Box 4

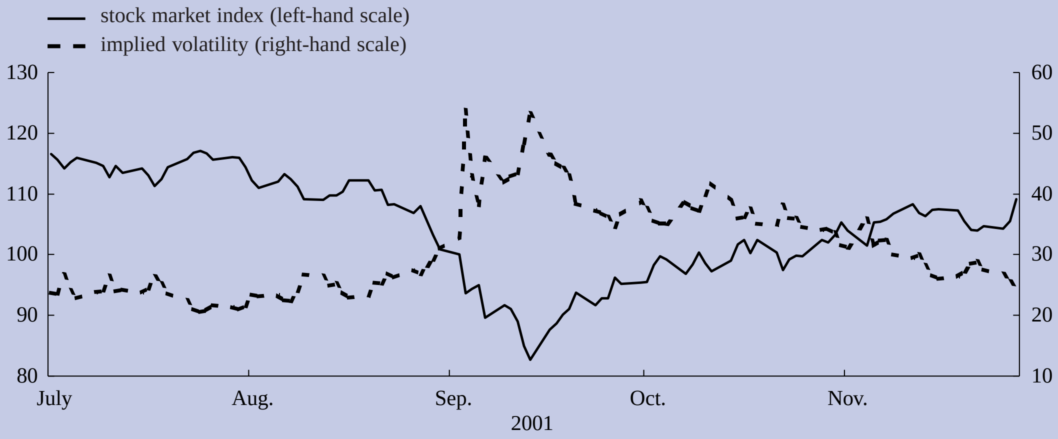
Recent developments in sectoral stock price indices in the euro area and the United States

The terrorist attacks in the United States on 11 September had a significant immediate negative impact on world stock markets. This seemed to be related both to the direct negative effect on earnings expectations in certain sectors, such as the airline and the insurance industries, and to a substantial increase in uncertainty about future economic growth. Broad indices in the euro area (Dow Jones EURO STOXX) and the United States (Dow Jones, aggregate index) lost 17% and 12% respectively between 10 and 21 September, when these markets reached their lowest levels since the attacks. However, stock markets recovered fairly quickly and, by early November, broad indices in the euro area and the United States had returned to levels similar to those prevailing on 10 September. This increase in stock prices coincided with a decline in implied volatility (see Chart A). One interpretation of these developments is that the increased uncertainty in the period immediately after the terrorist attacks contributed to a significant rise in equity risk premia, hence putting downward pressure on stock prices. As uncertainty gradually declined from late September onwards, equity risk premia also seemed gradually to return to levels similar to those prevailing before the terrorist attacks.

With regard to sectoral developments, considerable variation was observed after 10 September (see Charts B and C). Some sectors showed substantially larger declines than the broad indices, such as the consumer cyclical sector, which includes, for example, airlines and hotels. The consumer cyclical sector declined by 23% in the euro area and by 18% in the United States between 10 and 21 September, when the lowest levels were reached. In addition to the direct effects on the earnings expectations of companies in this sector, the decline seemed to reflect expectations of lower consumer expenditure, owing, partly, to a decline in consumer

Chart A: Stock price index and stock market implied volatility in the euro area

(stock market index: 10 September 2001=100; daily data)



Sources: Reuters and Bloomberg.

Note: Dow Jones EURO STOXX broad is the stock price index used for the euro area. The implied volatility series reflects the expected standard deviation of percentage stock price changes over a period of up to three months, as implied in the prices of options on stock price indices. The equity indices to which the implied volatility refers is the Dow Jones EURO STOXX 50 for the euro area.

confidence. The financial sector, including the insurance sector, which was faced with substantial claims from insured companies, was also significantly affected. Between 10 and 21 September the financial sector declined by 23% in the euro area and by 11% in the United States over the same period. The consumer cyclical sector and the financial sector were also among the sectors where historical volatility, as measured by the annualised standard deviations of daily changes in the indices, showed the largest increase in September relative to the levels seen in previous months.

The subsequent stock market recovery was relatively broadly based, and most sectors in both the euro area and the United States were, by 5 December, close to or above the levels at 10 September. In the euro area, the consumer cyclical sector index was 12% higher on 5 December than on 10 September, while the corresponding index increased by 10% in the United States over this period, suggesting that the events in the United States on

Chart B: Recent stock market developments in selected sectors in the euro area

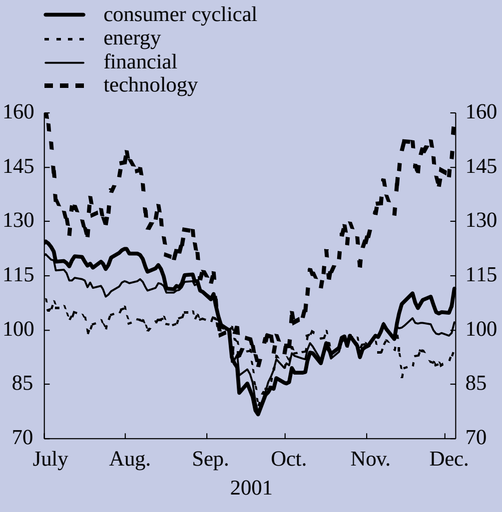
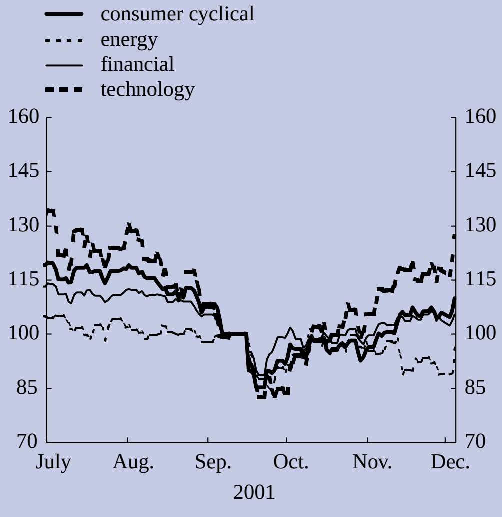


Chart C: Recent stock market developments in selected sectors in the United States



Source: STOXX and Dow Jones indexes.

11 September did not have a significant lasting impact on expectations about the profitability of companies in this sector. Similarly, stock prices in the financial sector in both the euro area and the United States had more than recovered the declines in September by 5 December. By contrast, stock prices in the energy sector had not, by 5 December, recovered the losses which followed the terrorist attacks. Indeed, by this date stock prices in this sector remained around 5% below the levels of 10 September in both the euro area and the United States. This seemed mainly to reflect the declines in the price of oil over recent months.

A comparison of sectoral stock price developments in the euro area and the United States shows that they were remarkably similar, which may partly reflect the global nature of the current economic slowdown. The main difference over the period from 10 September to 5 December is that the technology and telecommunications sectors showed a stronger recovery in the euro area than in the United States. Between 10 September and 5 December stock prices in these sectors increased by 59% and 37% respectively in the euro area, whereas in the United States stock prices in the technology sector increased by 27%, and stock prices in the telecommunications sector even declined by 4%. This may be partly related to the global lowering of short-term interest rates, which tends to benefit the stock prices of companies with a high leverage, since it reduces the costs of debt service and refinancing. Debt growth among euro area telecommunications companies has been particularly high in recent years in order to finance the acquisition of UMTS licences and the investments necessary to build the infrastructure for third generation mobile phones.

Overall, recent developments in stock prices suggest that uncertainty, and linked to this equity risk premia, have played an important role in driving stock price developments. After an initial surge, implied volatility has returned to levels more typical of historical experience. This decline in uncertainty was partly related to the various measures taken to fight terrorism worldwide, and the economic policy responses in several countries. All this appears to have contributed to dispelling pessimism among market participants about downside risks to corporate earnings and global growth prospects. Overall, except for the weakness of stock prices in the resource sector, developments in stock prices in most sectors of the economy over recent months suggest that market participants came to expect that the longer-lasting effects of the terrorist attacks on corporate profitability would be rather limited.