Box 2

Recent developments in perceived and actual inflation

Cash changeover effects on prices, associated with the introduction of the euro, have attracted considerable attention in the course of 2002 – ranging from extensive reporting in the media to calls for consumer boycotts of retailers. It has been claimed that the official inflation figures, such as the Harmonised Index of Consumer Prices (HICP), are misleading and, hence, do not accurately reflect recent price increases faced by consumers.

According to the European Commission Consumer Survey, consumer inflation perceptions have, over the past few months, increased further, reaching new all-time highs. This contrasts starkly with actual HICP inflation, which has declined over the same period. Hence, developments in perceived inflation warrant close examination

at the current juncture, as its high levels may have consequences for other macroeconomic variables such as consumption and wage developments.

This box serves as an update of the box entitled "Recent developments in consumers' inflation perceptions" contained in the July 2002 issue of the Monthly Bulletin. More specifically, it reviews developments in consumers' inflation perceptions, concentrating in particular on the most recent period. The perceptions are also compared with consumers' expectations as regards future inflation, as surveyed by the European Commission. Finally, the box summarises why the annual rate of change in the HICP is considered to be an appropriate measure of overall inflation at the aggregate euro area level. In this context, the plausible reasons for the divergent developments in perceived and actual inflation are highlighted.

Higher perceived inflation in 2002, despite lower HICP inflation

The developments in the European Commission's indicator on perceived inflation have in the past tracked actual inflation measured by the HICP remarkably well. On occasions, although very seldom and to a minor extent, the two measures have diverged or moved in different directions. However, one and a half years ago, perceived and actual inflation started to diverge and, since January 2002, they have been moving in different directions (see Chart A). In August 2002, according to the European Commission Consumer Survey, the indicator on perceived inflation rose for the eighth consecutive month and reached an all-time high reading for the seventh month in a row. Although it declined marginally by one point in September 2002, it was still at its second highest reading since the start of the series in January 1985. By contrast, over the same period, actual inflation declined.

It would be worth closely examining this divergence between perceptions and actual inflation, given that it might have an impact on other macroeconomic variables. If inflation rates are perceived as being higher than they actually are, one consequence is that real wage developments and, therefore, purchasing power are being underestimated by consumers. This may have negative consequences on consumption, for example. It cannot be excluded that recent subdued developments in private consumption are at least partly explained by the high level of perceived inflation. In addition, if consumers incorrectly feel that they have lost purchasing power, there is a risk that this may trigger higher wage claims than warranted. Looking ahead, when consumers realise at some stage that they have more purchasing power than they previously thought, this should facilitate a convergence of perceived inflation towards actual inflation.

The perceptions themselves are also of interest as they may have an impact on the formation of inflation expectations. In addition, coupling consumers' perceptions with their inflation expectations makes it possible

Chart A: Perceived and actual inflation

(percentage balances; annual percentage changes; monthly data)

percentage balance (left-hand scale)
overall HICP inflation (right-hand scale)



Sources: European Commission Business and Consumer Surveys and Eurostat.

Note: The European Commission's indicator on perceived inflation takes the form of balance statistics, and cannot be directly related to the magnitude of the actual rate of inflation – it only gives qualitative information on the directional change in perceptions.

to assess how consumers interpret price shocks. For instance, if perceptions increase and expectations decline, this indicates that the shock is seen as transitory. This is exactly what has happened since the beginning of this year. While perceptions have gone up, expectations have been declining (see Chart B), which strongly suggests that consumers believe that the price hikes that, to their minds, have occurred this year are of a temporary nature and will revert. To some extent these developments support the view that perceptions should converge with actual inflation in the not too distant future.

Chart B: Perceived and expected inflation

(percentage balances; monthly data)



Source: European Commission Business and Consumer Surveys.

Note: The indicator on consumers' inflation expectations (over the next 12 months) is also obtained from the European Commission survey. It is constructed in the same manner as the indicator on perceptions, i.e. as a percentage balance.

The HICP is considered to be an appropriate measure of euro area inflation

The present gap between consumers' perceptions of past inflation developments and actual inflation developments can, to a large extent, be linked with the introduction of euro-denominated prices and price rises in some specific goods and services. However, it is important to note that the HICP is constructed so as to reflect overall consumer spending patterns and thereby to accurately measure inflation. In particular, the HICP covers all households' final monetary consumption expenditure, including that on (non-durable and durable) goods and services, over a recent year. The item weights in the HICP are updated in January each year in order to maintain the representativity of the index in terms of consumer expenditure. Hence, frequently purchased items are not under-represented.

The most plausible explanation for the high levels of perceived inflation in past months is that consumers attach great importance to price developments in the goods and services they buy more frequently. If price developments in these frequently purchased items differ significantly from price developments in products purchased less frequently, consumers may form an unrepresentative picture of the broad consumption basket – from which the HICP weights are derived – and thereby also of the price movements at an aggregate level. The above-mentioned explanation is supported if recent actual price developments are scrutinised. For instance, prices of petrol, fresh foods and restaurant services have all been affected by various shocks at some stage over the past few years. These items are also good examples of goods and services that are purchased more frequently and, hence, their price developments may be viewed as being particularly important by consumers when they assess developments in inflation.

Recently, however, prices of some of the above-mentioned items have started to fall. The month-on-month rate of increase in restaurant services prices, for instance, was 0.2% in August 2002, which is in line with the average increase witnessed in this month since 1996. This contrasts with January 2002, when the month-on-month increase in this component was 1.3%, which is 0.9 percentage point higher than the past average for that month. Also, price developments in other services, such as hairdressing, have started to ease to growth rates in line with past averages. In addition, fresh food prices have recently started to decline. For instance, the

year-on-year rate of change in unprocessed food prices stood at 1.3% in August 2002, which is significantly lower than in January 2002, when the increase was 8.4%. Unless new price shocks occur, consumers' perceptions regarding inflationary developments should decline – and reach levels consistent with actual inflation.

As regards the cash changeover, it is likely that the introduction of the euro has triggered some price increases, in particular within the services sector. However, taking into account the whole spectrum of reasons for raising prices, the euro-related reasons are assessed to only play a small role. The problem is that it is difficult to disentangle these cash changeover effects from the other sources of inflationary pressures. This partly explains why the euro has been wrongly associated with price increases – which in reality reflect other reasons. The weather-related shock to fresh food prices in January 2002, the timing of which coincided with the introduction of the euro banknotes and coins, is one example in this respect.