

HICP — Frequent out-of-pocket purchases

a new special aggregate

This article introduces a new special aggregate in the framework of the harmonized index of consumer prices (HICP) which comprises 'frequent out-of-pocket purchases' (FROOPP) and its complement – 'less frequently or non-out-of-pocket purchased' (non-FROOPP) items. The price development for these two aggregates has differed notably from the overall price development at the EU level over the past 11 years. Price increases for FROOPP have generally been higher than the headline inflation figure, while increases for non-FROOPP have

been below that rate. These differences were much higher from autumn 2007 to autumn 2008 when relatively high inflation rates were seen across the European Union and prices for many everyday products rose by rates which had not been seen for more than a decade. However, during the most recent months, inflation has fallen sharply to much lower levels, in large part due to falling energy and fuel prices. The result of this is that for December 2008 and January 2009 the price increase for FROOPP was lower than the headline inflation rate.

Chart 1: Frequent out-of-pocket purchases in the European Union – Annual rates of change, in %

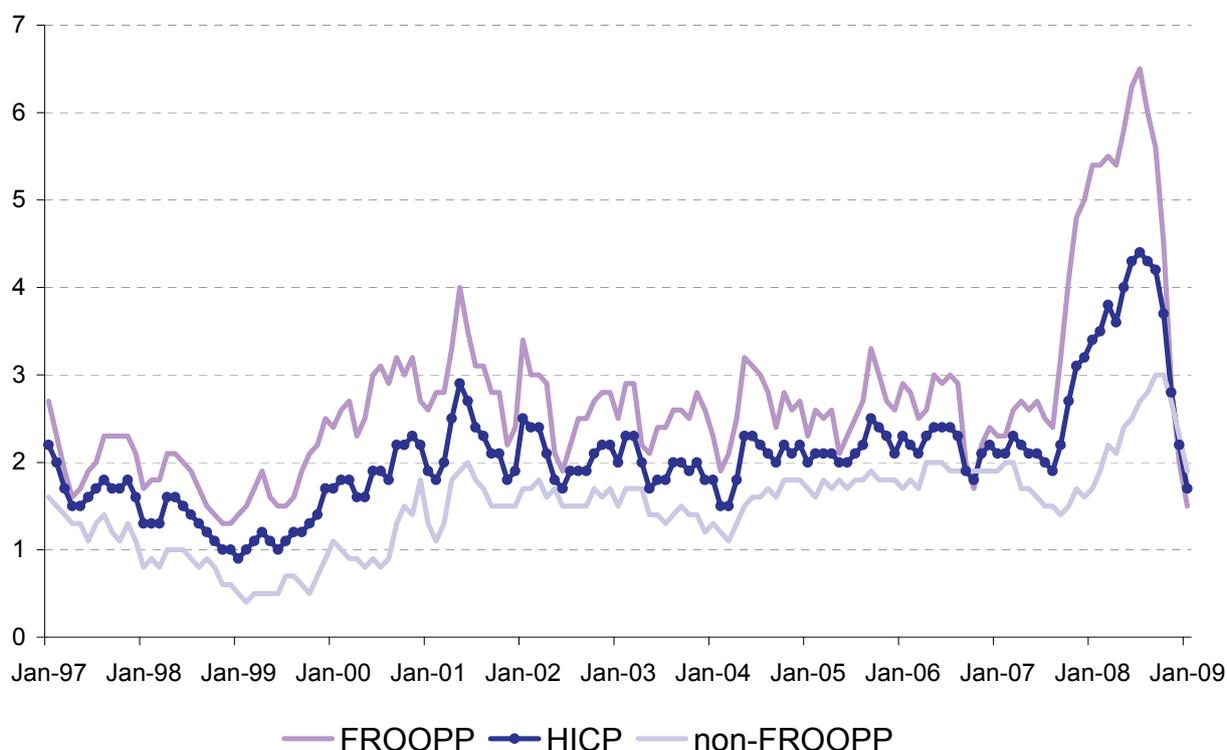
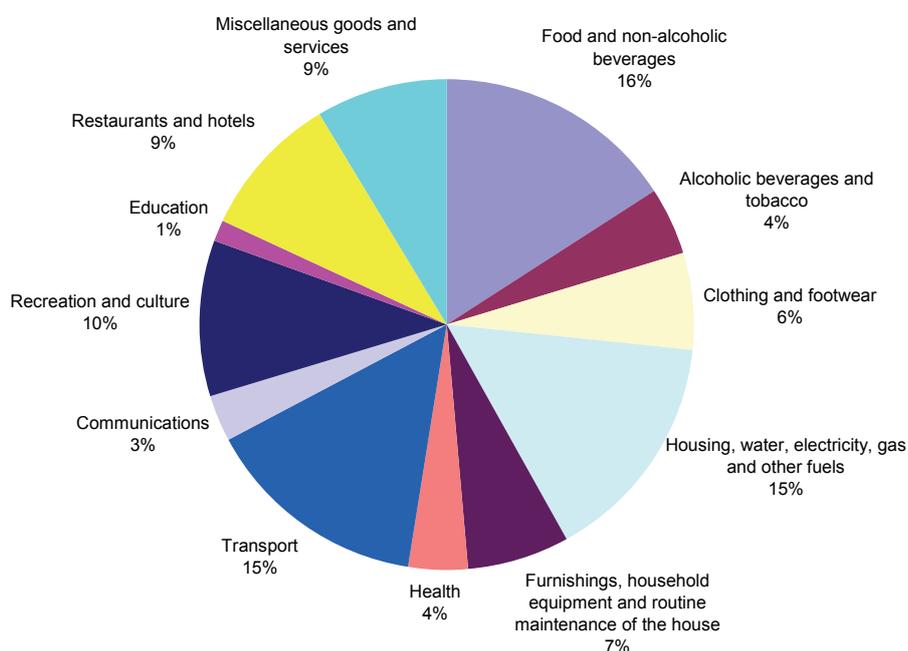


Chart 2: Average consumption pattern in the European Union for the HICP in 2009, % share of total consumption expenditure (*)



(*) Due to rounding effects, the weights may not add up exactly to 100.

What does the headline HICP inflation figure tell us?

Inflation — the HICP — is estimated by means of an average expenditure basket representative of the full range of consumption expenditures (see Chart 2). It covers the prices for all goods and services purchased for consumption purposes by the household sector. The headline inflation figure is the weighted average of the price changes of all of those items. Some of the prices within the basket may increase sharply while others may increase more moderately, remain relatively stable or even decrease. The headline inflation figure is an average of price changes of all goods and services purchased by all households, whether prices are rising, stable or falling.

The consumption pattern of individual households will differ in one way or another from the average,

so that each individual household's inflation experience will almost certainly differ from that captured in the headline figure to some extent. Consumers who spend more on goods and services for which prices are showing the sharpest increases will experience higher inflation than the official headline figure. The opposite will be the case for consumers who spend more than the average on goods and services for which prices have been stable or falling.

The annual rates of change in the headline inflation rate for the European Union¹ and the euro area² are displayed starting from 1997 in Chart 3. During the observed period, price developments in the euro area have been similar to those in the European Union as a whole.

Why do we need a new special aggregate?

Often, headline inflation figures stand at a lower rate than inflation as it is perceived by the public. National Statistical Offices have to face public and media claims that headline inflation measures do not reflect people's personal experiences and this can affect confidence in the headline inflation figures.

Eurostat publishes every month a large amount of inflation data. The inflation figures are broken down by country and around 100 sub-indices. Furthermore, over 30 HICP special aggregates combining specified sets of items from different headings are already compiled and published each month (e.g. Energy, All-items excluding tobacco, etc).

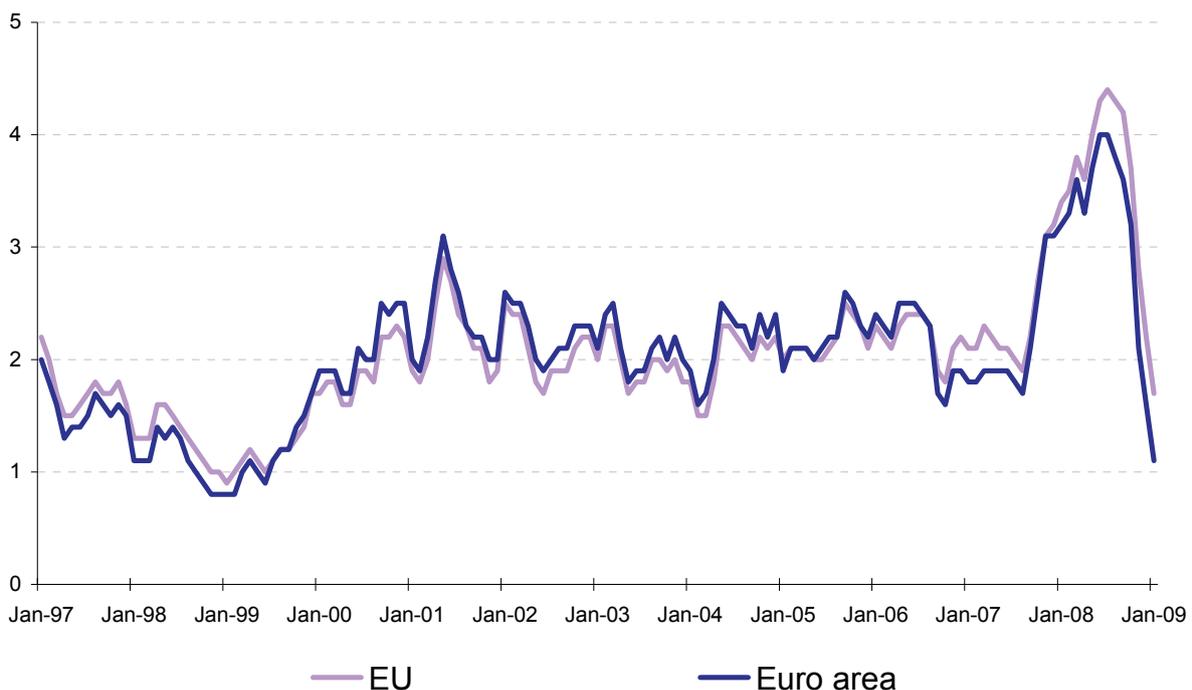
The public is particularly aware of, and may pay most attention to, prices for frequently purchased items, especially those which they have to pay for directly and actively. The public may also tend to allocate a much higher importance to these price changes than would be justified by their share in the total consumption expenditure and pay much less attention to changes in the prices of less frequently bought items.

However, a significant amount of expenditure — more than 50 % — is spent on items which are purchased less frequently and these expenditures must also be reflected in the headline inflation rate.

With the HICP January 2009, Eurostat will now begin compiling and publishing two additional special aggregates for the European Union and the euro area, one for frequent out-of-pocket purchases — FROOPP — and the other for all items excluding FROOPP. Eurostat will compile the new indices on a regular basis and release them in its database. The aim of these new special aggregates is to illustrate that the headline inflation rate is an average over the price developments of all goods and services, e.g. of frequent and less frequent purchases.

Even though consumers may pay most attention to the price developments of frequent out-of-pocket purchases, and even tend to think that this would be their 'real' overall inflation rate, this aggregate can only ever be a complement to the official headline inflation figure. **It can not be considered to be a replacement for the headline inflation rate.**

Chart 3: European Union and euro area inflation rates — Annual rates of change, in %



What are 'frequent out-of-pocket purchases' (FROOPP)?

'Frequent purchases' are purchases which are typically done at least monthly. 'Out-of-pocket purchases' are those purchases which are considered to be typically paid for by the consumer directly and actively. Active payments include cash, card or cheque payments and also individual bank debits or transfers. They do not include payments by standing orders or automatic bank transfers.

The FROOPP special aggregate comprises 45.6 % of the total consumption expenditure in the European Union in 2009. It includes prices for food, beverages, tobacco, cleaning, recreational and cultural services, personal and home care, pharmaceuticals, recording media, books,

newspapers, stationery, postal services, fuel, parking, transport services as well as pets and related products and catering services (see methodological notes).

It does not include rentals, or prices for services and energy related to dwelling, telecom services, education, social protection, health insurance or financial services. These purchases (or expenditures) may occur every month but are not typically paid for 'out-of-pocket' by consumers.

The aggregate for non-FROOPP covers all items included in the HICP which are not included in the FROOPP aggregate.

How did prices for FROOPP develop compared to the headline inflation?

The results of the computations for the period January 1997-January 2009 are illustrated in Chart 1. The chart demonstrates that the headline HICP is a weighted average inflation measure including the whole basket of purchased goods and services irrespective of their frequency of purchase.

Price increases for FROOPP have usually been higher than the headline inflation figure since the launch of the HICP in 1997. This is the case because some items covered within FROOPP, such as food, fuel, alcohol and tobacco and restaurants and cafes, have usually shown higher price increases since 1997 than the all-items inflation rate, while some others — non-FROOPP —, such as clothing and footwear, household appliances and durables and telecommunications, have in general shown lower than average price rises.

The chart also shows that the significant increases in prices for food as well as for energy and fuel, which were the main cause for higher headline inflation figures since October 2007, resulted in an even stronger increase in the prices for FROOPP.

The calculations demonstrate that in the period 1997-2008, price increases for FROOPP were higher than the headline inflation rate. The price increase for FROOPP was on average 0.6 percentage points higher than the all-items HICP during the period 1997-2007. From autumn 2007 to autumn 2008, the differences were substantially higher. The figures are presented in Table 1.

From October 2007 to October 2008, price increase for the FROOPP aggregate was up to 2.1 percentage points higher than the headline inflation rate. The largest gap between the headline inflation rate and the price increase rate for FROOPP was observed in July 2008 when the prices of FROOPP were on average 6.5 % higher than a year earlier, while the headline inflation rate was 4.4 %. The prices of the non-FROOPP grew by a more moderate 2.7 % in the year to July 2008. In August and September 2008, the differences between FROOPP and the headline rate of inflation moderated somewhat, and FROOPP stood at 4.5% and the headline rate at 3.7 % in October 2008. However, FROOPP price increase was still higher than at any time prior to October 2007.

In the most recent months, the difference between the FROOPP and the headline inflation has first moderated and then turned negative. In November 2008, the headline inflation, as well as price increases for FROOPP and non-FROOPP stood at nearly the same level. The differences shrank to 0.1 percentage points. In December 2008 and January 2009, the price increase for FROOPP was lower than the headline rate. The main reason for this development is that recent falls in inflation rates are predominantly driven by the falls in energy and fuel prices. The effect of this price decrease is bigger on the FROOPP than on the headline inflation. In January 2009 the headline inflation rate stood at 1.7 % while the prices of the FROOPP were only 1.5 % higher than a year earlier.

Prices of non-FROOPP remained relatively stable over the observation period. Price increases were on average 0.4 percentage points lower than the headline HICP inflation and 1.0 percentage points

lower than the price increase for FROOPP during the 1997-2007 period. During 2008, somewhat higher rates of inflation for non-FROOPP have been observed but they have never exceeded 3.0 %.

Conclusion

The price developments of items which consumers buy most frequently and pay for out of their pockets are likely to influence their views of inflation. The present article illustrates that, throughout the last decade, the price developments of such items differed notably from headline inflation.

The differences were particularly large between October 2007 and October 2008. This may explain

in part why consumers often think that inflation is higher than the officially measured rate. However, it has to be stressed that the special aggregate of 'frequent out-of-pocket purchases' can only complement the official headline HICP figure as it covers less than 50 % of the goods and services that households purchase. It provides a useful but only partial picture of the overall price development.

Table 1: EU inflation rates — annual rates of change, in % ()**

	HICP	FROOPP	Non-FROOPP
1997	1.7	2.1	1.3
1998	1.3	1.7	0.8
1999	1.2	1.8	0.6
2000	1.9	2.8	1.1
2001	2.2	2.9	1.6
2002	2.1	2.7	1.6
2003	2.0	2.5	1.5
2004	2.0	2.6	1.5
2005	2.2	2.6	1.8
Jan-06	2.3	2.9	1.7
Feb-06	2.2	2.8	1.8
Mar-06	2.1	2.5	1.7
Apr-06	2.3	2.6	2.0
May-06	2.4	3.0	2.0
Jun-06	2.4	2.9	2.0
Jul-06	2.4	3.0	1.9
Aug-06	2.3	2.9	1.9
Sep-06	1.9	2.0	1.9
Oct-06	1.8	1.7	1.9
Nov-06	2.1	2.2	1.9
Dec-06	2.2	2.4	1.9
2006	2.2	2.6	1.9

(**) The headline HICP is a weighted average of FROOPP and non-FROOPP. Due to rounding effects, results may sometimes coincide, as for instance in September 2006.

Table 1: EU inflation rates — annual rates of change, in % ()***(continued)*

	HICP	FROOPP	Non-FROOPP
Jan-07	2.1	2.3	1.9
Feb-07	2.1	2.3	2.0
Mar-07	2.3	2.6	2.0
Apr-07	2.2	2.7	1.7
May-07	2.1	2.6	1.7
Jun-07	2.1	2.7	1.6
Jul-07	2.0	2.5	1.5
Aug-07	1.9	2.4	1.5
Sep-07	2.2	3.2	1.4
Oct-07	2.7	4.1	1.5
Nov-07	3.1	4.8	1.7
Dec-07	3.2	5.0	1.6
2007	2.3	3.1	1.7
Jan-08	3.4	5.4	1.7
Feb-08	3.5	5.4	1.9
Mar-08	3.8	5.5	2.2
Apr-08	3.6	5.4	2.1
May-08	4.0	5.8	2.4
Jun-08	4.3	6.3	2.5
Jul-08	4.4	6.5	2.7
Aug-08	4.3	6.0	2.8
Sep-08	4.2	5.6	3.0
Oct-08	3.7	4.5	3.0
Nov-08	2.8	2.9	2.7
Dec-08	2.2	2.0	2.3
2008	3.7	5.1	2.4
Jan-09	1.7	1.5	1.9

(**) The headline HICP is a weighted average of FROOPP and non-FROOPP. Due to rounding effects, results may sometimes coincide, as for instance in September 2006.

METHODOLOGICAL NOTES

The additional HICP special aggregate is calculated in the same way as other HICP special aggregates, using the data set on prices and weights which is available to Eurostat. The aggregate is compiled from sub-indices which are considered to mainly represent purchases done by the consumers typically at least every month and paid for directly and actively. The allocation of COICOP/HICP³ sub-indices as either FROOPP or non-FROOPP is based on frequency of purchases data concerning some individual Member States. Data on the frequency of purchase are not available to Eurostat from all Member States. The non-FROOPP aggregate has been calculated as the complement to FROOPP, so that FROOPP and non-FROOPP together cover the whole set of HICP expenditures.

COICOP/HICP Main Groups		FROOPP	Share of FROOPP in Main Group	non-FROOPP
01	Food and non-alcoholic beverages	01.1.1; 01.1.2; 01.1.3; 01.1.4; 01.1.5; 01.1.6; 01.1.7; 01.1.8; 01.1.9; 01.2.1; 01.2.2	100 %	
02	Alcoholic beverages and tobacco	02.1.1; 02.1.2; 02.1.3; 02.2.0	100 %	
03	Clothing and footwear	03.1.4	2.2 %	03.1.1; 03.1.2; 03.1.3; 03.2.1/2
04	Housing, water, electricity, gas and other fuels		0 %	04.1.1/2; 04.3.1; 04.3.2; 04.4.1; 04.4.2; 04.4.3; 04.4.4; 04.5.1; 04.5.2; 04.5.3; 04.5.4; 04.5.5
05	Furnishings, household equipment and routine maintenance of the house	05.6.1; 05.6.2	25.9 %	05.1.1; 05.1.2; 05.1.3; 05.2.0; 05.3.1/2; 05.3.3; 05.4.0; 05.5.1/2
06	Health	06.1.1	32.4 %	06.1.2/3; 06.2.1/3; 06.2.2; 06.3.0
07	Transport	07.2.2; 07.2.4; 07.3.1; 07.3.2; 07.3.5	42.7 %	07.1.1; 07.1.2/3/4; 07.2.1; 07.2.3; 07.3.3; 07.3.4; 07.3.6
08	Communications	08.1.0	4.5 %	08.2/3.0
09	Recreation and culture	09.1.4; 09.3.4/5; 09.4.1; 09.4.2; 09.5.1; 09.5.2; 09.5.3/4	50.5 %	09.1.1; 09.1.2; 09.1.3; 09.1.5; 09.2.1/2; 09.2.3; 09.3.1; 09.3.2; 09.3.3; 09.6.0
10	Education		0 %	10.x.0
11	Restaurants and hotels	11.1.1; 11.1.2	82.7 %	11.2.0
12	Miscellaneous goods and services	12.1.1; 12.1.2/3	33.6 %	12.3.1; 12.3.2; 12.4.0; 12.5.2; 12.5.3; 12.5.4; 12.5.5; 12.6.2; 12.7.0

Notes:

- (1) EU inflation is measured by the EICP ('European Index of Consumer Prices' as defined in Council Regulation (EC) No 2494/95 of 23 October 1995) which is the official EU aggregate. The EU included 15 Member States until 30 April 2004, 25 Member States from 1 May 2004 until 31 December 2006 and 27 Member States from 1 January 2007. New Member States are integrated into the EICP using a chain index formula.
- (2) Euro area inflation is measured by the MUICP ('Monetary Union Index of Consumer Prices' as defined in Council Regulation (EC) No 2494/95 of 23 October 1995) which is the official euro area aggregate. The euro area initially included Belgium, Germany, Ireland, Spain, France, Italy, Luxembourg, the Netherlands, Austria, Portugal and Finland. Greece was included from 1 January 2001, Slovenia from 1 January 2007, Cyprus and Malta from 1 January 2008 and Slovakia from 1 January 2009. New Member States are integrated into the MUICP using a chain index formula.
- (3) COICOP/HICP is the Classification Of Individual Consumption by Purpose adapted to the needs of HICP. [Please follow this link to the Eurostat's Ramon server of classifications for more details.](#)

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