Box 4

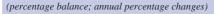
Recent developments in euro area inflation perceptions

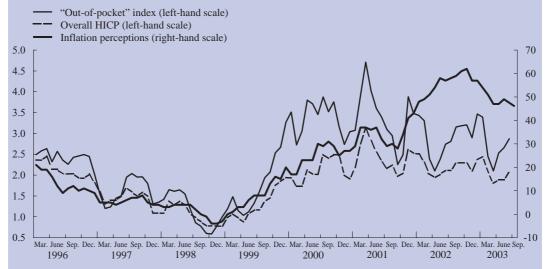
An indicator of consumers' perceptions of inflation in the euro area is published regularly by the European Commission as part of its Consumer Survey. Since the introduction of the euro banknotes and coins, developments in this indicator have generated a substantial amount of interest, as inflation perceptions started to deviate from HICP inflation in January 2002 to reach a historic peak in January 2003. Although euro area inflation perceptions have somewhat moderated so far this year they still remain at high levels by historic standards. This box provides some potential explanations for recent developments in this indicator.

The European Commission indicator on perceived inflation

The European Commission (EC) Consumer Survey questions on a monthly basis approximately 20,000 consumers in the euro area about their inflation perceptions, among other things. The survey results are summarised by the EC as the difference (in percentage points) between the weighted proportion of respondents stating that consumer prices have risen and the weighted proportion of respondents stating that consumer prices have fallen or have stayed approximately the same. Hence, the indicator has the form of a "balance statistic", and gives qualitative information on the directional change in inflation perceptions. ²

Comparison of inflation perceptions (balance statistic from the EC Consumer Survey), overall HICP and the index of "out-of-pocket" expenditure





Sources: European Commission, Eurostat and ECB calculations.

As regards perceived inflation, the survey asks respondents to assess developments in consumer prices over the last 12 months, but does not specify a particular price index. The HICP contains information on the prices of almost 100 different product categories, appropriately weighted to reflect consumption patterns over recent years. However, while it is logical to assume that the average survey respondent neither gathers nor processes the same quantity of information as collected by statistical institutes, in the past there has been a close and relatively straightforward relationship between consumers' inflation perceptions and developments in the

¹ The whole survey consists of 15 questions. The question on perceived inflation asked in the survey and the six response options are as follows: "How do you think that consumer prices have developed over the last 12 months?" (1) risen a lot, (2) risen moderately, (3) risen slightly, (4) stayed about the same, (5) fallen, or (6) don't know. This is the current format of the question and response options that were introduced in May 2003. Before, instead of asking about consumer prices, the EC asked about the cost of living.

² Denoting S_i (with i = 1, 2, 3, 4 and 5) as the proportion of consumers opting for each of the five response categories, the balance statistic is calculated as $(S_1+1/2S_2) - (1/2S_4+S_5)$.

overall HICP in the euro area. This close relationship between the two clearly broke down in 2002 at the time of the introduction of the euro banknotes and coins (see above).

Potential factors explaining movements in inflation perceptions since 2002

The HICP includes the prices of consumed products that are purchased on an almost daily basis (for example bread, a coffee in a bar or restaurant), less frequent expenditures (for example a car) as well as expenditures which are normally made via regular bank transfer (for example rents and insurance). It could be argued that consumers' inflation perceptions are mainly formed on the basis of the prices of the first category of products, which can be broadly considered "out-of-pocket" expenditure. The amount of money spent on daily "out-of-pocket" expenditures tends to be relatively low; on the basis of the actual HICP weights, these represent around 35-40% of the all-items euro area HICP. ³ The chart depicts the developments in such an index together with those in the overall HICP and consumers' inflation perceptions.

The year-on-year rate of increase of the daily "out-of-pocket" expenditure index does not correlate much more strongly with perceptions than overall HICP inflation over the whole sample.⁴ The increase in inflation perceptions at the beginning of 2002 could be partly explained by the "out-of-pocket" measure of inflation, which between December 2001 and January 2002 rose by as much as 1.5 percentage points (from 2.5% to 4.0%). However, as shown in the chart, the sharp increase in the "out-of-pocket" index was not without historical precedent, most likely as a result of the relatively high weight of volatile unprocessed food and fuel prices in the index. Some additional factors could explain the rise in inflation perceptions in 2002 as a whole. First, approximations regarding the conversion rates of the national currencies to the euro could have led consumers to perceive price increases to be higher than they actually were in some countries.⁵ Second, the extensive media coverage of price developments in the context of the euro cash changeover and the substantial price increases in some products reported by Eurostat and national statistical institutes from January 2002 onwards could have made consumers more prone to react (or possibly overreact) to any observed price increase. Along the same lines, consumers' inflation perceptions could have also included developments in the prices of some items that are not included in the HICP but which are widely commented upon in the media and society, as is the case with house prices. The more recent downward movements in inflation perceptions in 2003, which have taken place against the background of upward movements in the year-on-year rate of increase in the daily "out-of-pocket" expenditure index, also suggest that additional factors shape inflation perceptions.

Although cultural and country-specific factors are most likely to have played a role, developments in inflation perceptions have followed a common pattern in most euro area countries. Indeed, there seems to be a close relationship between the timing of the peaks in inflation perceptions and actual inflation in each country since January 2002. When the period after the introduction of euro banknotes and coins is considered, the peaks in actual inflation rates generally preceded the peaks in perceptions. It also appears that countries that experienced the peak in actual inflation relatively early also experienced the peak in perceptions earlier than other countries.

The gradual decline in inflation perceptions seen in the first half of this year flattened out in the summer months, possibly as a result of the upward movement in the more frequently purchased items, notably unprocessed food and energy prices. Nevertheless, inflation perceptions are expected to resume their decline and be more in line with overall HICP inflation as developments in the index of daily "out-of-pocket" expenditure moderate and the above-mentioned transitory effects related to the introduction of euro banknotes and coins disappear.

- 3 The definition of "out-of-pocket" purchases covers non-durable goods and daily consumer services, i.e. food, beverages, tobacco, non-durable household goods, transport services, fuel, postal services, hotels, restaurants, cafés and hairdressing.
- 4 It should be taken into account that country differences may play a substantial role here. For example, in Spain, a fairly similar index (including food, energy, local transport, newspapers and magazines, bars, cafés and restaurants and cultural and sport recreational services) constructed by the Banco de España seems to fit developments in Spanish inflation expectations over 2002 as a whole remarkably well (see Banco de España, Annual Report 2002, Recuadro IV.4).
- 5 In this regard, countries like Germany, Spain and the Netherlands seem to have been more prone to these effects than others. See "La conversione approssimata dei prezzi in euro nelle valute nazionali e l'inflazione percepita dai consumatori", published in "Rapporto trimestrale ISAE", January 2003, pp. 118-120.