1. Overview: expectant markets stage a recovery

A revival of confidence ended six months of deepening pessimism in financial markets. The period from May to September 2002 had been marked by a series of blows to investor confidence. As a consequence, stock prices had tumbled and long-term interest rates had steadily declined. In October, a few favourable corporate earnings reports seemed enough to turn investor sentiment around. Over seven weeks in October and November, stock prices began to recover and long rates to rise. However, negative profit warnings continued to outnumber positive ones, and macroeconomic data initially tended to be weak. Whether the market recovery is sustained remains to be seen.

Investors in the corporate bond markets shared some of the new optimism prevailing in stock markets. Corporate spreads narrowed significantly in October and November, reversing part of the widening that had taken place as equity markets were falling. However, perceived credit risks in some sectors remained high. In particular, underfunded pension liabilities in the automobile and airline industries led to credit rating downgrades for some companies, including the finance company subsidiaries of US car manufacturers. During the third quarter, when corporate spreads were especially wide, net issuance of fixed rate securities fell by two fifths, a decline not seen since the immediate aftermath of the Russian crisis in 1998.

Political developments overshadowed the emerging markets. In Brazil, it became clear in October that the next president would be a candidate whose previous views had been a source of concern to investors. However, his assurances about a commitment to sound economic policy seemed to restore a degree of confidence to the sovereign debt market. In Asia, the terrorist attack in Bali in October depressed the Jakarta stock market and had momentary effects on the Bangkok and Kuala Lumpur markets. There were no discernible effects elsewhere. While financial inflows remained sluggish for emerging economies as a group, the stronger credits maintained access to capital markets.

Stock market investors find hope in earnings numbers

October appeared to mark a turning point in US and European equity markets. Stock prices had been on a downward course since May, interrupted only by a five-week rally in late July and part of August. The slide had been caused by a
series of events that had increasingly undermined investor confidence, including global political tensions, the financial restatement by WorldCom and worsening corporate earnings reports. September had been the worst month of the year for these markets, with the S&P 500 falling by 11% during the month and the DJ EURO STOXX by 18% (Graph 1.1). The mood, however, seemed to change by the second week of October, with the markets rallying over the next seven weeks. Between 10 October and 22 November, the S&P 500 rose by 16% and the DJ EURO STOXX by 18%. While the market had also rebounded in late July and the first three weeks in August, that episode had appeared to reflect a one-off sigh of relief that serious corporate governance problems were not as widespread as had been feared. Compared with the July–August rebound, the recent rally was more broadly based and evidently driven by expectations of corporate earnings growth.

Investor sentiment seemed to turn on earnings reports from just a few bellwether companies. On 11 October, a strong profit report from GE and a favourable analyst report for IBM were enough to trigger a wave of buying. The S&P 500 rose by 4.3% and the Nasdaq Composite by 6.2% during the week, ending a six-week losing streak. The rally was extended the following week by earnings reports from a few major banks. The European markets tracked the US markets closely in spite of large loan loss provisions by German banks and further indications of asset quality problems among insurance companies. This positive overall sentiment took hold despite the fact that, on aggregate, negative profit warnings continued to outnumber positive ones, although the gap appeared to be narrowing (Graph 1.2). While macroeconomic data initially tended to be weaker than expected, the optimism of investors seemed to be validated by a strong retail sales figure on 14 November, which suggested that the US consumer was still willing to spend. The rebound in October was reportedly also supported by an effort to cover short positions in the market,
Closely watched public information

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<tr>
<th>Profit warnings¹</th>
<th>Macroeconomic surprises²</th>
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<td>13-week moving average</td>
<td>US macroeconomic surprises³</td>
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<td>Warnings diffusion index</td>
<td>German Ifo survey surprise⁴</td>
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¹ Number of positive minus negative warnings as a percentage of number of positive plus negative warnings. 
² Normalised announcement surprises (with zero means and unit variances), based on the difference between released numbers and consensus forecasts. 
³ Weighted sum of normalised surprises of ISM survey, non-farm payroll, retail sales, producer price and consumer price announcements. 
⁴ The German Ifo survey is a business climate index derived by the Institut für Wirtschaftsforschung from survey responses.

Sources: Bloomberg; BIS calculations.

Graph 1.2

which were said to have built up to unusually high levels. Such covering may have exaggerated the price responses to good news.

Significantly, bank stocks in both Europe and the United States led the market recovery, while technology and telecoms stocks continued to contribute to the markets’ volatility. The importance of bank stocks as market movers in recent months has been unusual. When markets were sinking in September, bank stocks were among those worst hit, with US bank stocks plunging by 18% and those of European banks by 19%. European banks were particularly affected by losses from credit risk as well as poor performance by insurance subsidiaries. During the seven-week rally starting on 10 October, US bank stocks rose by 31% while those of European banks rose by 21%. The recovery of these stocks was especially significant because it mitigated the risk of a credit crunch, in which banks might have become reluctant to lend as a consequence of pressures in capital markets.

The US Federal Open Market Committee (FOMC) appeared to take advantage of the equity markets’ momentum to enhance the effectiveness of a policy rate cut. On 6 November, the FOMC announced a surprisingly aggressive 50 basis point cut in the target federal funds rate. Out of 138 economists in a Bloomberg survey the day before, only 20 had predicted the 50 basis point cut. After some initial hesitation, investors in the stock market responded positively, with the S&P 500 rising by 1% by the end of the day. The FOMC had taken similar action on 18 April 2001, two weeks into a stock market rally. That move had taken place outside a scheduled meeting and had thus caught market participants by surprise, producing an 8% lift in the Nasdaq Composite that day. The day after the latest Fed policy rate cut, the ECB and
the Bank of England opted not to follow suit. The selling by disappointed investors led to market declines of 1% in Europe that day.

The market rallies in October and November kept equity valuations above historical norms. By mid-November, price/earnings multiples based on trailing earnings were 29 for the S&P 500 and 33 for the Dax (Graph 1.3), compared with a historical US average of 15. At the same time, volatilities implied by options on market indices remained unusually high, suggesting that equity risk premia were correspondingly substantial. If such risk premia were indeed high, their effect would be to depress equity prices, and they would thus not be the reason why valuations were so elevated. These valuations rather seemed to stem from robust forecasts of earnings growth. Indeed, when calculated on the basis of analysts’ earnings estimates, the resulting price/earnings multiples are much closer to historical norms. The question then is whether these earnings forecasts are reasonable. Based on a simple BIS model that relies on yield curves to forecast corporate earnings for the US market as a whole, the consensus analysts’ estimates in November seemed optimistic, although not nearly as optimistic as they had been in August.

Tokyo market assesses bank and corporate reforms

In Japan, the stock market was driven by conflicting signals about the prospects for long-awaited financial reforms. In interpreting these signals, markets vacillated between two possible reform scenarios with rather different implications for stock investors. In a generous scenario, the government would inject capital into ailing banks in a way that would benefit shareholders, while introducing measures to ensure that capital ratios did not fall below the required 8%. In the alternative “hard landing” scenario, more stringent measures would drive down capital ratios (see box on page 5) and ultimately
Japanese bank reform: bold ideas tempered

Patrick McGuire

Market participants saw the appointment of a new head of the Financial Services Agency (FSA) as a bold move by the Japanese government, suggesting that the political constraints on financial reform policy were loosening. Headed by a long-time advocate of aggressive measures, the FSA immediately assembled a task force to propose a reform package. However, as the 22 October disclosure date drew near, and elements of the task force proposals were widely discussed in the press, a political backlash erupted that led to certain compromises. Whether these will ultimately prove a significant setback to the reform process remains to be seen.

Strong reform proposals

The impetus for bank reform presumably arises from a need to channel financial resources to productive companies. The non-performing loan (NPL) problem is considered to be the main obstacle to meeting this need. Japanese banks carry on their books an officially estimated ¥47 trillion in NPLs, roughly 8% of GDP, although some economists put the figure at double this amount. Rather than cut off unhealthy companies that are unable to repay previous loans, banks have been extending them new credit to avoid recognising the losses. The initial task force proposals, as reported in the press, were primarily aimed at forcing banks to recognise these losses in calculating their own capital bases, and thus foster a more efficient distribution of economic resources.

Arguably the most contentious element of the task force proposals involved limits to be placed on the use of deferred tax assets in core capital. Banks set aside reserves to offset potentially bad loans, but the reduction in taxable income occurs only when the borrower becomes insolvent. Currently, the expected future reduction in taxable income (over a five-year horizon) can be recognised in the profit and loss account as an expected refund. This can be included in core capital, and allows banks to significantly boost their measured capital adequacy ratios. Major Japanese banks recorded ¥8.1 trillion in deferred tax assets at end-March 2002, constituting approximately 47% of Tier 1 capital (see graph). However, the calculation of these assets assumes that there will be a future stream of taxable income from which the deferred assets can be deducted. Doubts over projections of such future income are presumably the reason why the task force intended to cap the deferred tax contribution at 10% and to reduce the calculation horizon from five years to one.

Components of bank capital for city, long-term credit and trust banks

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<tr>
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<th>Risk-based ratio 11%</th>
<th>Risk-based ratio 10.53%</th>
<th>Risk-based ratio 10.34%</th>
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<tbody>
<tr>
<td>Tier 1</td>
<td>¥22.2 6.2%</td>
<td>¥19.4 5.7%</td>
<td>¥17.3 5.38%</td>
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<tr>
<td>Of which: deferred tax assets (dta)</td>
<td>¥17.2 4.81%</td>
<td>¥16.4 4.83%</td>
<td>¥16 4.97%</td>
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<tr>
<td>Tier 2</td>
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<td>Of which ¥5.4 dta</td>
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<td>¥22.2 6.2%</td>
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<tr>
<td>Of which ¥7.6 dta</td>
<td>¥17.2 4.81%</td>
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<td>Of which ¥8.1 dta</td>
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End-Mar 2001 End-Sep 2001 End-Mar 2002

Note: All levels in trillions of Japanese yen. Percentage figures indicate the ratio to risk-adjusted assets.

Source: Bank of Japan.
The plan also called for banks to value loans using discounted cash flow accounting. Incorporating the likelihood of future interest and principal repayments would force banks to value credit risk, and thus lead to greater loan loss provisioning. Related to this, the plan also called for a strengthening of the loan classification system. Currently, banks regularly classify loans to troubled or failing companies as healthy, or as “loans to borrowers needing attention”. In fact, an estimated 70% of bankrupt companies had their loans placed in one of these categories a year before they failed. Under the proposed plan, such loans would be strictly classified as non-performing, which would further increase the need for banks to provision against loan losses.

Finally, the task force suggested converting preferred bank shares owned by the state (a result of previous capital injections) to common stock, thereby giving the government voting rights in Japanese banks. The task force also left open the possibility of future capital injections to under-capitalised banks, a reversal of the policy pursued by the previous head of the FSA.

Resistance from affected participants

Facing strong resistance from both corporate and political circles, the FSA had to delay the release of its reform plan. In particular, there was widespread concern expressed that implementation would push many banks below the required 8% capital ratio, and possibly lead to a reduction in loan growth and a rise in unemployment. Moreover, a number of private sector economists argued that banks would react rationally to the 10% cap on deferred tax assets, leading to similar effects. Rather than call in loans from companies unable to pay (forcing banks to recognise the losses), banks would cut loans to healthy companies, resulting in a reduction of economic activity. Members of the ruling Liberal Democratic Party feared the FSA proposals would lead to a “hard landing” without a corresponding government stimulus plan to soften the blow. It was also recognised that the resulting corporate bankruptcies would probably include construction firms, which traditionally have had strong ties with the government.

Compromise plan emerges

What ultimately emerged from the NPL task force on 30 October was a compromise. All the major reform initiatives mentioned above were individually discussed in the official press release from the FSA. However, they were couched in terms of strong suggestions, while hard numbers and implementation dates were often absent.

The plan calls for a halving of bad loans by March 2005, and outlines a potentially stronger role for the Resolution and Collection Corporation (RCC). However, on the issue of NPL disposal via the RCC, the press release noted, “financial measures will be examined, where necessary”. In addition, it included a strong statement concerning the issue of deferred tax assets. First noting that “... the FSA will strictly evaluate the treatment of deferred tax assets ... and promptly examine also the upper limit ....” the press release then described a verification procedure whereby “... the FSA will request external auditors to rigorously audit deferred tax assets, and strictly check whether such assets ... are adequately booked on the occasion of inspections”. However, the immediate cap on the use of such tax assets for capital purposes was absent, as was a clear timetable for implementation.

There is also to be a further tightening of loan classification and provisioning standards, with concrete methods for shifting to discounted cash flow accounting to be examined “as soon as possible”. A scheme to promote the rigorous assessment of collateral, as well as a requirement that managers sign off on the accuracy of financial statements, is also under consideration. In addition, with regard to the conversion of preferred stocks, the “... FSA will improve the operational guidelines as quickly as possible aiming at converting them when they meet such conditions as advent of due date and significant deterioration of business conditions”.

What is not clear at this point is whether the absence of firm deadlines will lead to material delays in the implementation of the plan. The 10 November release by the FSA of a revised bad loan figure that is 36% larger than the banks’ previous assessment suggests that the political battle continues, and that more drastic reform may be forthcoming. Consistent with this, the FSA released a timetable on 29 November that called for a discussion of the limits on deferred tax assets to start within one month. It also announced that a decision on the use of discounted cash flow accounting will be made by the end of the fiscal year. Much depends on the discretionary powers now in the hands of the FSA and how aggressively they are applied in the future.
lead to a capital injection that involved replacing bank management with direct government control. Existing shareholders would lose the remaining value of their shares. Moreover, large companies owing non-performing loans (NPLs) would be allowed to go bankrupt and their equity investors would lose the remaining option value of their shares.

The reactions of investors in the Tokyo market in September and October hinged on which scenario seemed more likely at the time. The initial positive market reaction came on 18 September, when the Bank of Japan announced its intention to purchase corporate equities from commercial banks. The announcement seemed to fuel expectations of the generous scenario, and the Nikkei 225 rose by 2% that day. Market participants had the opposite reaction on 30 September, when an advocate of bold reforms was appointed as minister for financial services. The appointment seemed to generate fears of the “hard landing” scenario, and investors sold bank stocks as well as stocks of companies suspected to account for a significant share of non-performing loans. Over the ensuing 10 days, the Nikkei 225 fell by 11% to a 20-year low.

Fixed income markets take heart from equity markets

The period from March to September 2002 was a time of eroding confidence in fixed income markets. Investors in the United States, Europe and Japan responded to a stream of weak macroeconomic data by moving to the long end of the yield curve. With short-term rates anchored to policy rates, the resulting decline in long-term rates caused the curves to flatten (Graph 1.4). This tempering of optimism – as represented by increasingly flat curves – continued even during the equity market rally in late July and August.

Even while yield curves in Europe and the United States were becoming flatter, they continued to indicate a degree of optimism about the global economy. The US swaps curve, in particular, remained steep relative to its average slope in previous years, suggesting continued expectations of strong growth in the United States. The slopes were especially steep in March 2002, when the difference between the 10-year swap yield and 90-day Libor was close to 400 basis points in the US dollar market and 200 basis points in the euro market (Graph 1.4). Based on historical experience, such steep curves would suggest that investors expected a growth rate of nearly 6% for the US economy over the next four quarters and over 2% for the euro area over the same period. Thereafter, the US curve flattened considerably more than the euro curve. At the end of September, both curves also displayed negative slopes at the short end, indicating near-term expectations of monetary easing.

In October, investors in fixed income markets in Europe and the United States started to demonstrate renewed confidence in the strength of the global economy. Unlike in July and August, these investors now seemed to shrug off recent macroeconomic data and to join their counterparts in equity markets in responding to a few favourable corporate earnings reports. Yield curves began to steepen significantly. The 50 basis point cut in the US policy rate on 6 November not only lowered the short end of the curve but also led to a
Yield curves for interest rate swaps
In percentages

<table>
<thead>
<tr>
<th>Maturity</th>
<th>US dollar</th>
<th>Euro</th>
<th>Yen</th>
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<td>3-m</td>
<td>1-yr</td>
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Note: For three-month, six-month and 12-month, Libor rates.
Source: Bloomberg.

Further rise at the long end. Between 10 October and 22 November, the spread between the 10-year swap rate and 90-day Libor widened by 68 basis points in the US dollar market and by 24 basis points in the euro market. The slopes of these curves in mid-November implied four-quarter growth expectations of close to 5% for the US economy and nearly 2% for the euro area. The last time the US economy grew so strongly was during the last three quarters of 1982 and the first quarter of 1983, when the economy expanded by 8.3%. This increased optimism, however, did not seem to extend to the Japanese economy, where long rates continued to decline and the curve to flatten.

In Japan, while bond yields tended to decline, there were occasions in September and October when such yields rose and thus diverged from equity price movements. This phenomenon took place on days immediately following announcements related to financial reform policy. This divergence appeared to arise from the expected effects of the changing fiscal implications of banking reform on the supply of government bonds. On 2 October, the new minister for financial services chose a fellow advocate of bold reforms to lead the NPL task force. This appointment pushed up bond yields, even as equities fell. The expectation was apparently that a significant capital injection into the banking sector was now likely, and would ultimately be financed with government bonds. Five days later, bond yields and equity prices moved even further apart after the financial services minister said, “No bank is too big to fail”. Both events seemed to lead investors to conclude that the government would be forced to break its promise to keep new JGB issues under ¥30 trillion this year. Bond yields and equities diverged once again on 21 October, when it was announced that the FSA task force’s reform plan would be delayed. This delay was initially interpreted as signalling a hard landing approach.
Risks in corporate bond market heightened by underfunded pensions

Investors in the corporate bond markets shared the new optimism prevailing in the stock markets. Starting in May, credit spreads on corporate bonds had tended to move in association with equity prices. When the S&P 500 had fallen by 25% from May to September, the average spread of seven- to 10-year triple-B US corporate bonds over corresponding Treasuries had widened by about 70 basis points. When stock markets recovered in October, the link to the corporate bond market remained in place. Thus, when the stock market index rose by 16% from 10 October to 22 November, the triple-B spread narrowed by about 85 basis points. The effect on the euro area corporate bond market was similar, albeit less pronounced. The 18% rise in the DJ EURO STOXX was accompanied by a 25 basis point narrowing of the triple-B spread in Europe. Such a narrowing of spreads was especially welcome to borrowers because it came at a time when the US commercial paper market remained inhospitable to low-rated corporate borrowers (Graph 1.5).

Corporate bond and CP spreads

US bond spreads\(^1, 2\)  

<table>
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<tr>
<th>Apr 02</th>
<th>Jul 02</th>
<th>Oct 02</th>
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Euro area bond spreads\(^1, 2\)  

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A2 over A1-rated US CP\(^2\)  

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Historical US corporate bond yields\(^3\)  

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\(^1\) Option-adjusted spreads as calculated by Merrill Lynch for corporate bond indices with seven- to 10-year maturity.  
\(^2\) End-week data, in basis points.  
\(^3\) Monthly data, in percentages.

Sources: Bloomberg; Merrill Lynch; national data; BIS calculations.
The negative correlation between corporate bond spreads and equity prices in 2002 was particularly striking because it was so sustained. While such a correlation had been observed when stock prices had started to fall in 2000, the relationship had not continued beyond a few months. The link between prices in the two markets seems to have become more robust more recently. Anecdotal evidence suggests that hedge funds and insurance companies have recently started to follow dynamic hedging strategies that involve taking short positions in the stocks of companies to which they have credit exposures. These exposures can arise from investments in corporate bonds or from selling protection through credit default swaps. These hedging strategies may have strengthened the link between equity and corporate bond prices by introducing feedback from corporate spreads to stock returns.

Notwithstanding the general improvement in borrowing conditions, the ability of some companies to raise funds was hindered by growing recognition of a new risk factor: underfunded pension liabilities. The decline of stock prices since 2000 inflicted heavy losses on corporate pension plans that had allocated large portions of their portfolios to equity investments (see the box on page 11). The resulting funding shortfall in pension plans was particularly serious for automobile companies, airlines and telecoms firms. In the United States, a significant degree of smoothing allowed in the accounting treatment of such shortfalls may have delayed the recognition of this problem. To gauge the extent of the problem, Standard & Poor’s carried out a special survey in June of the companies in the S&P 500 Index. In October, the rating agency downgraded the debt ratings of two major US car manufacturing firms, including their finance company subsidiaries, at least in part because of the size of the shortfall in their pension plans. The downgrades were particularly onerous for the finance companies. They depended heavily on funds from the capital markets and previous downgrades had already led to their being denied access to the commercial paper market.

The impact of credit spreads on corporate fund-raising was particularly evident during the third quarter. Net issuance of international straight fixed rate debt fell by 42% from the second to the third quarter, the largest proportionate decline since the Russian crisis in 1998. In particular, financial institutions in the United States, France and Spain sharply reduced the net amount of funds they raised in the international debt securities market. Large US finance companies, for example, reduced their borrowing activity by two thirds. Coming at a time when corporate spreads were especially wide, the reduction in borrowing seemed to be at least partly attributable to a tighter supply of funds. The corporate bond market had been the most significant bright spot in capital markets in 2001 and now seems to have been the last to tighten.
Underfunded pension plans and corporate earnings

Jacob Gyntelberg

Recent declines in equity prices have given rise to concerns about the effects on pension plans and the consequences for corporate earnings. For many defined benefit plans, the fall in equity prices has resulted in underfunding, in which the market value of pension assets has dropped below the value of actuarially calculated liabilities. Unlike defined contribution plans, defined benefit (DB) plans are supposed to guarantee the specified future values of benefits, thus fixing the plans' liabilities and creating the problem of funding these liabilities. Adding to the concerns, complex accounting standards often obscure the link between the pension plan funding status and corporate earnings. This box discusses these concerns for the United Kingdom, the United States and the Netherlands, chosen primarily because corporate DB pension plans constitute a significant part of their pension systems. Moreover, some comparable information is available for these countries, although cross-country comparisons remain complicated by substantial variation in accounting standards.

The extent of underfunding

The current underfunding levels are mainly the result of declines in asset prices. In the last decade, corporate sponsors of DB pension plans in the three countries changed their portfolio strategies to invest increasingly large sums in equities. Using such a strategy, the sponsors hoped to exploit a perceived high equity risk premium. By the end of 2001, UK funds had an average equity allocation of around 70%, US funds 60% and Dutch funds 40%. On the liabilities side, the main difference between funds in the three countries is the discount factor used when calculating the present value of liabilities. These range between 3.5% and 7.5%, with the higher figure being used in the United States (implying a lower estimated value of the liabilities) and the lower figure in the Netherlands. In the United States and the United Kingdom, discount rates are linked to interest rates, while this is not the case in the Netherlands.

As a consequence, companies in the United Kingdom now face some of the more significant underfunding problems. Estimates imply a shortfall of around £70 billion, corresponding to around 7% of GDP or 10% of pension fund assets, with 90% of pension funds being underfunded.

For US companies, there was apparently no aggregate underfunding problem at the end of 2001. Lacking sufficient information from financial statements to gauge the extent of potential problems, Standard & Poor's conducted a special survey. The survey found that the overall funding ratio declined from 100% to 94% over the first six months of 2002. There was also a significant increase in the number of pension funds with low funding ratios. At the end of June 2002, underfunding was estimated at $65 billion for surveyed companies covering two thirds of total assets held in DB pension plans. This implies a shortfall of around $100 billion for US companies as a whole, corresponding to around 1% of GDP or some 6% of total DB pension plan assets. Importantly, the problem is concentrated in 10 companies which account for 57% of total underfunding. Six of these companies belong to either the automobile or airline sectors, both tending to have large, mature, DB plans.

For Dutch corporate pension funds, it is estimated that the overall funding level will be around 112% at the end of 2002. However, approximately a third of the pension funds are underfunded. The estimated shortfall for underfunded funds is approximately €23 billion, corresponding to around 5% of GDP or about 5% of total pension fund assets.

Effect on reported earnings and credit ratings

The effect of pension fund performance on reported corporate earnings depends on the way the pension fund is consolidated into corporate accounts. In the case of full consolidation and mark to market accounting by the pension fund, any fluctuation in the funding ratio would translate immediately into the earnings of the sponsor company. None of the three countries above practice such full consolidation and mark to market accounting. In general, UK and Dutch companies do not fully consolidate pension plans in their corporate accounts, and provide limited public information on their pension funds. These practices make an assessment of the earnings impact difficult. However,
companies that make cash contributions to increase the funding level of their pension plans, often in response to regulatory requirements, will report lower earnings. Due to the limited data availability for UK and Dutch companies, we restrict our attention below to the earnings impact for US companies.

In the United States, the link between corporate earnings and pension underfunding is obscured by the method used when consolidating the pension fund into the income statement. This consolidation is accomplished by amortising over several years the difference between assumed and realised returns, taking into account changes in the present value of liabilities. Assumed returns are calculated using an expected rate of return, typically around 9–10%, together with an up to five-year average of past asset values. In situations like the present, a period following significant declines in equity prices, the consequence of this type of smoothing is to overvalue the assets compared to a mark to market valuation. This results in higher estimates of pension fund income than would otherwise be the case, and hence delays the recognition of the funding shortfall in reported corporate earnings. Over time, however, the smoothed value of pension fund assets will come more into line with the decline in equity prices and will gradually reduce reported earnings from the pension fund. If the assumed rate of return used to calculate earnings from pension fund assets were lowered, this would reduce reported earnings from the pension fund. In addition, companies with severely underfunded pension plans are required by regulations to make cash contributions to the pension fund, with an immediate negative impact on reported earnings.

Standard & Poor’s calculates that in the year ending June 2002, for companies in the S&P 500 Index, pension funds on average contributed $6.54 per share, or close to 25% of earnings. Contributions were particularly high for the industrial and telecoms sectors. Earnings data also indicate significant variations between sectors. On average, there has actually been a positive contribution to reported earnings for these companies from their pension funds, despite negative actual returns on pension fund assets.

An underfunded pension plan effectively raises a company’s liabilities and hence its leverage. This may potentially affect its creditworthiness and increase its funding costs. Indeed, in October Standard & Poor’s lowered the long-term debt ratings on both Ford and General Motors (GM) and their finance company subsidiaries. For GM, the primary reason given was the poor return on the pension fund, and the fact that this compounded a substantial increase in an already large, underfunded pension liability. For Ford, the main reason given was concern about the adequacy of the ongoing restructuring of the company.

Political developments overshadow emerging markets

Investors in emerging markets were swayed less by prospective corporate earnings than by political developments. Presidential elections in Brazil and Turkey, accession discussions with the European Union and a terrorist attack in Southeast Asia figured prominently in investment decisions. Discussions in the international policy community about changes to the structure of the market for emerging market debt, such as the introduction of a formal mechanism for restructuring sovereign debt, were also reported by some market participants to have increased uncertainty, weighing on investor sentiment.

Developments in Brazil captured most of the attention. Investors first became concerned in May about the possibility that an advocate of policies inhospitable to investors would be elected president. Over the course of the next six months, the stripped spread on the Brazilian C bond widened by 890 basis points, and the Brazilian real lost 35% of its value in foreign exchange markets (Graph 1.6). In October, it became clear that the candidate would be elected. Nevertheless, following repeated assurances about his commitment to market-friendly policies, the sovereign debt spread narrowed by nearly 470 basis points, although the real stayed close to its September level. Even at the

A candidate’s assurances help to the tune of 470 basis points
narrower spreads, however, the sustainability of the country’s debt burden was not unquestioned. It remains to be seen whether more concrete evidence of good policies will improve investor sentiment to the point of placing the economy on a clearly sustainable path.

In other Latin American countries, uncertainty about the future direction of government policies also contributed to volatile market conditions. Concerns about certain candidates in Ecuador’s presidential elections caused spreads on Ecuador’s international bonds to track closely those on Brazil’s. Venezuelan spreads were less affected by developments in Brazil, with investors focusing on the current president’s prospects for remaining in office. In Argentina, the failure of the authorities to reach an agreement with the IMF on a new economic programme exacerbated the spillover from developments in Brazil.

In contrast to Brazil, the elections in Turkey did not unsettle investors. Before the election, the leading party committed itself to meeting the fiscal targets and reform measures set out in Turkey’s programme with the IMF. The subsequent election of a party with a clear majority in parliament strengthened investors’ confidence in the ability of the government to meet its commitments. Indeed, only a week after the election, in early November, the government took advantage of a narrowing in spreads to raise $500 million in the international bond market.

In Asia, the most dramatic development was the terrorist bombing in Bali on 12 October. The attack depressed the Jakarta stock market for a few weeks and briefly affected the Bangkok and Kuala Lumpur markets. The Jakarta market sank by 9% over the two trading days after the bombing, while the Bangkok market lost 1% and the Kuala Lumpur market 2% (Graph 1.6). Both the Bangkok and Kuala Lumpur markets, however, recovered their losses within four days. It took the Jakarta stock market until mid-November to return to pre-attack levels. There were no discernible effects in other Asian stock markets.

**Emerging markets**

![Emerging markets chart](image)

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1 End-March 2002 = 100.  
2 An increase represents an appreciation of the local currency against the US dollar.  
3 In basis points; stripped spread of emerging market bond indices as calculated by JP Morgan Chase.

Sources: Bloomberg; Datastream; JP Morgan Chase; BIS calculations.
Political developments also affected financial markets in central and eastern Europe. The most significant events took place in October. On the 19th, Irish voters accepted the Nice Treaty. A week later, the Council of the European Union agreed at a special summit on a financial framework for EU enlargement involving the accession of 10 new member countries. With fixed income investors following convergence strategies, the yield on 10-year local currency Hungarian government bonds decreased by 30 basis points in the course of the month, while that on similar Polish bonds fell by 20 basis points (Graph 1.7). Indeed, in such accession countries, the whole yield curve tended to shift downwards. The capital flow into Hungary from convergence trading was apparently so strong that the forint appreciated against the euro. The decline in interest rates was also reflected in the bond spreads of countries such as Romania, which were seen as most likely to be in the second wave of EU enlargement. A similar pattern had been traced earlier by Greek bonds in anticipation of the adoption of the euro in that country. The yield differential for these bonds over German bonds had narrowed from 200 basis points in 1999 to less than 50 basis points at the beginning of 2002.

Although financing inflows remained sluggish for emerging economies as a group, the stronger credits among them maintained reasonable access to international debt markets. Even as net issuance of international debt securities by stronger borrowers slowed in the third quarter of 2002, they continued to arrange loans in the syndicated credit market. Mexican borrowers remained among the most active in the international bond and loan markets in the third quarter (see pages 32–33). Early in the fourth quarter, they even raised funds through a peso-denominated international bond issue.