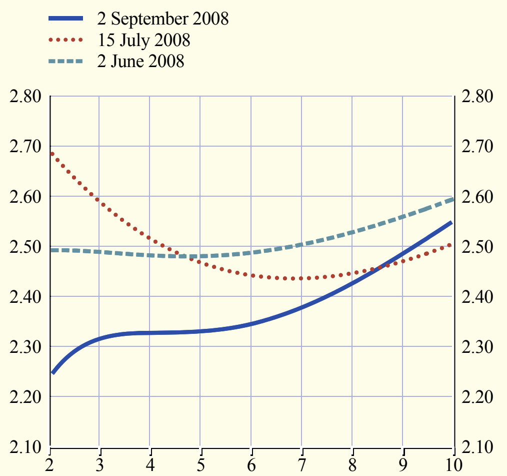
Box 6

RECENT DEVELOPMENTS IN THE TERM STRUCTURE OF BREAK-EVEN INFLATION RATES IN THE EURO AREA

The ECB's Monthly Bulletin regularly provides detailed information on developments in indicators of inflation expectations extracted from financial instruments. The emphasis in the bond market section is mainly on long-term inflation expectations, but the inflation-linked bond and swap markets in the euro area provide information about inflation expectations (and related premia) over a wide range of horizons. In this regard, this box provides an overview of recent developments in the whole term structure of break-even inflation rates (BEIRs).

Chart A Forward BEIR curve on different dates

(percentages per annum)



Sources: Reuters and ECB calculations.
Note: The horizontal axis gives the maturity in years.

The estimated term structure of BEIRs has undergone significant changes since mid-May.[1] In particular, short to medium-term expectations have experienced significant volatility over this period. The surge in oil prices (from USD 90 at the beginning of 2008 to around USD 145 in mid-July) and the rise in actual inflation (4.1% in July, up from 3.7% in May) triggered strong increases at the short end of the break-even curve from early June. Such increases – of, for example, around 25 basis points at the one-year forward BEIR two years ahead – led to an inversion of the forward (and spot) BEIR curves (see Chart A). From mid-July onwards, however, there has been a gradual moderation in inflation expectations (and related premia), most probably on account both of the decline in oil prices (of around 20%) from the aforementioned peak and, more recently, of the market's perception of a slowdown in euro area economic activity related to the release of growth figures for the second quarter and the deterioration of confidence indicators.

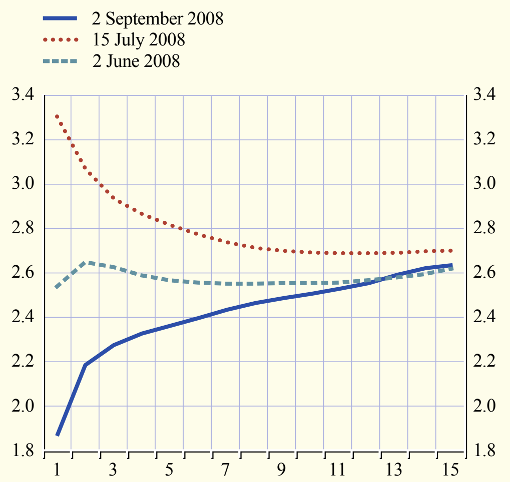
Long-term inflation expectations (and associated inflation risk premia) have remained elevated. Ten-year spot BEIRs rose by around 25 basis points between mid-May and early July, but have moderated somewhat since then, to stand at around 2.4% in late August (see Chart 22 in the main text). Long-term forward BEIRs have been broadly constant over the last three months, hovering around 2.5%. The moderation of short to medium-term inflation expectations since mid-July has not, however, been accompanied by similar changes at longer horizons, and the forward curve has steepened (see Chart A).

Developments in the term structure of inflation-linked swap rates over the last few months confirm the above assessment. In particular, the fluctuations in short to medium-term inflation-linked

1 See Ejsing, Garcia and Werner, "The term structure of euro area break-even inflation rates: the impact of seasonality", ECB Working Paper Series No 830, November 2007, for details of the estimation methodology.

Chart B Euro area inflation-linked swap curve

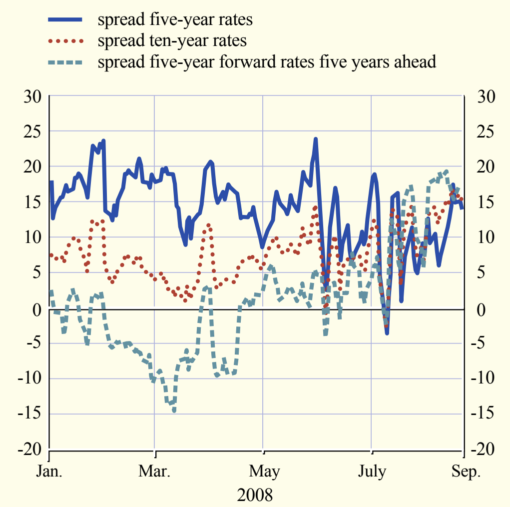
(percentages per annum)



Source: Reuters.
Note: The horizontal axis gives the maturity in years.

Chart C Spread between inflation-linked swap rates and break-even inflation rates

(basis points)



Sources: Reuters and ECB calculations.

swap rates have broadly mirrored those in BEIRs over the same horizons. The sharp increases in short-term inflation-linked swap rates, which also led to an inversion of the spot (and forward) curve, have reversed in the last few weeks, supporting the assessment that short to medium-term inflation concerns among market participants have decreased significantly since mid-July, while remaining elevated (and higher than in mid-May) at longer horizons (see Chart B).

Long-term inflation-linked swap rates, in particular, remain at fairly elevated levels: ten-year rates stand at around 2.5% after having reached peaks close to 2.8% in the last few months. Moreover, long-term forward inflation-linked swap rates have been on an upward trend since last May and, unlike long-term forward BEIRs, have shown little decline in the last few weeks. The five-year forward inflation-linked swap rate five years ahead currently stands at around 2.7%, almost 25 basis points above its bond market counterpart.

Chart C displays the spread between five and ten-year inflation-linked swaps and BEIRs, as well as the long-term forward rate five years ahead, and illustrates that discrepancies between long-term forward inflation-linked swaps and BEIRs are not unusual, and can arise as a result of a number of technical market factors.[2] It should also been borne in mind that tensions in the stock markets have heightened since last May (see Section 2.6). In such a context, it is not inconceivable that flight-to-safety portfolio shifts have affected the bond market significantly, thereby making the interpretation of BEIRs more difficult.

The spreads between long-term forward inflation-linked swaps and BEIRs, having shown an upward trend in recent months, are high from a historical perspective. One-year forward inflation-linked swap rates nine years ahead, at around 2.7%, are also 20 basis points higher than

2 Long-term forward BEIRs and inflation-linked swap rates also differed markedly around March of this year, although the circumstances were different. For details, see the box entitled "Recent developments in bond market liquidity premia and implications for break-even inflation rates" in the April 2008 issue of the Monthly Bulletin.

their BEIR counterparts. Relatively illiquid conditions in the inflation-linked market combined with the easing in BEIRs over recent weeks seem to have pushed spot BEIRs downwards by more than swaps, particularly at long horizons.

The term structures of break-even inflation rates and of inflation-linked swaps offer the possibility of monitoring inflation expectations over a wide range of horizons. Such information is important for monetary policy. For instance, the recent developments in the instruments reported in this box suggest that short to medium-term inflation expectations have moderated significantly over the last few weeks, but longer-term inflation expectations remain at more elevated levels. Such high levels and the current discrepancies between long-term break-even inflation rates and inflation-linked swap rates at the long end of the curves warrant close monitoring and confirm the need to consider a range of indicators of inflation expectations.