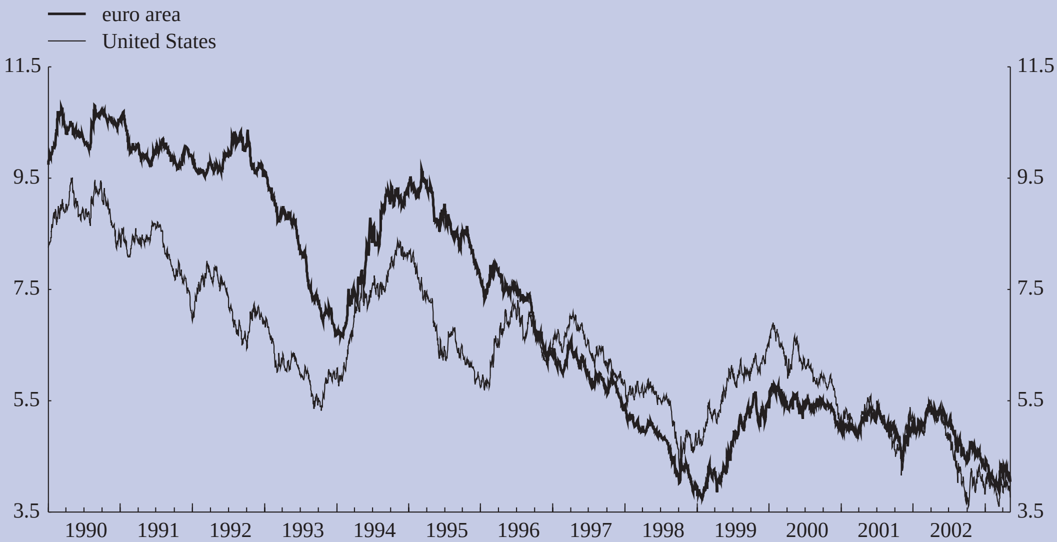
Box 4

Factors underlying the low levels of long-term bond yields in the United States and the euro area

Long-term government bond yields in the United States and the euro area dropped to very low levels in the first months of 2003 (see chart below). Ten-year bond yields in both economies reached a trough in early March, when uncertainties about the possibility of a war in Iraq were most pronounced, and still stood close to 4% towards the end of April. This box attempts to identify some of the factors that may have driven the latest trends in euro area and US bond markets, distinguishing between structural and cyclical factors as well as market dynamic factors that often underlie short-term movements.

Long-term government bond yields in the euro area and the United States

(percentages per annum; daily data)



Source: Reuters.
Notes: Long-term government bond yields refer to ten-year bonds or to the closest available bond maturity.

Looking at trends over the past decade, the most important factors behind the downward trend in bond yields seem to have been structural. Long-term interest rates comprise expected real interest rates, long-term inflation expectations and various premia, including a risk premium for inflation uncertainty. Among structural factors, declines in the ratios of deficit and debt to GDP over the past decade have reduced the demands of the public sector on global capital markets, bringing down long-term real interest rates. Demographic factors may also have contributed to the downward trend in government bond yields observed over the past decade. By raising the demand for fixed income securities, such as government bonds, which provide stable incomes to pension recipients, the ageing of the population in advanced economies may have also played a role in bringing down long-term real interest rates. An additional factor in the euro area has been the gradual disappearance of inter-country exchange risk premia in the run-up to the single currency.

These influences on real interest rates notwithstanding, a key factor underlying the decline in nominal long-term interest rates over the past decade has been the decline in inflation and inflation expectations, in which price stability-oriented monetary policy has played a crucial role. By keeping inflation low through a credible monetary policy, the Federal Reserve has succeeded in convincing market participants in the United States that inflation will remain low and stable in the future. Similarly, following the successful convergence process leading to Stage Three of EMU, markets have become convinced of the ECB's ability to keep inflation low and stable in the euro area.[1] At the same time, market participants have acknowledged their confidence by demanding much smaller risk premia as compensation for inflation risk.

While these structural factors may account, in large part, for the drops in long-term interest rates over the past decade, other factors appear to have been at work more recently in bringing long-term interest rates down to historical lows. Among these are cyclical factors including savings and investment decisions in the economy, which are closely linked to business cycle conditions and market perceptions regarding future growth prospects. Since long-term interest rates reflect both current and expected future short term interest rates, the recent drop in long-term bond yields also seems to reflect downward revisions by market participants of their assessments of short-term growth prospects, both in the United States and in the euro area. Evidence for this is provided by trends in index-linked bond markets, where in late April 2003 real ten-year yields in the euro area and the United States were more than 100 basis points lower than the averages of the previous two years. At the same time, inflation expectations do not appear to have played much of a role in driving long-term interest rates down over recent months.

A final set of market dynamic factors also appears to have played a role in driving bond market trends over recent years. Stock prices and bond yields have moved broadly in tandem since the stock market correction began in early 2000. While a common cyclical factor, namely growing pessimism about economic growth prospects, played some role in this, it also seems that the large declines in the stock market together with exceptionally high stock market volatility reduced investors' appetite for risky assets. As a result, particularly after the WorldCom accounting scandal in June 2002, when stock market volatility soared, investors made "flight-to-safety" portfolio shifts from the stock market into the less risky bond markets. Once again, in early 2003, as uncertainties about the possibility of a war in Iraq became more acute, further shifts from the stock market to the bond market seemed to take place in an environment of high stock market uncertainty. After the war came to an end some uncertainty was lifted, although market participants did remain somewhat uncertain about economic growth prospects.

All in all, the low levels of government bond yields in the United States and the euro area appear to be due to several factors. While structural factors may account for the trend decline over the past decade, the recent declines appear to be primarily due to a combination of cyclical factors, such as downward revisions of future economic growth expectations, as well as portfolio shifts to safer assets among investors. While portfolio shifts seem to have been ongoing since the start of the stock market correction in early 2000, the exceptional turbulence in global stock markets witnessed in the second half of 2002 and early 2003 in connection with geopolitical tensions appears to have amplified this.

1 *See the article entitled "Stability-oriented policies and developments in long-term real interest rates in the 1990s" in the November 1999 issue of the ECB's Monthly Bulletin.*