

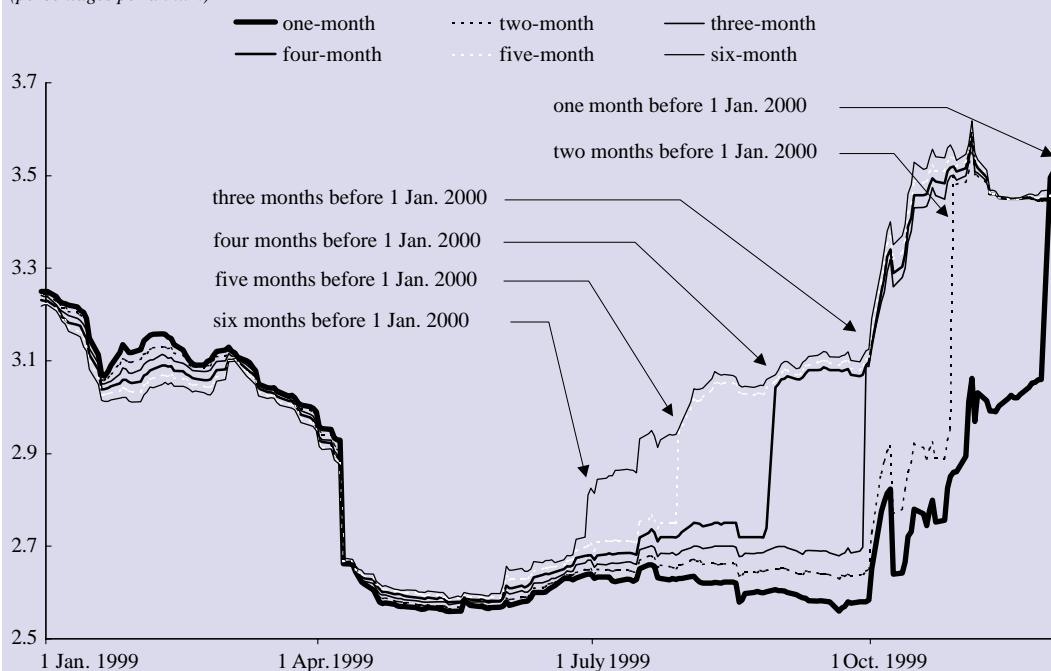
Box 3

The effect of the transition to the year 2000 on money market interest rates

Over recent months it has been observed that money market interest rates, both within and outside the euro area, have tended to increase once their maturity has begun to span the end of the year (see also the article entitled "ESCB preparations for the year 2000" in the October issue of the ECB Monthly Bulletin). This leap in money market interest rates has been particularly marked in the case of unsecured interbank interest rates. As illustrated in the chart below, this was apparent, for example, when the six-month EURIBOR interest rate spanned the millennium at the end of June. Subsequently, the three-month EURIBOR interest rate rose at the end of September 1999 and, more recently, the one-month rate rose at the end of November. Explanations for such behaviour have focused on the perception by financial market participants of operational risks relating to the century date change. This perception may originate from the anticipation of risks of failures in the computer systems of financial intermediaries, which could disrupt the circulation of liquidity between credit institutions. There are thus concerns that intermediaries which do not receive funds from counterparties as a consequence of such technical problems could incur costs, such as those related to the task of finding alternative funds at the start of January 2000 or to penalty charges for unfulfilled obligations.

Impact of the transition to the year 2000 on EURIBOR interest rates

(percentages per annum)

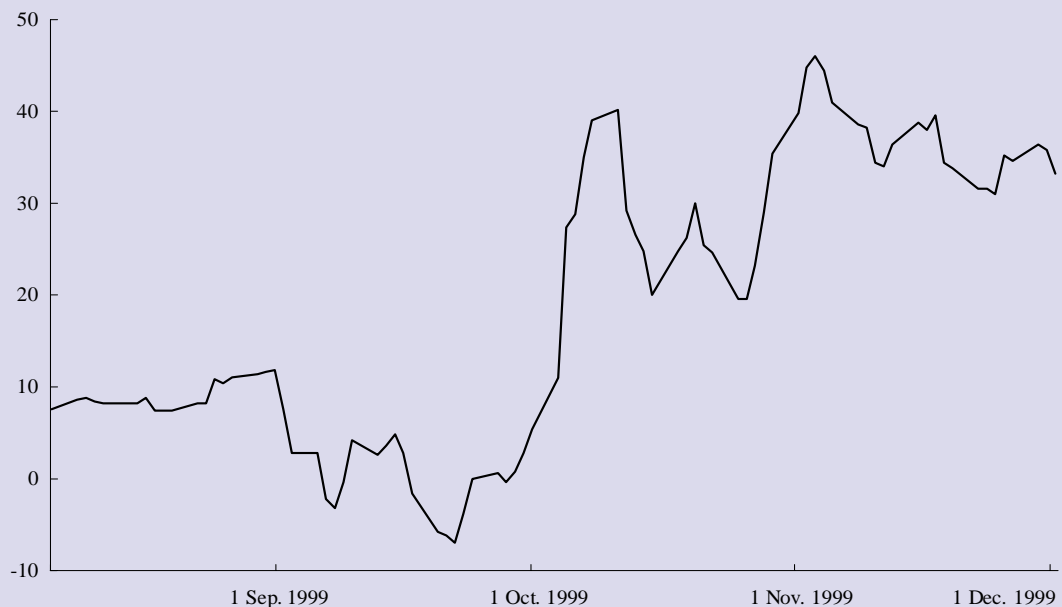


Source: ECB.

The increase in money market interest rates has been far more limited for transactions secured by collateral such as government bonds. This may be observed by looking at the increase in the spread between EURIBOR interest rates and the ask price for three-month repurchase agreement transactions in the euro area at the end of September (see the chart below). This seems to reflect the fact that credit institutions consider the availability of collateral to reduce greatly the risk of being unable to obtain the desired amount of funds at the start of 2000, since collateral would enable them to access the marginal lending facility of the Eurosystem. At the beginning of December the differential between the three-month EURIBOR interest rate and the ask price for three-month repurchase agreement transactions was equal to approximately 35 basis points. The allotment interest rates on the (secured) longer-term refinancing operation of the Eurosystem were also significantly below that on the corresponding EURIBOR deposit interest rates in November.

Spreads between three-month interbank deposit and repo interest rates

(basis points, five-day moving average)

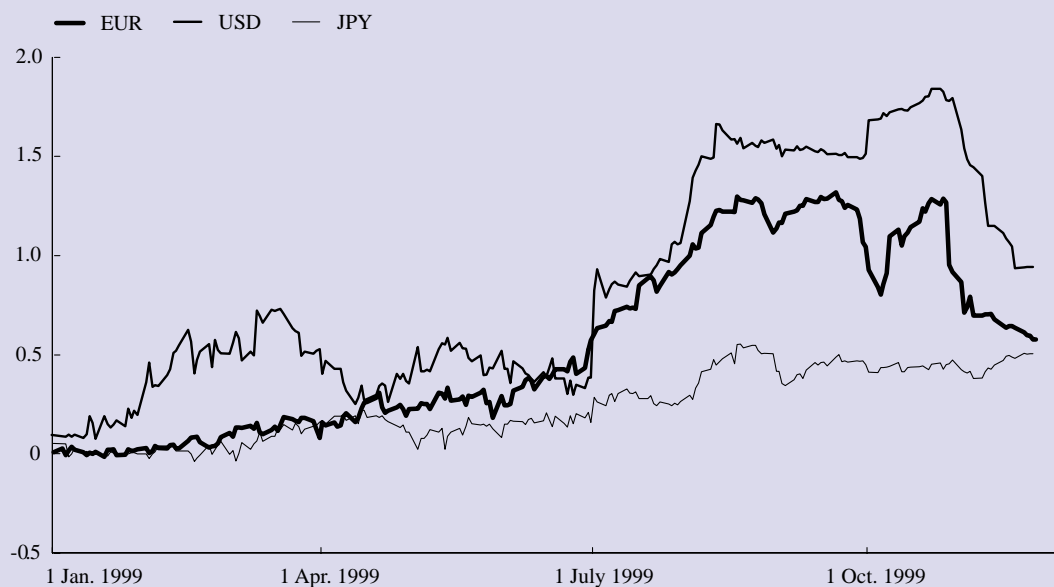


Source: Reuters.

A simple quantification of the interest rate premium required to take account of the effect of the transition to the year 2000 can be derived by using forward interest rates implied in the money market yield curve. The chart below shows that the spike in interest rates estimated on the basis of one-month forward rates has varied

End-of-year spike in interbank deposit rates in 1999

(percentages per annum)



Sources: Bloomberg and ECB calculations.

Note: The end-of-year spike in interest rates is calculated on the basis of one-month forward interest rates derived from the EURIBOR curve. The spike is measured as the difference between the one-month forward interest rate spanning the end of the year and a rate obtained by linear interpolation between the one-month forward rate for delivery in December 1999 (the one-month spot rate after the end of October) and the one-month forward rate for delivery in February 2000. The last observation included relates to 26 November 1999, since, from that date onwards, the spike cannot be measured according to this methodology. It should be borne in mind that if the risk related to the century date change is perceived to be concentrated on the first trading days of January 2000, the premium for these days should be several times higher than the premium measured on a monthly basis.

considerably over recent months, both within and outside the euro area. Within the euro area the spike declined during September, after having increased over the summer months, and, following a temporary increase in October, fell again in the second half of November. The premium on US dollar-denominated contracts, computed on the basis of LIBOR interest rates, tended to remain above that on euro area interest rates and declined by approximately the same amount as the corresponding premium on euro area rates during November. By contrast, the premium on contracts denominated in Japanese yen, also based on LIBOR interest rates, has remained broadly unchanged in recent months, at levels lower than those prevailing in the euro area.

The recent developments in the premium suggest that concerns of financial market participants have declined. This may be related to the successful completion of a series of year 2000 tests and can therefore be ascribed to an enhanced perception of a smooth transition to the year 2000.