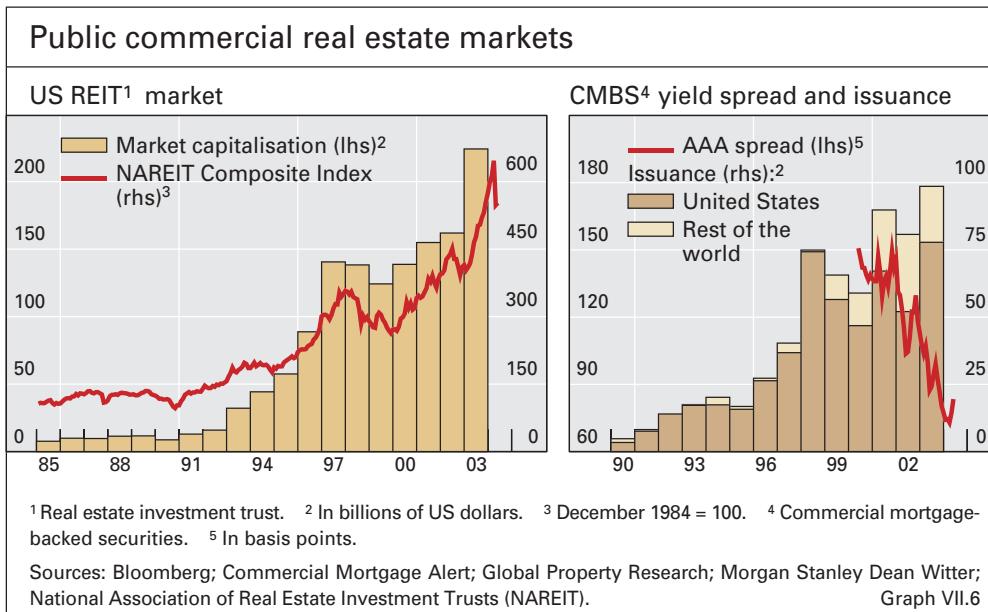
Commercial property prices ¹					
	1995–2002	2003	2003	<i>Memo: Office vacancy rates²</i>	
	Nominal change ³		Level ⁴	2002	2003
United States	3.2	-2.5	35.4	15.6	16.7
Japan	-8.7	-10.2	34.5	8.0	8.5
Germany	4.1	-18.4	50.8	7.1	9.8
United Kingdom	2.8	-4.1	32.7	8.0	11.3
France	5.9	-3.4	60.7	5.9	6.0
Italy	11.6	-5.1	77.6	4.7	5.4
Canada	4.2	-2.7	47.9	13.7	15.6
Spain	12.5	-10.9	42.3	4.8	7.7
Netherlands	7.5	-3.0	81.8	7.4	9.7
Australia	4.2	4.0	50.7	8.3	10.3
Switzerland	0.2	-2.2	59.0	8.0	10.8
Belgium	4.0	10.9	84.4	8.8	9.5
Sweden	4.9	-8.0	47.2	12.5	18.3
Norway	6.8	-1.9	56.3	8.3	11.0
Denmark	7.2	-1.2	82.5	2.5 ⁵	9.0
Finland	4.2	-4.7	59.4	1.7 ⁵	7.0
Ireland	15.5	0.2	83.5	18.4	17.5

¹ For Australia, Belgium, Italy and Spain, prime property in major cities; for Japan, land prices.

² Immediately vacant office floor space (including sublettings) in all completed buildings within a market, as a percentage of the total stock. For Switzerland and the United States, nationwide; for Australia, France, Germany, Italy, the Netherlands and Spain, average of major cities; for other countries, capital city. ³ Annual changes, in per cent. ⁴ Peak period of real commercial property prices = 100. ⁵ 2001.

Sources: Catella Property Consultants; CB Richard Ellis; Investment Property Databank Ltd; Japan Real Estate Institute; Jones Lang LaSalle; National Council of Real Estate Investment Fiduciaries; Sadolin & Albaek; Wuest & Partner; national data.

Table VII.2



Admittedly, commercial property prices did fall in 2003 in practically all industrialised countries, after a period of tempered growth since 1995 (Table VII.2). While price declines were moderate in most cases, they exceeded 10% in Germany, Japan and Spain. Moreover, the fundamentals remained mixed. Demand for office space (other than prime property) did not recover in the absence of a pickup in employment, while demand for retail outlet space grew, reflecting the continuing strength of consumption growth.

Even so, the pullback in commercial property prices remained limited by past standards, as did the impact on banking sector profitability. This was partly due to the cautious attitudes in lending for commercial development subsequent to the last market collapse in the early 1990s, which helped to avoid a price boom. It was also a reflection of the ongoing development of markets for instruments linked to commercial real estate financing (asset-backed securities, real estate investment trusts and other equity instruments), which provided a substitute for bank-intermediated credit and a channel for the dispersion of associated risks (Graph VII.6). Prices of these instruments were boosted by stronger demand from institutional investors seeking higher-yielding investment opportunities outside the more traditional asset classes.

Structural factors

In addition to these cyclical influences, a number of structural factors underpinned the positive performance of the financial sector. These relate to the longer-term restructuring of banks' business lines, greater focus on the retail sector and the further development of risk transfer mechanisms.

Banking sector restructuring

Over the 1990s, banks pursued the rationalisation of their internal cost structure and improvements in the efficiency of their business operations, while seeking greater earnings stability via revenue diversification. A visible by-product of these efforts was the wave of merger and acquisition activity in

Falling commercial property prices ...

... did not affect bank profits because of securitisation

Restructuring has been a source of resilience

the financial sector that marked the second half of the decade. The resilience of the financial sector to the recent economic downturn represents in part the fruits of these efforts.

Internal efficiency pursued globally

Internal cost containment has primarily taken the form of reductions in staff levels. Increased recourse to IT and outsourcing has enabled banks to take advantage of scale economies and focus operations on core functions of intermediation and distribution of financial products (Table VII.3). Banks in North America started this process earlier in the 1990s and have arguably advanced faster. European institutions have followed in earnest more recently. The process was triggered in a number of countries by the withdrawal of the public sector from bank ownership, but it was often hampered by rigidities in national labour markets. Japanese banks, after a particularly slow start, have accelerated the implementation of rationalisation plans.

In contrast to the trends in staff costs, the picture is less clear when it comes to branch networks (Table VII.3). While the rollout of new technologies would imply a move towards more cost-efficient delivery channels than the traditional bank branch, the success of various forms of remote banking has been rather mixed. Moreover, an intensified focus on the retail banking market (see below) has transformed branch networks into important sales outlets for a growing variety of financial services.

Slower pace of consolidation

Consolidation remains an important strategic option for bankers, despite a considerable slowdown in the pace of merger activity compared to the late 1990s. Two very large deals, which last year created the second and third

Restructuring of the banking sector ¹											
	Concentration ²			Number of branches ³				Employment ³			
	1990	1997	2003 ⁴	1990	1997	2003 ⁴	Change ⁵	1990	1997	2003 ⁴	Change ⁵
United States	13	21	24	72.8	77.3	84.8	0.0	1,911	1,847	2,129	0.0
Japan	42	39	42	24.7	25.4	22.7	-11.8	593	561	447	-27.8
Germany	17 ⁶	17	22	43.3	47.1	38.2	-22.3	696	751	732	-3.5
France	52	38	45	25.7	25.5	26.2	0.0	399	386	384	-3.8
United Kingdom	49	47	41	19.0	14.3	12.9	-32.4	423	360	360	-15.0
Italy	24	25	27	17.7	25.6	29.9	0.0	324	343	341	-4.3
Canada	83	87	87	8.7	9.4	10.4	0.0	211	264	279	0.0
Spain	38	47	55	35.2	37.6	39.4	0.0	252	242	239	-6.6
Australia	65	69	77	6.9	6.1	4.9	-31.2	357	308	344	-3.4
Netherlands	74	79	84	8.0	7.0	3.7	-54.1	123	120	140	-9.6
Belgium	48	57	83	8.3	7.4	5.6	-33.2	79	77	75	-5.6
Sweden	70	90	90	3.3	2.5	2.0	-37.2	45	43	42	-7.7
Austria	35	44	44	4.5	4.7	4.4	-6.2	75	75	75	-2.4
Switzerland	54	73	80	4.2	3.3	2.7	-35.9	120	107	100	-16.8
Norway	68	59	60	1.8	1.6	1.2	-32.9	31	24	22	-22.4
Finland	65	77	79	3.3	1.7	1.6	-55.8	50	30	27	-49.3

¹ Deposit-taking institutions, generally including commercial, savings and various types of mutual and cooperative banks.

² Top five banks' assets as a percentage of all banks' assets. ³ In thousands. ⁴ For Belgium, France, Germany, Italy, Japan, Sweden and the United Kingdom, 2002. ⁵ Changes, in per cent, from peak (since 1990) to most recent observation; 0.0 indicates that 2003 was the peak year. ⁶ 1995.

Sources: National bankers' associations; national data.

Table VII.3

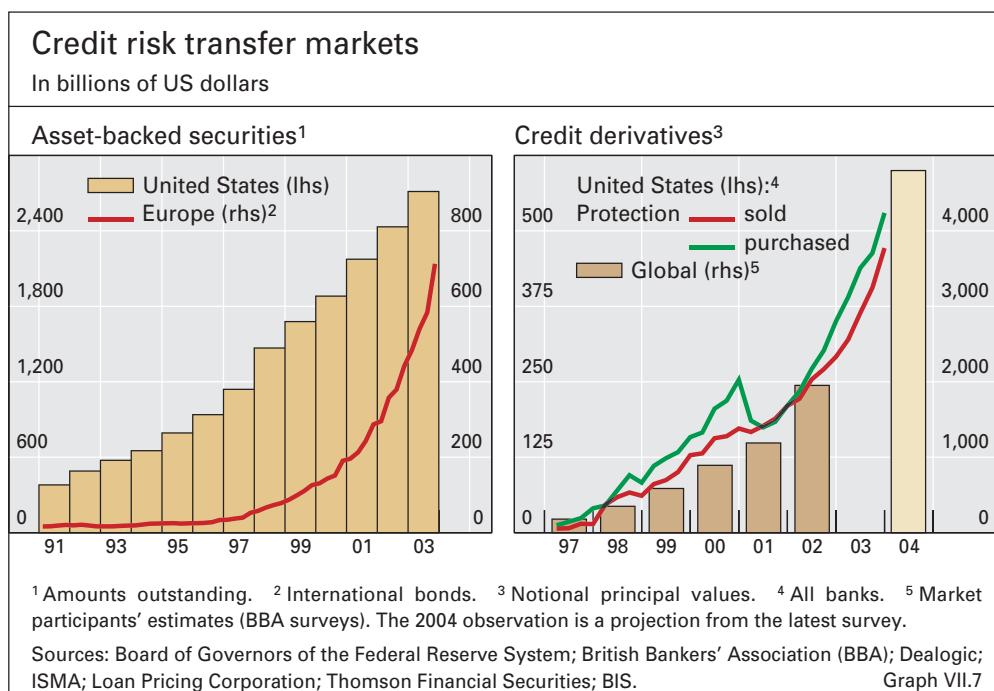
largest banking organisations in the United States, help to underscore this fact. In addition, consolidation at the local and regional levels continued following the dismantling of institutional structures that had historically supported the fragmentation of the US banking system. In Europe domestic consolidation also continued, albeit at a slower pace, while cross-border deals remained an exception. In fact, disappointment with the persistent difficulties in the formation of a pan-European banking market persuaded some European banks to reduce the size of cross-border strategic stakes, previously seen as preludes to larger deals, in order to strengthen their domestic financial position.

Retail strategies

Buoyant demand for consumer credit has offered a welcome source of income for banks confronted with stagnant demand for corporate credit and compressed interest margins. Banks in many countries have pursued an aggressive expansionary strategy focused on the growth of their retail business. Mortgages, credit card loans, automobile loans and unsecured credit lines are some of the high-growth areas for banking products. In addition, other fee-based services to households, such as selling third-party financial products as well as brokerage services, have become a substantial source of revenue. This trend might be reinforced by the introduction over the next few years of the revised capital adequacy framework for banks, which recognises the mitigating effect of greater diversification in retail and consumer exposures compared to corporate credits.

Growth in retail business

Fee income is seen as a potential means of smoothing the cyclicity of earnings, especially when banks have been successful in building their franchise name and maintaining market share. Recent experience validated this assertion, as fee income provided an important buffer to declining interest



margins. In fact, the substitution of fee income for margin income was more intense in countries where the environment was most competitive. This partly reflected the fact that consumer demand appeared less sensitive to fee charges than to interest rate charges, possibly because fee structures are more opaque and complicate comparisons across service providers.

Risk transfer markets

The rapid development of new risk transfer markets in recent years has enhanced the capacity of the financial system to absorb losses and supported its performance by helping to disperse risk across institutions and investors.

The growth of securitisation ...

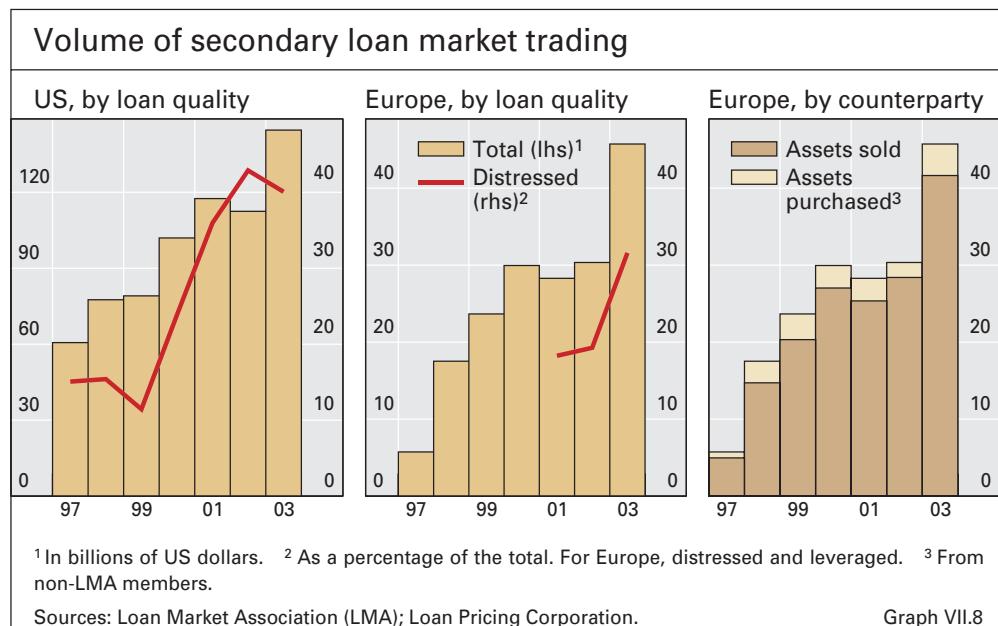
The growth of securitisation markets for bank-originated credits was boosted by demand from institutional investors and by advances in financial, computing and communications technologies (Graph VII.7). The securitised mortgage segment expanded particularly strongly in the United States, fuelled by a booming primary market and improved liquidity. In Europe, asset-backed securities markets received support from the introduction of the single currency as well as enhancements to the trading and legal infrastructure.

... and deepening of secondary loan markets ...

The secondary market for syndicated credits has also grown over the past few years. During the period under review, trading of syndicated credits in the United States, the largest secondary loan market, grew by a quarter (Graph VII.8), while activity in Europe soared by more than 50%. Distressed loans continued to represent a sizeable fraction of total secondary trading on the US market, and gained in importance in Europe. Admittedly, this reflected to some extent higher levels of corporate distress in Europe. But it was also indicative of sustained investor appetite and the market's improved ability to absorb a larger share of below par loans.

... have brought in new players

The growing participation of a diverse investor base in the secondary loan market has been a key factor in its success in dispersing risks through the financial system. The share of US banks' holdings of domestic syndicated



credits has been in slow decline over the last few years. At the same time, non-banks and foreign market participants hold a proportionately larger share of distressed loans than do their US bank counterparts.

A similar development has been observed in the credit derivatives market. In this case, it is non-banks (primarily insurance companies and hedge funds) that have been net sellers of protection. Moreover, smaller banking institutions with a more regional focus in their loan business have used derivatives to increase their exposure to foreign names as a means of diversification.

Greater propensity for risk-taking

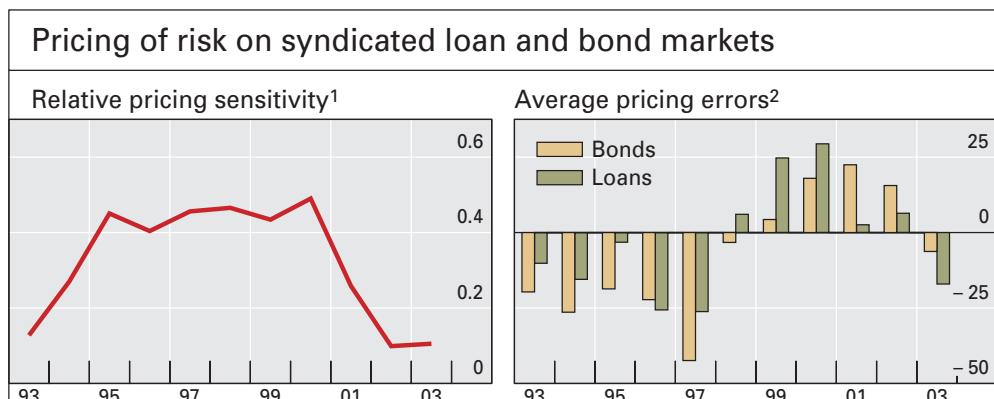
Positive results, alongside increasingly optimistic expectations, have encouraged greater risk-taking in a financial sector left relatively unscathed by the recent economic downturn. High levels of capitalisation, intensified competition, ample liquidity in financial markets and a low interest rate environment might also have contributed to this same outcome. Manifestations of this type of behaviour can be found both in pricing practices and in the growing reliance on certain business segments, such as proprietary trading. One concern is that the financial sector may have been left more vulnerable to unanticipated future developments in the pace and balance of growth in economic activity, as well as in the future path of interest rates.

Greater risk-taking
by banks ...

Manifestations of risk-taking

There is evidence of more aggressive pricing of credit risk in bond and, especially, syndicated loan markets in recent years. Observed yields in the two markets are substantially lower than the levels predicted on the basis of their historical relationship with the prevailing level of interest rates and the risk associated with the specific characteristics of individual facilities. While progressively more aggressive pricing has been observed in both markets in the last two years (see, for example, the discussion in Chapter VI), spreads in

... evidenced in the
pricing of credits ...



¹ Time-varying relative sensitivity of loan and bond prices to credit risk, estimated from a regression of loan rates on the yield index for corporate bonds of the same rating. Other variables include the size and maturity of the loan facility. ² Facility size-weighted averages of discrepancies (in basis points) between actual (bond or loan) spreads and those implied by a model incorporating short-term interest rates, rating, time to maturity, guarantees, collateral, currency risk and size of facility.

Sources: Dealogic; national data; BIS calculations.

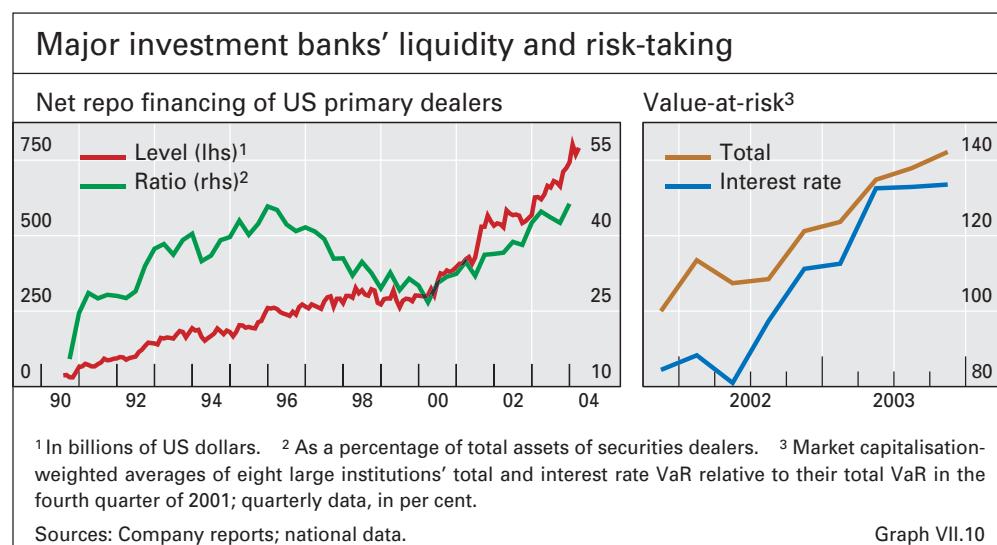
Graph VII.9

the syndicated loan market appear to have declined relatively faster (Graph VII.9, right-hand panel). The recent compression of spreads in the two markets is reminiscent of conditions prevailing around the end of a previous period of low interest rates in 1993–95. It is, however, less pronounced than in the two years leading up to the Asian crisis. Pricing grew increasingly firm at the end of the 1990s, arguably supported by intensified demand, before the more recent decline in spreads took hold. A comparison of the pricing of credits to similarly rated borrowers in the two markets shows that loan yields have been less responsive to credit risk than bond market yields (Graph VII.9, left-hand panel). Indeed, the convergence in pricing observed over the 1990s seems to have been rapidly reversed as loan markets have apparently grown much less discriminating since 2001.

... and an emphasis
on proprietary
trading

Another symptom of greater risk-taking is investment banks' greater exposure to proprietary trading. Signs of this trend are visible in the fact that most of the overall increase in capital exposure to market risk, as evidenced by value-at-risk (VaR) observed across the industry in 2003, is attributable to higher interest rate risk (Graph VII.10). Admittedly, high volatility in bond markets over the summer played a major role in the rise in banks' interest rate related VaR for the third quarter of 2003. Nevertheless, this type of VaR was still 20% higher at the end of 2003 than a year before, even after institutions had had time to adjust their risk-taking.

Over the period under review the financial system continued to build up its direct and indirect exposure to the hedge fund sector. As funds multiplied in number and grew in size, competition among larger banks for lucrative prime brokerage business became more intense, drawing in players that had all but withdrawn from this activity a few years earlier. Similarly, banks reportedly invested significant amounts of their own money in fixed income hedge funds in a strategy complementary to the expansion of their proprietary trading operations. These inflows combined with growing interest by institutional investors, such as pension funds, helped hedge funds to become important players in the corporate credit markets.



Factors contributing to greater risk-taking

The explanation for greater risk-taking by banks can be found in the confluence of a number of factors in the current conjuncture. Chief among them seems to be the accumulation of healthy capital cushions as a result of the robust past performance and improving economic conditions (Graph VII.11). Low yields in some of the more traditional lines of business may have induced banks to pursue profitable opportunities for their capital in higher-risk activities. Similarly, a fall-off in customer-driven revenues in the corporate advisory area has motivated investment banks' search for yield.

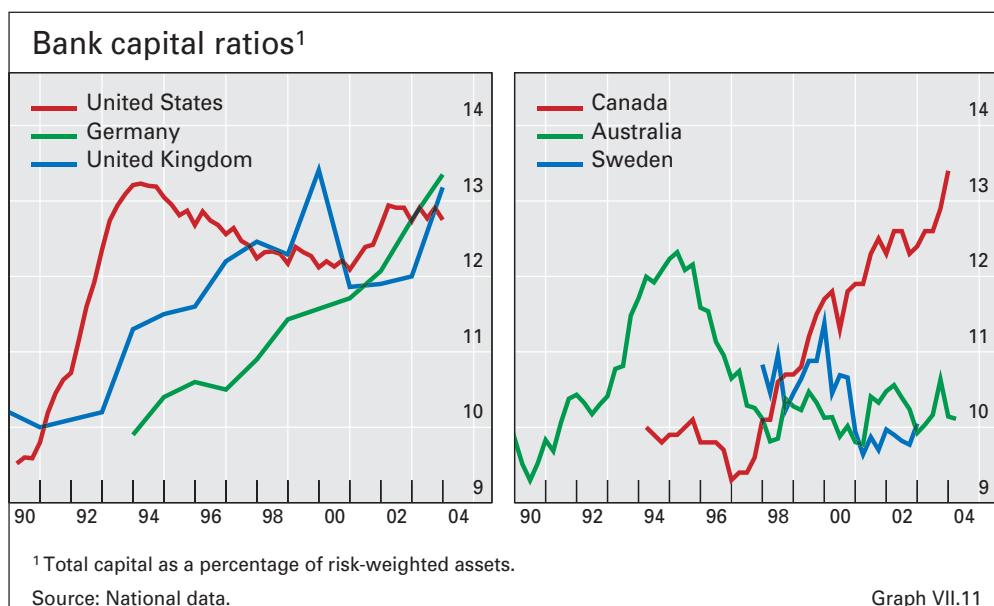
Risk-taking encouraged by excess capital ...

Another factor relates to greater competition in the area of traditional financial intermediation. Corporate credit demand has been sluggish because of lower corporate investment, more subdued merger and acquisition activity, and an increase in the number of syndicated loans self-arranged by borrowers. This has intensified competition among lenders for loan mandates on the basis of pricing, even in the absence of any real prospect of future ancillary fee-generating business from the borrower, such as merger advice or bond underwriting. The evidence on narrowing bond and loan market spreads (Graph VII.9) is suggestive of such a widespread search-for-business phenomenon.

... greater competition ...

Finally, increased emphasis on proprietary trading activity was supported by ample liquidity in financial markets and increased appetite for risk. The growth of net repo financing of the operations of US primary dealers has accelerated in the last three years. As a percentage of their total assets, such financing almost doubled between the beginning of 2000 and the end of 2003 (Graph VII.10, left-hand panel). The comfort derived from more widespread use of advanced risk management technologies and a more relaxed shareholder attitude towards income volatility during a period of earnings growth has arguably reinforced banks' reliance on proprietary trading.

... and ample liquidity



Vulnerability to higher interest rates ...

... and a flatter yield curve

Household debt has increased substantially ...

Potential dangers

The principal danger that arises from greater risk-taking is that the financial sector becomes more vulnerable to future disappointments regarding economic growth and interest rate movements.

The main risk involved in the search for business described above is that banks may have underpriced loans based on optimistic forecasts of a long-lasting environment of low interest rates and sustained high rates of economic growth. Tight spreads reduce considerably the buffer to absorb losses. In the event of an unbalanced or slower economic recovery, this could result in a higher number of defaults among corporate borrowers than banks have priced into their risk spreads. This could lead to unexpectedly high loan losses for lenders. A financial sector hurt by an adverse macroeconomic environment could, in turn, further weaken the macroeconomy, for instance by becoming more restrictive in the granting of credits.

The main risk associated with proprietary trading in fixed income products by investment banks stems from the reliance on both abundant market liquidity and the steepness of the yield curve. Large losses on these activities could affect a number of players if market liquidity were to dry up or the yield curve flattened beyond the expectations already priced into current forward rates. Further, a simultaneous unwinding of overextended positions could trigger or exacerbate adverse market movements, especially in highly concentrated markets (see Chapter VI).

A similar concern has been expressed by US authorities with respect to the level of indebtedness of the country's government-sponsored enterprises (GSEs). In September 2003, GSEs reported total debt outstanding of \$2.4 trillion, with the proceeds used to accumulate portfolios of mortgages and mortgage-backed securities whose value is highly sensitive to swings in interest rates or refinancing activity. Even though the institutions continue to hedge these risks, the magnitude of the exposures has raised questions about the ability of the system as a whole to absorb the risk of higher interest rates smoothly. Since hedging requires the sale of long-maturity bonds as rates increase, the impact on the bond market could be significant.

Household debt and financial stability

As noted earlier, the resilience of the banking sector was due in part to strong household sector demand for financial services, including mortgage-related services and consumer credit. The growth of borrowing by households not only provided fee income for banks, but also reduced credit risk owing to the solid performance of property-related loans in a context of rising home values.

Household debt has risen to historically high levels in many countries in recent years, mainly because of low borrowing costs and the easing of liquidity constraints. The growth of household debt has been particularly strong in Australia, Spain and the Netherlands, which have experienced average annual rates of increase of 12–15% in the past five years, followed by Italy, the United Kingdom, the United States and a number of Nordic countries (Table VII.4). At the other end of the spectrum, household indebtedness in

Residential property prices and household debt					
	Residential property			Household debt ¹	
	1995–2002	2003	2003	1995–2002	2003
	Nominal change ²		Level ³	Nominal change ²	
United States	5.8	8.0	100	8.2	10.8
Japan ⁴	-3.0	-5.8	65	0.3	-0.1
Germany	0.1	-1.0	84	4.2	1.0
United Kingdom	11.9	10.0	100	8.5	9.3
France	4.8	16.4	100	7.1	7.2
Italy	3.7	10.7	100	8.4	6.6
Canada	3.6	11.0	100	5.9	6.2
Spain	9.8	17.3	100	14.5	12.6
Netherlands	11.2	3.6	100	13.3	9.4
Australia	9.0	18.9	100	12.4	11.9
Switzerland	0.1	2.8	67	3.3	6.6
Belgium	5.4	7.6	100	3.5	2.2
Sweden	8.0	6.1	100	7.1	8.2
Norway	8.3	3.7	97	8.3	6.7
Denmark	7.1	3.2	100	8.2	8.2
Finland	8.2	7.4	84	7.0 ⁵	12.3
Ireland	14.5	13.9	100

¹ Broad financial accounts concept where available, otherwise credit from banks; partly estimated.
² Annual changes, in per cent. ³ Peak period of real residential property prices = 100. ⁴ Land prices.
⁵ 1996–2002.

Sources: Nomisma; Office of Federal Housing Enterprise Oversight; Wüest & Partner; national data; BIS estimates.

Table VII.4

Germany and Japan has been practically flat. Overall, the ratio of household debt to personal disposable income climbed steadily in most industrial countries from around 90% on average in 1990 to 115% in 2003.

This rise in household indebtedness has occurred against a backdrop of rapid gains in household wealth and very low levels of interest rates. With respect to wealth, the value of household assets has grown substantially over the past decade, driven initially by the buoyant stock market and more recently by higher house prices. Particularly in 2003, strong performance in both markets resulted in a noticeable rebound in household net worth in the OECD area. Hence, the increase in household debt is less remarkable when compared to the growth of aggregate household assets than when compared to the growth of personal disposable income. With respect to interest rates, the debt service ratio, a key measure of the financial soundness of the household sector, has remained below historical averages in many countries, largely because interest rates have stayed historically low (Graph VII.12).

... together with wealth ...

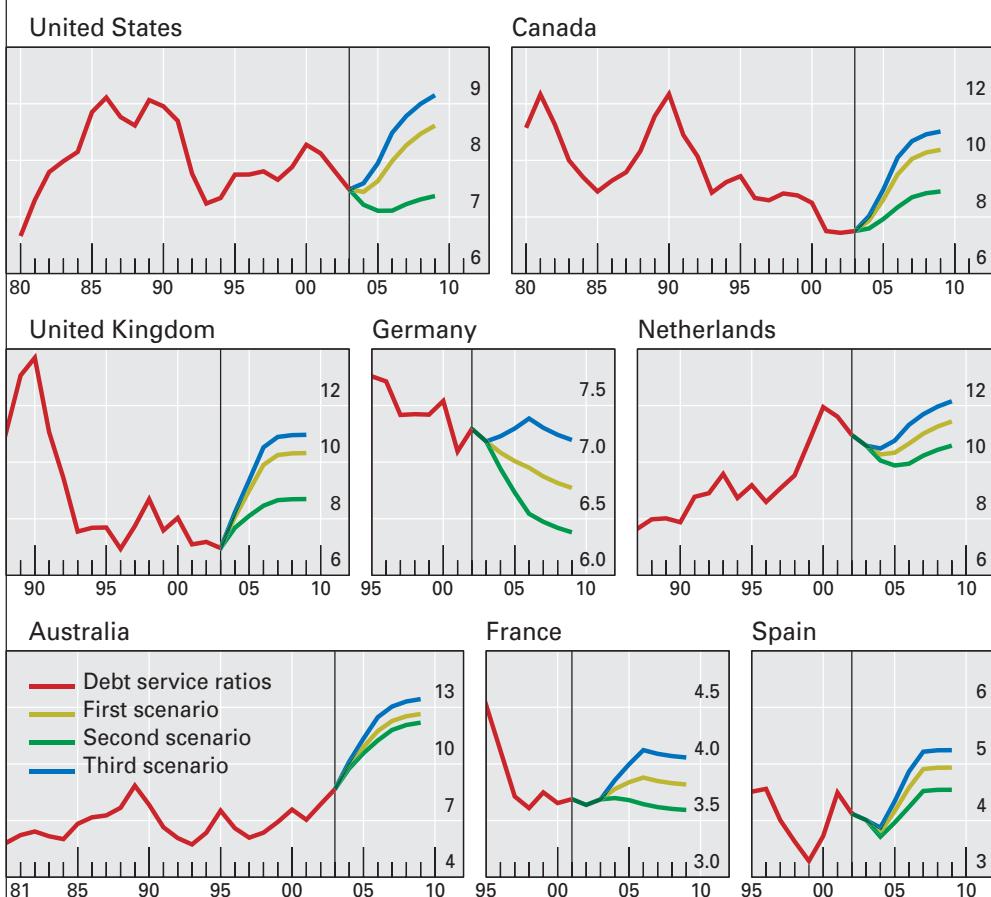
Nevertheless, high household indebtedness raises concerns about the vulnerability of consumer finances. This, too, could have potential implications for the financial system.

... making households vulnerable ...

The first set of concerns relates to a rise in interest rates. The resulting increase in the debt service burden could lead to mortgage defaults and losses for financial intermediaries. Importantly, the impact of higher interest

... to higher interest rates ...

Sensitivity analysis of debt service ratios¹



¹ The projections reflect the estimated sensitivity of effective interest rates on household debt to policy rates and spreads on the basis of historical data for each country. The impact on the debt service ratio is then calculated by reference to the projected path of the effective rate and the household debt/income ratio under three scenarios. In the first scenario, the short-term interest rate returns to its historical average (since 1990) over three years, and the debt/income ratio remains at its current level. In the second scenario, the short-term interest rate increases gradually by 200 basis points over three years, and annual income growth exceeds household debt growth by 2%. The third scenario is similar to the first, except that household debt grows faster than income by 2% per annum in the next three years.

Sources: National data; BIS calculations.

Graph VII.12

rates would vary significantly across countries, depending on the characteristics of the national mortgage financing systems. These factors, which can differ widely, include the duration of the mortgage rate, the cost of refinancing, the development of mortgage securitisation, transaction costs and special tax treatment for home purchases. In countries where variable mortgage rates are prevalent, such as Australia, Ireland, Spain, the United Kingdom and most Nordic countries, an increase in interest rates, particularly if unexpected, would feed back quickly to the household sector. Financial stress in the household sector might then translate into a deterioration in loan quality for financial institutions. By contrast, where mortgage rates are predominantly fixed, as in France, Germany, Italy and the United States, the interest rate risk is borne directly by lending institutions. The effectiveness of hedging strategies for interest rate risk can be substantially complicated in the presence of inexpensive refinancing options that introduce prepayment risk. Other factors

tend to limit the vulnerability of banks to strains in the mortgage market. In countries where mortgage securitisation is fully developed, real estate loans could be sold outside the banking system, thereby partly transferring the interest rate risk to the capital market. In addition, the deductibility of mortgage interest payments tends to lower the effective interest rate on household debt and thus to reduce the responsiveness of debt servicing costs to interest rates.

Interest rate risk alone, however, is not very likely to pose a serious threat to the balance sheet position of households. Holding the household debt/income ratio constant, a rise in the short-term interest rate tends to push up the effective interest rate on household debt and by extension raises the debt service burden. Nevertheless, approximate calculations on the basis of aggregate data indicate that the debt service ratio would remain much lower than its historical peak in most countries (with the notable exception of Australia), even in the case of a marked run-up in rates (first scenario in Graph VII.12). For example, a return of the policy rate to its historical average in the United Kingdom (ie an increase of 335 basis points) over three years would raise the debt service ratio to slightly above 10%, a level well below the peak reached in the early 1990s.

The impact of interest rate changes on the debt service capacity also depends critically on income growth. Should the economy experience a strong recovery and income grow faster than debt, the increases in the debt service burden would be much lower. By contrast, should the household debt/income ratio continue to climb, a rise in interest rates could cause significant financial difficulties for the household sector (third scenario in Graph VII.12).

... or subdued
income growth

A second concern relates to the possibility that substantially slower rates of house price growth, or even price declines, might force households to cut their expenditure. Should this occur before the expansion of the corporate sector gained a firm footing, the financial sector would lose a major source of resilience. Moreover, if prices were eventually to fall, this would be likely to trigger mortgage defaults and financial stress. The strength of this feedback effect partly depends on the level of prudential ceilings on loan-to-value (LTV) ratios. These vary substantially: from 50% in Italy to the unusually high level of 110% recently observed in the Netherlands. The effect of high LTV ratios is reinforced when used in conjunction with mortgage accounting practices based on the current market value of property (as followed in most industrial countries except Denmark, Germany and Switzerland).

Banks' exposure to
house prices ...

While the above discussion applies to all market participants, the incidence of strains need not be evenly spread across different subgroups of households. Lower-income households, which are most likely to be affected by a decrease in income or an increase in unemployment, have relatively high debt service burdens. In the United States, for instance, about one quarter of lower-income households have a debt service requirement greater than 40% of their income. By contrast, only 2.5% of households in the highest income decile are leveraged to a comparable degree. Accounting for the impact of the distribution of debt across households might, therefore, have important implications for assessing the risk associated with rising household indebtedness.

... and household
debt ...

... is only indirect

Overall, although household debt should not pose a major direct risk to financial intermediaries, it could have an indirect impact in the form of greater sensitivity of consumer spending to interest rates and asset prices (see Chapter II). Should consumer spending slow markedly, this would presumably affect corporations' profits and their capacity to service debt as well. Moreover, one cannot rule out entirely the possibility that these adverse shocks, including higher interest rates and lower asset prices, could occur simultaneously. Were this to happen, the macroeconomic effects of greater indebtedness would be more complicated, and this indirect risk to financial institutions would be more difficult to hedge.

VIII. Conclusion: change, uncertainty and policymaking

No one would deny the sense of relief generated by recent releases of better numbers for economic growth, particularly but not exclusively pertaining to the United States. It may be recalled that, less than a year ago, some economies seemed to be flirting with deflation and policymakers were actively considering their options should a deflationary situation arise. What a difference a year makes. Now the consensus expectation is for steady and essentially non-inflationary growth, albeit subject to increasing geopolitical uncertainties. In turn, the focus of policymakers has begun to shift towards how they might most effectively exit from the highly stimulative policies of the immediate past.

Gauging the effects of such a change in policy will not be easy. Over the last few years the economic landscape has altered in important ways and, indeed, is still in a state of flux. Technological developments have improved the prospects for faster growth and lower inflation, trends already evident in the United States. The opening-up to trade of such giants as China and India offers similar opportunities for gain, both for their own populations and more broadly. At the same time, these developments imply major structural adaptations, including in the labour forces of industrial countries. Accurately estimating the level of potential growth, or the level of full employment, has become more difficult, as has the conduct of national policies based on such domestic constructs.

The financial side of the global economy has also been transformed in recent years. Technological advances and deregulation have helped make markets more efficient and more resilient. These new attributes, together with better risk management and supervision, go some way towards explaining the continued robust behaviour of the economy in the face of recent shocks. At the same time, however, financial liberalisation may also have contributed to the occasional tendency for financial markets to overreach and to aggravate the cyclical propensities of the real economy. Not least, since these new markets increasingly allow wealth to be liquefied, perceptions of wealth have gained in importance as drivers of spending. Such perceptions are inherently hard to measure, can be subject to error relative to underlying fundamentals, and can rapidly disappoint. All of this makes it more difficult to get an accurate fix on the transmission mechanism of monetary policy.

Finally, the policy regime itself has changed over recent decades, with policymakers focusing more successfully on maintaining inflation at a low and stable level. This has clearly contributed to stabilising inflation and inflation expectations, both desirable outturns. In such an environment, it is possible not only to allocate resources more efficiently but also to push with less fear against the limits of production possibilities. However, there is also a growing recognition that this welcome stability could have an unwelcome side effect.

With inflation not thought to be a threat, and interest rates not seen as likely to be raised in consequence, any tendencies towards imprudent lending behaviour by the financial system might well be encouraged. On the one hand, this might give rise to a delayed upturn in inflation when underlying pressures eventually come to the surface, perhaps even suddenly if inflation expectations ratcheted upwards. On the other hand, it might result in an unanticipated move in the direction of disinflation, should debt burdens become too onerous or should significant stress emerge in the financial system. Demand shocks to the economy could tilt the balance either way, while negative supply shocks could potentially lead to both outcomes in succession.

Currently, the policy problem seems more likely to be of the inflationary kind. How best can policy be tightened, and communicated, so as to avoid undesirable effects on stretched financial markets? However, looking back over the last decade or so, and particularly the last few years, it seems clear that a more common problem has been how best to ease in response to financial strains. In answer, given that inflation was generally well under control, both monetary and fiscal policies tended to be eased by more than they had been tightened in the preceding upturn. It is the simple arithmetic of this asymmetry that may account for current record low policy rates in the major industrial countries, as well as government debt burdens that in a number of countries are unsustainably high.

Fortunately, the global economy now appears to be on an upward path, and there is less call for macroeconomic stimulus. We should use this opportunity to reflect on the processes that allowed our armoury of macroeconomic instruments to become so depleted. An obvious point, but not without objections, is that this situation should be addressed directly through more aggressive tightening in good times. In addition, policies to strengthen the financial system, and to encourage more prudent lending behaviour in upturns, might help to mitigate the damage in downturns and reduce the need to resort to aggressive policy easing in the future. Finally, recognising the increasing interdependencies in the modern, liberalised world between financial behaviour and macroeconomic outturns, it is crucial that the supervisory and monetary authorities work together ever more closely.

Will the expansion prove sustainable?

While most observers believe that the recovery has now gained a firm hold virtually across the globe, the question of sustainability continues to receive an unusual amount of scrutiny. One reason for this is that the overall good performance seems supported disproportionately by two particular pillars of strength: domestic demand in the larger English-speaking economies and in China. In both cases, a number of economic variables have shown sustained deviations from accepted historical norms ("imbalances"). Since economic processes tend to be mean reverting in the long run, large imbalances must warrant attention from prudent policymakers, particularly if a plausible story can be told about negative feedback effects on the real economy. Although it is no easy task to determine the length of the long run, with imbalances

tending historically to be sustained far longer than expected, history also teaches us that reversions rarely occur painlessly.

To suggest that the influence of the United States and China in the current recovery is disproportionate is also to say that Japan and the larger economies of continental Europe are still not pulling their weight. While there are some indications of a turnaround, in both cases domestic demand remains weak and the recovery overly dependent on future export growth.

Among those experiencing weaker growth, prospects in Japan look relatively more positive. Investment is finally picking up at the larger firms, in response to increased cash flow and much healthier balance sheets. Moreover, consumers have reduced their saving rates in order to carry on spending, and this will be further encouraged if job growth strengthens. Yet sentiment among smaller Japanese firms has only just begun to brighten, and it is not certain whether the financial system has improved enough to provide the support that might be needed to underpin sustainable growth going forward. In any event, many old economy firms are still overindebted, and the emergence of new economy firms continues to be impeded by regulation.

In continental Europe, profits have not yet rebounded sufficiently to encourage investment, particularly since corporate balance sheets remain burdened with comparatively high debt levels. Consumer spending has also been generally restrained to date, especially in Germany, and is likely to expand vigorously only if some degree of optimism can be restored. The hope must be that ongoing structural reforms in Europe, which currently seem to be sapping optimism, will eventually be recognised as welfare-enhancing and influence the mood of consumers correspondingly. This possibility would be all the greater were reforms seen to be more decisive, comprehensive and coherent than is suggested by the current piecemeal approach. If inflation again drops below 2%, this will be helpful not only to consumers but also to the European Central Bank.

In the United States, a different and more welcome pattern of consumer behaviour has been observed, but also one with implications for the future. Unusual joint developments in labour and debt markets merit special attention. Though it has shown distinctly more positive signs recently, overall the demand for labour in the United States since the trough of the recession has been very weak, even compared to the "jobless recovery" of the early 1990s. While the share of labour in factor incomes has fallen sharply, the share of consumption in US spending has continued to grow, extending the trend begun in the 1990s. To a significant degree, recent spending has been financed by tax cuts, but US consumers have also relied heavily on debt accumulation to smooth spending. Household debt has risen faster than income for some time and currently stands at a record high as a proportion of household income. In particular, US households have found it cheaper and more attractive to refinance their houses as mortgage rates have trended downwards and house prices upwards. This has allowed them either to lower monthly interest payments, raising cash flow, or to withdraw housing equity to support spending. This phenomenon has also been seen in the United Kingdom, Australia, New Zealand, Spain and some smaller European economies.

Are such trends a cause for concern? One view would be that greater financial efficiency and lower interest rates have allowed a once and for all upward shift in sustainable debt levels in many countries, including the United States. Accordingly, higher debt levels do not constitute an imbalance needing to be reversed. Coincident with a temporary slowing in the rate of growth of wage income in the United States, largely reflecting cost cutting made possible by productivity growth, more debt has allowed consumption to be maintained in a welfare-enhancing way. Looking forward, the shift of factor incomes towards profits has already led to higher investment spending and, over time, this should support both output growth and jobs. Indeed, in the long run, productivity gains must have such beneficial effects. And in such an environment, debt accumulation will moderate and the burden of debt service should fall too.

Yet not all observers share this view, particularly those focused on shorter-run transitional problems. Given the size and scope of recent structural changes, some feel the demand for labour could continue to lag, not just in the United States but in the other industrial countries as well. For example, increases in US productivity growth could begin to be reflected elsewhere, implying transitional problems that other countries might find it even harder to cope with. The upward shift in the cost of labour (including medical and other benefits) relative to the declining cost of capital goods also seems set to continue. And competition from cheaper labour in the newly opened emerging market economies is steadily intensifying. Should consumer confidence falter as a result, or alternatively should the limits of household debt sustainability be reached, the willingness of still heavily indebted corporations to invest the increased profits arising from faster productivity growth might well be tested.

Whether household and corporate debt levels will eventually act as a drag on spending depends partly on the level of interest rates and the impact of debt service. Clearly, higher rates in response to continued economic recovery will be much more manageable than in the absence of such a recovery. However, the level of asset prices is another important factor, since it influences both the willingness to spend and the ability to raise money against collateral. During the period under review, equity prices and house prices rose sharply in a wide range of countries, perhaps due in part to unusually liquid global financial conditions. Whatever the cause, a number of asset prices are now at levels which look rich compared to traditional benchmarks. Were these asset prices to fall back, it would be too much to hope that spending would remain unaffected. Indeed, even if prices only stabilised, the contribution made to growth by wealth accumulation would come to a halt. The recent slowdown in consumer spending in the Netherlands is a clear example of this effect.

One could go further still and ask whether the level of spending associated with equity withdrawal from housing might eventually have to be reversed, at least partially. Increases in the value of equity reflecting expectations of higher rates of return on capital are truly "wealth", which can be spent up front if desired. Provided the expectations are correct, no payback is needed. In the case of house price rises, however, the greater value of the asset is

offset by the value of the future liabilities – the cost of living in a house. If prices stay elevated, this will reduce the discretionary income and spending of all non-homeowners for the foreseeable future. Conversely, if prices decline, the burden of future adjustment falls back on those who withdrew equity from their homes. They thought they were wealthier and spent the money, but risk finding that the asset gains were illusory while the increased debt was anything but.

A final concern has to do with external imbalances and their implications for growth prospects globally. In particular, consumer spending and the associated current account deficit in the United States have ultimately been financed with money borrowed from foreigners. The bulk of this has, until recently, been willingly supplied by private sector lenders. Although the private inflows into the United States have increasingly taken the form of bond purchases, potentially easily reversible, the rate of interest demanded was, until mid-April 2004, trending down rather than up. The appetite for US dollar assets in particular has been supported by the fact that debt service requirements have not, to date, risen along with the stock of external debt. Moreover, the expectation of sustained, relatively rapid growth in the United States has provided further support. The real exposure in the current circumstances would be for those growth expectations to be disappointed. This might result in an unwelcome and restraining shortfall of foreign funding. Indeed, the textbook pattern of current account adjustment for debtors, based on long historical experience, involves a lower exchange rate and a reduction of domestic demand, and the opposite for creditors.

Two new realities are also likely to affect the dynamics of the external adjustment process. The first is the very high level of dollar debt now held by foreigners. The prospect of wealth losses due to dollar depreciation could make assets denominated in dollars look less attractive, and could even feed back on global bond yields. At the same time, realised losses on their foreign portfolios could slow domestic spending in creditor countries. Since spending in such countries ought rather to rise, in order to offset the impact of currency appreciation, neither of these effects would be helpful to the adjustment process. Second, there is the growing presence of China and, increasingly, India on the global trading scene. Debtor countries with depreciating exchange rates will be trying to move resources into the production of tradable goods and services in the face of formidable new competition. Should the adjustment process appear to falter, the implication might be the need for still larger changes in both exchange rates and relative spending levels.

Imbalances also characterise the performance of the second pillar of current global growth, domestic demand in China. The numbers describing the performance of the Chinese economy in recent quarters are truly staggering, and still point more to accelerating than to decelerating economic activity. While consumption and exports have provided support, investment spending has been especially strong. Particularly in the manufacturing sector, a massive addition to global productive potential is now being put into place.

Two concerns could be raised, both arising from “overheating”. The first is of a more medium-term nature. Much of the investment spending in China

has been by local authorities and state-owned enterprises. To the extent that such borrowers are not motivated by prospective rates of return, there is a greater likelihood that these investments will prove unprofitable. The fact that they have been accompanied by very rapid rates of monetary and credit expansion, at state-owned banks with little experience of credit risk evaluation, is also notable. A similar set of phenomena was seen at the beginning of the 1990s, and subsequently led to a sharp deceleration of economic activity. The difference now is that China plays a much larger role in the world economy. Should China's imports decelerate sharply, there might be discernible effects on growth elsewhere in Asia and even beyond. In the Middle East, Africa and Latin America, the support hitherto provided by high prices for oil and other commodities could also be removed, leaving a number of inherently vulnerable emerging market economies more exposed to possible shocks.

The second, more immediate concern is of rising inflation in China. While CPI inflation has in the past not moved closely in tandem with producer prices, the latter are now moving up so strongly that they are having an impact on the former. Shortages have also begun to emerge in various domestic markets, with rationing effectively being imposed in areas where prices are still tightly controlled. Due in part to Chinese demand, commodity prices are rising globally, though currency appreciation is mitigating the effects in some countries. It is not implausible that these pressures will also begin to feed through to other prices in both industrial and emerging market economies, provided of course the global recovery remains robust.

Turning to global capital markets, prospects have become more unsettled but still seem reasonably satisfactory. As noted in the Introduction, economic growth was buoyed not only by low policy rates and liquidity expansion, but also by the rediscovery of the appetite for risk-taking. All the same, markets have been less welcoming in recent months and long bond yields and sovereign spreads have moved up sharply. The effect will be to leave some sovereigns (and other, less creditworthy borrowers) facing higher costs, at best, or financial strains, at worst. Fortunately, the more general pursuit of sensible economic policies in emerging economies has significantly diminished the possibility of widespread problems, even though countries with weak fiscal or current account positions remain vulnerable. Such dangers would seem greatest in some countries in Latin America and, to a lesser extent, central and eastern Europe. As for corporate spreads, only those for high-risk bonds have thus far been affected given an environment where corporate defaults have been falling and are expected to continue to fall.

It is, however, also not impossible that rising risk aversion could get out of hand, perhaps leading to some of the worthy being punished along with the less worthy. Furthermore, currently high levels of leverage, and the rumoured size of the carry trade business, imply that changes in some prices might be both rapid and large if traders were to seek to cover their exposures. Techniques such as convexity hedging in the US mortgage market could strengthen such tendencies. The widening of interest rate swap spreads last summer attests to this possibility.

What provides a good measure of comfort in this context is that financial institutions in the major industrial countries, with Japan still a notable exception, have successfully absorbed quite a few such shocks recently, and might now be even better placed than before to absorb new ones. Bank capital ratios remain high, loan default rates have generally fallen further and profits have also generally improved. Moreover, this has been due in large part to cost cutting, increased fee income and greater attention to the proper pricing of risk. Particularly, but not exclusively, in the United States, banks have managed to redistribute a significant amount of credit risk through a variety of credit risk transfer instruments. While a number of large international banks have sharply stepped up their proprietary trading, it is generally believed that their market risk management systems are adequate to this task. This assumes, of course, that the liquidity required in highly concentrated markets to carry out the requisite transactions would be there even in times of stress.

Most other financial institutions, in particular insurance and reinsurance companies, also seem in better shape than last year. To a considerable extent, this has been due to such cyclical factors as the sharp rebound in asset prices, especially equity prices. The same could be said for defined benefit pension funds, where underfunding problems have been reduced in various ways. Despite the rapid growth of a wide range of hedge funds, strains in this sector, were they to occur, would not be expected to have systemic repercussions. In short, there are no obvious grounds for believing that lending restraint by damaged financial institutions would hold back a resilient global recovery in any significant way.

Policies to promote monetary and financial stability

The current global economic upswing seems to be gaining momentum under the influence of unusually expansionary, in fact unsustainable, macroeconomic policies. While there are many threats to future growth, the central scenario is that of a continuing and even strengthening recovery. Under this assumption, the immediate challenge for monetary and fiscal policy must be to restore more normal policy conditions in a way that avoids catalysing instability. The longer-term challenge must be to establish more robust policy regimes for promoting monetary and financial stability in a global economy whose structure has changed profoundly and is still changing.

The near-term issue in the United States is how quickly to tighten monetary policy, a decision which involves comparing the expected losses from going too fast with those from going too slow. On the one hand, as long as there are concerns about the durability of the expansion, going slow has obvious attractions. If, in addition, it is believed that ongoing productivity gains have created enough slack to keep inflation from rising, even given stronger growth, the same conclusion is suggested. In other words, raising rates too fast is very likely to entail real economic costs. On the other hand, maintaining the current historically low interest rates could inadvertently lead to higher inflation later on. Moreover, it could also contribute to a further

build-up of financial imbalances that could weigh down the real economy over time. There is an obvious trade-off here, but no obvious right answer.

The policy dilemma is intensified by the fact that long rates, as well as policy rates, still seem rather low in spite of the recent backup. Long rates have in addition recently been subject to bouts of high volatility. One concern must be that rising rates could overshoot, potentially slowing the US recovery and having unwanted effects in foreign bond markets as well. Arguably, this risk is greater under the “go slow” scenario, which involves an increased likelihood of inflation expectations rising and policy rates having to respond sharply.

The use of a communication strategy to manage market expectations about future policy rate increases could be the key to ensuring that market volatility does not become excessive. However, recent experience has shown that this task is not easy. In a context of high debt levels and rising government deficits, markets could be split between two camps. One camp might suspect a greater tolerance for inflation or, more likely, that inflation could simply rise inadvertently. The other might fear an equally inadvertent process of debt deflation that would eventually move prices in the opposite direction.

Clarity in this environment, above all concerning the objective of policy, has much to recommend it. Tactical considerations pertaining to the Federal Reserve’s “exit policy” might help explain the renewed interest in inflation targeting in the United States. Similar suggestions have also been made in Japan, where a massive and potentially inflationary overhang of bank reserves has been created by the central bank in the course of fighting deflation. Choosing an inflation targeting framework would help communicate, to the bond markets in particular, the idea that policymakers do not intend to let inflation get out of hand. Whether equal clarity is desirable with respect to the future setting of policy instruments is more debatable. Were it to encourage leverage and position-taking, and were objective conditions subsequently to change, requiring policy surprises, the collateral damage could be material.

Yet the choice of a medium-term framework, for monetary as for other policies, must be based primarily on more strategic considerations. A debate still continues on the pros and cons of inflation targeting. Its merits include clarity of purpose, enhanced credibility if objectives are met, and greater accountability if they are not. Conversely, it could be argued that inflation targeting provides no added credibility to central banks with a solid track record of fighting inflation, and that it can be too inflexible a framework to deal with a complicated modern world in which financial imbalances may emerge more readily.

In fact, a growing number of central banks seem to feel, given such imbalances, that it may sometimes make sense to alter the stance of monetary policy even when the near-term prospects for CPI inflation appear benign. To ensure that markets would not view deviations from the framework as indicating a return to pure discretion, and eventually a greater tolerance for inflation, one recommendation might be that the central bank set out such contingencies in advance. For those inflation targeting central banks that already have well established credentials, the presence of some kind of side constraint on the conduct of policy would not seem to pose a significant

problem. Indeed, the threat that this side constraint might be triggered could have the further beneficial effect of moderating the build-up of financial excesses in the first place.

A second medium-term consideration affects not only monetary policy, but fiscal, regulatory and structural policies as well. It could be argued that policies generally need to be applied more symmetrically over the cycle – as vigorously in upturns as in downturns – if longer-term problems are not to accumulate. Consider first the case of monetary policy, particularly in a context of upturns associated with the build-up of financial imbalances. A generally tighter initial stance might restrain the worst excesses and could then obviate the need for subsequent drastic easing. In addition to lessening the risk of aggravating existing imbalances, such an approach might also lessen the likelihood of hitting the zero lower bound for policy rates. As for fiscal policy, the recent experience of France and Germany clearly shows how their failure to show adequate fiscal restraint in the upturn reduced their room for manoeuvre as the economy slowed. Accounting norms that allow perceptions of future loan losses to be lowered unduly in the good times, only to be raised in the recession as the losses materialise, share the same characteristic. And finally, the failure of countries to implement structural reforms in good times implies either that reforms are never introduced or that they are brought in when times are already uncertain, further undermining short-term confidence.

Another medium-term policy issue has to do with the choice of exchange regime. Given the size of the US current account deficit and the surpluses being recorded in Asia, it has been argued that the maintenance of the fixed exchange rate regime between the Chinese renminbi and the US dollar constitutes an impediment to the global adjustment process. Moreover, it may also be contributing to the excessively rapid credit growth now being seen in China. These effects have been amplified since, as the renminbi has fallen with the dollar, a number of other Asian monetary authorities have also adjusted their policies, for example by intensifying their foreign exchange intervention. The upshot has been that many Asian currencies have depreciated in effective terms. In some cases, concerns about the loss of competitiveness and domestic job opportunities have been augmented by a desire to build up reserve levels for use in potential future crises. This latter rationale has sometimes been described as a “lesson” from the Asian crisis. While valid, it should not obscure another lesson from that period: holding down real exchange rates invites capital inflows that can make crises more likely.

It would be satisfying and simple to conclude on this basis that China, and the other Asian countries in turn, should remove remaining capital controls and float more freely. Unfortunately, this simple answer might well be the wrong one. China is key to exchange rate decisions in the region, and it faces some very particular domestic constraints. Chinese financial markets are still at an early stage of development; the banking system still has huge problems; and the apparatus for effective supervisory oversight is not yet in place. Freeing up the exchange rate without adequate control over capital flows could have highly unpredictable, and probably highly undesirable,

consequences. A more reasonable possibility, but not without its own technical difficulties, might be to revalue and peg against a basket of currencies. Yet even this should not be seen as a panacea, either for China's overheating problems or for global trade imbalances.

With respect to overheating, the Chinese authorities must attempt to satisfy numerous conflicting demands with imperfect policy instruments. Presumably, they would prefer to use market-based restraints, like higher interest rates, but such instruments do not yet work effectively. Conversely, many of the old controls, administrative and political, that allowed the influence of the centre to be pervasive have now been partially or fully dismantled. In all likelihood, the authorities will continue to encourage market-based developments, while using whatever powers of command and control they still have to contain spending and credit. The expansionary stance of fiscal policy could also be scaled back. However, this would aggravate unemployment problems, which remain particularly troubling in rural areas. The only thing that is clear is that the Chinese authorities, after years of steady progress towards a market economy, now find themselves in a very challenging position.

As for global trade imbalances, these have been building up for years and presumably have deeper roots than just currency misalignments. The fundamental issue is that Asia currently saves too much, relative to domestic opportunities for profitable investments, and the western hemisphere (especially the United States) saves too little. However, while the diagnosis and policy recommendations might be clear, implementation is another issue, at least for creditors. Lower saving rates in Asia could be encouraged by easier credit policies, designed to spur consumer spending. But the recent experience of Korea and Thailand indicates that this could easily get out of hand. Investment in Asia (outside China) has also been very low since the crisis and could also be stimulated. Again, the dangers inherent in such policies are starkly underlined by what we are currently seeing in China, and by what we observed in Japan in the late 1980s. It should be recalled that the Japanese investment boom was, in part, a by-product of expansionary policies designed to help alleviate the then existing trade imbalances.

If creditors should make a contribution to unwinding global trade imbalances, so too should debtors. In the United States in particular, there is clearly a twin deficit problem. Equally clearly, the fiscal deficit needs to be reduced. But to say that this is part of the US problem is not to imply that it is the heart of the problem. The current account deficit ballooned in the 1990s long before the fiscal accounts suddenly turned sour. Indeed, a closer examination reveals that the underlying cause has been the long downward slide in net saving by US households. This is unfortunate, since theory offers less guidance on how policy might be used to reverse such a trend in an orderly way. Moreover, it implies the potential for an undesirably swift adjustment on the part of US households should their current assumptions about future incomes and wealth prove overly optimistic.

External imbalances might also be reduced by fiscal policy stimulus elsewhere in the industrial world. However, the combination of already high

government debt levels and ageing populations imposes significant constraints. Debt is a charge on future taxpayers, who will have to service it. Pensioners constitute a further charge, since governments generally have pay-as-you-go pension schemes and health services. The danger is that the declining group of taxpayers will eventually find the tax burden too heavy, and an effective and perhaps disruptive repudiation of the government's obligations will be the end result. This prospect is most serious in Japan and continental Europe, but could affect the United States and even some emerging market economies over time. Against this backdrop, the emphasis ought to be on getting debt levels under control, rather than increasing them further. Even if the current conjunctural circumstances were thought to militate against near-term tightening, a credible medium-term plan for restoring fiscal health needs to be put in place. One important aspect of this in many countries will be to announce cutbacks to future entitlements so that individual citizens can try to prepare themselves. A useful preliminary step will be to confront the public still more assertively with the arithmetic of the current situation. In principle, no one can argue with arithmetic, but in practice this will be a long, hard sell.

Structural reforms in the industrial economies would also serve to attenuate the burden of debt, whether government or private, by raising the productive potential of the economy and associated levels of income per head. The United States already appears to be on a higher growth path, but some structural reforms would still seem helpful. Policies pertaining to energy, health care and the increasing burden of litigation all deserve attention. In continental Europe, one must round up the usual suspects: labour market reform to raise employment, deregulation of services, and the creation of truly pan-European markets. Everywhere, but perhaps most evidently in Japan, policies will be needed to shift labour into the production of non-traded goods and services as international competition mounts. Within sectors producing tradables, there may have to be a progression up the value added chain, with a correspondingly greater focus on education and training. For governments that are already fiscally challenged, finding the funds will be no easy task. A ruthless pruning of unproductive expenditures and wasteful subsidies would be a good place to start.

Raising productive potential and then keeping it fully employed requires marrying efficiency with stability in the financial system. Unfortunately, in some countries initial conditions are less than optimal, with reliance still being placed exclusively on loans from banks, and bankers often charging less for risk than they should. Moreover, certain banking systems themselves are still operating under the burden of bad loans made in the past. Japan seems to be making some progress with corporate and bank restructuring, after a decade of false starts, but China has only just begun to address its banking problems.

An even greater challenge than recapitalising commercial banks, difficult as that may be, will be to ensure they can operate profitably over time. In this latter regard, one of the most pernicious forces is continued political influence. To be sure, directed loans to state-supported sectors seem increasingly to be out of favour, even in such countries as China and India. However, the damage that can be done to the private sector through competition from state-supported

financial institutions is still not adequately recognised. The influence of the Japanese postal savings system, the German public sector banks and the government-sponsored enterprises in the United States is pervasive, and only in Europe have concrete steps been taken to rein back state support. Both in industrial countries and in many emerging market economies, the costs and benefits of such support for the financial sector need to be rigorously evaluated.

Even countries with robust financial systems must make efforts to keep them that way. One structural vulnerability evident almost everywhere is the shortage of accurate information required to assess the health of corporations, that of the institutions which have lent to them, and the resulting financial vulnerability of the economy as whole. Concerning each aspect, this information should cast light on three issues: first, the current financial condition of individual firms and the economy in aggregate; second, the risk profile looking forward; and third, the uncertainties associated with all of these estimates.

With respect to the first issue, the accounting profession is leading attempts to establish harmonised international financial reporting standards for firms. This work needs to be brought to a successful conclusion, with due regard paid to the ability to assign fair values to assets and liabilities. With respect to the second, the Basel Committee on Banking Supervision has put greater emphasis in recent years on the disclosure of the risk profiles of individual financial institutions. The successful negotiation and implementation of Basel II will lead to an even closer focus on risk measurement and risk management at the institutional level. Moreover, at the macroprudential level, the Financial Stability Forum and other bodies have increasingly underscored systemic vulnerabilities and the need to formulate early warning indicators of trouble ahead. All of these efforts should be actively pursued. The development of methodologies to assess systemic vulnerabilities when financial institutions face common shocks, to which they might well react similarly, needs particular attention. As for the third issue, providing some sense of the uncertainties associated with all empirical measurements, very little progress has been made to date.

We need to assess the gaps in the information we require for proper economic management, and then take action to fill them. Cost cutting with respect to the collection and analysis of needed statistics could well prove to be a false economy. In the interim, in recognition of how much we do not know, policies need to be conducted more prudently than would otherwise be the case. Avoiding hubris is, in the light of historical experience, the best safeguard against truly bad outcomes in most areas of human endeavour.

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Organisation, governance and activities

This chapter presents an overview of the internal organisation and governance of the BIS. It also reviews the activities of the Bank, and of the international groups it hosts, over the past year. These activities focus on the promotion of cooperation among central banks and other financial authorities, and on the provision of financial services to central bank customers.

Organisation and governance of the Bank

The Bank, its management and shareholders

The Bank for International Settlements is an international organisation that fosters international monetary and financial cooperation and serves as a bank for central banks. Its head office is in Basel, Switzerland, and it has two representative offices, one in the Hong Kong Special Administrative Region of the People's Republic of China and one in Mexico City. The Bank currently employs 549 staff from 44 countries.

The BIS fulfils its mandate by acting as:

- a forum to promote discussion and facilitate decision-making among central banks and within the international financial and supervisory community;
- a centre for economic and monetary research;
- a prime counterparty for central banks in their financial transactions; and
- an agent or trustee in connection with international financial operations.

The Bank has three main departments: the Monetary and Economic Department, the Banking Department and the General Secretariat. These are supplemented by the Legal Service, Internal Audit and Risk Control units, and the Financial Stability Institute, which fosters the dissemination of standards and best practices to financial sector supervisors worldwide.

The Bank also hosts the secretariats of a number of committees and organisations that focus on the promotion of financial stability. The committees are the Basel Committee on Banking Supervision, the Committee on the Global Financial System, the Committee on Payment and Settlement Systems and the Markets Committee. They were established by the Governors of the G10 central banks over the course of the past 40 years and enjoy a significant degree of autonomy in setting their agendas and structuring their activities.

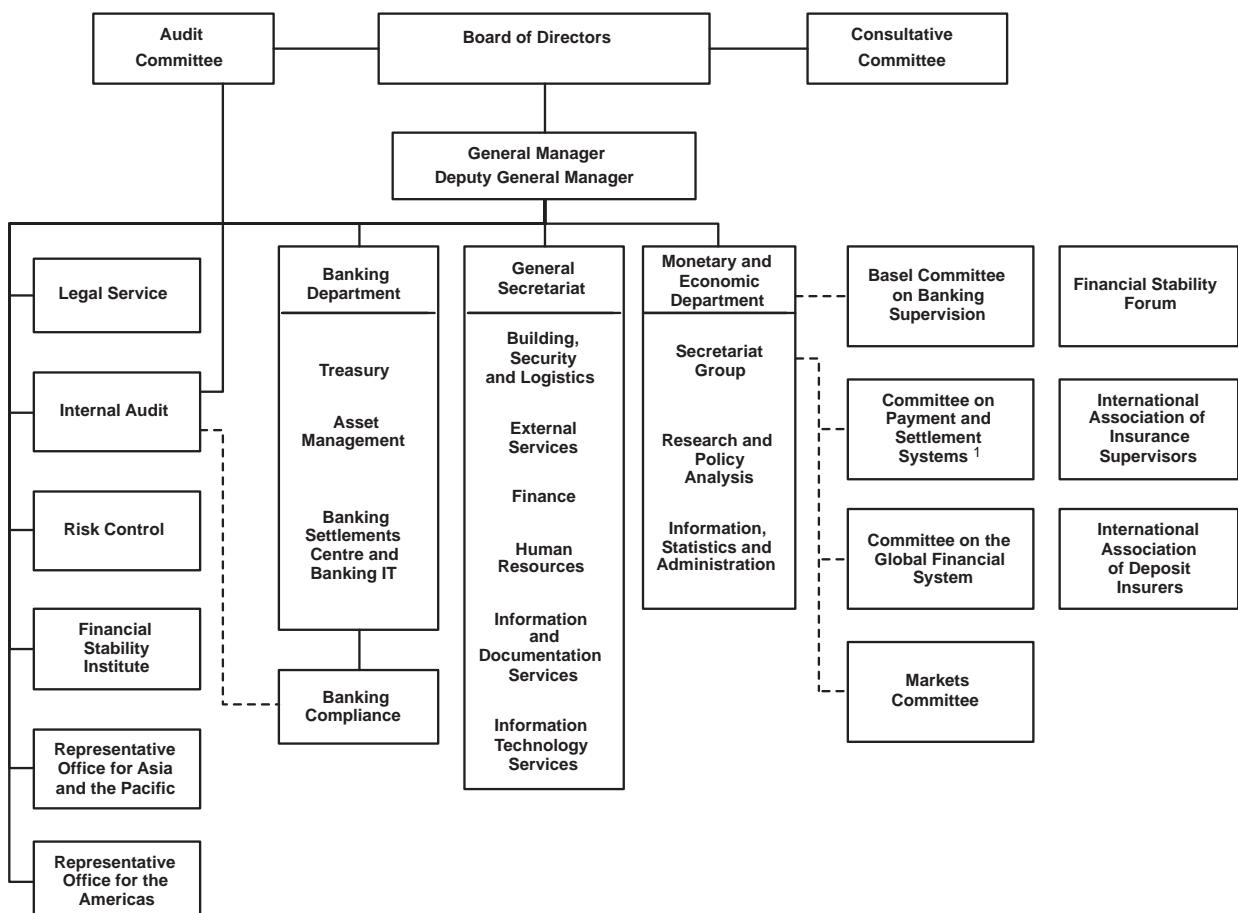
Other secretariats located at the Bank serve independent organisations with no direct reporting link to the BIS or its member central banks: the Financial Stability Forum, the International Association of Insurance Supervisors and the International Association of Deposit Insurers.

The three most important decision-making bodies of the Bank are:

- the General Meeting of member central banks. Fifty-five central banks or monetary authorities currently have rights of voting and representation at General Meetings. The Annual General Meeting is held within four months of the end of the Bank's financial year, 31 March, and is the occasion for the largest BIS gathering of central banks. In 2003, 104 central banks were represented, 79 at Governor level. Delegates from 20 international institutions also attended;
- the Board of Directors. Currently, the Board comprises 17 members. In performing its tasks, the Board is assisted by the Audit Committee and the Consultative Committee, composed of selected Directors; and
- the Management Committee, made up of senior Bank officials.

Member central banks, Directors and senior officials, and recent changes in the composition of the Board and Management are listed at the end of this chapter.

Organisation chart as of 31 March 2004



¹ The CPSS secretariat also acts as secretariat for the Central Bank Counterfeit Deterrence Group.

Promotion of international financial and monetary cooperation: direct contributions of the BIS during 2003/04

Regular consultations on monetary and financial matters

The meetings of Governors and senior officials of member central banks that are held every two months represent the primary instrument through which the Bank seeks to promote international financial cooperation. The bimonthly gatherings, held principally in Basel, provide an opportunity to take the pulse of the world economy and financial markets, and to exchange views on topical issues of central bank interest or concern. The November 2003 bimonthly meeting was hosted by the Bank of Thailand in Bangkok.

Trends and forces that have shaped recent developments in global markets (discussed in the other chapters of this *Annual Report*) dominated the discussions of Governors during their regular meetings at the BIS. The Global Economy Meeting was the main forum for exchanges of views on the current state of the economic cycle among the central bank Governors of the main industrial and emerging market economies. Related conjunctural themes, as well as issues pertaining to the work of the permanent central bank committees hosted by the BIS, were addressed in the meetings of the central bank Governors of the G10 countries.

As in earlier years, Governors of all BIS member central banks participated in a set of meetings which focused on issues of a more structural nature related to monetary and financial stability. Over the period under review, the principal themes discussed were:

- European monetary integration: policy challenges for central Europe
- Housing prices: implications for monetary policy and financial stability
- Resisting exchange rate appreciation and accumulating reserves: what are the consequences for the domestic financial system?
- Resilience of financial markets and institutions: what has changed?
- Have fiscal rules failed? Implications for central banks

In January 2004, a new meeting of Governors was created to accommodate the specific needs of the group of central banks of emerging market economies and smaller industrial countries. A primary objective is to provide briefings on the activities of the various committees in whose deliberations these central banks are not directly involved. In addition, these meetings will serve as a forum for discussing issues of specific relevance to this group. Three briefings on committee activities were organised in early 2004. The first focused on a study by the Committee on the Global Financial System on foreign direct investment in the financial sector of emerging market economies. The second briefing reported on the work of the Basel Committee on Banking Supervision towards the completion of the new capital adequacy framework ("Basel II"). The third briefing covered the activities of the Committee on Payment and Settlement Systems.

Governors also had further opportunities to meet with senior representatives of the private financial sector and other financial authorities. These informal discussions focused on the shared interests of the public and private sectors in the promotion of sound and well functioning financial markets.

During the year under review, they highlighted in particular the implications for the financial system of the growth of credit risk transfer instruments.

Outside the framework of the bimonthly meetings of Governors, the Bank organises various other meetings, on a regular or ad hoc basis, for senior central bank officials on topics of monetary and financial stability. Regular meetings held during 2003/04 were:

- the biannual central bank economists' meetings. The October 2003 meeting explored the challenges that central banks face in an environment of low and comparatively stable inflation, structural supply side improvements and liberalised financial markets;
- working parties on domestic monetary policy. Originally focused exclusively on the larger industrial countries, these meetings are now also organised each year in Asia, central and eastern Europe, and Latin America; and
- the meeting of Deputy Governors of emerging market economies, which this year considered the implications of financial market globalisation for monetary policy.

Two ad hoc meetings on issues of special topical interest were organised. In June 2003, on the occasion of the Bank's Annual General Meeting, Governors from emerging market economies convened to discuss possible policy responses to external financing difficulties. In Mexico City in September, senior central bankers from small open western hemisphere economies held a roundtable discussion dealing with a broad range of policy issues of relevance to central banks.

Other areas of central bank cooperation promoted by the BIS

Research activities

In addition to providing background material for meetings of senior central bankers and secretariat services to committees, the BIS contributes to international monetary and financial cooperation by carrying out its own in-depth research and analysis of issues of interest to central banks and, increasingly, financial supervisory authorities. This work finds its way into the Bank's regular publications, such as the *Annual Report* and *Quarterly Review*, and into its *BIS Papers* and *Working Papers* series, as well as external publications such as professional journals. The deepening of links with the academic world through joint research and conferences has been important in improving the quality of this work and in catalysing further relevant study.

This research activity inevitably covers a very broad spectrum, but a specific longer-term orientation, recently established, emphasises three key areas that the BIS feels deserve special attention:

- the relationship between monetary and financial stability;
- the tensions and complementarities that arise between approaches to financial stability that focus on individual institutions and those that focus on the financial system as a whole; and
- market functioning more generally.

During the past year, the BIS's publications included a number of articles examining hypotheses about the changing interaction between monetary stability, financial stability and the business cycle. They helped lay out a broad conceptual framework that considers the relationship between micro- and macroprudential approaches to securing financial stability. Furthermore, the articles explored attempts to measure changing risk aversion and its influence on market dynamics, and the determinants of market liquidity, especially under stress. Cutting across some of these themes, several pieces of work addressed the determinants and implications of the behaviour of real estate prices.

In addition to strengthening its visiting academics programme, the BIS organised a number of conferences to further develop contacts with the academic community. In spring 2003, it hosted a conference on "Monetary stability, financial stability and the business cycle". In October 2003, together with the Federal Reserve Bank of Chicago, the Bank organised a conference on market discipline, exploring the theoretical underpinnings and the existing evidence for its effectiveness, across both countries and industries. Finally, in June 2004, a conference was held on understanding low inflation and deflation.

Cooperation in the statistical area

The regular monitoring of global economic, monetary and financial developments requires that central banks have available up-to-date, comprehensive and internationally comparable statistical data. The BIS assists in a number of ways in this area.

Through the BIS Data Bank, central banks share with one another an extensive set of economic, monetary and financial data on an ongoing basis. Last year, three more central banks became members of the Data Bank, which now covers 33 countries in all major regions of the world. The topical coverage of the Data Bank also continued to expand, with additional focus on macroprudential indicators, financial accounts data and real estate prices.

The Data Bank infrastructure is used by the BIS to exchange its international financial statistics with central banks in electronic formats. Last year, the number of central banks reporting aggregate national data on the international lending and borrowing activities of the internationally active banks in their jurisdiction grew to 38. The BIS aggregates these data into global statistics and publishes them in its *Quarterly Review* and on its website. These statistics are complemented by quarterly statistics on international claims of domestically owned banks on a worldwide consolidated basis which are now reported by 30 central banks.

The central banks of the G10 countries, whose banks are active players in the over-the-counter (OTC) derivatives markets, collect, compile and publish aggregate data on these markets through the BIS every six months. In response to recommendations by the Committee on the Global Financial System, the BIS and reporting central banks last year developed guidelines for extending these statistics to include data on credit default swaps. Data collection will begin at the end of this year and initial global results will become available in late spring 2005.

Following an agreement to conduct another triennial survey of foreign exchange and derivatives markets, a record 52 central banks undertook to collect data on the turnover in these markets in April 2004 as well as data on amounts outstanding at end-June 2004. The BIS plans to publish the preliminary global aggregate results of the turnover part of the survey in September, and data on amounts outstanding in November 2004.

Apart from providing technical support and assisting with control over data quality for the Data Bank and international financial statistics, BIS staff also share their methodological expertise with the central banks, either on a bilateral basis or by participating in various international statistical meetings. In the context of the preparation of the IMF's *Compilation Guide on Financial Soundness Indicators*, the BIS co-sponsored with the Fund a conference on real estate prices and financial stability in October 2003. An increasingly important forum is the Irving Fisher Committee on Central-Bank Statistics, which includes more than 60 central banks from around the world. In September 2004, the BIS will host a conference of this Committee that will look at statistical issues relating to prices, output, productivity and financial accounts.

The BIS is also an active member of the Inter-Agency Task Force on Finance Statistics, which last year finalised its *Guide for Compilers and Users of External Debt Statistics*. At the end of 2003, the Task Force agreed to create a Joint External Debt Hub. This exercise will link the data on various components of external debt available from, amongst others, the BIS international financial statistics with the detailed data that debtor countries will henceforth begin publishing.

Further steps have been taken to strengthen international cooperation on electronic standards for statistical information exchange. The Statistical Data and Metadata Exchange (SDMX) initiative, in which the BIS works together with the ECB, Eurostat, IMF, OECD, UN and the World Bank, has made significant progress. The SDMX website (www.sdmx.org) provides information about these efforts, including a demonstration of how new web-based technologies can improve the collection, compilation and dissemination of statistics. A new technical forum within the framework of the BIS Data Bank will provide a means for coordinating central bank requirements and priorities for SDMX.

Central bank governance

The objective of the BIS's activities in the area of central bank governance is to compile, analyse and disseminate information on institutional and organisational matters of interest to central banks. This output is non-prescriptive, recognising that the specific mandates and powers of central banks differ across the globe. The Central Bank Governance Steering Group oversees the work, which is conducted through the Network on Central Bank Governance. The Governance Steering Group comprises Governors from a broadly based and representative range of central banks. The Network spans more than 40 major central banks and monetary authorities around the world.

The Governance Steering Group provides guidance to the Bank on how best to respond to the varied needs of central banks for governance information and discusses topical questions of interest to Governors. During the past year

the Governance Steering Group discussed such issues as how central banks organise their financial stability function; how they strike a balance between the efficiency and effectiveness of central bank operations; and how they prepare and implement strategic plans. In keeping with the advice of the Governance Steering Group, the Bank accords priority to requests from central banks that are critical for the effective operation of independent and accountable monetary authorities. The information that Network members and their colleagues provide is made available electronically to central banks.

Group of Computer Experts of the G10 central banks

During 2003 the Group of Computer Experts paid particular attention to issues related to improving IT organisational performance and reducing costs. It examined approaches such as the use of outsourcing, departmental reorganisation and the development of business strategy-compatible IT roadmaps, and discussed the effectiveness of cost reduction initiatives. A highlight for the Group was a workshop in Mexico City with Latin American and Caribbean central bank IT managers which focused on technological challenges, cost control and the alignment of IT with business strategies.

Discussions during the meetings of the Group and its Working Party on Security Issues in 2003 indicated that central banks are moving to major internet-based applications for the use of their external customers. Such initiatives require sophisticated security architectures and infrastructure, including public key infrastructure (PKI) technology. Reflecting this trend, the Working Party updated the Group on the evolution of PKI technology and its use in central banks. The Working Party's report showed that PKI remains a complex technology and its use entails a significant administrative overhead. Nevertheless, the discussions indicated that this burden will be readily accepted by central banks as long as there is a clear business need for the security it provides. Other topics of special interest to the Working Party during the year related to working procedures to ensure efficient and secure use of internet e-mail and to the effective implementation of business continuity measures, made more pertinent by the SARS outbreak and by power outages in North America and Italy.

Internal Audit

Over recent years, central bank internal auditors have met regularly to share experience in their area of expertise, and to explore new and challenging issues. In June 2003, the BIS participated in the 17th Annual Conference of G10 Heads of Internal Audit, hosted by the Deutsche Bundesbank and the ECB. The main topics for discussion included developing an audit approach to the operational risk management process and auditing corporate governance and IT governance. A working party on IT issues, hosted by the BIS's Internal Audit unit, prepared papers on remote access to internal computer systems, penetration testing of firewalls and methods to ensure the security of computer operating systems. The Bank's Internal Audit unit also coordinated the work of an ad hoc G10 task force on auditing business continuity management.

In February 2004, Internal Audit, together with the BIS's Asian Office, organised in Hong Kong SAR the third Meeting of Heads of Internal Audit of Asian and Pacific Central Banks and Monetary Authorities. Topics included better practices for internal audit management and enterprise risk management.

Cooperation with central bank groupings

Since 1990, the BIS has been helping the central banks of the major industrialised countries coordinate the technical assistance and training they provide to central banks of transition economies in central and eastern Europe and the former Soviet Union. A review by the G10 Governors during 2003 confirmed that this process had been very useful and that many countries in these regions were "graduating" from transition. Nevertheless, it was felt that in order to consolidate the gains, the coordination exercise should continue for another few years, albeit on a less intensive basis.

The BIS and its Financial Stability Institute (FSI) again organised a number of seminars at the Joint Vienna Institute (JVI) for central banks and supervisors from transition economies. Topics discussed related primarily to monetary and financial stability. Given progress in the region and following the establishment of the FSI, the BIS will cease to participate formally in the JVI as from August 2004. However, it will continue both to provide speakers and to organise occasional seminars.

Cooperation with various regional central bank groupings offers a useful platform for disseminating information on BIS activities and for establishing relations with central banks that do not otherwise participate directly in these activities. In this spirit, the Bank organised a number of joint events with regional groups. They included:

- a number of meetings with South East Asian Central Banks (SEACEN) to which the BIS contributed several speakers;
- a seminar with SAARCFINANCE, a body of the South Asian Association for Regional Cooperation which supports central bank cooperation in the region;
- a joint meeting with the central banks of the Southern African Development Community (SADC) in early 2004;
- occasional joint events with the Centro de Estudios Monetarios Latinoamericanos (CEMLA). The BIS also provides speakers for CEMLA seminars and workshops.

The BIS continued to support the Centre Africain d'Études Supérieures en Gestion (CESAG), within a programme sponsored by, amongst others, the Central Bank of West African States (BCEAO) and the Bank of Central African States (BEAC). A number of BIS experts were also made available for training events run by the Macroeconomic and Financial Management Institute of Eastern and Southern Africa (MEFMI).

Representative Offices

The Representative Offices for Asia and the Pacific (Asian Office) and for the Americas (Americas Office) serve as the centres for BIS activities in their

respective regions. The Offices aim to promote strong relations and foster cooperation between the BIS and the central banks and monetary and supervisory authorities in the respective regions. As part of their activities, the Offices seek to improve the exchange of information and data, facilitate the organisation of meetings and seminars, and contribute to the Bank's financial and economic research on Asia-Pacific and the Americas. Research topics last year included trends in regional capital flows, the domestic implications of large foreign exchange reserves, and the impact of free trade agreements on common currency arrangements. The Offices also provide expertise for various BIS events, including those organised by the FSI, regional central banking groups, individual central banks and other entities.

The Offices support BIS banking services in Asia-Pacific and the Americas, and provide assistance to reserve managers of central banks through regular visits. A regional treasury dealing room established in the Asian Office in 2000 has further enhanced the level and scope of banking services to customers in the region.

During the period under review, the *Asian Office* continued to serve as the secretariat for the Asian Consultative Council (ACC), which is a key channel for communication between regional BIS member banks and the Board and Management of the BIS. The Office's dealing room broadened the Bank's regional investments during the year. Starting in July 2003, when 11 central banks of the Executives' Meeting of East Asia-Pacific Central Banks and Monetary Authorities (EMEAP) agreed to invest about \$1 billion of foreign exchange reserves in an Asian Bond Fund, the BIS became the portfolio manager and the dealing room executed most of the purchases. The Regional Treasury also hosted two seminars for reserve managers, one in Penang, Malaysia in October 2003 and another in Hong Kong SAR in March 2004.

During the year, the Asian Office hosted and supported a series of high-level meetings in Hong Kong and elsewhere, sometimes jointly with regional central banks and other institutions:

- In June 2003, together with the Bank of Thailand, and again in December, the Office supported the EMEAP Forum of regional and global officials responsible for implementation of foreign exchange policy.
- In December 2003 and March 2004 respectively, economists from the Office organised with Korea University a workshop in Hong Kong and a conference in Seoul on Asian bond markets. The meetings brought together central bankers, finance officials, market practitioners and academics.
- The sixth Special Meeting of Asian central bank Governors took place in Hong Kong in February 2004. The meeting included a review of the current economic situation and an assessment of the motivations for accumulating official foreign exchange reserves.
- Also in February, the Office joined the FSI and the Bank of Thailand in hosting a conference on weak banks and systemic crises, featuring a comparative study of asset management companies in the region.
- Finally, in February the Office was the venue for a meeting of central bank internal auditors organised by the BIS. It also co-hosted with the Hong Kong Monetary Authority a meeting of central bank legal experts.

Extensive contacts with central banks in the region as well as close cooperation with regional supervisory authorities were the hallmark of the activities of the *Americas Office* during its first full year of operation. The Office, which was inaugurated in Mexico City in November 2002, hosted or co-organised a number of meetings for senior central bank officials:

- In September 2003, the Office hosted a special meeting for regional small open economies in Mexico City, attended by senior representatives of nine central banks.
- In December 2003, the Office supported the meeting of the G10 Group of Computer Experts and the workshop for IT managers from regional central banks in Mexico City.
- In February 2004, the Office, in collaboration with headquarters, organised a BIS Americas Reserve Management Seminar with the participation of 17 regional central banks, three European central banks and the Latin American Reserve Fund.

Financial Stability Institute

The mandate of the Financial Stability Institute (FSI) is to help strengthen financial systems and institutions worldwide, primarily by improving prudential supervision. The FSI fulfils this mandate through an intensive programme designed to disseminate standards and best practices, and by providing assistance on a broad range of key supervisory topics.

Much of the work of the FSI continues to be related to the new capital adequacy framework ("Basel II"). In line with this emphasis, the Institute recently conducted a survey of around 120 countries to help identify their current plans for the implementation of Basel II, as well as their needs for capacity building. This survey will provide guidance in developing a comprehensive plan for delivering future FSI support.

The FSI continued its programme of high-level meetings and seminars, both in Basel and at regional venues, for banking and insurance sector supervisors around the world. These gatherings serve the important purpose of fostering cross-border supervisory contacts and cooperation. Over the past year, the FSI organised a total of 55 events on a wide variety of topics. More than 1,600 representatives of central banks and banking and insurance supervisory agencies from all regions of the world participated. In addition to speaking at FSI events, Institute staff also made presentations on a broad range of similar topics at various non-FSI conferences and meetings.

An important new project is FSI Connect – an online information and learning resource that is being developed specifically to support large numbers of banking supervisors. FSI Connect will be launched in mid-2004 and will offer courses on important risk management topics, such as credit, market and operational risk management, and on capital adequacy (including Basel II). Tutorials on a full range of other banking supervisory topics will be added continuously. FSI Connect is designed for supervisors at all levels of experience and expertise. Subject matter experts at

the FSI are developing the course content, working closely with other specialists from the BIS as well as with a network of experts in financial supervisory authorities and international organisations. FSI Connect is envisaged as a strong complement to the FSI's existing activities and will enable the Institute to reach a wider audience of financial sector supervisors globally.

Promotion of financial stability through the permanent committees

Basel Committee on Banking Supervision

During the year under review, the Basel Committee on Banking Supervision, chaired by Jaime Caruana, Governor of the Bank of Spain, further pursued its efforts to strengthen the prudential supervision of banking institutions, enhance transparency in financial reporting and encourage banking industry advances in risk management.

A new international capital standard

The Committee's efforts over this past year centred on the resolution of the issues related to the development of a new international framework for regulatory capital standards (widely known as "Basel II"). Other supervisors and the global banking industry have made a significant contribution to the Committee's efforts, with over 200 organisations responding to the third consultative paper released in April 2003. The vast majority of responses indicated broad support for Basel II's structure, its incentives to encourage improvements in risk management, and its leveraging of supervisory review and mechanisms of market discipline to ensure the maintenance of adequate bank capital.

The remaining concerns identified during this process were the technical specification of internal measurement methods, including the treatment of unexpected versus expected credit-related losses and of exposures arising from securitisation transactions, and the recognition of certain practices and techniques for measuring and managing credit or operational risk. These topics formed most of the agenda for the Committee and its working groups during the year. By autumn 2003, the Committee had found potential solutions to many of the most significant concerns; details were published in three separate technical papers in January 2004. At a meeting in early May 2004, the Committee resolved the remaining outstanding technical matters, such as the regulatory capital treatment of undrawn lines for revolving retail credit. The full text of the new framework will appear by the end of June 2004. This text will provide a basis for national rule-making and approval processes to continue and for banking organisations to complete their processes for implementation. It is intended that Basel II will be applied in member countries from year-end 2006, although the most advanced approaches will be subject to one further year of impact analysis and/or parallel running. These approaches will be introduced at year-end 2007.

In view of these advances, the Committee's focus has been shifting towards readying supervisors and the banking industry for the implementation of the revised capital adequacy framework. In that vein, the Committee's Accord Implementation Group (AIG) has served as a forum for supervisors to discuss practical issues and to share information on implementation efforts. To help promote consistency in the application of Basel II to internationally active banking organisations, the AIG published in August 2003 *High-level principles for the cross-border implementation of the New Accord*, and in January 2004 *Principles for the home-host recognition of AMA (advanced measurement approach) operational risk capital*. Furthermore, the AIG has sought to enhance the Committee's relationships with other supervisors, having held three meetings with supervisors from the major non-Committee member countries. It is currently coordinating a number of case studies of global banks by their principal supervisors (including several from non-member countries).

Work on accounting, auditing and compliance

The renewed public discourse on corporate governance sparked by recent reports of business fraud has highlighted the importance of sound accounting and auditing standards for the integrity of open markets. While the Committee does not set standards for its members on accounting and auditing, it recognises that transparent financial reporting helps to promote greater discipline and ultimately strengthens the soundness of the banking system. To encourage efforts under way to enhance banks' reporting, and to assess the current state of such disclosures, the Committee published in May 2003 its periodic survey of banks' public disclosures. This time it reviewed the annual reports issued by 54 banks.

The Committee recognises the concurrent need for supervision to build on the emerging foundation of global standards for the accounting and auditing professions. To support these developments, the Committee contributes to the work of the advisory boards of the International Accounting Standards Board (IASB) and the International Auditing and Assurance Standards Board (IAASB). The Committee has likewise sought to provide guidance to supervisors and banks on emerging financial standards and has invited comment from accounting and auditing standard-setting bodies on its own projects that address related areas.

Recent events have demonstrated the substantial potential losses and the damage to their reputations that organisations may face when they fail to adhere to robust reporting, accounting and auditing standards. For banks, such risks emphasise the need to ensure compliance with all relevant legal, regulatory and accounting standards, as well as with policies set by their own boards of directors and senior managers. To this end, in August 2003 the Committee issued a consultation draft that addressed the need for banks to assess their "know your customer" policies on a global basis in order to reduce the risk of their networks becoming involved in money laundering and/or terrorist financing. This was followed by a consultative paper in October outlining supervisors' expectations for banks' compliance functions.

Other issues in banking and supervision

Over the course of the past year, the Committee discussed and published several papers on other issues in banking and supervision. It released in final form two reports related to electronic or online finance, *Risk management principles for electronic banking* and a related paper on the management and supervision of such activities when they take place across national borders. It also published for comment a revised paper, *Principles for the management and supervision of interest rate risk*. This takes account of advances in risk management practices as well as comments on proposals for the supervision of interest rate risk in the third consultative paper on the new capital adequacy framework.

Committee on the Global Financial System

The Committee on the Global Financial System (CGFS) is a central bank forum with a mandate to identify and assess potential sources of stress in global financial markets, to further the understanding of the functioning and underpinnings of financial markets, and to promote the development of well functioning and stable financial markets. The Committee is chaired by Roger W Ferguson Jr, Vice Chairman of the Board of Governors of the Federal Reserve System.

Monitoring discussions focused on a number of salient developments in financial markets over the year. These included the volatility in financial markets around the middle of 2003, from which the Committee sought to draw lessons about the dynamics of interest rate adjustments in financial markets. The implications for financial stability of the low interest rate environment were also examined. The Committee discussed the extent to which this might be contributing to rising asset prices in the fixed income, equity and housing markets, as well as to the very sharp narrowing in both corporate and sovereign spreads in credit markets. The large accumulation of foreign exchange reserves and its implications for a number of financial markets also attracted significant attention.

As part of its effort to understand the functioning and underpinnings of financial markets, the CGFS published in March 2004 a working group report, *Foreign direct investment in the financial sector of emerging market economies*. The report explores the issues that foreign direct investment raises for investing institutions, home and host countries, and the global financial system. Follow-up regional workshops will be conducted in Korea, Mexico and Poland. The CGFS also discussed the characteristics of various national mortgage markets. As background to these discussions, a case study of the Danish mortgage market was prepared. The study was published in the March 2004 issue of the *BIS Quarterly Review*.

CGFS members also met with senior executives of a number of major financial conglomerates in order to gain a better understanding of how changes in the character of decision-making, for example with regard to risk management and capital allocation, might affect the performance of the financial system as a whole.

Work is now under way on the role of ratings in the rapidly evolving markets for structured finance instruments. The working group on this issue, which was established in May 2003, is seeking inter alia to document the ratings processes in structured finance markets and to determine the implications of the growth in structured finance for central banks, given their responsibilities in the area of financial stability.

Following on from the Committee's work on credit risk transfer – a report was published in January 2003 – a template for collecting data on credit default swaps was completed. It is envisaged that reporting arrangements will be similar to those used in the BIS semiannual OTC derivatives survey, with information being made available on notional amounts outstanding and market values, the character of the risks being transferred, and the institutional identity of risk-takers and risk-shedders.

Committee on Payment and Settlement Systems

The Committee on Payment and Settlement Systems (CPSS) contributed to the strengthening of the financial market infrastructure by promoting sound and efficient payment and settlement systems. During the year, the Committee enhanced its cooperation with other international institutions and groupings. Tommaso Padoa-Schioppa, Member of the Executive Board of the ECB, chairs the Committee.

In August 2003, the CPSS published a report, *The role of central bank money in payment systems*. The use of central bank money is part of the underlying issue of the balance between the services provided by central banks and those provided by commercial banks in the payment system. In view of the widespread and fundamental changes in payment systems that have taken place over the past decade or so, and which continue today, the report investigates whether an appropriate balance between the use of central bank and commercial bank money is being maintained.

The report shows that there is much common ground among CPSS central banks in their objectives, as well as in the main tenets of their policy concerning the role of central bank money in payment systems. However, there are often differences when it comes to the implementation of policy. In setting out both the similarities and the differences, the report aims to provide a useful factual base and a strong analytical framework that will raise awareness and stimulate debate on these key matters.

In March 2004, the CPSS and the Technical Committee of the International Organization of Securities Commissions (IOSCO) released a consultative report on *Recommendations for Central Counterparties*. A well designed central counterparty (CCP) with appropriate risk management arrangements reduces the risks faced by its participants and contributes to the goal of financial stability. At the same time, it concentrates risks and responsibilities for risk management. Therefore, the effectiveness of a CCP's risk control and the adequacy of its financial resources are critical aspects of the infrastructure of the markets it serves. In the light of moves by financial

markets to develop CCPs and expand the scope of their services, the report sets out recommendations for management of the major risks that CCPs face. It also includes a methodology for assessing implementation of the recommendations. The final report is expected to be published later this year.

The Committee continued to monitor global developments in electronic money products and the policy issues they may raise. Since payments made using the internet and mobile phones have recently advanced quite rapidly, compared with e-money, the CPSS decided to include these innovative methods of payment in its *Survey of developments in electronic money and internet and mobile payments*, published in March 2004. The survey provides information on e-money products and internet and mobile payments in 95 countries or territories, as well as on the policy stance adopted by the various authorities concerned, including central banks.

An important part of the Committee's work remains devoted to the implementation of its strategy, endorsed by the G10 Governors, to reduce foreign exchange settlement risk. To this end, it continued to monitor and encourage private sector initiatives in this area.

The CPSS also pursued its efforts to further enhance its cooperation and extend its work with central banks outside the G10, particularly those of emerging market economies. In collaboration with the respective central banks, the Committee's Secretariat assisted in preparing reference studies on payment systems in a number of countries. The Committee also provided support and expertise to workshops and seminars on payment system issues organised by the BIS in cooperation with regional central banking organisations.

Markets Committee

At its regular bimonthly meetings, the Markets Committee focused on developments in the foreign exchange and related financial markets. Following established practice, the Committee, which groups senior officials from the G10 central banks responsible for market operations, also invited representatives from other major countries to join the discussions on a number of occasions. Recurring themes were:

- the impact of current account imbalances on the major exchange rates;
- yield-seeking behaviour in an environment of low interest rates;
- global currency reserve accumulation; and
- the implications of implicit or explicit policy commitments for financial markets.

Over the course of the year, members also discussed a number of specific topics, including the implications of the enlargement of the European Union for monetary union and financial markets, technical issues regarding electronic foreign exchange trading platforms, and possible factors behind recent changes in spot trading volumes across currencies.

Sheryl Kennedy, Deputy Governor of the Bank of Canada, became the Committee's chair in May 2003.

Central Bank Counterfeit Deterrence Group

The Central Bank Counterfeit Deterrence Group (CBCDG) is mandated by the Governors of the G10 central banks to investigate emerging threats to the security of banknotes and to propose countermeasures for implementation by issuing authorities. The BIS supports the work of the CBCDG by hosting its Secretariat and by acting as its agent in contractual arrangements.

In March 2004, the CBCDG announced that it had developed a Counterfeit Deterrence System, consisting of anti-counterfeiting technologies which prevent personal computers and digital imaging tools from capturing or reproducing the image of a protected banknote.

BIS contributions to broader international financial cooperation

Group of Ten

During the year, the Bank contributed actively to the work of the G10 Finance Ministers and central bank Governors, their Deputies and the working groups set up under their auspices. It did this both through its participation as an observer institution and through the provision of secretariat support to these groupings alongside the IMF and OECD.

The G10 continued to review progress on the inclusion of collective action clauses in sovereign bonds. The key features of such clauses had been set out by its Working Group on Contractual Clauses in 2002. In September 2003, G10 Ministers and Governors asked their Deputies to focus on analysing and monitoring the financial exposure of the IMF and other international financial institutions.

Financial Stability Forum

The Financial Stability Forum (FSF) promotes international financial stability through enhanced information exchange and cooperation in financial supervision and surveillance. It brings together on a regular basis national authorities responsible for financial stability, including senior officials of treasuries, central banks and financial supervisory agencies, and senior representatives of international financial institutions, international supervisory or regulatory standard-setting bodies and central bank expert groupings. The FSF Secretariat, which is composed of staff seconded from the Forum's member countries and institutions, is based at the BIS. Further information on the FSF is available at www.fsforum.org.

The principal subjects discussed by the FSF during its biannual meetings are conjunctural developments, structural financial vulnerabilities and the actions needed to address them. The Forum also exchanges opinions on, and promotes coordination of, work under way to strengthen financial systems. It holds regional meetings to foster wider discussion of financial vulnerabilities and to enable regional representatives to comment on its work. In addition, the Forum's Chairman holds regular exchanges of views with private sector

participants and other observers on financial stability issues through the FSF Chairman's Advisory Council.

One important theme of recent FSF meetings has been the reforms needed nationally and internationally to restore confidence in the financial reporting framework following recent corporate reporting and accounting scandals. In its initiatives to strengthen market foundations the Forum has sought to promote international and cross-sectoral coherence, including with regard to the role and functioning of credit rating agencies. A notable focus has been on improvements in the audit function, through the establishment of public oversight of national auditors and the audit profession's international standard-setting activities.

The FSF has continued to take an interest in progress to strengthen supervisory, regulatory and information exchange practices in offshore financial centres. Another concern has been to enhance transparency and disclosure in the reinsurance sector. The Forum has continued to call for improvements in the frequency and quantitative and qualitative content of public disclosures by individual reinsurers and insurance companies.

Credit risk transfer (CRT) activities have also been of strong interest to the Forum. This interest stems in part from the different perspectives on CRT activities between bank supervisors, whose concern is whether the risk has been cleanly transferred, and those in charge of investor or policyholder protection, whose entities are frequently buyers of credit risk. Following initial studies by the CGFS and the International Association of Insurance Supervisors (IAIS), a major assessment of the issues and risks involved is now under way in the Joint Forum of the Basel Committee, IOSCO and the IAIS. It is hoped that this effort will offer practical guidance for financial authorities in monitoring market developments and assessing risks at their institutions.

Throughout the year, the FSF continued to inform G7 Finance Ministers and central bank Governors, as well as the IMF's International Monetary and Financial Committee, about its views on financial vulnerabilities and other issues.

International Association of Insurance Supervisors

The International Association of Insurance Supervisors (IAIS) contributes to global financial stability by improving supervision of the insurance industry. It does this through the development of standards for insurance supervision, provision of mutual assistance and exchange of information on members' respective experiences. In collaboration with other international regulatory bodies (in the framework of the Joint Forum), the IAIS has helped develop principles for the supervision of financial conglomerates. Moreover, the IAIS actively participates in the FSF. The BIS has hosted the IAIS Secretariat since its establishment in 1998. More information on the IAIS and its publications is available at www.iaisweb.org.

During the past year, the IAIS issued a number of papers setting out supervisory standards in the insurance area. After considering members' experience in using the Insurance Core Principles in self-assessment exercises,

the IAIS revised and expanded its *Insurance Core Principles and Methodology* to offer new guidance for the effective operation of supervisory systems around the world. It also published *Insurance Core Principles on Corporate Governance and a Supervisory Standard on Supervision of Reinsurers*. Ongoing work includes formulating standards, guidelines or issues papers on a broad range of matters related to disclosure, risk management, capital adequacy and supervision of insurers and reinsurers.

In response to concerns within the FSF over potential vulnerabilities in the global reinsurance markets, given the industry's linkages to other sectors, the IAIS presented in March 2004 its final report on developing a framework to enhance the transparency of the global reinsurance market and improve risk-oriented disclosure by individual reinsurance firms.

The IAIS coordinates with the IASB in its work on the Insurance Project and other major accounting projects. In particular, the IAIS provided comments on the IASB's Exposure Draft ED 5 on insurance contracts. The IAIS is also working closely with the Financial Action Task Force on anti-money laundering initiatives and combating the financing of terrorism.

In collaboration with the FSI and national insurance supervisory authorities, the IAIS organised numerous seminars and training programmes and provided training materials for insurance supervisors to help them comply with IAIS supervisory standards.

International Association of Deposit Insurers

The International Association of Deposit Insurers (IADI) was established in May 2002 and opened its Head Office at the BIS in October 2002. Currently, 51 organisations (of which 34 are full members) from around the world are involved in the activities of the IADI, including a number of central banks that have an interest in promoting the adoption or operation of effective deposit insurance systems.

The IADI's objectives are to:

- enhance the understanding of common interests and issues related to deposit insurance;
- set out guidance to increase the effectiveness of deposit insurance systems, *inter alia* by providing practitioner-focused and non-prescriptive advice on the establishment or enhancement of such systems;
- facilitate the sharing and exchange of expertise and information through training, development and educational programmes; and
- undertake research on issues relating to deposit insurance.

During its second year, the IADI continued to provide a forum to facilitate wider international contacts among deposit insurers and other interested parties. The second IADI Conference, held in Seoul, Korea in October 2003, was attended by policymakers from 52 countries. The main conference theme was effective deposit protection through enhanced governance arrangements. The Association also completed a major study on factors related to the design of deposit insurance systems in a number of countries and developed guidance on the use of differential premium systems.

Regional activities included committee meetings in Asia and the Caribbean. The IADI also participated in the APEC Policy Dialogue on Deposit Insurance organised by the Canada Deposit Insurance Corporation and hosted by the Central Bank of Malaysia in February 2004. In addition, the IADI collaborated with the European Bank for Reconstruction and Development on a deposit insurance seminar for policymakers from western Balkan countries.

The IADI website (www.iadi.org) and a monthly newsletter provide information on activities to members and participants. The IADI has also issued a training guide, which it has circulated widely amongst deposit insurers.

Financial services of the Bank

Banking services

The BIS offers a wide range of financial services to assist central banks and other official monetary institutions in the management of their foreign reserves. Some 140 customers, including various international financial institutions, currently make use of these services.

BIS financial services are provided out of two linked trading rooms: one at its Basel headquarters and one at its Asian Office in Hong Kong SAR. Safety and liquidity are the key features of the Bank's credit intermediation services, which are supported by a strong internal risk management framework. In accordance with best practice, a separate risk control unit reporting directly to the Deputy General Manager – and through him to the General Manager – monitors the Bank's credit exposure, liquidity, and market and operational risks.

The BIS constantly seeks to adapt its product range to respond more effectively to the evolving needs of central banks. The Bank's standard range of money market investments includes sight/notice accounts and fixed-term deposits. In response to an increasing focus by central banks on improving the return on their foreign assets, the Bank offers two financial instruments that can be traded (bought and sold back) directly with it:

- the Fixed-Rate Investment at the BIS (FIXBIS) is a highly flexible money market product that allows central banks to manage their liquidity more actively;
- the BIS Medium-Term Instrument (MTI), with maturities of up to 10 years, is targeted at central banks with longer-term reserve management objectives. Recently, the BIS launched an MTI with an embedded call feature.

The Bank also transacts foreign exchange and gold on behalf of its customers.

The BIS provides asset management services in sovereign securities or high-grade assets. These may take the form of either a specific portfolio mandate negotiated between the BIS and a central bank or an open-end fund structure allowing two or more customers to invest in a common pool of assets. In July 2003, the 11 members of the EMEAP group of central banks and monetary authorities launched the Asian Bond Fund (ABF), an investment

pool with subscriptions totalling just over \$1 billion. The Fund is managed by the BIS and tracks a customised benchmark comprising sovereign and quasi-sovereign issuers of the EMEAP economies (excluding Australia, Japan and New Zealand).

The BIS from time to time extends short-term credits to central banks, usually on a collateralised basis. It also acts as trustee and collateral agent (see below).

Operations of the Banking Department in 2003/04

The BIS balance sheet expanded by SDR 18.3 billion to close the financial year at SDR 167.9 billion on 31 March 2004. This represented a year-on-year increase of 12.2% and a fourth consecutive new record for the end of a financial year. The growth of the balance sheet would have been even greater but for the depreciation of the US dollar against the SDR. Had exchange rates remained constant throughout the year, the total would have increased by an additional SDR 3.9 billion.

During the early part of the financial year, the balance sheet fell, but a significant inflow of customer deposits brought the total to a high of SDR 159.6 billion towards the end of July 2003. A decline over the subsequent months was later reversed before the balance sheet reached successive new highs between November 2003 and end-March 2004. An all-time record of SDR 171.7 billion was registered on 12 March, followed by a modest contraction during the last two weeks of the financial year.

Liabilities

A major portion of the BIS's balance sheet liabilities comprises deposits received from its customers, most of which are denominated in various currencies, with the remainder in gold. On 31 March 2004 these deposits (excluding repurchase agreements) totalled SDR 140.4 billion, compared with SDR 128.5 billion at the end of the previous financial year.

Customer currency deposits rose to SDR 133.2 billion, from SDR 122.5 billion at the previous financial year-end. The currency composition of deposits underwent a marked shift during the financial year 2003/04. At 31 March 2004 the US dollar accounted for 62.4% of currency deposits, a decline from 67.1% a year earlier. Whilst customers increased their deposits at the BIS in all major reserve currency denominations, placements in non-dollar currencies, particularly euros and sterling, grew at a much faster rate than those in dollars. However, the expansion in gold deposits, from SDR 6.0 billion to SDR 7.3 billion, was mainly due to valuation factors (the rise in the market price of gold) as the underlying level of deposits received from central banks remained relatively unchanged.

The SDR 10.6 billion expansion in customer currency deposits was attributable to growth in cash account balances and tradable money market instruments. Balances on sight/notice accounts almost doubled during the course of the financial year and subscriptions to FIXBIS expanded by 11.1%. In contrast, placements in BIS fixed-term deposits declined by 8.3%. Taken

together, these developments possibly reflect a shift towards liquidity in the expectation of a rising interest rate environment. Outstanding subscriptions to MTIs remained little changed at SDR 41.2 billion compared with SDR 41.7 billion the previous year. This constituted the single largest deposit instrument held by BIS customers, accounting for almost one third of total currency deposits.

A geographical breakdown of placements of currency deposits with the BIS indicates that demand from Asia was particularly strong during the period under review.

Assets

BIS assets for the most part take the form of investments with top-quality commercial banks of international standing and government and quasi-government securities, including reverse repurchase agreements. The Bank manages its credit exposure conservatively; 99.6% of its holdings are rated A or higher as at 31 March 2004 (see note 30F to the financial statements).

The Bank's holdings of currency deposits and securities, including reverse repurchase agreements, stood at SDR 153.7 billion on 31 March 2004, compared with SDR 134.7 billion at the previous financial year-end. These additional funds were invested in Treasury bills, time deposits with banks and reverse repurchase agreements, which increased by SDR 28.5 billion to SDR 120.2 billion. On the other hand, there was a SDR 4.3 billion reduction in cash balances and a further reduction of SDR 5.2 billion in debt securities. The Bank's assets in gold rose to SDR 9.1 billion from SDR 7.5 billion over the same period, reflecting the increase in the market value of gold. The share of sovereign and quasi-sovereign securities continued to rise, reaching 38.5% of total assets at 31 March 2004, up from about one third a year earlier.

The BIS uses various derivative instruments in order to manage its assets and liabilities efficiently (see note 6 to the financial statements). For the most part, these derivative instruments are of the plain vanilla variety, in particular futures and interest rate swaps.

Functions as agent and trustee

Trustee for international government loans

The Bank continued to perform its functions as trustee for the funding bonds 1990–2010 of the Dawes and Young Loans during the year (for details, see the *63rd Annual Report* of June 1993). The Deutsche Bundesbank as paying agent notified the Bank that in 2003 the Bundeswertpapierverwaltung (BWV – German Federal Securities Administration) had arranged for payment of approximately €5.2 million for redemption of funding bonds and interest. Redemption values and other details were published by the BWV in the *Bundesanzeiger (Federal Gazette)*.

The Bank maintained its reservations regarding the application by the BWV of the exchange guarantee clause for the Young Loan (stated in detail in its *50th Annual Report* of June 1980), which also extend to the funding bonds 1990–2010.

Escrow agent functions

Under an Escrow Agreement dated 13 August 2003, the BIS acts as escrow agent to hold and release funds, on certain conditions, in connection with the settlement of litigation in the United States between the families of the 270 persons who died in the Pan Am Flight 103 disaster over Lockerbie, Scotland on 21 December 1988 and the various Libyan defendants to that litigation.

Collateral agent functions

Under a number of agreements, the BIS acts as collateral agent to hold and invest collateral for the benefit of the holders of certain foreign currency denominated bonds issued by countries under external debt restructuring arrangements. Current collateral pledge agreements include those for Brazilian bonds (described in detail in the *64th Annual Report* of June 1994), Peruvian bonds (see the *67th Annual Report* of June 1997) and Côte d'Ivoire bonds (see the *68th Annual Report* of June 1998).

Institutional and administrative matters

Membership enlargement

With a view to further strengthening central bank cooperation, the Board of Directors decided on 29 June 2003 to invite an additional six central banks to become members of the Bank in accordance with Articles 6 and 8(3) of the Statutes. The Bank of Algeria, the Central Bank of Chile, Bank Indonesia, the Bank of Israel, the Reserve Bank of New Zealand and the Central Bank of the Philippines were each invited to subscribe 3,000 shares of the third tranche of the capital of the BIS. By the close of the subscription period at end-September 2003, all six central banks had taken up the Board's offer to become members of the BIS.

At its meeting in June, the Board fixed the issue price at SDR 14,018 per share. As the Bank's shares are paid up to the extent of 25%, or SDR 1,250 per share, the issue price of SDR 14,018 included a premium of SDR 12,768 per share. Following the subscription of 18,000 new shares, the number of the Bank's issued shares rose to 547,125, and the paid-up capital of the Bank in the balance sheet increased by SDR 22.5 million to SDR 683.9 million at 31 March 2004. The aggregate premium received from the subscribing central banks amounted to SDR 229.8 million, of which SDR 2.2 million was allocated to the legal reserve fund and SDR 227.6 million to the general reserve fund.

Withdrawal of privately held shares

Following the decision taken by the Extraordinary General Meeting held on 8 January 2001 to withdraw all privately held shares of the BIS (described in detail in the *71st Annual Report* of June 2001), the Bank paid registered former private shareholders compensation in the amount of 16,000 Swiss francs per share. Certain former private shareholders contested this amount (see the *72nd Annual Report* of July 2002) by initiating claims before the Arbitral

Tribunal provided for by the Hague Agreement, which, pursuant to Article 54 of the Bank's Statutes, has sole jurisdiction to hear disputes between the Bank and its former private shareholders arising from the withdrawal. The Arbitral Tribunal issued a partial award on 22 November 2002 confirming the legality of the mandatory repurchase, but nevertheless concluding that the compensation should be increased. It ruled that the former private shareholders were entitled to receive a proportionate share of the net asset value of the Bank, subject, however, to a 30% discount. This formula is equivalent to that which has been applied by the BIS to new central bank subscriptions of shares.

After further proceedings held in the course of 2003, the Arbitral Tribunal rendered its Final Award on 19 September 2003. Pursuant to this award, which is not subject to appeal, the BIS paid to each claimant in the arbitration an amount of additional compensation including interest of 9,052.90 Swiss francs per share. In accordance with its past declaration that it would voluntarily apply the decision of the Arbitral Tribunal to all registered former private shareholders in final settlement of all claims, the Bank has arranged for payment to them of the additional compensation determined by the Arbitral Tribunal. As of 31 March 2004, this additional compensation had been paid in respect of more than 96% of the withdrawn shares.

In a proceeding brought by a separate group of former private shareholders, the Commercial Court in Paris made a preliminary determination (without addressing the substance of the matter) in March 2003 that it has jurisdiction over their claims seeking to increase the amount of compensation. The BIS requested a review of this procedural decision by the Paris Court of Appeals, arguing that the Arbitral Tribunal in The Hague has exclusive jurisdiction over the matter. In a decision rendered on 25 February 2004, the Paris Court of Appeals ruled in favour of the BIS by concluding that the Paris Commercial Court has no jurisdiction over such claims. On 26 April 2004, a number of these claimants initiated a proceeding before the Cour de Cassation (the highest French private-law court) to quash the ruling of the Court of Appeals on the jurisdiction issue.

The Bank's administration

Enhancing transparency

During the year under review, the Bank undertook a number of steps to enhance the transparency of its operations and structure.

In the financial reporting area, the most visible steps were the modernisation of the Bank's accounting policies and the expansion of the information disclosed in the financial statements, which are now more in line with developments in international financial reporting. In addition, the BIS replaced the gold franc as its unit of account on 1 April 2003 with the Special Drawing Right, a basket of currencies defined by the IMF that is representative of the main currencies used in international trade and finance (these changes are described in detail in the *73rd Annual Report* of June 2003). Special attention has also been devoted to presenting a more accurate and comprehensive picture of the Bank's role, how it functions and is managed, and how it

contributes to the promotion of international cooperation in the pursuit of both monetary and financial stability.

Budget policy

The process of formulating the Bank's expenditure budget for the next financial year starts about six months in advance with the setting by Management of a broad business orientation and financial framework. Within this context, business areas specify their plans and the corresponding resource requirements. The process of reconciling detailed business plans, objectives and overall resource availability culminates in the determination of a draft financial budget. This must be approved by the Board before the start of the financial year.

In drawing up the budget, a distinction is made between administrative and capital expenditures. Staff remuneration represents about half of the administrative costs. Other major expenditure categories, accounting for between 10 and 15% of administrative spending, are IT and telecommunications expenditures, and charges under the Bank's pensions system. By its nature, capital spending tends to vary significantly from year to year. Most of the Bank's administrative and capital expenditure is incurred in Swiss francs.

Administrative expenses before depreciation during the financial year 2003/04 amounted to 204.3 million Swiss francs, 5.0% below the budget of 215.1 million Swiss francs.² Costs for the year were reduced by the cancellation or postponement of certain building and IT projects, by curtailed travel and meeting activities resulting from the SARS outbreak and the extension of the timetable for the approval of the new capital adequacy framework ("Basel II"), and by the decline of the US dollar against the Swiss franc. Capital expenditure, at 19.7 million Swiss francs, was 11.0 million below budget: expenditure on some IT projects, in particular for the Bank's FSI Connect e-learning project and the replacement of hardware, was slower than anticipated.

In March 2004, the Board approved an increase in the administrative budget for the financial year 2004/05 of 2.2% to 219.8 million Swiss francs. The capital budget foresees an increase of 1.9 million Swiss francs to 32.6 million. The emphasis in the 2004/05 budget is on strengthening the Bank's risk management capabilities, on efforts to improve security arrangements, and on refurbishment of space for central bank meetings.

Remuneration policy

The jobs performed by BIS staff members are assessed on the basis of a number of objective criteria, including qualifications, experience and responsibilities, and are classified into distinct job grades. Regular salary surveys are conducted in which BIS salaries are compared with salaries paid in comparable institutions or market segments. These comparisons take into

² The Bank's budgetary accounting is cash-based and excludes certain financial accounting adjustments, principally relating to retirement benefit obligations, which take into account financial market and actuarial developments. These additional factors are included under "Operating expense" in the profit and loss account (see "Net profit and its distribution").

account differences in the taxation of salaries of the staff of the surveyed institutions. When applying the market data to BIS salaries, the Bank focuses on the upper half of market salaries in order to attract highly qualified staff.

The job grades are associated with salary ranges that are adjusted annually for the rate of inflation in Switzerland and the average rise in real salaries in the business sector of major industrial countries. In July 2003, the salary ranges were accordingly increased by 2.02%. Movements of salaries of individual staff members within each salary range are based on merit, subject to a regular evaluation of performance. The BIS does not apply a bonus scheme.

Non-Swiss and non-locally hired staff, including senior management, are entitled to an expatriation allowance. This currently amounts to 14% or 18% of annual salary depending on family status. In addition, BIS staff members have access through the Bank to health insurance and a defined benefit contributory pension plan.

With regard to the remuneration of senior management, the salaries of Heads of Department are adjusted annually, normally in line with the increase in the staff salary ranges. The salaries of the General Manager and the Deputy General Manager are reviewed periodically by the Board. As of 1 July 2003, the remuneration of senior managers was as follows (number of function holders in parentheses):

- General Manager (1) 670,740 Swiss francs
- Deputy General Manager (1) 566,500 Swiss francs
- Heads of Department (3) 536,700 Swiss francs

The Annual General Meeting approves the remuneration of members of the Board of Directors, with adjustments taking place every three years. Since 1 July 2002, the overall fixed annual remuneration paid to the Board of Directors has totalled 844,800 Swiss francs. In addition, Board members receive an attendance fee for each Board meeting in which they participate. Assuming the full Board is represented in all Board meetings, the annual total of these attendance fees amounts to 777,240 Swiss francs.

Net profit and its distribution

Net profit

The 74th financial year is the first in which the Bank has prepared its financial statements in SDR terms following the change in the unit of account on 1 April 2003. At the same time and more importantly for the longer term, the Bank has taken the opportunity to enhance its accounting policies and disclosure. This brings the annual financial statements more in line with developments in international financial reporting and provides a better picture of the Bank's financial position and performance. The principal change in the revised accounting policies, as announced in the *73rd Annual Report*, is that the Bank's financial instruments, including derivatives and gold holdings, are shown in the financial statements at their market values instead of at amortised historical cost. The accounting policies are disclosed in note 2 to

the financial statements, and their financial impact for the year ended on 31 March 2003 is detailed in note 31.

The net profit for the year on the new accounting basis amounted to SDR 536.1 million, compared with the equivalent figure for the preceding year of SDR 592.8 million. The factors behind this outcome are discussed below.

Total operating income

Total operating income amounted to SDR 564.5 million in the financial year 2003/04, below the level of SDR 598.3 million in the previous year. Lower average interest rates in key financial markets than those prevailing in the previous financial year reduced income from the Bank's investment securities, which are financed by the Bank's equity. This outweighed the additional income from the growth in the volume of the Bank's equity during the year. Lower income from investment securities was partly offset by higher net income from the Bank's deposit-taking business, which grew broadly in line with the increase in currency deposits. Overall intermediation margins, after taking into account valuation movements, were similar to those in 2002/03.

Operating expense

Operating expense (see note 23 to the financial statements) amounted to SDR 142.5 million, 0.1% above the preceding year's figure of SDR 142.3 million. Administrative expense before depreciation was SDR 125.6 million, 1.6% below last year's figure of SDR 127.6 million. In terms of Swiss francs, the currency in which most of the Bank's expenditure is incurred, administrative expense before depreciation fell by 4.4% from 247.6 million Swiss francs to 236.5 million Swiss francs. These figures include the additional financial accounting adjustments, principally relating to retirement benefit obligations, referred to earlier under the heading "Budget policy".

Staff remuneration costs decreased slightly because reimbursement of income taxes on Swiss employees ended following the implementation on 1 January 2003 of a revised Headquarters Agreement with the Swiss Federal Council. Excluding this factor, staff remuneration rose broadly in line with the 3.4% increase in average full-time equivalent headcount to 509. Pension costs fell by 32.7 million Swiss francs to 30.2 million Swiss francs, since the charge for the previous financial year included a one-off payment of 33.9 million Swiss francs to the staff pension fund. Other staff-related expenses increased by 21.5 million Swiss francs, principally as a result of higher charges for post-retirement benefit obligations under the Bank's health and accident insurance scheme.

The depreciation charge increased from SDR 14.7 million to SDR 16.9 million and includes additional depreciation of SDR 3.3 million following an impairment review of the market value of the Bank's buildings.

Operating profit and other profit items

As a result of the foregoing factors, operating profit was SDR 422.0 million in 2003/04, 7.5% below the level of SDR 456.0 million in the preceding year.

In an environment of lower average interest rates, the profit on sales of investment securities in the portfolios financed by the Bank's equity amounted to SDR 154.4 million, compared to gains of SDR 147.0 million in 2002/03.

The charges disclosed under the heading "Shares repurchased – impact of arbitral award" relate to the Final Award of the Hague Arbitral Tribunal of 19 September 2003, which resulted in a higher compensation price per share, as well as additional interest payable and a currency translation loss from the retranslation of the compensation provision from Swiss francs into SDRs at the exchange rate of 19 September 2003.

Proposed distribution of the net profit for the year

On the basis of Article 51 of the Statutes, the Board of Directors recommends that the net profit of SDR 536.1 million for the financial year 2003/04 be applied by the General Meeting in the following manner:

1. SDR 104.0 million in payment of a dividend of SDR 225 per share;
2. SDR 86.4 million to be transferred to the general reserve fund;
3. SDR 20.5 million to be transferred to the special dividend reserve fund; and
4. SDR 325.2 million, 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.

The Board of Directors has proposed that the above-mentioned dividend be declared for the first time in SDRs, the Bank's new unit of account, instead of in Swiss francs. If approved, it will be paid on 2 July 2004 in any constituent currency of the SDR, or in Swiss francs, to the shareholders whose names were contained in the Bank's share register on 31 March 2004.

As regards the level of the dividend, the preceding financial year's dividend of 400 Swiss francs was equivalent to SDR 214.8 at the exchange rate ruling on 31 March 2003. The proposed dividend of SDR 225 per share for 2003/04 therefore represents a 4.7% increase over the dividend for 2002/03.

The dividend will be paid on 470,073 shares (the dividend payable in respect of the 18,000 new shares which were issued during the financial year being settled on a pro rata basis according to the relevant value date of subscription). The number of issued and paid-up shares before the repurchase of shares is 547,125. Of these shares, 77,052 are held in treasury, comprising 74,952 shares repurchased from former private shareholders and central banks, and 2,100 other shares. No dividend will be paid on treasury shares.

Allocation of changes to the Bank's statutory reserves at 31 March 2003

Revaluations

The introduction of the SDR and the new accounting policies increased the Bank's statutory reserves at 31 March 2003 by SDR 577.2 million. The increase resulted from the revaluation of the Bank's gold and the financial instruments in the balance sheet from their amortised historical cost to their market

values. The Board of Directors recommends that this increase (see note 31C to the financial statements) be applied in the following manner:

1. SDR 19.3 million to the legal reserve fund;
2. SDR 266.5 million to the general reserve fund;
3. SDR 291.4 million to the free reserve fund.

The transfers to the legal and general reserve funds relate to the revaluation adjustments to the market value of gold from its former statutory value, \$208 per ounce. They leave the balance on the legal reserve fund at 10% of the paid-up capital, in accordance with Article 51(1) of the Statutes. The transfer to the free reserve fund represents the net revaluation surplus of the Bank's financial instruments (other than its own gold and investment securities) from their amortised historical cost to their market value.

Reclassifications

In addition, certain items in the Bank's equity have been reclassified as a result of the changes mentioned above. These reclassifications reduced the Bank's statutory reserves at 31 March 2003 by a net amount of SDR 49.8 million (see note 31B to the financial statements). The Board of Directors recommends that this net reduction be applied as follows:

1. SDR 92.1 million to be transferred to the free reserve fund from share capital;
2. SDR 429.7 million to be transferred to the free reserve fund from the valuation difference account;
3. SDR 571.6 million to be transferred from the free reserve fund to the gold revaluation reserve account.

The transfer from share capital represents the rounding down of the nominal value of the Bank's shares from its precise converted amount of SDR 5,696 to SDR 5,000, and is in accordance with the resolution passed by the Extraordinary General Meeting of 10 March 2003. The transfer of SDR 429.7 million is the transfer of the balance at 31 March 2003 on the valuation difference account, which has been closed following the change in the Bank's accounting policy for currency translation differences. The transfer to the gold revaluation reserve account within the heading "Other equity accounts" represents the excess of the market value of the Bank's own gold over its former statutory value at 31 March 2003.

Report of the auditors

The Bank's financial statements have been duly audited by PricewaterhouseCoopers AG, who have confirmed that they give a true and fair view of the Bank's financial position at 31 March 2004 and the results of its operations for the year then ended. The report of the auditors is to be found immediately following the financial statements.

Board of Directors

Nout H E M Wellink, Amsterdam
Chairman of the Board of Directors,
President of the Bank

Hans Tietmeyer, Frankfurt am Main
Vice-Chairman

Vincenzo Desario, Rome
David Dodge, Ottawa
Antonio Fazio, Rome
Toshihiko Fukui, Tokyo
Timothy F Geithner, New York
Sir Edward George, London
Alan Greenspan, Washington
Hervé Hannoun, Paris
Lars Heikensten, Stockholm
Mervyn King, London
Christian Noyer, Paris
Guy Quaden, Brussels
Jean-Pierre Roth, Zurich
Alfons Vicomte Verplaetse, Brussels
Axel A Weber, Frankfurt am Main

Alternates

Bruno Bianchi or Giovanni Carosio, Rome
Roger W Ferguson or Karen H Johnson, Washington
Peter Praet or Jan Smets, Brussels
Jürgen Stark or Stefan Schönberg, Frankfurt am Main
Marc-Olivier Strauss-Kahn or Michel Cardona, Paris
Paul Tucker or Paul Fisher, London

Subcommittees of the Board of Directors

Consultative Committee
Audit Committee
both chaired by Hans Tietmeyer

Senior officials

Malcolm D Knight	General Manager
André Icard	Deputy General Manager
Gunter D Baer	Secretary General, Head of Department
William R White	Economic Adviser, Head of Monetary and Economic Department
Robert D Sleeper	Head of Banking Department
Mario Giovanoli	General Counsel
Günter Pleines	Deputy Head of Banking Department
Peter Dittus	Deputy Secretary General
Már Gudmundsson	Deputy Head of Monetary and Economic Department
Josef Tošovský	Chairman, Financial Stability Institute

Changes among the Board of Directors and senior officials

On 1 July 2003, Mervyn King succeeded Sir Edward George as Governor of the Bank of England and became an ex officio Director of the Board of Directors. To replace Lord Kingsdown, who resigned as a member of the Board at end-June 2003, Mr King appointed Sir Edward George from 1 July 2003 for the unexpired period of Lord Kingsdown's term of office, ie until 6 May 2005. At the Board Meeting in June 2003, Hans Tietmeyer was elected to replace Lord Kingsdown as Vice-Chairman of the Board for the unexpired period of Mr Tietmeyer's term of office, ie until 31 December 2005. At the same meeting, the Board re-elected Nout Wellink, President of the Netherlands Bank, as a member of the Board for a further period of three years, expiring on 30 June 2006.

On 10 June 2003, William McDonough relinquished his membership of the Board. Alan Greenspan, Chairman of the Board of Governors of the Federal Reserve System, appointed Jamie Stewart, Acting President of the Federal Reserve Bank of New York, as a member of the Board. When Mr Stewart relinquished his membership of the Board in December 2003, Mr Greenspan appointed Timothy F Geithner, the new President of the Federal Reserve Bank of New York, for the unexpired period of Mr Stewart's term, ie until 12 September 2006.

At its meeting in September 2003, the Board re-elected Toshihiko Fukui, Governor of the Bank of Japan, and David Dodge, Governor of the Bank of Canada, as members of the Board for a further period of three years, ending on 12 September 2006.

In October 2003, Jean-Claude Trichet, Governor of the Bank of France, reappointed Hervé Hannoun as a member of the Board of Directors for a further period of three years, expiring on 27 November 2006. On 1 November 2003, Christian Noyer succeeded Jean-Claude Trichet as Governor of the Bank of France and became an ex officio Director of the Board of Directors.

At its meeting in March 2004, the Board re-elected Jean-Pierre Roth, Chairman of the Governing Board of the Swiss National Bank, for a further period of three years, ending on 31 March 2007.

On 27 April 2004, Ernst Welteke resigned from his post as the President of the Deutsche Bundesbank. Axel Weber succeeded him on 30 April and became an ex officio Director of the Board of Directors from that date.

As regards the senior officials of the Bank, Renato Filosa relinquished his position as Manager in the Monetary and Economic Department (MED) in August 2003. Már Guðmundsson was appointed Deputy Head of MED as from 23 June 2004.

The Board noted with deep regret the death of Rémi Gros on 10 January 2004 at the age of 73. Mr Gros joined the Bank in 1966 and became Head of the Banking Department in 1985. From February 1992 until his retirement in December 1995, he was also the Bank's Assistant General Manager.

BIS member central banks³

Bank of Algeria	Bank of Japan
Central Bank of the Argentine Republic	The Bank of Korea
Reserve Bank of Australia	Bank of Latvia
Austrian National Bank	The Bank of Lithuania
National Bank of Belgium	National Bank of the Republic of Macedonia
Central Bank of Bosnia and Herzegovina	Central Bank of Malaysia
Central Bank of Brazil	Bank of Mexico
Bulgarian National Bank	Netherlands Bank
Bank of Canada	Reserve Bank of New Zealand
Central Bank of Chile	Central Bank of Norway
The People's Bank of China	Central Bank of the Philippines
Croatian National Bank	National Bank of Poland
Czech National Bank	Bank of Portugal
National Bank of Denmark	National Bank of Romania
Bank of Estonia	Central Bank of the Russian Federation
European Central Bank	Saudi Arabian Monetary Agency
Bank of Finland	Monetary Authority of Singapore
Bank of France	National Bank of Slovakia
Deutsche Bundesbank	Bank of Slovenia
Bank of Greece	South African Reserve Bank
Hong Kong Monetary Authority	Bank of Spain
National Bank of Hungary	Sveriges Riksbank
Central Bank of Iceland	Swiss National Bank
Reserve Bank of India	Bank of Thailand
Bank Indonesia	Central Bank of the Republic of Turkey
Central Bank & Financial Services Authority of Ireland	Bank of England
Bank of Israel	Board of Governors of the Federal Reserve System
Bank of Italy	

³ In accordance with Article 15 of its Statutes, the Bank's capital is held by central banks only. The legal status of the Yugoslav issue of the capital of the BIS is currently under review following the constitutional changes in February 2003 which transformed the Federal Republic of Yugoslavia into the State Union of Serbia and Montenegro, with two separate central banks.

Financial statements

as at 31 March 2004

Following the introduction of the SDR as the Bank's reporting currency, the Bank has updated and expanded its accounting policies and disclosures.

The financial statements on pages 192 to 213 have been prepared on this revised basis; they were approved on 10 May 2004.

Nout H E M Wellink
President

Malcolm D Knight
General Manager

The financial statements for the financial year ended 31 March 2004 are presented in a form approved by the Board of Directors pursuant to Article 49 of the Bank's Statutes.

Balance sheet

As at 31 March 2004

<i>SDR millions</i>	Notes	2004	2003 as restated
Assets			
Cash and sight accounts with banks	3	18.9	4,300.7
Gold and gold deposits	4	9,073.8	7,541.9
Treasury bills	5	30,240.7	20,724.5
Securities purchased under resale agreements	5	21,835.2	12,255.0
Time deposits and advances to banks	5	68,162.4	58,728.2
Government and other securities	5	33,483.1	38,732.6
Derivative financial instruments	6	3,321.1	3,966.1
Accounts receivable	7	1,609.6	3,173.9
Land, buildings and equipment	8	190.0	196.4
Total assets		167,934.8	149,619.3
Liabilities			
Currency deposits	9	133,152.5	122,519.0
Gold deposits	10	7,293.5	6,022.6
Securities sold under repurchase agreements	11	1,225.3	73.2
Derivative financial instruments	6	4,339.7	3,234.1
Accounts payable	12	12,169.4	8,242.3
Other liabilities	13	144.4	598.9
Total liabilities		158,324.8	140,690.1
Shareholders' equity			
Share capital	14	683.9	661.4
Statutory reserves		8,230.8	7,522.7
Profit and loss account	31	536.1	575.4
Less: shares held in treasury	14, 15	(852.6)	(739.1)
Other equity accounts		1,011.8	908.8
Total equity		9,610.0	8,929.2
Total liabilities and equity		167,934.8	149,619.3

Note 31 describes the impact on the 2003 financial statements of the change in the Bank's reporting currency from the gold franc to the SDR and the Bank's revised accounting policies.

Profit and loss account

For the financial year ended 31 March 2004

<i>SDR millions</i>	Notes	2004	2003 as restated
Interest income	18	3,493.9	4,135.2
Interest expense	19	(2,681.1)	(3,228.9)
Net valuation movements	20	(258.7)	(314.3)
Net interest income		554.1	592.0
Net fees and commissions income	21	1.4	1.7
Net foreign exchange gains	22	9.0	4.6
Total operating income		564.5	598.3
Operating expense	23	(142.5)	(142.3)
Operating profit		422.0	456.0
Net gains/(losses) on sales of investment securities	24	154.4	147.0
Shares repurchased – impact of arbitral award	15		
Interest expense		(32.9)	(10.2)
Currency translation loss		(7.4)	–
Net profit for the financial year		536.1	592.8

The net profit for the financial year ended 31 March 2003 shown above has been translated using average rates of exchange. It differs from the balance on the profit and loss account (SDR 575.4 million) shown in the restated 2003 balance sheet, which is based on year-end rates of exchange. This difference is attributable to the change in the Bank's reporting currency from the gold franc to the SDR.

Statement of proposed profit allocation

For the financial year ended 31 March 2004

SDR millions	2004
Net profit for the financial year	536.1
Transfer to legal reserve fund	–
Proposed dividend:	
SDR 225 per share on 452,073 shares	(101.7)
On 18,000 newly issued shares (pro rata as from the value date of share subscription)	(2.3)
	(104.0)
 Proposed transfers to other reserves:	 432.1
General reserve fund	(86.4)
Special dividend reserve fund	(20.5)
Free reserve fund	(325.2)
 Profit after allocation to reserves	 –

The proposed profit allocation is in accordance with Article 51 of the Bank's Statutes.

Movements in the Bank's statutory reserves

For the financial year ended 31 March 2004

SDR millions	Notes	Legal reserve fund	General reserve fund	Special dividend reserve fund	Free reserve fund	2004 Total statutory reserves
Equity at 31 March 2003 – as restated	31	66.1	2,379.7	105.3	4,971.6	7,522.7
Allocation of 2002/03 profit		–	41.4	4.2	432.7	478.3
New shares issued	14	2.2	227.6	–	–	229.8
 Balance at 31 March 2004 per balance sheet before proposed profit allocation		68.3	2,648.7	109.5	5,404.3	8,230.8
Proposed transfers to reserves		–	86.4	20.5	325.2	432.1
 Balance at 31 March 2004 after proposed profit allocation		68.3	2,735.1	130.0	5,729.5	8,662.9

Movements in the Bank's equity

For the financial year ended 31 March 2004

SDR millions	Notes							2004	2003
		Share capital	Statutory reserves	Profit and loss	Shares held in treasury	Other equity accounts	Total equity	Total equity as restated	
Equity at 31 March 2003 – as restated		31	661.4	7,522.7	575.4	(739.1)	908.8	8,929.2	8,569.0
Payment of 2002/03 dividend			–	–	(97.1)	–	–	(97.1)	(81.9)
Allocation of 2002/03 profit			–	478.3	(478.3)	–	–	–	–
Shares repurchased – impact of arbitral award	15	–	–	–	(113.5)	–	–	(113.5)	(196.1)
New shares issued	14	22.5	229.8	–	–	–	–	252.3	–
Net valuation movements on investment securities	5	–	–	–	–	–	(158.7)	(158.7)	303.9
Net valuation movements on own gold holdings	4	–	–	–	–	–	261.7	261.7	17.3
Currency translation movement	31	–	–	–	–	–	–	–	(275.8)
Net profit for the financial year			–	–	536.1	–	–	536.1	592.8
Balance at 31 March 2004 per balance sheet before proposed profit allocation			683.9	8,230.8	536.1	(852.6)	1,011.8	9,610.0	8,929.2
Proposed dividend			–	–	(104.0)	–	–	(104.0)	
Proposed transfers to reserves			–	432.1	(432.1)	–	–	–	
Balance at 31 March 2004 after proposed profit allocation			683.9	8,662.9	–	(852.6)	1,011.8	9,506.0	

Statutory reserves include share premiums of SDR 811.7 million.

Notes to the financial statements

1. Introduction

The Bank for International Settlements (BIS, "the Bank") is an international financial institution which was established pursuant to the Hague Agreements of 20 January 1930, the Bank's Constituent Charter and its Statutes. The headquarters of the Bank are at Centralbahnplatz 2, 4002 Basel, Switzerland. The Bank maintains representative offices in Hong Kong, Special Administrative Region of the People's Republic of China (for Asia and the Pacific) and in Mexico City, Mexico (for the Americas).

The objectives 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. Fifty-six central banks are currently members of the Bank. Rights of representation and voting at General Meetings are exercised in proportion to the number of BIS shares issued in the 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.

These financial statements incorporate the balance sheet and profit and loss account, as required by Article 49 of the Bank's Statutes.

2. Significant accounting policies

A. Reporting currency

With effect from 1 April 2003, the reporting currency of the Bank is the Special Drawing Right (SDR) as defined by the International Monetary Fund (IMF).

Prior to 1 April 2003 the Bank's reporting currency was the gold franc (GF). The change in reporting currency was made to assist in managing the Bank's operations and economic capital efficiently and to enhance the transparency of its financial statements.

The SDR is calculated from a basket of major trading currencies according to Rule O-1 as adopted by the Executive Board of the IMF on 29 December 2000 and effective 1 January 2001. As currently calculated, one SDR is equivalent to the sum of USD 0.577, EUR 0.426, JPY 21 and GBP 0.0984. The composition of this currency basket is subject to review every five years by the IMF.

All figures in these financial statements are presented in SDR millions unless otherwise stated.

B. Changes in accounting policies and disclosures

In parallel with the introduction of the SDR as the Bank's reporting currency, the Bank has reviewed its accounting policies and aligned them more closely with its business operations. As a result, a number of changes in accounting

policies and disclosures have been put into effect as from 1 April 2003. These changes better reflect and give more information on the Bank's financial position and performance, and are summarised below.

Balance sheet recognition of financial instruments

In order to reflect the increasingly market-related nature of the Bank's operations, most financial instruments are included in the balance sheet on a trade date basis at their market values. Derivative financial instruments are reflected on both sides of the balance sheet at their gross market values. The exceptions to this general rule are listed below in the notes entitled "Financial instruments (other than gold and gold deposits)" and "Gold and gold deposits". In prior years, financial instruments were included on a value date basis at amortised historical cost, with derivatives presented on a net basis.

Profit and loss/equity recognition of financial instruments

Movements in the values of banking financial assets and liabilities (relating to the Bank's activities in accepting and reinvesting customer deposits) and all derivative financial instruments are included in the profit and loss account. For the Bank's investment assets (which comprise its gold and currency investments funded by its own equity) the historical cost interest income and realised gains are included in the profit and loss account, and unrealised movements in market value are taken directly to revaluation reserves in equity. In the financial year ended 31 March 2003 the historical cost interest income and realised gains were included in the Bank's profit and loss account, but unrealised movements in market value were not recognised in the profit and loss account or equity.

Currency translation differences

Currency translation differences are included in the profit and loss account. In prior years they were included in the valuation difference account within equity.

The revised accounting policies for individual items in the financial statements are described in more detail below. Note 31 shows a reconciliation from the GF financial statements at 31 March 2003 to the SDR financial statements incorporating the changes in accounting policies described above. The comparative figures for the financial year ended 31 March 2003 have been restated to reflect the changes in accounting policies.

C. Currency translation

Financial instruments are translated into SDR at the exchange rates ruling at the balance sheet date. Other assets and liabilities are recorded in SDR at the exchange rates ruling at the date of the transaction. Profits and losses are translated into SDR at an average rate. Exchange differences arising from the retranslation of financial instruments and from the settlement of transactions are recognised in the profit and loss account.

D. Valuation methodology

In general the Bank values its assets, liabilities and derivatives at market value. To derive market value, the Bank uses reliable quoted market prices from active markets. Where these are not available (for instruments such as non-exchange-traded derivatives) the Bank determines market values based on financial models using a discounted cash flow analysis. A discounted cash flow analysis is dependent on estimates for future cash flows, interest rates, exchange rates and prepayment speeds, and upon credit, liquidity and volatility factors.

E. Financial instruments (other than gold and gold deposits)

These financial instruments constitute the majority of the Bank's balance sheet and include cash and sight accounts with banks, treasury bills, securities purchased under resale agreements, time deposits and advances to banks, government and other securities, derivative financial instruments, currency deposits and securities sold under repurchase agreements.

For all these financial instruments, the historical cost profits resulting from the accrual of interest and the amortisation of premiums paid and discounts received are included in interest income (for assets and derivatives) or interest expense (for liabilities). Realised profits on disposal, buyback and early termination are included in net valuation movements.

The Bank includes most financial instruments in its balance sheet on a trade date basis at market value. Derivatives are included as either assets or liabilities, depending on whether the contract has a positive or a negative market value for the Bank. Very short-term financial instruments (both assets and liabilities) are an exception to this general rule of accounting using market values. These financial instruments typically have notice periods of three days or less, and they are included in the balance sheet on a value date basis at their principal value plus accrued interest. They are included under the balance sheet headings "Cash and sight accounts with banks" and "Currency deposits".

The treatment of unrealised gains or losses on revaluation is dependent on the designation of the financial instrument, as described below:

1. Currency deposits principally from central banks and international institutions, and related banking assets and derivatives

The Bank acts as a market-maker in certain of its currency deposit instruments. The market risk inherent in this activity is managed globally and so the Bank accounts for all these financial instruments at market value, with all movements in value included in net valuation movements in the profit and loss account.

2. Assets, liabilities and derivatives relating to the investment of the Bank's equity

These assets are held for the long term, but not necessarily to maturity. They are accounted for as investment assets and are initially included in the balance sheet at cost. They are subsequently revalued to market value, with unrealised gains or losses included in the securities

revaluation reserve, which is reported under the balance sheet heading "Other equity accounts".

The related liabilities are principally short-term repurchase agreements. Due to their short-term nature they are included in the balance sheet at market value with all valuation movements included in net valuation movements in the profit and loss account.

The related derivatives are used to manage the Bank's market risk or for trading purposes. They are included in the balance sheet at market value with all valuation movements included in net valuation movements in the profit and loss account.

F. Gold and gold deposits

Gold assets and liabilities are included in the balance sheet at their weight in gold (translated at the gold market price and USD exchange rate into SDR) plus accrued interest. Interest on gold deposits is included in interest income (for assets) or interest expense (for liabilities) on an accruals basis.

The Bank's own holdings of gold are classified as investment assets. The excess in value of the Bank's own gold holdings over its former statutory value (approximately SDR 151 per ounce, equating to USD 208 per ounce as at 31 March 2003) is taken to the gold revaluation reserve, which is reported under the balance sheet heading "Other equity accounts".

Gains or losses on revaluation of gold deposit liabilities from third parties and the related gold deposit assets are included in net valuation movements in the profit and loss account.

G. Accounts receivable and accounts payable

Accounts receivable and accounts payable are principally very short-term amounts relating to the settlement of financial transactions. They are included in the balance sheet at cost.

H. Land, buildings and equipment

The cost of the Bank's buildings and equipment is capitalised and depreciated on a straight line basis over the estimated useful lives of the assets concerned, as follows:

Buildings – 50 years

Building installations and machinery – 15 years

Information technology equipment – 4 years

Other equipment – 4 to 10 years

The Bank's land is not depreciated. The Bank undertakes a regular review of impairment of land, buildings and equipment. Where the carrying amount of an asset is greater than its estimated recoverable amount, it is written down to that amount. Capital expenditure and disposals are translated at the exchange rate prevailing on the date of the transaction.

I. Provisions

Provisions are recognised when the Bank has a present legal or constructive obligation as a result of events arising before the balance sheet date and it is probable that economic resources will be required to settle the obligation,

provided that the amount of the obligation can be reasonably estimated.

J. Retirement benefit obligations

The Bank operates a defined benefit pension fund for its staff. It also operates unfunded arrangements for directors' pensions and health and accident insurance for current and former staff members.

Pension fund

The liability in respect of the staff pension fund is based on the present value of the defined benefit obligation at the balance sheet date, less the market value of the fund assets at the balance sheet date, together with adjustments for unrecognised actuarial gains and losses and past service costs. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by the estimated future cash outflows, using discount interest rates of highly rated corporate debt securities which have terms to maturity approximating the terms of the related liability.

The amount charged to the profit and loss account represents the sum of the current service cost of the benefits accruing for the year under the scheme, and interest at the discount rate on the defined benefit obligation. In addition, actuarial gains and losses arising from experience adjustments (where the actual outcome is different from the actuarial assumptions previously made), changes in actuarial assumptions and amendments to the pension fund regulations are charged to the profit and loss account over the service period of staff concerned. The resulting assets or liabilities are included under the headings "Accounts receivable" or "Other liabilities" in the balance sheet.

Unfunded arrangements

The liabilities in respect of the unfunded directors' pension arrangement and health and accident insurance scheme are based on the present value of the defined benefit obligation calculated on an identical basis to the staff pension fund. In the case of the health and accident scheme (where the entitlement is based in principle on the employee remaining in service up to 50 years of age and the completion of a minimum service period of 10 years), the expected costs of these benefits are accrued over the period of employment, using the projected unit credit method. These obligations are valued annually by independent actuaries.

Corridor accounting

Where the defined benefit obligation exceeds the higher of the liability or any assets used to fund the obligation in the financial statements by more than a corridor of 10%, the resulting excess outside the corridor is amortised over the expected remaining working life of the staff concerned.

K. Use of estimates

The preparation of the financial statements requires the Bank's Management to make some estimates in arriving at the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of income and expenses during the financial year. To arrive at these estimates the Management uses available information, makes assumptions and exercises judgment. Subsequent actual results could materially differ from those estimates.

3. Cash and sight accounts with banks

Cash and sight accounts with banks consist of cash balances with central and commercial banks that are available to the Bank on demand.

4. Gold and gold deposit assets

The composition of the Bank's total gold holdings was as follows:

<i>SDR millions</i>	2004	2003
Gold bars held at central banks	5,463.9	4,534.2
Total gold time deposits	3,609.9	3,007.7
Total gold and gold deposit assets	9,073.8	7,541.9

Included in the above are the Bank's own gold holdings, which at 31 March 2004 amounted to SDR 1,780.7 million, equivalent to 192 tonnes of fine gold (31 March 2003: SDR 1,519.0 million; 192 tonnes). The Bank's own gold holdings are included in the balance sheet at their weight in gold (translated at the gold market price and the USD exchange rate into SDR) plus accrued interest. The excess of this value over the former statutory value of approximately SDR 151 per ounce is included in the gold revaluation reserve (reported under the balance sheet heading "Other equity accounts") and realised gains or losses on the disposal of own gold are recognised in the profit and loss account. The opening balance in the gold revaluation reserve at 1 April 2003 was SDR 571.6 million. The reserve increased by SDR 261.7 million during the financial year ended 31 March 2004, resulting in a balance at 31 March 2004 of SDR 833.3 million.

5. Banking and investment assets

Banking and investment assets comprise treasury bills, securities purchased under resale agreements, time deposits and advances to banks and government and other securities. Banking assets comprise those assets that represent the reinvestment of customer deposits. Investment assets comprise the currency investments funded by the Bank's own equity.

Securities purchased under resale agreements ("reverse repurchase agreements") are transactions under which the Bank places a fixed-term deposit with a counterparty which provides collateral in the form of securities. The rate on the deposit is fixed at the beginning of the transaction,

SDR millions	2004			2003		
	Banking assets	Investment assets	Total	Banking assets	Investment assets	Total
Treasury bills	30,240.7	–	30,240.7	20,724.5	–	20,724.5
Securities purchased under resale agreements	20,609.7	1,225.5	21,835.2	12,181.8	73.2	12,255.0
Time deposits and advances to banks						
Advances	–	–	–	387.6	–	387.6
Fixed-term	65,515.0	–	65,515.0	53,562.9	–	53,562.9
Notice/call accounts	2,640.6	6.8	2,647.4	4,767.2	10.5	4,777.7
	68,155.6	6.8	68,162.4	58,717.7	10.5	58,728.2
Government and other securities						
Government	3,853.5	4,978.4	8,831.9	8,630.7	4,612.4	13,243.1
Financial institutions	15,508.2	1,221.8	16,730.0	14,299.3	1,189.6	15,488.9
Other (including public sector securities)	6,584.3	1,336.9	7,921.2	8,391.5	1,609.1	10,000.6
	25,946.0	7,537.1	33,483.1	31,321.5	7,411.1	38,732.6
Total banking and investment assets	144,952.0	8,769.4	153,721.4	122,945.5	7,494.8	130,440.3

and there is an irrevocable commitment to return the collateral subject to the repayment of the deposit. During the term of the agreement, the market value of collateral is monitored, and additional collateral is obtained where appropriate to protect against credit exposure.

Time deposits and advances to banks are investments made with central banks, international institutions and commercial banks and include fixed-term loans, notice accounts and advances to central banks and international institutions as part of committed and uncommitted standby facilities.

Government and other securities are investments made with central banks, international institutions and commercial banks and include fixed and floating rate bonds and asset-backed securities.

The table above analyses the Bank's holdings of banking and investment assets.

The Bank's investment assets are included in the balance sheet at market value. The excess of this value over the historical cost value is included in the securities revaluation reserve (reported under the balance sheet heading "Other equity accounts"), and realised gains or losses on the disposal of investment assets are recognised in the profit and loss account. The opening balance in the securities revaluation reserve at 1 April 2003 was SDR 337.2 million. The reserve decreased by SDR 158.7 million during the financial year ended 31 March 2004, resulting in a balance of SDR 178.5 million at 31 March 2004. The following tables analyse the balance in the securities revaluation reserve as at 31 March 2004 and 31 March 2003.

As at 31 March 2004	Market value of assets	Historical cost	Securities revaluation reserve	Gross gains	Gross losses
<i>SDR millions</i>					
Securities purchased under resale agreements	1,225.5	1,225.5	–	–	–
Time deposits and advances to banks	6.8	6.8	–	–	–
Government and other securities	7,537.1	7,358.6	178.5	193.0	(14.5)
Total	8,769.4	8,590.9	178.5	193.0	(14.5)

As at 31 March 2003	Market value of assets	Historical cost	Securities revaluation reserve	Gross gains	Gross losses
<i>SDR millions</i>					
Securities purchased under resale agreements	73.2	73.2	–	–	–
Time deposits and advances to banks	10.5	10.5	–	–	–
Government and other securities	7,411.1	7,073.9	337.2	337.6	(0.4)
Total	7,494.8	7,157.6	337.2	337.6	(0.4)

6. Derivative financial instruments

SDR millions	2004			2003		
	Notional amounts	Market values		Notional amounts	Market values	
		Assets	Liabilities		Assets	Liabilities
Bond futures	212.7	0.0	(0.0)	211.4	0.1	(0.8)
Bond options	388.4	0.1	(0.0)	562.4	1.4	(0.7)
Cross-currency interest rate swaps	11,388.0	241.4	(2,454.5)	10,638.0	68.3	(1,791.1)
Currency forwards	2,209.5	17.7	(5.6)	824.6	2.3	(8.0)
Currency options bought and sold	16.6	0.0	(0.0)	327.2	1.7	(1.7)
Currency swaps	37,990.0	53.7	(750.1)	51,717.0	159.1	(202.8)
Forward rate agreements	17,623.0	4.7	(5.0)	26,437.5	8.6	(9.1)
Interest rate futures	42,143.9	0.4	(0.4)	18,511.9	1.3	(0.4)
Interest rate swaps	85,894.0	3,003.1	(1,099.1)	125,018.0	3,723.3	(1,219.5)
Swaptions	1,589.4	0.0	(25.0)	–	–	–
Total derivative financial instruments	199,455.5	3,321.1	(4,339.7)	234,248.0	3,966.1	(3,234.1)

The Bank uses the following types of derivative instruments for economic hedging and trading purposes:

Currency forwards represent commitments to purchase foreign currencies at a future date. This includes undelivered spot transactions.

Foreign currency, interest rate and bond futures are contractual obligations to receive or pay a net amount based on changes in currency rates, interest rates or bond prices on a future date at a specified price established in an organised market. Futures contracts are collateralised by cash or marketable securities and changes in the futures contract value are settled daily with the exchange.

Forward rate agreements are individually negotiated interest rate forward contracts that result in cash settlement at a future date for the difference between a contracted rate of interest and the prevailing market rate.

Currency swaps, cross-currency interest rate swaps and interest rate swaps are commitments to exchange one set of cash flows for another. Swaps result in an economic exchange of currencies or interest rates (for example, fixed rate for floating rate) or a combination of interest rates and currencies (cross-currency interest rate swaps). Except for certain currency swaps and cross-currency interest rate swaps, no exchange of principal takes place.

Foreign currency and bond options are contractual agreements under which the seller grants the purchaser the right, but not the obligation, to either buy (call option) or sell (put option), by or on a set date, a specific amount of a foreign currency or a bond at a predetermined price. In consideration, the seller receives a premium from the purchaser.

Swaptions are options under which the seller grants the purchaser the right, but not the obligation, to enter into a currency or interest rate swap at a predetermined price by or on a set date.

The table above analyses the market value of derivative financial instruments.

7. Accounts receivable

SDR millions	2004	2003
Financial transactions awaiting settlement	1,598.0	3,143.1
Other assets	11.6	30.8
Total accounts receivable	1,609.6	3,173.9

"Financial transactions awaiting settlement" relates to short-term receivables (typically due in three days or less) where transactions have been effected but cash has not yet been transferred. This includes assets that have been sold and liabilities that have been issued.

8. Land, buildings and equipment

SDR millions	Land	Buildings	Other equipment	2004		2003 Total
				Total		
Historical cost						
Opening balance at 1 April	41.2	185.1	79.4	305.7		298.0
Capital expenditure	–	–	10.5	10.5		8.4
Disposals and retirements	–	–	(1.8)	(1.8)		(0.7)
Balance at 31 March	41.2	185.1	88.1	314.4		305.7
Depreciation						
Accumulated depreciation at 1 April	–	61.2	48.1	109.3		95.3
Depreciation	–	7.1	9.8	16.9		14.7
Disposals and retirements	–	–	(1.8)	(1.8)		(0.7)
Balance at 31 March	–	68.3	56.1	124.4		109.3
Net book value at 31 March	41.2	116.8	32.0	190.0		196.4

The depreciation charge for the financial year ended 31 March 2004 includes an additional charge of SDR 3.3 million following an impairment review of the Bank's land and buildings.

9. Currency deposits

Currency deposits are book entry claims on the Bank and are analysed in the table below.

SDR millions	2004	2003
Deposit instruments repayable at one to two days' notice		
Medium-Term Instruments (MTIs)	41,198.8	41,744.4
FIXBIS	35,212.5	31,681.8
	76,411.3	73,426.2
Other currency deposits		
Other deposit instruments (FRIBIS)	6,200.2	6,063.0
Sight and notice accounts and fixed-term deposits	50,541.0	43,029.8
	56,741.2	49,092.8
Total currency deposits	133,152.5	122,519.0

The Bank has undertaken to repay at market value certain deposit instruments, in whole or in part, at one to two business days' notice. The resulting gains or losses are included in the profit and loss account heading "Net valuation movements".

Currency deposits (other than sight and notice accounts) are included in the balance sheet at market value. This value differs from the amount that the Bank is contractually required to pay at maturity to the holder of the deposit. For total currency deposits the amount that the Bank is contractually required to pay at maturity to the holder of the deposit, plus accrued interest to 31 March 2004, is SDR 128,682.8 million (31 March 2003: 120,913.1 million).

10. Gold deposit liabilities

Gold deposits placed with the Bank originate entirely from central banks.

11. Securities sold under repurchase agreements

Securities sold under repurchase agreements ("repurchase agreements") are transactions under which the Bank receives a fixed-term deposit from a counterparty to which it provides collateral in the form of securities. The rate on the deposit is fixed at the beginning of the transaction, and there is an irrevocable commitment to repay the deposit subject to the return of the securities. They originate entirely from commercial banks.

12. Accounts payable

Accounts payable consist of financial transactions awaiting settlement, relating to short-term payables (typically payable within three days or less) where transactions have been effected but cash has not yet been transferred. This includes assets that have been purchased and liabilities that have been repurchased.

13. Other liabilities

SDR millions	2004	2003
Retirement benefit obligations – see note 17		
Directors' pensions	4.0	4.0
Health and accident benefits	111.2	97.1
Payable to former shareholders	14.5	208.9
Other	14.7	288.9
Total other liabilities	144.4	598.9

14. Share capital

The Extraordinary General Meeting on 10 March 2003 amended the Bank's Statutes to redenominate the Bank's share capital from gold francs to SDR as from 1 April 2003, and to adjust the nominal value (par value) of each share accordingly. In order to obtain a round sum amount the nominal value of each share was reduced from its precise converted value of SDR 5,696 at 31 March 2003 to SDR 5,000 (of which 25% is paid up). The resulting excess of SDR 92.1 million in paid-up share capital was transferred to the free reserve fund (see note 31). The Bank's capital and reserves in total were not affected by this adjustment.

The Bank's share capital consists of:

	2004 SDR million	2003 GF million
Authorised capital: 600,000 shares, each of SDR 5,000 par value (2003: GF 2,500)	3,000.0	1,500.0
Issued capital: 547,125 shares (2003 – 529,125)	2,735.6	1,322.8
Paid-up capital (25%)	683.9	330.7

During the financial year ended 31 March 2004 the Bank issued 3,000 shares each to the central banks of Algeria, Chile, Indonesia, Israel, New Zealand and the Philippines. This increased the number of member central banks to 56 (31 March 2003: 50).

The number of shares eligible for dividend is:

	2004	2003
Issued shares	547,125	529,125
Less: shares held in treasury		
Repurchase of shares in the financial year ended 31 March 2001	(74,952)	(74,952)
Others	(2,100)	(2,100)
Outstanding shares eligible for dividend	470,073	452,073
Of which:		
Eligible for full dividend	452,073	452,073
New shares eligible for dividend pro rata from the value date of subscription	18,000	–

15. Repurchase of shares

The Extraordinary General Meeting on 8 January 2001 amended the Bank's Statutes to restrict the right to hold shares in the BIS exclusively to central banks, thereby effecting a mandatory repurchase from private (ie non-central bank) shareholders of 72,648 shares on which the American, Belgian and French central banks exercise voting rights. The compensation paid was 16,000 Swiss francs per share. At the same time the Bank repurchased 2,304 shares of these three issues from other central banks. The Bank holds these shares in treasury and will, in due course, redistribute them to the Bank's existing central

bank shareholders in a manner which the Board considers appropriate.

Three former private shareholders expressed dissatisfaction with the amount of compensation paid to them by the Bank in connection with the mandatory repurchase of shares and initiated proceedings with the Arbitral Tribunal in The Hague. These proceedings were completed with the final award of the Arbitral Tribunal on 19 September 2003, remitting an additional compensation of CHF 7,977.56 per share. The Bank applied the award to all former shareholders, and the cost of repurchasing the total of 74,952 shares above was increased by SDR 153.8 million, as follows:

	SDR millions	2004
Charged to shares held in treasury:		
Additional compensation in excess of provision	113.5	
Charged to the profit and loss account:		
Additional interest thereon in excess of provision	32.9	
Currency translation loss	7.4	
Total	153.8	

16. Earnings per share

	2004	2003
Net profit for the financial year (SDR millions)	536.1	592.8
Weighted average number of shares entitled to dividend	462,114	452,073
Earnings per share – (SDR per share)	1,160	1,311

The dividend proposed for the financial year ended 31 March 2004 is SDR 225 per share (2003: CHF 400, equivalent to SDR 214.8).

17. Retirement benefit obligations

A. Directors' pensions

The Bank operates an unfunded defined benefit arrangement for its directors, whose entitlement is based on a minimum service period of four years. The movement in the accounts during the year was as follows:

SDR millions	2004	2003
Opening liability	4.0	3.6
Contributions paid	(0.3)	(0.2)
Charged to the profit and loss account	0.4	0.3
Exchange differences	(0.1)	0.3
Closing liability – see note 13	4.0	4.0

B. Staff pensions

The Bank operates a final salary defined benefit Pensions System for its staff. The Pensions System is based on a fund which is similar in nature to a trust fund, having no separate legal personality. Its assets are administered by the Bank for the sole benefit of current and former members of staff who participate in the arrangement. The fund is valued annually by independent actuaries. The latest actuarial valuation was carried out at 30 September 2003.

SDR millions	2004	2003
Present value of funded obligations	527.8	511.3
Market value of fund assets	(525.4)	(480.9)
	2.4	30.4
Unrecognised actuarial gains / (losses)	(2.4)	(30.4)
Liability	—	—

The movement in the accounts during the year was as follows:

SDR millions	2004	2003
Opening (asset) / liability	—	—
Contributions paid	(14.5)	(30.1)
Charged to the profit and loss account	14.5	30.1
Closing (asset) / liability	—	—

The principal actuarial assumptions used in the calculations above were as follows:

	2004	2003
Discount rate – market rate of highly rated Swiss corporate bonds	3.5%	3.5%
Expected return on scheme assets	5.0%	5.0%

C. Health and accident benefits

The Bank also provides unfunded post-retirement health care and accident benefits, based on a minimum service period of 10 years. The methodology used for the determination of the costs and obligations arising from this arrangement and the actuarial assumptions used in calculating these benefits are identical to those for the Pensions System, except that there is an additional assumption for long-term medical inflation of 5% per annum.

The movement in the accounts during the year was as follows:

SDR millions	2004	2003
Opening liability	97.1	81.6
Contributions paid	(1.2)	(3.4)
Charged to the profit and loss account	16.4	8.6
Exchange differences	(1.1)	10.3
Closing liability – see note 13	111.2	97.1
Unrecognised actuarial loss	18.1	22.9
Present value of obligation	129.3	120.0

18. Interest income

SDR millions	2004	2003
Interest on investment assets		
Securities purchased under resale agreements	9.9	17.8
Time deposits and advances to banks	25.4	29.1
Government and other securities	269.8	317.9
305.1	364.8	
Interest on banking assets		
Treasury bills	233.4	217.5
Securities purchased under resale agreements	104.3	103.5
Time deposits and advances to banks	1,106.7	1,567.1
Government and other securities	721.6	838.0
2,166.0	2,726.1	
Interest on derivative financial instruments		
	1,022.3	1,043.8
Other interest	0.5	0.5
Total interest income	3,493.9	4,135.2

19. Interest expense

SDR millions	2004	2003
Interest on gold deposits	7.0	11.3
Interest on currency deposits	2,665.7	3,201.7
Interest on securities sold under repurchase agreements	8.4	15.9
Total interest expense	2,681.1	3,228.9

20. Net valuation movements

SDR millions	2004	2003
Unrealised valuation movements on banking financial assets	(98.9)	439.5
Realised gains / (losses) on banking financial assets	32.1	31.7
Unrealised valuation movements on financial liabilities	583.8	(1,341.8)
Realised gains / (losses) on financial liabilities	(327.1)	(418.5)
Valuation movements on derivative financial instruments	(448.6)	974.8
Net valuation movements	(258.7)	(314.3)

21. Net fees and commissions income

<i>SDR millions</i>	2004	2003
Fees and commissions income	5.8	6.0
Fees and commissions expense	(4.4)	(4.3)
Net fees and commissions income	1.4	1.7

22. Net foreign exchange gains

Net foreign exchange gains comprise transaction and translation gains.

23. Operating expense

The following table analyses the Bank's operating expense in Swiss francs (CHF), the currency in which most expenditure is incurred.

<i>CHF millions</i>	2004	2003
Board of Directors		
Directors' fees	1.6	1.5
Pensions	0.6	0.6
Travel, external Board meetings and other costs	1.5	1.3
	3.7	3.4
Management and staff		
Remuneration	96.1	96.3
Pensions	30.2	62.9
Other personnel-related expense	44.4	22.9
	170.7	182.1
Office and other expense	62.1	62.0
Administrative expense in CHF millions	236.5	247.5
Administrative expense in SDR millions	125.6	127.6
Depreciation in SDR millions	16.9	14.7
Operating expense in SDR millions	142.5	142.3

The charge for pensions in the financial year ended 31 March 2003 includes a special contribution of CHF 33.9 million to the Bank's staff pension fund. The charge for other personnel-related expense increased in the year ended 31 March 2004, principally as a result of the increase in health and accident expense which is disclosed in SDR in note 17.

The average number of full-time equivalent employees during the financial year ended 31 March 2004 was 509 (2003: 493).

24. Net gains on sales of investment securities

<i>SDR millions</i>	2004	2003
Gross realised gains	172.5	153.8
Gross realised losses	(18.1)	(6.8)
Net gains on investment securities	154.4	147.0

25. Taxes

The Bank's legal status in Switzerland is set out in its Headquarters Agreement with the Swiss Federal Council. Under the terms of this document the Bank is exempted from virtually all direct and indirect taxes at both federal and local government level in Switzerland.

Similar agreements exist with the government of the People's Republic of China for the Asian Office in Hong Kong SAR and with the Mexican government for the Office of the Americas.

26. Exchange rates

The following table shows the principal rates and prices used to translate balances in foreign currency and gold into SDR:

	Spot rate as at 31 March		Average rate financial year ended	
	2004	2003	2004	2003
USD	0.675	0.728	0.700	0.755
EUR	0.827	0.793	0.821	0.749
JPY	0.00649	0.00613	0.00620	0.00620
GBP	1.239	1.150	1.183	1.167
CHF	0.530	0.537	0.531	0.511
Gold	286.5	244.1	263.8	245.4

27. Off-balance sheet items

Fiduciary transactions are effected in the Bank's name on behalf of, and at the risk of, the Bank's customers without recourse to the Bank. They are not included in the Bank's balance sheet and comprise:

<i>SDR millions</i>	2004	2003
Nominal value of securities held under:		
Safe custody arrangements	9,153.5	8,309.6
Collateral pledge agreements	2,346.2	3,556.4
Portfolio management mandates	2,903.3	2,158.9
Total	14,403.0	14,024.9

The financial instruments held under the above arrangements are deposited with external custodians, either central banks or commercial institutions.

28. Commitments

The Bank provides a number of committed standby facilities for its central bank and international institution customers. As at 31 March 2004 the outstanding commitments to extend credit under these committed standby facilities were SDR 2,867.2 million (31 March 2003: SDR 2,780.5 million), of which SDR 118.2 million was uncollateralised (31 March 2003: SDR 150.0 million).

29. Related parties

The Bank currently defines related parties as the members of the Board of Directors and those Senior Officials of the Bank who are members of its Executive Committee.

The Bank offers personal deposit accounts for all staff members and its Directors. These accounts bear interest at a rate as determined by the Bank's President. At 31 March 2004, the balance on these accounts relating to members of the Board of Directors and Senior Officials amounted to SDR 7.4 million (31 March 2003: SDR 7.5 million).

30. Capital and risk management

A. The risks that the Bank faces

The Bank is exposed to risk on its transactions in financial instruments, in particular:

Credit risk. The risk of a financial loss arising from a counterparty's failure to service its debt in a timely manner. This is the largest risk that the Bank faces.

Market risk. The risk of a decline in the total value of the Bank's assets and liabilities due to adverse changes in such market variables as interest rates, exchange rates and gold prices.

Liquidity risk. The risk of being unable to meet its obligations to pay as they fall due without incurring unacceptable losses.

Operational risk. This is the risk of financial losses, damage to the Bank's reputation, or both, resulting from

inadequate or failed processes, people or systems, or from external events.

B. How the Bank manages these risks

Organisation structure

The Bank is operated to serve the central banking community whilst earning an adequate return to maintain its capital strength. Assets and liabilities are organised into two books:

Currency and gold deposits principally from central banks and international institutions, and related banking assets and derivatives.

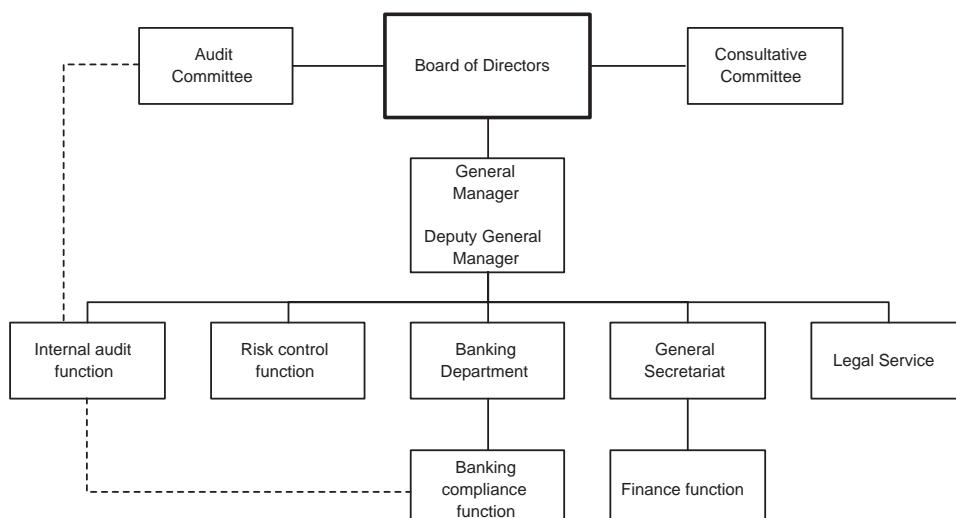
In this book the Bank takes limited interest rate, gold price and foreign currency risk.

Assets, liabilities and derivatives relating to the investment of the Bank's equity.

The Bank holds most of its equity in financial instruments denominated in the constituent currencies of the SDR, which are managed using a benchmark of bonds with a fixed duration target. The remainder of the Bank's equity is held in gold.

The Bank manages risk through a framework including an independent risk control function and regular reporting of risk positions to appropriate management committees. The Bank's risk methodologies and risk policies are documented in a detailed risk manual, which is reviewed on a regular basis. The Bank's credit limits are documented in a counterparty manual. All changes to credit limits require management approval.

Finance, legal and banking compliance functions augment the risk control function. The role of the finance function is to produce the Bank's financial statements and to control its expenditure through setting and monitoring the annual budget. The legal function provides legal advice and support covering a wide range of issues relating to the Bank's activities. The banking compliance function ensures that Banking Department business and members of the Banking Department and risk control function comply with the Bank's Code of Conduct, specific Banking Rules, applicable laws and best financial market practice.



The internal audit function reviews internal control procedures and reports on how they comply with internal standards and industry best practices. The scope of internal audit work includes the review of risk management procedures, internal control systems, information systems and governance processes.

The Deputy General Manager is responsible for the Bank's risk control and internal audit functions, and the internal audit function also reports to the Audit Committee. The reporting lines of these key control-related functions are shown in the diagram above.

C. Risk methodologies

The Bank uses a comprehensive range of quantitative methodologies for valuing financial instruments and for measuring risk to the Bank's net profit and its equity. The Bank reassesses its quantitative methodologies in the light of its changing risk environment and evolving best practice.

Economic capital is a key quantitative risk methodology used by the Bank. Economic capital is a measure designed to estimate the amount of equity needed to absorb the potential losses arising from exposures on any given date, to a statistical level of confidence determined by the Bank's aim to remain of the highest creditworthiness. Many of the Bank's internal limits and reports are expressed in terms of the economic capital usage. The Bank calculates economic capital covering credit risk, market risk and operational risk. To calculate economic capital for credit risk the Bank uses an internal model for credit portfolio value-at-risk that is based on the Bank's assessment of:

- The probability of default of individual counterparties;
- The correlations of losses associated with individual counterparties; and
- The loss that the Bank would incur as a result of the default.

The market risk economic capital measure is derived from the Bank's value-at-risk (VaR) methodology. This is discussed in more detail in section I below.

The Bank's operational risk economic capital measure is based on a model that incorporates the Bank's experience of operational losses and external loss data.

In computing its credit, market and operational risk economic capital measures the Bank uses as key assumptions a one-year time horizon and a 99.995% level of confidence.

D. Capital adequacy

The Bank maintains a very strong capital position, which is measured using its economic capital model and the framework proposed by the Basel Accord of July 1988 (the Basel Capital Accord). The table below shows the Bank's capital as at 31 March 2004.

SDR millions	2004
Share capital	683.9
Statutory reserves	8,230.8
Less: shares held in treasury	(852.6)
Tier 1 capital	8,062.1
Profit and loss account	536.1
Other equity accounts	1,011.8
Total capital	9,610.0

The Basel Accord ratios measure capital adequacy by comparing the Bank's eligible capital with its risk-weighted assets. The risk weighted assets are derived by applying a series of risk weightings to the Bank's assets and derivatives, based on the Basel Accord. The Bank's capital ratios are high due to the proportion of sovereign debt (which is zero risk-weighted) within the Bank's assets. The Bank's Tier 1 ratio was 34.7% as at 31 March 2004.

E. Credit risk

Credit risk includes:

Default risk – the risk that a counterparty will not fulfil its obligations in accordance with the agreed terms of a transaction. Default risk arises on financial assets and derivatives, as well as committed facilities that the Bank provides for central banks and international institutions.

Settlement risk – the risk of failure of the settlement or clearing of financial transactions where the exchange of cash, securities or other assets is not simultaneous.

Transfer risk – the risk that a counterparty is unable to meet its foreign currency obligations due to restricted access to foreign currency.

F. Default risk

The Bank controls its default risk on both a counterparty and a portfolio level. Credit exposures are restricted using a series of credit limits covering individual counterparties and countries of risk. The Bank conducts its own detailed independent credit analysis resulting in the assignment of internal credit grades. Based on this analysis the Bank sets its credit limits.

Default risk on the Bank's holdings of securities is reduced by the highly liquid nature of most of the assets. Securities are sold when the Bank's management considers that a counterparty has an unacceptable risk of default. Default risk on over-the-counter (OTC) derivatives is mitigated using collateral management agreements.

The following tables show credit exposure by sector and credit rating as at 31 March 2004.

Sector of risk	%
Sovereign	29.0
Financial institution	65.0
Other	6.0
	100.0

BIS internal credit grade (expressed as equivalent long-term rating)	%
AAA	25.1
AA	54.9
A	19.6
BBB+ and below (including unrated risks)	0.4
	100.0

G. Settlement risk

The Bank minimises settlement risk by:

- Using established clearing centres;
- Where possible settling transactions only once both parties have fulfilled their obligations (the delivery versus payment settlement mechanism);
- Where possible requiring net settlement of payments on derivative financial instruments;
- Using cash correspondent banks with the ability to stop payments at short notice; and
- Calculating and limiting the settlement risk on a counterparty basis.

H. Transfer risk

The Bank calculates and sets limits for transfer risk on a per country basis.

I. Market risk

The main components of the Bank's market risk are gold price risk, currency risk and interest rate risk. The Bank incurs market risk primarily through the assets relating to the management of its equity. The Bank measures market risk using the value-at-risk (VaR) methodology, and by computing sensitivities to certain market risk factors. VaR expresses the statistical estimate of the maximum potential loss on the current portfolio assuming a specified time horizon and measured to a specified level of confidence.

Market risk economic capital is measured and managed on a combined basis across all components of market risk. Management limits the Bank's market risk economic capital usage.

All VaR models, while forward-looking, are based on past events and dependent on the quality of available market data. VaR limits are supplemented with a framework of other limits and reporting, including specific stress tests and detailed monitoring of the largest market risk positions.

J. Gold price risk

Gold price risk is the potential impact on the market value of assets and liabilities from changes in gold prices. The Bank is exposed to gold price risk principally through its own holdings of gold, which comprise 192 tonnes. This is held in custody or placed on deposit with commercial banks. At 31 March 2004 approximately 18% of its equity were gold holdings (31 March 2003: 17%). The Bank can also have small exposures to gold price risk through its banking activities with central and commercial banks. Gold price risk is measured within the Bank's aggregate market risk economic capital framework.

K. Currency risk

Currency risk is the potential impact on the market value of assets and liabilities from changes in exchange rates against the SDR. The Bank is exposed to currency risk principally through the assets relating to the management of its equity. The Bank is also exposed to currency risk through managing its customer deposits and through acting as an intermediary in foreign exchange transactions between central and commercial banks. The Bank reduces its currency exposures by matching the assets relating to the management of its equity to the constituent currencies of the SDR on a regular basis, and by allowing only small currency exposures relating to customer deposits and foreign exchange transaction intermediation.

The following table shows the Bank's currency positions as at 31 March 2004 after adjusting for its own holdings of gold. These currency positions principally relate to the repurchase of the BIS shares during the financial year ended 31 March 2001 (see note 15).

Net assets	2004
SDR millions	
Swiss franc	(655.6)
US dollar	297.9
Euro	111.3
Japanese yen	130.9
Pound sterling	57.7
Swedish krona	54.3
Other currencies	3.5

L. Interest rate risk

Interest rate risk is the potential impact on the market value of assets and liabilities from changes in interest rates. The Bank is exposed to interest rate risk principally through the interest-bearing assets relating to the management of its equity. These assets are managed using a benchmark of bonds with a fixed duration target. The Bank is also exposed to limited interest rate risk through its activities in accepting and reinvesting customer deposits.

The Bank closely monitors interest rate risk including the sensitivity of market values to movements in interest rates. Market risk is restricted using economic capital, VaR and stress test-based limits.

M. Liquidity risk

Net movements in the currency and gold deposits from central banks and international institutions are the key determinants of the size of the Bank's balance sheet. The Bank has undertaken to repurchase at market value certain of its currency deposit instruments at one or two days' notice. The Bank is managed to preserve a high degree of liquidity to ensure that it is able to meet the requirements of its customers at all times.

The Bank has developed a liquidity management framework based on a statistical model using prudent assumptions with regard to cash inflows and the liquidity of liabilities. Within this framework, the Board has set a

limit for the Bank's liquidity ratio which requires liquid assets to be equal to at least 100% of the potential liquidity requirement faced by the Bank. In addition, liquidity stress tests are performed which assume extreme withdrawal scenarios considerably beyond the estimated potential liquidity requirement. These stress tests define additional liquidity requirements which must also be met by holdings of liquid assets. The Bank's liquidity has consistently been materially above its minimum liquidity ratio limit.

The following tables (including derivatives on a net basis) show assets and liabilities at carrying amounts categorised by contractual maturity date:

As at 31 March 2004	up to 1 month	1 to 3 months	4 to 6 months	6 to 9 months	9 to 12 months	1 to 5 years	Over 5 years	Maturity undefined	Total
<i>SDR millions</i>									
Assets									
Cash and sight accounts with banks	18.9	–	–	–	–	–	–	–	18.9
Gold and gold deposits	247.5	315.8	603.0	514.2	532.2	1,397.2	–	5,463.9	9,073.8
Treasury bills	5,903.4	15,450.9	6,615.6	908.9	1,361.9	–	–	–	30,240.7
Securities purchased under resale agreements	21,771.1	64.1	–	–	–	–	–	–	21,835.2
Time deposits and advances to banks	31,589.7	16,640.8	15,138.2	3,814.4	979.3	–	–	–	68,162.4
Government and other securities	1,785.5	2,948.1	3,085.9	2,164.1	1,533.6	17,661.3	4,304.6	–	33,483.1
Accounts receivable	1,602.2	–	–	–	–	3.9	–	3.5	1,609.6
Land, buildings and equipment	–	–	–	–	–	–	–	–	190.0
Total	62,918.3	35,419.7	25,442.7	7,401.6	4,407.0	19,062.4	4,304.6	5,657.4	164,613.7
Liabilities									
Currency deposits									
Deposit instruments repayable at 1-2 days' notice	(4,798.2)	(12,072.9)	(14,572.6)	(5,828.5)	(4,015.2)	(31,727.3)	(3,396.6)	–	(76,411.3)
Other currency deposits	(42,269.9)	(7,438.1)	(6,374.4)	(560.3)	(98.3)	(0.2)	–	–	(56,741.2)
Gold deposits	(5,625.0)	(250.5)	(510.1)	(347.5)	(291.7)	(268.7)	–	–	(7,293.5)
Securities sold under repurchase agreements	(1,161.2)	(64.1)	–	–	–	–	–	–	(1,225.3)
Accounts payable	(12,169.4)	–	–	–	–	–	–	–	(12,169.4)
Other liabilities	(26.6)	–	–	–	–	–	–	(117.8)	(144.4)
Total	(66,050.3)	(19,825.6)	(21,457.1)	(6,736.3)	(4,405.2)	(31,996.2)	(3,396.6)	(117.8)	(153,985.1)
Net derivative financial instruments									
Net derivative financial instruments	(102.9)	(485.8)	(144.6)	3.2	(100.4)	(109.8)	(78.3)	–	(1,018.6)
Maturity gap	(3,234.9)	15,108.3	3,841.0	668.5	(98.6)	(13,043.6)	829.7	5,539.6	9,610.0

As at 31 March 2003	up to 1 month	1 to 3 months	4 to 6 months	6 to 9 months	9 to 12 months	1 to 5 years	Over 5 years	Maturity undefined	Total
<i>SDR millions</i>									
Assets									
Cash and sight accounts with banks	4,300.7	–	–	–	–	–	–	–	4,300.7
Gold and gold deposits	317.8	330.8	480.7	273.9	289.4	1,315.2	–	4,534.1	7,541.9
Treasury bills	4,031.4	10,324.1	5,410.0	345.6	613.4	–	–	–	20,724.5
Securities purchased under resale agreements	12,255.0	–	–	–	–	–	–	–	12,255.0
Time deposits and advances to banks	17,174.8	16,553.4	14,615.0	7,071.4	3,281.9	31.7	–	–	58,728.2
Government and other securities	2,193.7	4,476.8	2,174.8	3,179.2	4,836.7	17,311.4	4,560.0	–	38,732.6
Accounts receivable	3,164.8	–	–	–	–	4.4	–	4.7	3,173.9
Land, buildings and equipment	–	–	–	–	–	–	–	–	196.4
Total	43,438.2	31,685.1	22,680.5	10,870.1	9,021.4	18,662.7	4,560.0	4,735.2	145,653.2
Liabilities									
Currency deposits									
Deposit instruments repayable at 1-2 days' notice	(5,972.5)	(8,427.6)	(8,054.3)	(6,984.9)	(6,420.8)	(35,809.2)	(1,756.9)	–	(73,426.2)
Other currency deposits	(30,886.4)	(8,174.8)	(7,073.0)	(1,118.3)	(1,402.7)	(437.6)	–	–	(49,092.8)
Gold deposits	(4,802.8)	(291.0)	(321.8)	(153.0)	(242.4)	(211.6)	–	–	(6,022.6)
Securities sold under repurchase agreements	(73.2)	–	–	–	–	–	–	–	(73.2)
Accounts payable	(8,242.3)	–	–	–	–	–	–	–	(8,242.3)
Other liabilities	(288.9)	–	–	(207.0)	–	–	–	(103.4)	(599.3)
Total	(50,266.1)	(16,893.4)	(15,449.1)	(8,463.2)	(8,065.9)	(36,458.4)	(1,756.9)	(103.4)	(137,456.4)
Net derivative financial instruments	10.3	116.6	(80.3)	(114.4)	(35.1)	1,061.6	(226.7)	–	732.0
Maturity gap	(6,817.6)	14,908.3	7,151.1	2,292.5	920.4	(16,734.1)	2,576.4	4,631.8	8,928.8

N. Operational risk

Operational risk includes the risk of losses, damage to reputation, or both, resulting from risks in connection with:

- Processes (an internal policy or process is inadequate, poorly designed or unsuitable, or is not properly understood, implemented, followed or enforced);
- People (eg insufficient personnel, lack of requisite knowledge, inadequate training, inadequate supervision, loss of key personnel, lack of integrity or ethical standards);
- Systems (hardware, software application, operating systems or infrastructure are poorly designed, unsuitable, inadequate, unavailable, fails, or do not operate as intended); and
- External events (the occurrence of an event having a negative impact on the Bank but outside its control).

Risk events can result in a loss or damage the reputation of the Bank. They originate from one or more risk causes,

including fraud, information management, employment and culture, safety and security, process management and execution, third-party relationship and technology.

The Bank seeks to manage operational risk through internal controls, including policies, procedures, practices and organisational structures, designed to provide reasonable assurance that risk events will be prevented, or, if not, be detected as early as possible and have their consequences mitigated. The Bank allocates economic capital for operational risk on the basis of a statistical model.

31. Impact of accounting changes

A. Redenomination of share capital

The replacement of the gold franc by the SDR as the Bank's reporting currency as from 1 April 2003 required a conversion into SDR of the gold franc amounts in which

the share capital of the Bank had previously been denominated. The Extraordinary General Meeting of the Bank held on 10 March 2003 decided that the nominal value of the Bank's shares would be rounded down from its precise converted amount (SDR 5,696 at 31 March 2003) to SDR 5,000. This resulted in a reduction of 12.2% in the share capital of the Bank at 31 March 2003, following which the excess amount of SDR 92.1 million was transferred from the Bank's share capital to its reserve funds. There was no impact on the Bank's equity from this change. The adjustments to shareholders' equity are shown in section C below.

B. Conversion and restatement of the Bank's balance sheet

The table below shows how the figures in the published audited balance sheet at 31 March 2003 have been converted into SDR and restated to reflect the revised accounting policies. The figures in the balance sheet at 31 March 2003 are stated after allocation of the year's net profit and incorporate the prior year transfer of GF 1,639.4 million to the Bank's statutory reserves approved at the 2003 Annual General Meeting.

Column/notes	Balance sheet GF millions	Translated into SDR	Revaluations	Reclassifi- cations	Trade date adjustments	Balance sheet SDR millions
		1	2	3	4	5
Assets						
Cash and sight accounts with banks	3,041.5	4,300.7	–	–	–	4,300.7
Gold and gold deposits	3,299.6	4,665.6	2,876.3	–	–	7,541.9
Treasury bills	14,027.3	19,834.6	0.5	–	889.4	20,724.5
Securities purchased under resale agreements	5,302.2	7,497.3	–	–	4,757.7	12,255.0
Time deposits and advances to banks	40,209.1	56,855.6	48.4	–	1,824.2	58,728.2
Government and other securities	26,791.0	37,882.4	737.5	–	112.7	38,732.6
Derivative financial instruments	–	–	3,966.1	–	–	3,966.1
Accounts receivable	21.7	30.7	–	–	3,143.2	3,173.9
Land, buildings and equipment	138.9	196.4	–	–	–	196.4
Total assets	92,831.3	131,263.3	7,628.8	–	10,727.2	149,619.3
Liabilities						
Currency deposits	83,759.4	118,435.6	1,596.0	–	2,487.4	122,519.0
Gold deposits	2,638.4	3,730.7	2,291.9	–	–	6,022.6
Securities sold under repurchase agreements	51.8	73.2	–	–	–	73.2
Derivative financial instruments	–	–	3,234.1	–	–	3,234.1
Accounts payable	–	–	–	–	8,242.3	8,242.3
Other liabilities	960.6	1,358.4	(759.5)	–	–	598.9
Total liabilities	87,410.2	123,597.9	6,362.5	–	10,729.7	140,690.1
Shareholders' equity						
Share capital	330.7	467.6	285.9	(92.1)	–	661.4
Statutory reserves	4,947.2	6,995.3	577.2	(49.8)	–	7,522.7
Profit and loss account	362.0	511.9	66.0	–	(2.5)	575.4
Shares held in treasury	(522.7)	(739.1)	–	–	–	(739.1)
Other equity accounts	–	–	337.2	571.6	–	908.8
Valuation difference account	303.9	429.7	–	(429.7)	–	–
Total equity	5,421.1	7,665.4	1,266.3	–	(2.5)	8,929.2
Total liabilities and equity	92,831.3	131,263.3	7,628.8	–	10,727.2	149,619.3

Notes to the conversion and restatement of the Bank's balance sheet

1. The figures in this column contain the published audited balance sheet figures in gold francs as at 31 March 2003, before allocation of the year's net profit.

2. The figures in this column are translated from the gold franc figures in column 1 to SDR at the exchange rate of the balance sheet date, SDR 1 = GF 0.7072146 (SDR 1 = USD 1.3730456). The net profit of GF 362.0 million is the statutory net profit of the Bank based on former accounting policies. The figure is translated

into SDR in the above table at the exchange rate of 31 March 2003. Section D below shows the conversion and restatement of the Bank's profit and loss account.

3. The adjustments in this column principally relate to the following revaluations:

Gold and gold deposits are revalued from the gold franc value of USD 208 per ounce of gold to the market value of SDR 244.11 (USD 335.18) per ounce at 31 March 2003.

Financial instruments in currencies are revalued from amortised historical cost to market value. The unrealised gains on investment securities were transferred to the securities revaluation reserve (included in "Other equity accounts").

Derivative financial instruments are revalued from amortised historical cost (included as a net value in liabilities) to gross market value.

4. The amounts in this column comprise:

The adjustment of the Bank's share capital following the rounding down of the nominal value of the Bank's shares from its precise converted amount (SDR 5,696) to SDR 5,000. The excess amount of SDR 92.1 million was transferred from share capital to the free reserve fund. There was no impact on the Bank's equity from this change.

The transfer of the balance on the valuation difference account to reserves, as a result of the change to the Bank's accounting policy for currency translation differences.

The reclassification from statutory reserves to the gold revaluation reserve of the excess of the market value of the Bank's own gold holdings of SDR 244.11 (USD 335.18) per ounce over its former value of USD 208 per ounce.

5. The figures in this column relate to the adjustment to reflect the Bank's assets and liabilities on a trade date basis instead of the previous value date basis.
6. The figures in this column are the final SDR balance sheet figures and are equal to the sum of the figures in columns 2 to 5.

C. Conversion and restatement of the Bank's statutory reserves

The table below shows how the Bank's shareholders' equity in the published audited gold franc accounts at 31 March 2003 (as approved by the AGM of 30 June 2003) has been converted into SDR and restated to reflect the revised accounting policies.

Column/notes	Balance sheet		Translated into SDR		Revaluations	Reclassifications	Balance sheet
	<i>GF millions</i>		1	2	3	4	<i>SDR millions</i>
Legal reserve fund		33.1		46.8	19.3	–	66.1
General reserve fund		1,494.5		2,113.2	266.5	–	2,379.7
Special dividend reserve fund		74.5		105.3	–	–	105.3
Free reserve fund		3,345.1		4,730.0	291.4	(49.8)	4,971.6
Total statutory reserves	4,947.2		6,995.3		577.2	(49.8)	7,522.7

Notes to the conversion and restatement of the Bank's statutory reserves

1. The figures in this column contain the published audited balance sheet figures in gold francs as at 31 March 2003, before allocation of the year's net profit.
2. The figures in this column are translated from the gold franc figures in column 1 to SDR at the exchange rate of the balance sheet date, SDR 1 = GF 0.7072146 (SDR 1 = USD 1.3730456).
3. The figures in this column relate to the revaluations of gold and gold deposits (accounted for in the legal and general reserve funds) and of financial instruments (accounted for in the free reserve fund). This is described in more detail in Section B, note 3 to the restatement of the balance sheet above.
4. The amount in this column comprises:

The adjustment of the Bank's share capital following the rounding down of the nominal value of the Bank's shares from its precise converted amount (SDR 5,696) to SDR 5,000. The excess amount of SDR 92.1 million

was transferred from share capital to the free reserve fund.

The transfer of the balance on the valuation difference account to reserves, as a result of the change to the Bank's accounting policy for currency translation differences.

The reclassification from statutory reserves to the gold revaluation reserve of the excess of the market value of the Bank's own gold holdings of SDR 244.11 (USD 335.18) per ounce over its former value of USD 208 per ounce.

5. The figures in this column are the final SDR balance sheet figures and are equal to the sum of the figures in columns 2 to 4.

D. Conversion and restatement of the Bank's profit and loss account

The table below shows how the figures in the published audited gold franc profit and loss account for the financial year ended 31 March 2003 (as approved by the AGM of

30 June 2003) have been converted into SDR and restated to reflect the revised accounting policies. The line descriptions in the table below are those in last year's profit and loss account: they have been renamed in the current year's profit and loss account.

Column/notes	Profit and loss account GF millions	Translated into SDR	Revaluations	Trade date adjustments	Reclassification	Profit and loss account SDR millions
	1	2	3	4	5	6
Net interest and other operating income	359.2	525.4	66.0	(2.5)	9.4	598.3
Less: costs of administration	(98.3)	(142.3)	–	–	–	(142.3)
Operating profit	260.9	383.1	66.0	(2.5)	9.4	456.0
Profits on sales of investment securities	108.2	156.4	–	–	(9.4)	147.0
Shares repurchased – interest on arbitral award	(7.1)	(10.2)	–	–	–	(10.2)
Net profit for the financial year	362.0	529.3	66.0	(2.5)	–	592.8
Adjustment to the year-end rate of exchange						(17.4)
Balance on profit and loss account						575.4

Notes to the conversion and restatement of the Bank's profit and loss account

1. The figures in this column are extracted from the published audited profit and loss account in gold francs for the financial year ended 31 March 2003.
2. The SDR equivalent figures are translated from the gold franc figures in column 1 at the average exchange rate for the financial year.
3. The adjustment in this column represents the change in the net unrealised profit in accounting for the Bank's financial assets, financial liabilities and derivatives at market value through the profit and loss account.
4. This represents the small profit impact from recognising movements in the market value of the Bank's assets, liabilities and derivatives on a trade date basis instead of a value date basis.
5. This column represents the reclassification of valuation profits on derivative instruments following the introduction of the Bank's revised accounting policies.
6. The figures in this column are the final SDR profit and loss account figures and are equal to the sum of the figures in columns 2 to 4.

E. Currency translation movement

Included in "Movements in the Bank's equity" on page 195 is a negative currency translation movement in the financial year ended 31 March 2003 of SDR 275.8 million. This movement arose because the proportion of the Bank's investment assets (other than gold and gold deposits) in US dollars (67% at 31 March 2002) was higher than the proportion of the US dollar in the SDR basket of currencies (approximately 46%), and the US dollar declined by about 10% against the SDR during the financial year.

Prior to 1 April 2003, the proportion of investment assets invested in each currency broadly reflected the relative importance of the main currencies in the international foreign exchange reserves and financial transactions. The resulting exchange movements from this passive currency risk management policy were reflected in an equity account, the valuation difference account.

In parallel with the replacement of the gold franc by the SDR as the Bank's reporting currency, the Bank changed its policy so as to align the currency composition of its investment assets (other than gold and gold deposits) with that of the SDR basket of currencies. A temporary exception to this policy exists because of the repurchase of the shares in the BIS during the financial year ended 31 March 2001 pending their redistribution by the Board (see note 31).

The negative currency translation movement has therefore been taken to equity rather than included in net profit because it arises from the change in reporting currency on 1 April 2003, and does not reflect the operating performance of the Bank.

32. Subsequent event

In addition to the proceedings before the Hague Arbitral Tribunal which led to the Final Award of 19 September 2003 (see note 15), the withdrawal of privately held BIS shares gave rise to a proceeding brought by a separate group of former private shareholders before the Commercial Court in Paris. That Court made a preliminary determination (without addressing the substance of the matter) in March 2003 that it has jurisdiction over claims seeking to increase the amount of compensation. The Bank subsequently requested review of this procedural decision by the Paris Court of Appeals, arguing that the Arbitral Tribunal in The

Hague has exclusive jurisdiction over the matter. In a decision rendered on 25 February 2004, the Paris Court of Appeals ruled in favour of the Bank by concluding that the Paris Commercial Court had no jurisdiction over such claims. In April 2004, a proceeding was initiated before the

French Cour de Cassation by a small group of former private shareholders for the quashing of the ruling of the appeal court on the jurisdiction issue. The Bank considers this action to be without merit. Accordingly, no separate provision has been made for these claims.

Report of the auditors

**Report of the auditors
to the Board of Directors and to the General Meeting
of the Bank for International Settlements, Basel**

We have audited the accompanying financial statements (pages 192 to 213), of the Bank for International Settlements. These financial statements incorporate the balance sheet and profit and loss account, as required by the Bank's Statutes, and the notes thereto. The financial statements 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 financial statements, 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 31 March 2004 and the results of its operations for the year then ended so as to comply with the Statutes of the Bank.

PricewaterhouseCoopers AG

Anthony W Travis

Albert Schönenberger

Basel, 10 May 2004

Five-year graphical summary



