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1. Overview: buoyant markets in weak economies

April and May 2003 saw an unusual divergence in market views about global growth prospects. Equity and credit markets rallied during this period even as yield curves flattened. A series of disappointing macroeconomic announcements led investors in swap and government bond markets to revise their expectations of economic growth downwards. By contrast, investors in equity and credit markets discounted the weak macroeconomic data and instead focused on better than expected corporate earnings reports.

Spreads on higher-yielding debt, both corporate and sovereign, fell to levels last seen in the late 1990s, when global growth was significantly stronger than today. Faced with exceptionally low nominal yields, investors appeared willing to take on more credit risk in their search for higher returns. Despite a surge in bond issuance in the first quarter and very weak equity issuance, investors' expectations of a further strengthening of corporate balance sheets seemed to remain intact. Heavily indebted emerging markets such as Brazil and Turkey, which had found themselves shut out of international capital markets as recently as July last year, regained access on relatively favourable terms.

Interest rates fall to historical lows

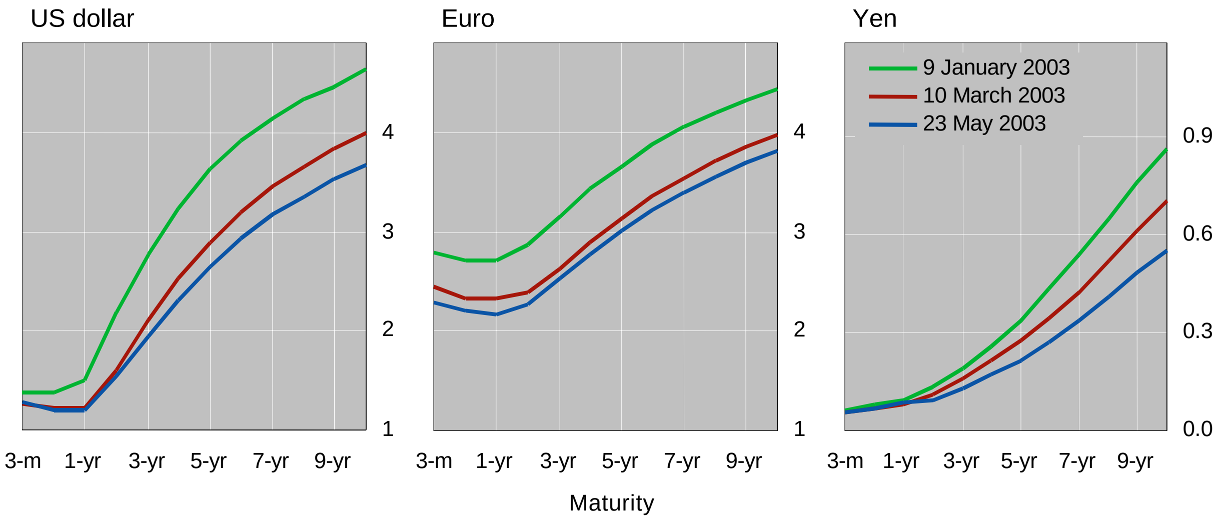
Long-term yields at a 45-year low

Long-term interest rates in the major markets fell to historical lows in May. Yields began to decline in mid-April, after the end of the main offensive in Iraq, and by 22 May the nominal yield on the 10-year US Treasury note stood at 3.31%, its lowest level since 1958 and approximately 50 basis points lower than its end-2002 level. The yield on 10-year German government bonds fell by a similar magnitude to 3.54%, its lowest level in decades. Yields on corresponding Japanese and Swiss government bonds were lower still.

The fall in yields in April and May signalled a return to the pessimism about growth prospects evident in government bond and swap markets earlier in the year. From the beginning of January to mid-March, long-term yields had declined steadily and yield curves had become noticeably flatter on signs of prolonged economic weakness (Graph 1.1). This trend was interrupted in the days immediately before and after the start of the war in Iraq, when yield curves steepened despite the absence of positive macroeconomic data.

Swap yield curves

In percentages



Note: For three-, six- and 12-month US dollar and yen maturities, Libor; for three- and six-month euro maturities, euro deposit rates.

Source: Bloomberg. Graph 1.1

Indeed, the surprisingly weak US non-farm payroll figures released in March and April – usually regarded as a bellwether indicator – went unnoticed in bond and swap markets.

The plunge in world oil prices in mid-March may have underpinned the new optimism about growth prospects reflected in the steepness of yield curves at the time. Yet this optimism was not shared by most economists, who continued to revise their growth forecasts for the United States and the euro area downwards (Graph 1.2). The accumulation of weak macroeconomic data eventually seemed too much for investors in government bond and swap markets to ignore, and yield curves again flattened beginning in mid-April.

Weak data flatten yield curves

Expressions of concern about deflation by major monetary authorities also contributed to the flattening of yield curves. On 6 May, while deciding to leave its policy rate unchanged, the US Federal Open Market Committee distinguished between an economic climate for which risks seemed to be balanced and a trend in prices for which deflation was a greater risk than inflation. The yield on the 10-year US Treasury note fell by 3 basis points that day. Two days later, the ECB clarified that under its strategy it would aim to maintain an inflation rate "close to 2%" over the medium term so as to guard against the risks of deflation, while at the same time assuring investors that deflation was not a concern for the euro area as a whole. A month earlier, with its economy already beset by deflation, the Bank of Japan had announced that it was reviewing schemes under which it would purchase asset-backed securities. By dealing in such instruments, the bank may be able to bypass the large but weak commercial banks to enhance the monetary transmission mechanism.

Investors search for yield

A sustained rally in corporate bonds ...

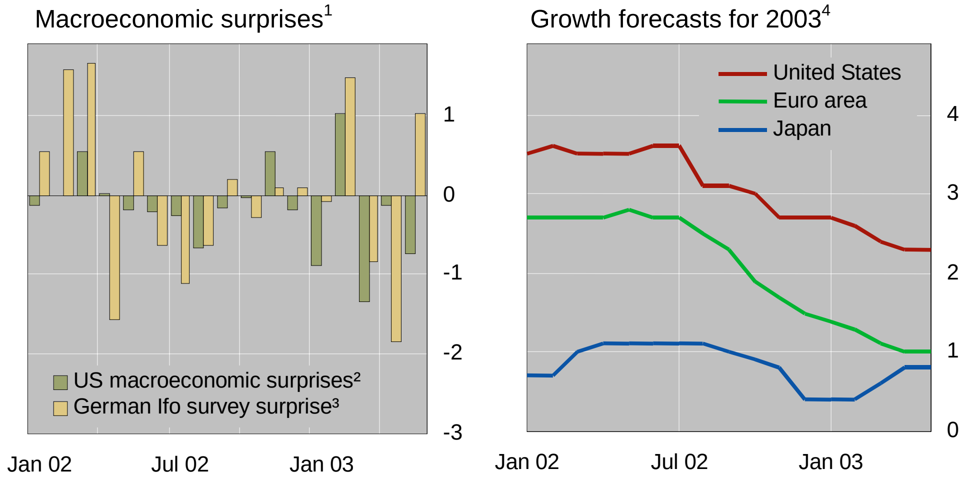
Even as yields fell and yield curves flattened in April and May, credit spreads continued to tighten. The recovery that had begun in credit markets in mid-October 2002 continued more or less uninterrupted over the first five months of 2003. Yields on BBB-rated US corporate bonds tightened by 30 basis points against US Treasury yields in the first quarter of 2003, and by a further 40 basis points in the eight weeks to 23 May. Not since 1993–94, during the US economy's rebound from the recession of the early 1990s, had credit markets experienced such a sustained rally.

To some extent, the tightening of credit spreads was an unanticipated consequence of the fall in interest rates. During the long decline in interest rates, positions in government bonds and other highly rated securities had provided investors with exceptionally high returns through capital gains. Over the 2000–02 period, the average annual return on the Merrill Lynch US government bond index was 11%, and on the euro area government bond index 8%. By 2003, however, yields had fallen so far that it seemed unlikely to many investors that they could decline further. Therefore, ordinarily conservative investors turned to higher-yielding corporate and emerging market bonds as a way of obtaining higher returns. Indeed, mutual funds investing in corporate high-yield and emerging market debt saw record inflows in the early part of 2003 (Graph 1.3).

... supported by a hunt for yield

Emerging markets were among the biggest beneficiaries of this search for yield. The Brazilian real, Argentine peso, South African rand and other higher-yielding currencies appreciated as investors moved into local fixed income

Macroeconomic data and growth forecasts



[1] Normalised announcement surprises, based on the difference between actual numbers and consensus forecasts. The observations are positioned in the month in which the actual numbers were released. [2] Weighted average of normalised surprises of the ISM survey, non-farm payrolls, retail sales and producer price and consumer price announcements. [3] The German Ifo survey is a business climate index derived by the Institut für Wirtschaftsforschung from survey responses. [4] Percentage changes over previous year. Forecasts as published monthly by Consensus Economics. The observations are positioned at the end of the month in which the forecast was made.

Sources: Bloomberg; © Consensus Economics; BIS calculations.

Graph 1.2

markets. In addition, spreads on dollar-denominated emerging market bonds tightened by 200 basis points on average between the end of 2002 and late May, to their lowest level since early 1998 (Graph 1.3). Even heavily indebted countries such as Brazil and Turkey, which had found themselves shut out of international capital markets as recently as July last year, regained access on relatively favourable terms.

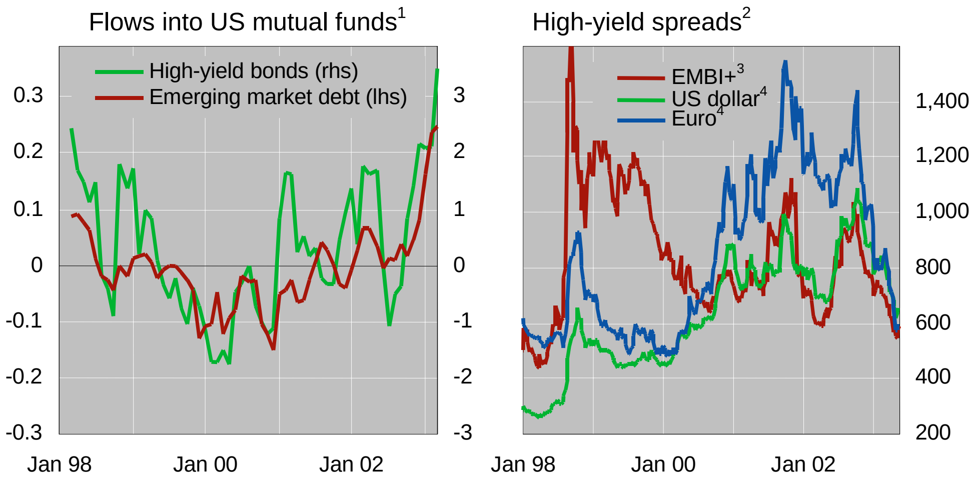
Brazil and Turkey return to the market

Concerns about the underlying fundamentals did at times weigh on spreads, but their impact tended to be limited and quickly reversed. In early March, the announcement of weaker than expected automobile sales in the United States depressed the price of debt issued by Ford and General Motors. Although other sectors continued to rally, corporate bond indices tended to fall during this period because of the large weighting given to the automobile sector. In emerging markets, investors remained sensitive to continued improvements in policies, the maintenance of macroeconomic stability and the disbursement of promised foreign assistance. For example, Turkey saw its sovereign spread soar temporarily in mid-March, from 750 basis points to nearly 1,000 basis points, on news that a multibillion dollar financial package from the United States would be sharply reduced. Meanwhile in Korea, the revelation of accounting irregularities at one of the country's largest conglomerates shook local financial markets (see the box on page 10).

Fundamentals sometimes matter

A surge in bond issuance in the first quarter of 2003 was easily absorbed by credit markets. Gross issuance by corporate borrowers rebounded strongly in domestic and international bond markets (Graph 1.4). Much of this activity was driven by refinancings of maturing debt. Nevertheless, net new issuance in the first quarter was higher than in recent quarters. New borrowing exceeded repayments by $341 billion in the international debt securities market, almost double the net amounts raised in each of the third and fourth quarters of 2002

The search for yield

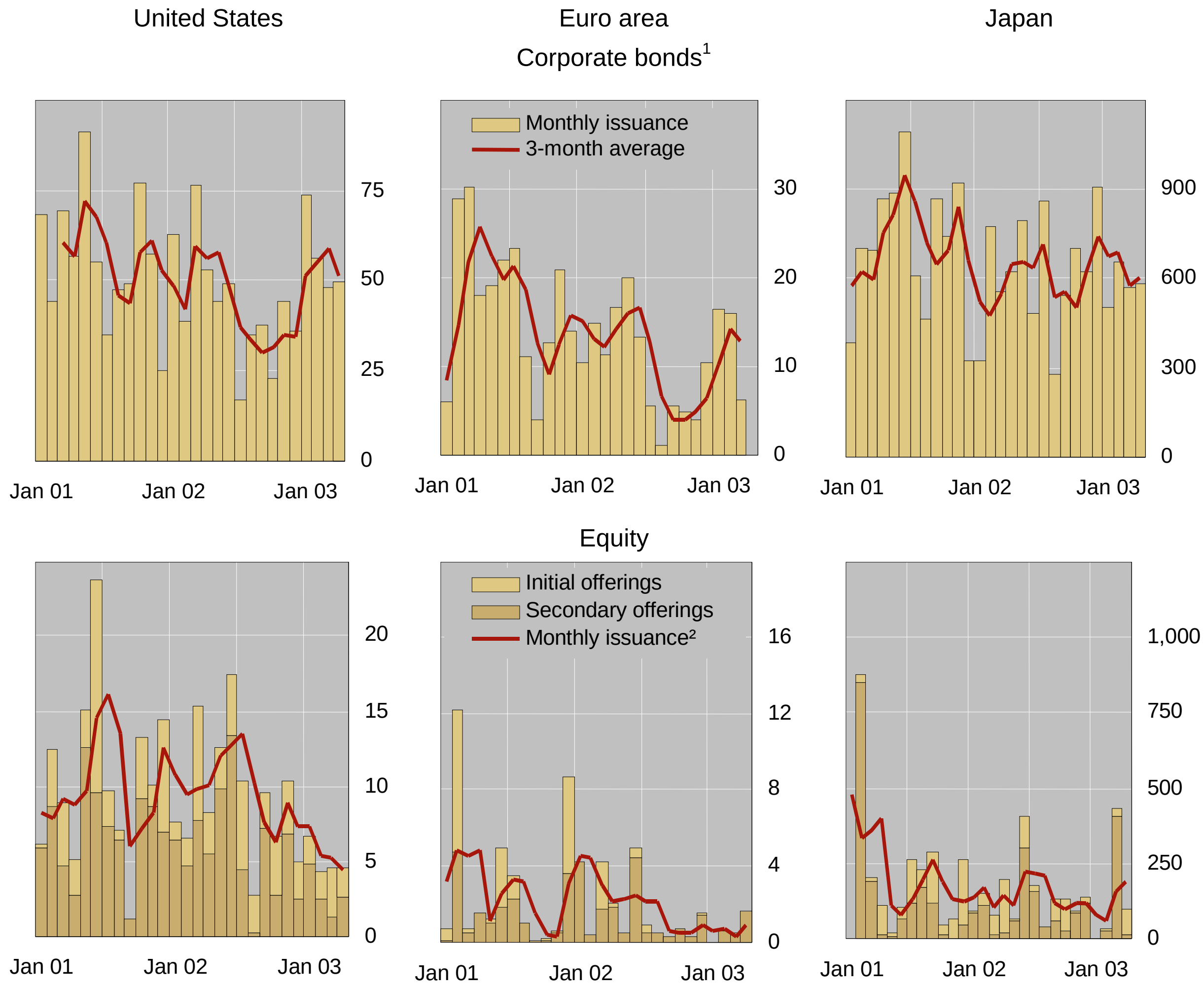


[1] Three-month moving averages, in billions of US dollars. [2] End-week data, in basis points. [3] Weighted spread of sovereign debt instruments over US Treasury securities as calculated by JP Morgan Chase. [4] Option-adjusted spreads over government bonds as calculated by Merrill Lynch for corporate bond indices.

Sources: Bloomberg; Investment Company Institute; JP Morgan Chase; Merrill Lynch. Graph 1.3

Fund-raising in capital markets

Gross issuance; in billions of local currency



[1] Debt securities issued in domestic markets by non-financial corporations. Data for the euro area refer to euro-denominated bonds issued in domestic and international markets. [2] Three-month moving average of total offerings.

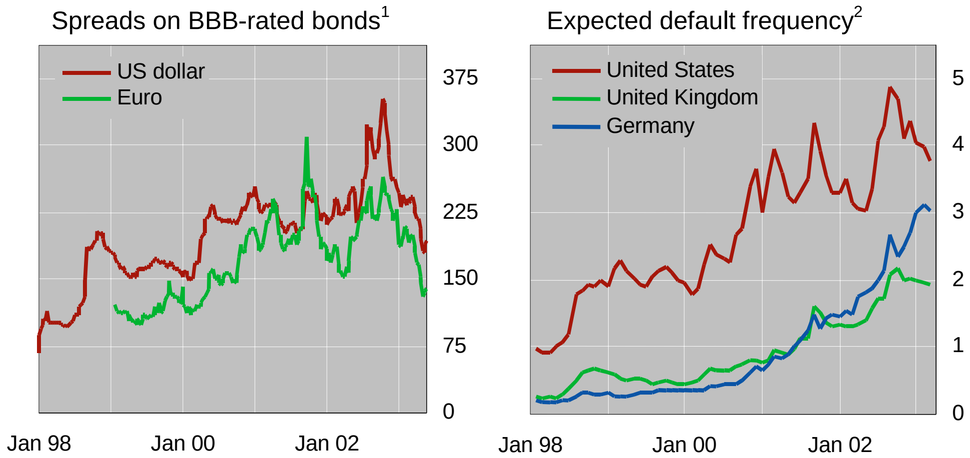
Sources: Bloomberg; European Commission; national data; BIS calculations. Graph 1.4

(see “The international debt securities market” on page 23). While issuance by European financial institutions accounted for much of this increase, net international issuance by corporations was also up.

Prefunding in anticipation of war

The pickup in net issuance in part reflected prefunding in advance of the war in Iraq. Corporations concerned that interest rates might rise once war broke out moved to lock in low borrowing costs. By the end of the first quarter of 2003, many firms had reportedly completed up to half of their borrowing plans for the year. Preliminary data indicate that gross corporate issuance slowed going into the second quarter, suggesting that corporate borrowing returned to the more subdued levels seen in the latter part of 2002. Moreover, bank lending again contracted. Signings of syndicated loans by non-financial corporations were down by 12% in the first quarter from a year earlier (see “International syndicated credits in the first quarter of 2003” on page 21). Lending to US corporations was especially weak.

Credit spreads and default probabilities



[1] Option-adjusted spread over government bonds as calculated by Merrill Lynch for corporate bond indices with seven- to 10-year maturity; end-week data, in basis points. [2] Expected probability that a company will default within one year, as calculated by KMV, in percentages.

Sources: Bloomberg; KMV; Merrill Lynch. Graph 1.5

Corporations continued to rely on asset sales and especially internal cash flow to reduce their borrowing requirements. Many companies reported improved profit margins, achieved by restraining capital spending and further cutting operating costs. In recent months, some firms have also strengthened their balance sheets by issuing mandatory convertible bonds, redeemable only in stock. However, initial and secondary offerings of equity capital have remained at very depressed levels.

Have corporate spreads overshot?

Expectations of further deleveraging, coupled with higher profit margins and a decline in the number of corporate defaults, have to date underpinned the narrowing of credit spreads. Should these expectations prove optimistic, some of the recent gains in credit markets could be reversed. In mid-May, triple-B spreads were equal to their 10-year average of 180 basis points. However, market-based measures of default probabilities, which tracked the widening of spreads reasonably closely over the 1998–2002 period, have yet to fall from the highs reached in late 2002 (Graph 1.5). Moreover, in April and May growth prospects as reflected in yield curves were at odds with the strengthening of fundamentals implied by the tightening of credit spreads. This raises the question of whether investors' search for yield has driven credit spreads down faster than the improvement in credit quality.

Are equity investors getting ahead of themselves?

Earnings numbers engender optimism

Equity investors too appeared unfazed by the flattening of yield curves and weak macroeconomic data in April and May. The decline in global equity prices that began in mid-January came to an abrupt end in the second week of March, on signs that war in Iraq was imminent (Graph 1.6). Coalition successes in the war supported a rally in equity markets in late March and early April. Following the fall of Baghdad, investors turned their attention to corporate earnings reports and found reason for optimism even as investors in swap and government bond markets turned pessimistic.

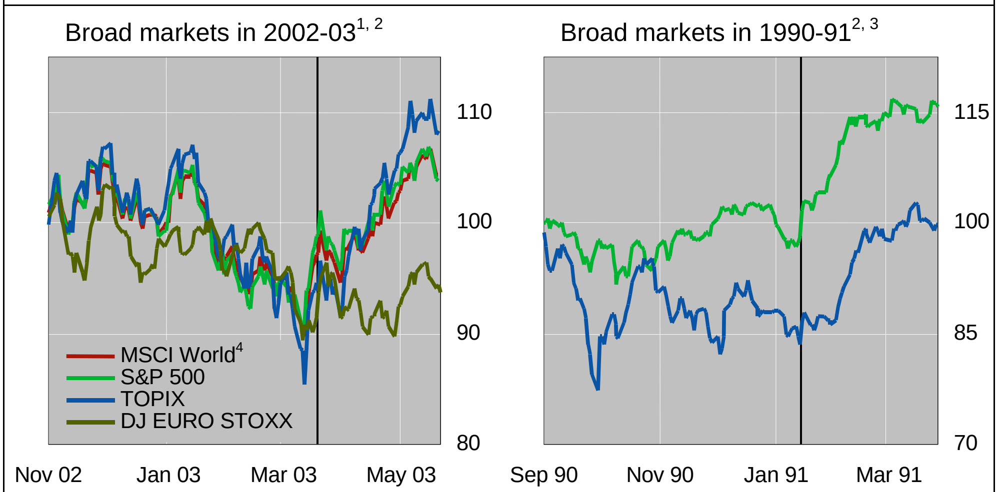
While events related to developments in Iraq had begun affecting investor confidence in December 2002, the possibility of war started to weigh more heavily on markets on 16 January, when UN inspectors found empty Iraqi warheads. This uncertainty evidently commanded a risk premium. Indicators of such a premium, rigorously estimated from prices of options on equity indices, rose sharply during January and February (Graph 1.7). Between 16 January and 12 March, the MSCI World Index fell by 13%, the S&P 500 by 12% and the Dow Jones EURO STOXX by 20% (Graph 1.1, left-hand panel).

Investors buy before hostilities start

The abrupt transformation of eight weeks of anxiety about war into a four-week war rally provides an interesting study of investor sentiment. Suddenly, in the second week of March, when war looked almost inevitable, investors seemed to regain confidence. They may have been looking back to January 1991, when stock markets rallied as soon as the Gulf war began (Graph 1.6, right-hand panel). Perhaps anticipating a similar rally, investors started buying without waiting for hostilities to break out. Stock prices rebounded on 13 March 2003, six days before the war began, and continued to soar in the first days of the war. The rally was interrupted in late March by reports of setbacks suffered by coalition forces but resumed in the first week of April on news that the international airport in Baghdad had been captured. In the four weeks from 17 March to 14 April, the MSCI World Index and the S&P 500 rose by 10% and the Dow Jones EURO STOXX by 16%. During the entire episode, the European market tended to rise and fall by more than the US market. In part this was because of the greater weight in the former of sectors most affected by recent volatility, namely the insurance, technology and financial sectors.

For investors in equity markets, the war in Iraq was a distraction from the usual fundamentals. In the run-up to the conflict and during the fighting

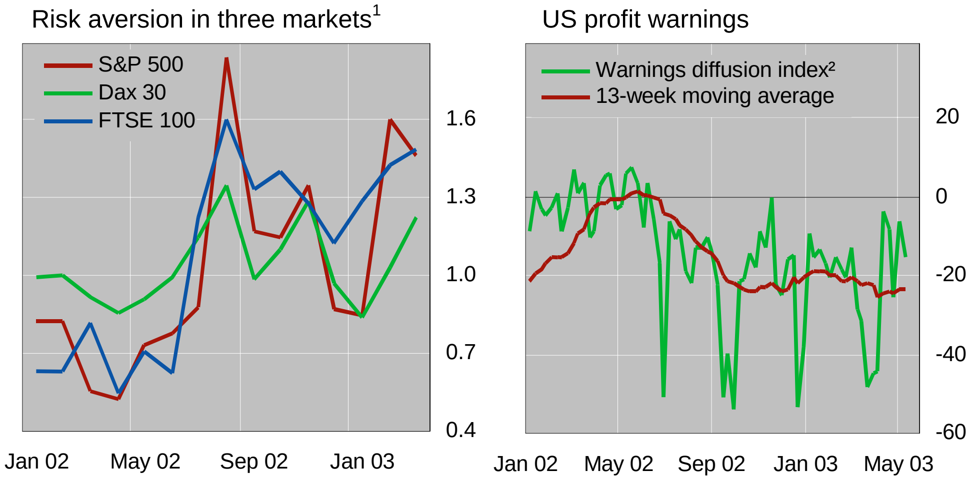
Equity markets around the start of two wars



[1] End-October 2002 = 100. [2] The vertical line indicates the start date of war in the Gulf (19 March 2003 and 16 January 1991 respectively). [3] End-August 1990 =100. [4] Morgan Stanley Capital International (MSCI) World Index.

Sources: Bloomberg; Datastream. Graph 1.6

Indicators of risk premia and profit warnings



[1] Derived by comparing probabilities implied by option prices with probabilities estimated from a time series of realised returns, using the approach of Tarashev et al in "Investors' attitude towards risk: what can we learn from options?", in this issue of the *BIS Quarterly Review*. [2] Number of positive minus negative warnings as a percentage of number of positive plus negative warnings.

Sources: Bloomberg; BIS calculations. Graph 1.7

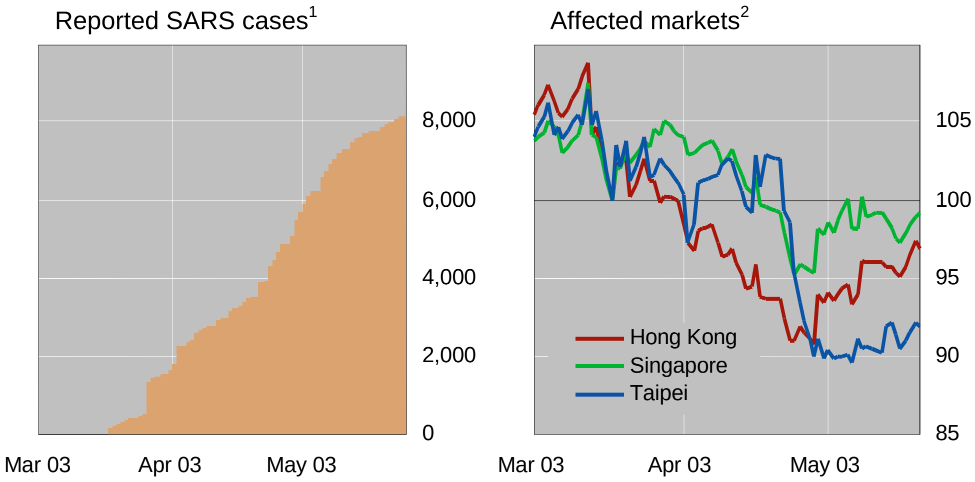
A belated return to fundamentals

itself, these investors seemed to shrug off major macroeconomic announcements. On 4 April, for example, a disconcertingly weak US non-farm payroll figure had little effect on the markets. Yet, once the war was considered to be over, market participants returned to their homework in earnest and evidently liked what they found. While negative profit warnings issued by US corporations continued to outnumber positive ones (Graph 1.7), the bellwether companies tended to deliver good news. For example, AOL, AT&T and Microsoft in the United States and Nokia, Philips and Siemens in Europe exceeded expectations about their earnings. These favourable earnings reports extended the global market rally by five more weeks, with the MSCI World Index rising by 8% between 14 April and 16 May. The most notable exception to this pattern of positive corporate news was an unfavourable earnings report by Sony on 24 April, which provoked a decline of 1.5% in the TOPIX.

Asian markets cope with SARS

In the midst of the upturn in US and European equity markets, investors in Asian markets found themselves facing an unusual threat. The first cases of severe acute respiratory syndrome (SARS) were reported in Asia during the third week of March (Graph 1.8). These reports led to a sharp fall in stock prices in Hong Kong SAR, Singapore and Taiwan (China). For markets that normally track the US market closely, their underperformance after the outbreak of the virus was striking. Between mid-March and the end of April, the Hong Kong market underperformed the MSCI World Index by 8%, the Singapore market by 3.4% and the market in Taipei by 12%. Airline and hotel stocks were especially hard hit, with Cathay Pacific, for example, falling by 15%. On the other side of the globe, prices in the Toronto stock market were unaffected when the World Health Organization (WHO) added the city to its list of locations subject to a travel warning. The losses in equity markets began to abate only on 29 April, when the WHO determined that the number of

SARS and stock prices



[1] Cumulative number of total reported probable cases. [2] Ratio of country index to MSCI World Index; 17 March 2003 = 100.

Sources: Bloomberg; Datastream; World Health Organization; BIS calculations. Graph 1.8

SARS cases had peaked in Hong Kong SAR, Singapore, Toronto and Vietnam. The Hong Kong and Singapore stock markets both gained more than 3.5% in one day. However, the virus remained a serious problem in China, where the stock exchanges were shut down in early May.

The global market rally in March and April lifted equity valuations further above historical norms. Based on a five-year moving average of earnings, the price/earnings ratio for the S&P 500 reached almost 23 in April, significantly above the 1961–95 average of 17. Current valuations appear more reasonable if earnings are not assumed to revert to their five-year average but rather are assumed to rise more strongly in an economy recovering from a recession. Indeed, analysts are forecasting robust earnings growth, and a calculation based on this forecast would bring the price/earnings ratio down to 17. It should be noted, however, that such forecasts have in the past consistently proved to be overly optimistic.

A depositor run in securities markets: the Korean experience

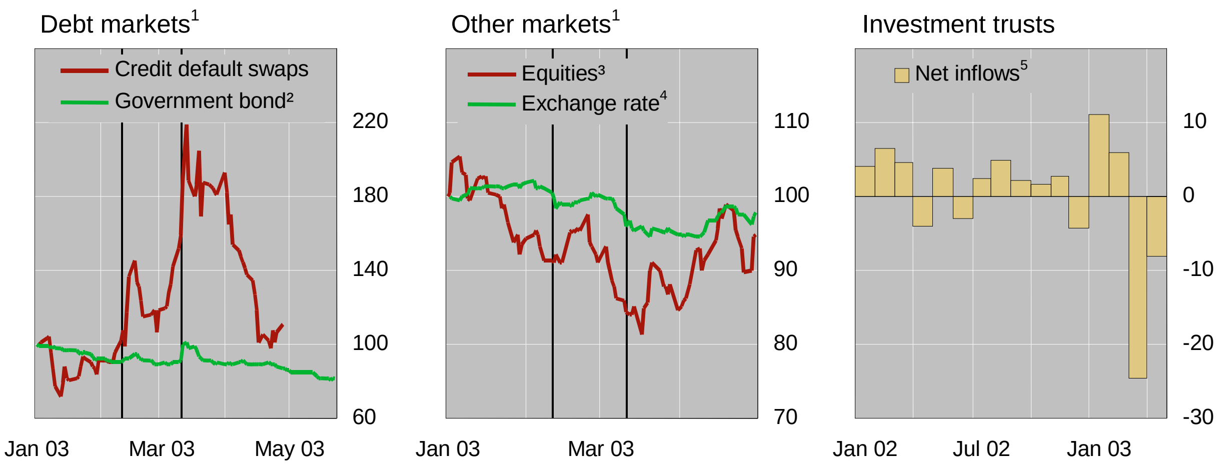
While financial systems dominated by banks are frequently contrasted with systems centred around securities markets, similarities between the two types of system receive less attention. Events in Korean financial markets in March 2003 highlighted one of those similarities: the risks to financial stability posed by a run by investors. Central banks have long been concerned about the possibly systemic consequences of a sudden withdrawal of deposits from banks and have developed tools, such as deposit insurance and lender of last resort facilities, to respond to bank runs. Korea demonstrated that similar runs can occur in securities markets, in the form of mass redemptions of trust funds. The tools for responding to such runs, however, are much less developed.

The problems in Korea began on 11 March, when state prosecutors indicted executives of SK Global, a subsidiary of Korea's third largest conglomerate SK Group, on charges of falsifying financial statements. SK Global was accused of inflating profits by 1.6 trillion won and hiding debt totalling 1.1 trillion won. Similar to the market reaction a month earlier – on 11 February when concerns about North Korea's nuclear weapons programme had led Moody's to change its credit rating outlook on South Korea to negative from positive – equity, fixed income and currency markets all fell immediately after the indictment. However, whereas in February markets had stabilised quickly, in March liquidity problems among non-bank financial intermediaries led to a vicious circle of deterioration in market functioning.

In the days and weeks following the indictment, Korean investors fearing losses redeemed their holdings of investment trusts, especially money market funds. Redemptions in March totalled 24.7 trillion won, or 14% of trusts' assets at the end of February. Given their limited cash holdings and restrictions on borrowing, investment trusts were forced to meet redemptions by selling assets. As a result, corporate and even government bond prices plummeted. Credit default swap (CDS) spreads on the Korean government also soared as liquidity in other segments of the debt market evaporated and investors turned to the CDS market to hedge their exposures.

In the face of such distress selling, financing conditions in Korea's corporate bond market deteriorated to the point where the solvency of some financial institutions was threatened. Credit card companies were the worst affected because of their heavy reliance on investment trusts for funding. Rising delinquency rates had already begun to put upward pressure on card companies' borrowing costs, and as trusts liquidated their assets, card companies faced the prospect of being unable to roll over maturing obligations.

The authorities eventually intervened to ensure that markets continued to function. In mid-March, the central bank helped to stabilise the government debt market by bidding for 2 trillion won, and the government postponed scheduled auctions of government bonds. To avert the possibly systemic consequences of a default by a card company, the Korean authorities brought together a number of key market participants to arrange an orderly refinancing of card companies' maturing debt. In early April, commercial banks agreed to provide a line of credit, and in exchange the card companies committed to raising 4.6 trillion won in equity capital.



[1] 1 January 2003 = 100; vertical lines indicate 11 February 2003 and 11 March 2003. [2] Five-year Korean won-denominated bond yield. [3] KOSPI. [4] US dollar/won exchange rate; a decline indicates a depreciation of the won. [5] Change in deposits with Korean investment trust management companies, in trillions of won.

Sources: Bank of Korea; Bloomberg; CreditTrade; Datastream; BIS calculations.