Highlights of Recent Trends in Financial Markets

I. Background

Over the past six months, the scenario of an only modest economic recovery in the major economies seems to have become entrenched. Geopolitical tensions concerning a war in Iraq and the fear of renewed terrorist attacks are weighing heavily on business and consumer confidence. Signals as to when a recovery will take place are mixed. According to the OECD Composite Leading Indicator, the United States seemed to have reached a turning point by the end of 2002, while other major economies are still on a downward trend. Consensus forecasts of 2003 GDP growth have been revised downwards over the last six months for all major economies, only slightly for the United States, but most heavily for the euro area. Mainly driven by expectations of higher oil prices, revisions of inflation forecasts have generally been on the upside. This is also reflected in rising spreads between nominal and real bonds (Figure 1).

Facing the headwinds from falling stock markets, low interest rates helped to maintain consumer spending in the United States throughout the recession. While this increased indebtedness, US household balances still seem to be in good shape, as losses in stock portfolios have been mitigated by increases in real estate value. Furthermore, real income did not decline during the recent recession, part of which was due to tax cuts and transfer payments. But consumer spending had also been financed in part by mortgage re-financing cash-outs, which are unlikely to continue for much longer. Furthermore, declines in consumer confidence and the recent increase in jobless claims suggest some retrenchment in spending ahead. The picture of a stalled US economy is also portrayed in the Fed’s latest Beige Book published early in...
March, noting that growth in economic activity remained subdued in the first months of the year. In Europe, a further slowdown in consumer spending and an increase in precautionary savings is even more likely, where rising unemployment nourishes fears of job loss, reflected in plunging consumer confidence indicators. With business expectations low, it is questionable when firms will step in with investment spending, although recent signals look somewhat positive. However, Europe’s economy may stave off a recession, as business confidence improved in Germany, Italy and Belgium, and European manufacturing activity unexpectedly climbed for the first time in six months in February 2003. Also in the United States, for the same period, economic activity in the manufacturing sector grew for the fourth consecutive month, but at an unexpectedly low rate. Although new orders figures still look hesitant and labour-shedding continues on both sides of the Atlantic, there are some signs, in particular in the United

Figure 1. Implied inflation expectations and crude oil price
As of 7 March 2003

Note: Implied inflation expectations ("breakeven inflation") are differences in yields between 10-year government benchmark bonds and inflation indexed bonds (Merrill Lynch government inflation-linked bond indices).
Source: Thomson Financial Datastream.
States, that the downward inventory adjustment is fading out and investment is picking up.

So far, the policies in place have been supporting demand. Central banks have provided low interest rates in the major areas, and for the United States, a fiscal stimulus from tax cuts and higher (possibly also defence-related) spending can be expected. In Europe, there is not much room for further fiscal expansion, as, most importantly, the biggest economies of the euro area have reached or are about to reach the deficit thresholds imposed by the Stability and Growth Pact. However, some governments have been considering a suspension of those limits in the case of a war-related economic downturn. There are also some expectations of a further rate cut by the ECB. Many analysts consider that, in Europe, fiscal retrenchment will be necessary and that structural policies to reform labour and product markets will not yield immediate effects. In the United States, households will have to pare their high indebtedness to levels which make the debt burden sustainable should interest rates rise again. A weaker dollar, necessary to reduce the pending problem of the high current account deficit, will not meet as high a demand from the other side of the Atlantic and the Pacific as may be wished for.

II. Equity markets

Economic uncertainty is also reflected in the stock markets (Figure 2). The protracted fall in equity prices, which started at the beginning of 2000, has continued over the past few months. Since their peaks, broad stock market indices of major economies had fallen between 40 and 70 per cent by the end of February 2003. In the United States, drops have accelerated and about 8 per cent of the 44 per cent decline can be attributed to the past few months (Table 1). In the euro area, almost one fourth of the 60 per cent drop in the Euro Stoxx happened in recent months. In Germany, the area’s largest economy, the DAX fell by almost 20 percent since last November, accounting for about one third of the overall decline since its peak in 2000. For Japan, stock prices have fallen to their lowest level for 20 years. Uncertainties about the economic outlook are also reflected in implied volatilities of major share prices, which have generally remained above their recent averages (Figure 3).
...and so have technology stocks...

Technology sectors continue to be the hardest hit by the downturn. Lately, the downturn didn’t even spare the biggest financial-information firms. Technology (TMT) shares fell about two thirds in the United States or more in other countries, measured from their peaks until February 2003. In the United States and the United Kingdom, relatively large parts of these corrections took place in recent months, while in France the sectors’ equity prices picked up by 3 per cent since November, and half a per cent in Canada. France’s example may be short lived, as early in March major telecom and tech companies reported substantial losses, and the CAC 40 had fallen to a six-year low in early March. Major losses were also reported from German telecoms. In general, telecoms in Europe are still suffering from the high fees paid to their governments for third generation (3G) mobile telephony licenses. The high indebtedness and the hesitant demand prospects also led to a slow introduction of the 3G infrastructure. Recent plans by the European Commission to
subsidise telecom infrastructures in poorer European regions may help the lacklustre development of that sector. Coping with the decline in Germany’s TMT sector, which amounted to 85 per cent since its year 2000 peak, the highest among the G7 economies, the Deutsche Börse has restructured its trading

<table>
<thead>
<tr>
<th>Table 1. Overall and sectoral stock market declines in major economies</th>
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<tr>
<td><strong>United States</strong></td>
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<td><strong>Broad stock market indices</strong></td>
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<td>WILSHIRE</td>
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<td>Peak month: Mar-00</td>
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<td>P/E avg 90-94</td>
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<td><strong>Telecom, Media, IT</strong></td>
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<td>Peak month: Mar-00</td>
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<td><strong>Banks</strong></td>
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<td>Peak month: Jan-01</td>
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<td><strong>Insurances</strong></td>
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<td>Peak month: Dec-00</td>
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<td>loss Feb03./peak m.</td>
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<td>P/E at peak</td>
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Note: Calculations based on monthly averages.  
1. Datastream indices.  
2. From Datastream Total Market indices.  
Source: Thomson Financial Datastream.

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Figure 3. **Stock markets: implied volatilities**
Daily data until 7 March 2003, — average 10/03/00 – 07/03/03

**Note:** Implied volatility can be interpreted as market expectation of risk (future volatility) and is derived from at-the-money call option prices (interpolated) using the Black-Scholes formula. The Cox-Rubinstein binomial method is used for American style options.

**Source:** Thomson Financial Datastream.
sectors. In the United States, IPOs, usually by high-yield technology enterprises, have fallen abruptly with the stock market downturn (Figure 4). Given past difficulties and investors’ reluctance to invest more in high-risk companies, the sector’s prospects may remain low for the near future, and it may rather be the entrenched companies than startups which could bring a turnaround in that sector.

The stock market downturn had, although somewhat delayed, effects on the financial sector in general, and the insurance sector in particular, which had also been severely hit by natural disasters and the September 11 terrorist attacks. Apart from Japanese banks, where problems had been prevalent for many years, financial institutions in other economies had entered the downturn with relatively healthy balance sheets as a buffer for adversities. However, the prolonged downturn has dried up profitability cushions, and for some major

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Figure 4. *Initial Public Offerings (IPOs), US market*

Number of IPOs (primary axis)  
Total Capital Raised (secondary axis)

*Note:* Underwritten Initial Public Offerings (IPOs) for US nonfinancial firms, excluding LBOs and spinoffs (as marked by SDC), with an offer price of $1 or more.


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companies problems became particularly apparent by mid-
2002, and linger on or have even deteriorated. This is par-
ticularly the case in Germany, where share prices of banks
and insurances have further plunged by 17 and 30 per cent
respectively over the last five months. For European banks
in general, rating agencies are considering further downgrad-
ings. In the United States, banks seem better equipped to
play their crucial role in supporting the turnaround. For
European insurance companies, recent loss reports and divi-
dend cuts by big insurers highlight the financial strains that
continue to prevail in that sector. And while those compa-
nies reduced their exposure to equities, they may still be
overexposed in risky bonds.

...and the timing of a turnaround is very uncertain

Despite the large equity price corrections that have taken
place thus far, it is not clear as to when the bear market will
come to an end. Price-earnings (P/E) ratios of broad stock mar-
ket indices as well as TMT sectors (Figure 5) have fallen back
to their 1990-to-date averages for the United States, and have
fallen well below those levels and even early-nineties aver-
ages (1990-94) in other major economies. This decline is most
notable in euro area countries, with the exception of the
German TMT sector, which according to this gauge seems still
to be richly valued (Table 1). P/E-ratios of TMT sectors of all
major economies, except Canada, are still above their 1990-
94 averages, the time before the “new economy” started in the
United States. However, under some simplifying assumptions,
the drop in P/E ratios since the equity price peaks implies
already a drop in expected earnings by about one percentage
point for the United States’ broad equity market, and slightly
less than one percentage point for its TMT sector. In the euro
area, the implied earnings decline would be three percentage
points for the total market, and 2.2 percentage points for the
TMT sector. This decline broadly corrects, or even more than
corrects, new-economy growth expectations (as measured
from 1990-94 averages to peaks) in the major economies’ total
markets. But TMT sectors, for which expectations of implied
increases in growth seem to have been particularly unrealis-
tic in Europe, may still await some downward correction, if
implied growth expectations cannot be met in the near
future. It seems that the adjustment to the post-bubble
economy has not yet fully taken place.
Corporate accounting scandals and large, high-profile bankruptcies have marked the second phase of the stock market downturn, and the pursuant increase in risk-aversion of investors also has had an impact on corporate bond markets. Investors’ fears have been substantiated, as corporate bond defaults in the United States during 2002 amounted to 3.2 percent of the value of bonds outstanding, well above the 1991 peak in default rates. Deteriorating credit quality was reflected in an increase in corporate spreads (Figure 6) and, in particular, high-yield spreads throughout the rest of that year (Figure 7). However, during the past six months, these spreads have come down on both sides of the Atlantic. This decline may partly be due to the fact that investors’ fears have...
Figure 6. **Corporate spreads**  
Weekly data until 7 March 2003

Note: Aggregate corporate BAA bond yields (Lehman indices) minus 10-year government benchmark bond yields.  
Source: Thomson Financial Datastream

Figure 7. **High-yield spreads**  
Weekly data until 7 March 2003

Note: Aggregate corporate high-yield bond yields minus aggregate corporate BAA bond yields (Lehman indices).  
Source: Thomson Financial Datastream.
somewhat subsided, after authorities had taken actions to increase corporate accountability and transparency of accounting, supporting a more realistic assessment of profit potentials.\textsuperscript{18} Even though corporate spreads have come down, high-yield spreads remain above their five-year average. Not only investors, but also issuers have been responsible for the drying out of the bond market, as declines in investment rates reduced firms’ financing needs. Thus, part of the ebbing off of the spreads may be due to these adverse supply-side effects. In the United States, net issues of non-financial corporate bonds declined 60 per cent in 2002 against the previous year, and 22 per cent if financial sector corporate bonds, which increased 17 per cent, are included (Figure 8). This hesitance to issue debt instruments is also reflected in a decline of US non-financial commercial paper outstandings (Figure 9). In Europe, too, corporate bond issuance has declined (11 per cent) over the last year as compared to previous levels. The decline in issuance was 44 per cent in the case of the “financial” bond sector (Figure 10).

Figure 8. \textbf{Net issuance of US bonds}
Millions of dollars, seasonally unadjusted quarterly data

\begin{figure}[h]
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\includegraphics[width=\textwidth]{net_issuance_us_bonds.png}
\caption{Net issuance of US bonds.}
\end{figure}

\textbf{Note:} Government includes Treasury, Municipal and Agency Securities.
\textbf{Source:} US Federal Reserve Board, Flow of Funds Accounts of the United States.
Figure 9. 30-day Commercial Paper outstanding  
Millions of dollars, seasonally adjusted monthly data

Source: US Federal Reserve Board.

Figure 10. Euro-denominated bond markets: volumes issued by type of issuer  
In millions of euros

Note: “Government” comprises bonds of agencies, central governments, municipals, regions, cities, and supranationals. “Financial” comprises asset-backed securities, financials’ bonds, and Pfandbriefe. The latter includes Pfandbrief-style paper issued in EU-countries, like for instance French Obligations foncières, Spanish Cedulas hipotecarias, etc.

Source: European Commission (DG ECFIN).
In the government bond market, governments' financing needs met with safe-haven behaviour of investors. In both the United States and in the Euro area the net issuance of government bonds increased in 2002 as compared to the previous year, although at a much lower pace than in 2001. In the United States, government net issues (including Treasury, Municipal and Agency Securities) rose 31 percent in 2002 (and Treasury securities alone by 17 percent). Total US dollar issuance of bonds rose only slightly, 3 per cent, but the public sector could increase its share to 61 per cent, up from 48 per cent in 2001. In Europe, developments are rather similar. Government bond net issuance went up 10 percent as compared to 2001, and climbed also in relative terms. While total euro-denominated bond issuance in 2002 stayed at its 2001 level, government issues increased their share to 54 per cent, up from 50 per cent in 2001. Investors' continued move into secure funds has further lowered government bond yields in the major economies (Figure 11). As the demand for more liquid securities was relatively stronger, yields came down faster at the short than at the long end of the yield curve in the United States and the euro area, as reflected in an increase of the term spread between 10-year and 2-year government bonds (Figure 12). This reaction,

**Figure 11.** 10-year government benchmark bond yields

Weekly data until 7 March 2003

Source: Thomson Financial Datastream.

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which had been particularly strong in the wake of the September 11 terrorist attacks,\textsuperscript{20} seems to have been more pronounced in the United States than in the euro area. In Japan, with interest rates at the short end close to zero, the decline in yields took place at the long end, reducing the term spread and flattening the yield curve.

With monetary policy easing in the major economies, starting in 2001, yield curves have shifted downwards (Figure 13). In the United States, the US Federal Reserve pared its Funds rate 12 times to a 41-year low of 1.25 percent, rendering short-term real interest rates negative. Given the uncertain economic outlook, markets expect short rates to remain flat at least until the third quarter of 2003 (Figure 14). By the end of the year, however, policy rates are expected to increase again in the United States, in pace with an expected economic upturn. In the euro area, the European Central Bank (ECB) cut its main refinancing rate six times since the downturn, the last time on March 6, by 25 basis points to 2.5 per cent. However, 25 more basis points had been expected by most market participants on that date, an expectation which remains for the

\begin{figure}[h]
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\includegraphics[width=\textwidth]{figure12.png}
\caption{Terms spreads: 10-year minus 2-year government bond yields}
\end{figure}

\textbf{Figure 12. Terms spreads: 10-year minus 2-year government bond yields}

Weekly data until 7 March 2003

\textbf{Source: Thomson Financial Datastream.}
Figure 13. **Yield curves**  
As of 7 March 2003

Source: Thomson Financial Datastream.

Figure 14. **United States and euro area – implied forward and futures interest rates**  
As of 7 March 2003

Note: Actual rates: United States: 3-months eurodollar middle rate (bid, 11a.m. London); euro area: Euribor 3 month offered rate; monthly averages. Latest actual values, marked as asterisks, are weekly averages from 3-7 March 2003. Implied forward rates are derived from zero-bond yield curves. Eurodollar futures: 3 month (CME); Euribor futures: 3-months (LIFFE).

Source: Thomson Financial Datastream, OECD.

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near future as reflected in futures and implied forward rates. With only a hesitant upturn forecast for the European economy, market participants do not expect the ECB to raise rates again before the end of the year. Comparing yield curves among major economies, the UK curve still looks flat, which may suggest some room for lowering the shorter end by cutting policy rates. So far, the Bank of England has reduced rates eight times since the start of 2001, to the lowest since 1955. In Canada, which is in a different phase of the business cycle than other major economies, the yield curve has become flatter since the Bank of Canada raised its overnight rate target by ¼ percentage point to 3 per cent on March 4, and expectations about future policy rates remain on the upside.

IV. Foreign exchange markets and emerging economies

The euro gained ground against the US dollar, and lately also against the yen...

The most notable development over the last few months on the foreign exchange markets was the strong appreciation of the euro against the dollar (Figure 15). It started appreciating early in 2002, but after it had breached the dollar parity level in mid-July, it had fallen back again somewhat, and a

Figure 15. Exchange rates relative to the US dollar
Weekly data until 7 March 2003

Source: OECD.
continued rebound began only later in October. Between the beginning of 2002 and early March 2003, it has gained more than 20 per cent against the dollar, where half of this gain can be attributed to the months since November. The yen, which had started appreciating against the dollar early in 2002 in synch with the euro, decoupled from the euro’s upward trend in the second half of that year, slightly depreciating against both currencies. By March 2003 it has almost regained its mid-2002 value against the dollar, but it remains at a level about 10 per cent lower against the euro for the same period.

A euro appreciation had been expected by many analysts, although the timing and extent was uncertain. One of the more unique explanations was the expectation of a “come-back” of cash demand for euros, in particular in Eastern European countries, which seems to have materialised. In those countries, it was assumed, holders had liquidated their stocks of euro predecessor currencies (in particular, the deutschmark) for dollars and other major non-euro currencies some time ahead of the changeover to the euro currency, and had thus contributed to the euro’s decline. Now this process seems to be reversed and those holders are replenishing their euro holdings. Furthermore, the high US current account deficit is expected to put some pressure on the US currency, at least in the long run. At this juncture, however, a sharp downward adjustment of the dollar may not be welcome, given that the weak growth in Europe may be further dented by a loss in competitiveness. The recent decline of the dollar came also at a time when US Treasury yields have fallen to historic lows and corporate bankruptcies have risen, which made foreign investors more reluctant to invest in US assets (Figure 16). While the heaviest contraction in net foreign purchases was in stocks – net foreign demand in 2002 for US equities dropped by almost 60 per cent to 50 billion US dollars, from 116 the year before – foreign investors seemed to have lost their appetite for US corporate bonds as well, net purchases of which dropped almost 20 per cent. However, safe-haven behaviour increased foreign net purchases of government and agency bonds and notes more than 50 per cent although by much less than the year before, where the increase amounted to 85 per cent.
Investors hesitance about emerging markets has somewhat faded...

Emerging markets were forced to bear some of the burden of this safe-haven attitude, as yield spreads of emerging market bond indices (EMBI) over US government paper started rising in 2002 – after they had come down from their 2001 peaks (Figure 17). However, a good part of this increase was due to country-specific problems, notably in Latin America. That investors’ perceptions of these problems subsided somewhat is also a major reason for the decline in spreads over the last few months, which are now almost back to the levels of early 2002. A major driving force of these positive developments was Brazil. There, investors’ uncertainty over the effects of the outcome of the Brazilian elections ended up in a more positive assessment, after the incoming president Luiz Inácio da Silva had announced credible economic reforms. Nevertheless, while inflation seems to be successfully contained, Brazil remains vulnerable to investors’ expectations, as debt is high and to a large extent linked to short-term interest rates or the exchange rate. In Argentina, the economy is still
suffering from the exchange-rate crisis and debt-default. But the pronounced increase (116 per cent) of the Merval stock index from its mid-2002 low until early March 2003 reflects a more positive view of the economy’s potential, lately also fostered by a promising outlook on defaulted debt negotiations.

In the Middle East, bond yields were certainly affected by the geopolitical tensions since the September 11 attacks and the Iraq crisis, and even though spreads had come down since last November, they remain elevated. The Asian economies seem to be better equipped to weather a storm, given the relatively low spreads over US bonds. But the year 2002 has seen the biggest net sales of emerging market Asian equities in a long time. While this was partly due to the general trend to move out of equities, there was also an increase in the Asian bond spreads over the last year. This move may also reflect a fall-out of geopolitical tensions, and given the uncertainty around the Iraq crises and the tensions with North Korea, investors’ morale may stay low for some time. The openness to trade of the smaller Asian economies makes them also relatively...
more vulnerable to export demand from the major economies, and income from tourism may decline if fears of further terrorist attacks become more substantiated. However, given the low performance of the US capital markets, Asian markets still look interesting.
Notes

1. As a pointer to possible turning points, the six-month rate of change of the Composite Leading Indicator for the United States and the OECD area as a whole had risen for the second month in a row in December 2002, following six consecutive months of falls. However, for the euro area and Japan, this measure had fallen since early or mid-2002, and showed a downward trend in December also for other major economies.

2. For a positive assessment of the recent state of US sectoral balance sheets, see Ben S. Bernanke (2003), Balance Sheets and the Recovery, Remarks at the 41st Annual Winter Institute, St. Cloud State University, St. Cloud, Minnesota, February 21, available at the US Federal Reserve Board’s website.


5. The numbers refer to the Datastream Telecom, Media, IT (TMT) indices in Table 1, but they are in the same range for similar indices of new or technology markets, as, for example, the NASDAQ in the United States.

6. For example, major losses were announced by France Telecom and Vivendi Universal, the biggest losses in French corporate history.

7. In Germany, Deutsche Telekom, Europe’s biggest telecoms operator, reported the biggest-ever annual net loss in German history (24.6 billion euros).

8. As mentioned in the previous issue of the Highlights, it will terminate the Neuer Markt by the end of 2003 and integrate its shares into the newly created Prime Standard segment. This segment addresses companies that wish to target international investors and, in response to the recent corporate accounting scandals, requires high international transparency criteria. An indication that investors perceive this restructuring as successful could be that fact that the shares of the Deutsche Börse AG, which is self-listed on its stock exchange, outperformed the total market by 100 per cent since their listing in February 2001 until February 2003.

9. This was in focus in the last issue of the Highlights, and is developed further in this issue of Financial Market Trends, see “The Health of Financial Institutions During the Recent Bear Market”.

10. The recent announcements of the biggest banks, HBV Group and Commerzbank, of their worst losses in the post-war era, were certainly a factor pulling down the overall banking index.


13. Swiss Life, Switzerland's biggest insurer, reported a record loss for 2002, and Netherland's Aegon as well as UK's Royals and Sun Alliance cut their dividends.

14. Depending on the definitions of earnings, there may be significant differences between various P/E measures, which makes it difficult to compare across countries, and at times across sectors within a country. However, comparison across time within one measure should be relatively consistent, assuming earnings definitions remain largely unchanged. Such problems have been particularly noted for the S&P 500 P/E ratios, which exist in various versions, according to the earnings measure used. For details, see, for example, Banque de France (2002), Financial Stability Review, November, pp. 34ff, and Bank of England (2002), Financial Stability Review, Issue 13, December, pp. 142ff.

15. 1.1 and 0.8 ppt., respectively. This can be derived from the dividend discounting ("Gordon") model, where for continuous discounting over an infinite horizon, \( k (E/P) = r + \beta - g \), and \( k \) equals the current, and assumed future, dividend payout ratio, \( E \) current earnings, \( P \) the current stock price, \( r \) the riskless interest rate, \( \beta \) the equity premium, and \( g \) the growth rate of earnings (\( r \) and \( \beta \) can be stated both in either real or nominal terms). If \( k \) is assumed to be 0.6, the average over the second half of the 1990s (taking account of pay-outs made through share repurchases), and \( r \) and \( \beta \) constant, the implied earnings growth differential can be derived from the relationship above as \( g - g' = k \left( 1/(P/E)' - 1/(P/E) \right) \), where \( P/E \) is the P/E-ratio and the prime (') indicates variables of the comparison period.

16. Applying the formula above to the respective P/E-ratios, the growth differentials are, for example, 1.4 and 1.7 ppt for the US total market and TMT sector, respectively, and 1.9 and 3.3 ppt for the euro area total market and TMT sector, respectively.

17. Bernanke (2003), op.cit. Moreover, the Worldcom bankruptcy in the first half of 2002 was the largest of a private firm to date.

18. For example, in the United States, the Securities and Exchange Commission (SEC) put more scrutiny on corporate financial statements, a new Corporate Fraud Task Force was set up in mid-2002, and the Sarbanes/Oxley Act, aimed at deterring fraud and improving the quality of financial accounting, was passed in July 2002. Similar measures to improve corporate governance have also been taken in other OECD countries. In Canada, a new Public Accountability Board should supervise auditors, in Japan, a new corporate law enhances the role of outsiders, accounting loopholes for off-balance transactions of banks will be closed, and listed companies will be required to publish quarterly statements. In the United Kingdom, shareholder rights and audit partner rules were enhanced.

19. "Government" comprising agencies, central governments, municipalities, regions, cities, and supra-nationals. Central governments' shares were 43 and 47 percent in 2001 and 2002, respectively.

20. Yield curves derived from zero-coupon bonds shortly after that date, 11 September 2001, show a dent at the 2-year horizon.


22. See "Asia tries to maintain its appeal overseas", Financial Times, Fund Management supplementary, 10 March 2003. Net sales of Asian equities (excluding Japan) where the highest since data had been compiled in 1998, according to UBS Warburg.