

Box 4

CALENDAR EFFECTS IN RECENT INFLATION DEVELOPMENTS

Recent movements in HICP inflation excluding energy and food have been strongly affected by calendar effects, which have complicated the analysis of short-term developments. This box explains these effects and shows that, when the most affected components are removed from the HICP basket, the shorter-term dynamics in the HICP excluding energy and food have been stabilising, if not picking up over the last six months.

Sources of calendar-related volatility

The composition of the calendar, e.g. the number of working days in a given period, can have a strong effect on activity indicators, such as industrial production, but typically has little

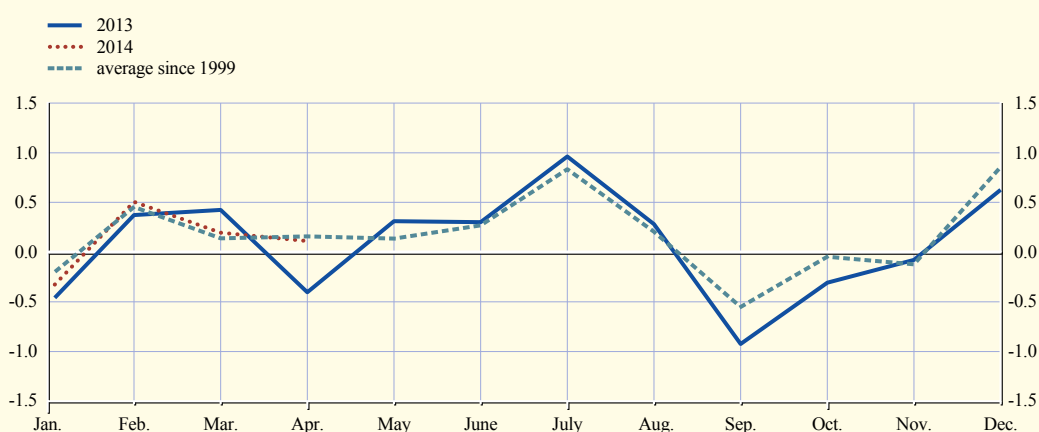
impact on consumer prices. An exception is when there are changes in the timing of holiday periods, such as the month in which Easter takes place. Easter is a public holiday in most euro area countries, which usually falls in the middle of school holidays. In 2013 it took place at the end of March, whereas, in 2014 it took place in the middle of April. The Easter holiday period typically causes the prices of travel-related services (in particular package holidays, air transport and hotel accommodation) to increase due to a significant rise in demand. Although these services account for only 9.2% of the services component of the HICP basket, large price swings can have a notable impact at the level of the overall HICP.

This can be observed from the regular monthly pattern of price changes in the HICP services component (see Chart A). Although services prices normally increase only modestly in March, the early Easter meant that in 2013 the increase in prices was much stronger than usual. Conversely, rather than rising slightly, as in most years, services prices actually decreased in April 2013. In 2014 services prices have increased in both March and April, broadly in line with the normal monthly pattern. The unusual pattern in 2013 thus had a strong base effect for the year-on-year rates of change of services prices in 2014, explaining much of the volatility observed – these increased from 1.3% in February to 1.1% in March and 1.6% in April. Note that measured price effects associated with the timing of Easter tend to differ across euro area countries and are particularly pronounced in Germany.

Another calendar effect relates to differences in the constellation of sales periods across years. Winter sales typically take place in January and February, and changes in the timing of sales periods from one year to the next can have an important impact on the annual rates of change of the HICP. The HICP items most strongly affected by sales are clothing and footwear, which account for 23.2% of non-energy industrial goods. In 2014 the different timing of sales compared with 2013 was particularly relevant in France, leading to a 0.7 percentage point decline in French non-energy industrial goods inflation in January and a corresponding rise of the same magnitude in February 2014. This, in turn, prompted a decrease and subsequent increase of 0.15 percentage point in euro area non-energy industrial goods inflation in these months.

Chart A Monthly pattern of the HICP services component

(monthly percentage changes)



Sources: Eurostat and ECB calculations.

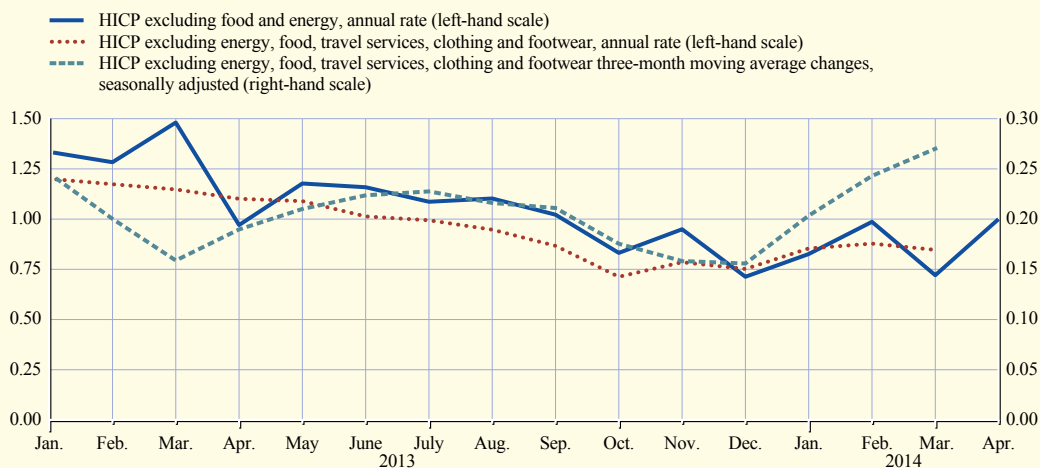
Looking through recent volatility

At generally low rates of inflation, calendar effects can have a proportionately larger impact than they would have when inflation is at higher levels. Looking beyond such effects is thus important for gauging the underlying price dynamics which are often approximated by developments in the HICP excluding energy and food. A simple way to do so, is to also exclude those products from the HICP basket which are most affected by the recent sources of calendar-related volatility described above. Such an index, which covers around 85% of the HICP excluding energy and food, shows a much smoother profile than the HICP excluding only food and energy items. Following a gradual decline in the first nine months of 2013, this measure has since moved slightly upwards. Such an upward path is also confirmed by changes in the seasonally adjusted three-month moving average, which have picked up since December – see Chart B (due to the lack of detailed data, such an index cannot yet be compiled for April).

Looking forward, the upward pressure on prices in April arising from the timing of Easter implies that services price inflation will most likely be slightly lower again in May. This is in line with the prevailing expectation that overall inflation will remain at the current low levels for the coming months.

Chart B HICP excluding various volatile components

(annual percentage changes; three-month moving average changes)



Sources: Eurostat and ECB calculations.

Note: "Travel services" refers to travel-related services particularly affected by calendar effects, i.e. package holidays, hotel accommodation and air travel services.