Statistics Netherlands

Economic and business statistics and national accounts
Government finance and consumer price statistics

P.O.Box 24500
2490 HA Den Haag
The Netherlands

Weights in CPI/HICP and in seasonally adjusted series

Jan Walschots

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WEIGHTS IN CPI/HICP AND IN SEASONALLY ADJUSTED SERIES

Summary: In this paper we discuss the weights in a Consumer Price Index (CPI) [1]*. Both the fixed base Laspeyres index and chain-linked Laspeyres-type indices like the European Harmonised Index of Consumer Prices (HICP) are discussed. How are the weights derived and what data are usually published. The central question is what should be the weights in the case where seasonally adjusted underlying series are aggregated to get a seasonally adjusted headline index series. In the case of a chain-linked index the optimum weights differ from the published ones. We discuss the possibilities to derive the optimum weights and give a numerical example.*

Keywords: CPI, HICP, Laspeyres type index, weights, Seasonal adjustment

1. Introduction

Consumer prices often have a distinct seasonal pattern. The most widely used response to the seasonal variation of the Consumer Price Index (CPI) is to focus on year-on-year inflation results. Another response is to calculate seasonally adjusted indices and month-on-month rates of change that reflect recent developments in inflation which abstract from regular seasonal effects.

Many statistical institutes, including Statistics Netherlands and Eurostat, do not produce seasonally adjusted series for the CPI or HICP (European Harmonised Index of Consumer Prices) themselves but other organisations may use official statistics to produce them.

Basically two approaches for compiling these series are possible. In a "direct approach" seasonal adjustment is applied directly to each series of interest, e.g. the headline overall index series. There is also an "indirect approach". Considering that the overall CPI is the weighted aggregate of a number of underlying price index series, it is also possible to apply seasonal adjustment to (a subset of) these underlying series and then aggregate them to get a seasonally adjusted overall aggregate index series.

This paper deals with indirect seasonal adjustment methods for the CPI. It is attempted to answer the question which weights must be used for aggregating the seasonally adjusted elementary aggregates in order to get an unbiased seasonally

[1] The author wishes to thank Martin Eiglsperger (ECB) for valuable comments on an earlier draft. All remaining errors are mine.

adjusted headline series. It is not about the seasonal adjustment of the elementary aggregates itself.

In section 2 we discuss the alternative ways to represent a fixed base Laspeyres index and the corresponding weights. This leads in section 3 to a more general representation of a chain-linked Laspeyres index, which is used for the HICP. In section 4 we discuss the combining of weights based on annual consumption with monthly indices and the related problems of seasonalities. Section 5 presents the weights in an annually chained CPI with a monthly index. In section 6 we give a short description of the HICP-regulation on weights and the weights that are actually published by Eurostat.

In section 7 the direct and indirect approach for seasonal adjustment are compared. The rest of the paper will be on the indirect approach. In section 8 we discuss the weights to be used in a seasonally adjusted fixed base Laspeyres series and in section 9 we do the same for a seasonally adjusted chain-linked series like the HICP. In the latter case the published weights are not the best for the seasonally adjusted series on theoretical considerations. It is also derived how corrected weights for seasonally adjusted series can be derived from the published weights.

In section 10 we make a comparison of results on the basis of seasonally adjusted HICP series published by the European Central Bank (ECB). In the presented examples the differences between the alternative results are small, but we will discuss under what circumstances these differences may be larger.

2. Weights in a Laspeyres type CPI

2.1 The basic Laspeyres formula

This paper deals with CPIs that are compiled as Laspeyres type index series. A Laspeyres price index can be described fully by prices and quantities of a basket of goods and services, purchased by consumers.

Let P_{ia} and Q_{ia} be the price and quantity purchased of good or service i in period a.

The Laspeyres index U_{ab} measures the average price development between periods a and b of a basket of all goods and services i that were purchased in period a. It can be written as:

$$(1)\quad U_{ab} = \frac{\sum_i P_{ib} * Q_{ia}}{\sum_i P_{ia} * Q_{ia}}$$

The formula for the overall price index is usually transformed into a formula that separates the overall index into the price change of each product (a good or a service) and related weight indicators.

(2) $$U_{ab} = \frac{\sum_i P_{ib} * Q_{ia}}{\sum_i P_{ia} * Q_{ia}} = \frac{\sum_i P_{ib} / P_{ia} * P_{ia} * Q_{ia}}{\sum_i P_{ia} * Q_{ia}} = \sum_i \frac{P_{ia} * Q_{ia}}{\sum_i P_{ia} * Q_{ia}} * \frac{P_{ib}}{P_{ia}} = \sum_i W_{ia} * \frac{P_{ib}}{P_{ia}}$$

with

(3) $$W_{ia} = \frac{P_{ia} * Q_{ia}}{\sum_i P_{ia} * Q_{ia}}$$

The weights W_{ia} represent the expenditure shares of products i in base period a. This is also the formula normally used in practical calculations. The weights W_{ia} and elementary price indices P_{ib}/P_{ia} are not observed for all individual products but at some elementary product group level.

2.2 A chain linked representation of the fixed basket Laspeyres index.

A Laspeyres index covering a longer period can also be written as a chain linked index, even if the basket of goods and services does not change. Each link is a Lowe index[2] covering shorter periods.

(4) $$U_{ab} = \frac{\sum_i P_{ib} * Q_{ia}}{\sum_i P_{ia} * Q_{ia}} = \frac{\sum_i P_{i(a+1)} * Q_{ia}}{\sum_i P_{ia} * Q_{ia}} * \frac{\sum_i P_{i(a+2)} * Q_{ia}}{\sum_i P_{i(a+1)} * Q_{ia}} * .. * \frac{\sum_i P_{ib} * Q_{ia}}{\sum_i P_{i(b-1)} * Q_{ia}}$$

This can be written as

(5) $$U_{ab} = \Pi_{x=a}^{b-1} \left(\frac{\sum_i P_{i,x+1} * Q_{ia}}{\sum_i P_{ix} * Q_{ia}} \right) = \Pi_{x=a}^{b-1} \left(\sum_i W_{i,a,x} * \frac{P_{i,x+1}}{P_{ix}} \right)$$

with

(6) $$W_{i,a,x} = \frac{P_{ix} * Q_{ia}}{\sum_i P_{ix} * Q_{ia}} = W_{i,a,a} * \frac{P_{ix}}{P_{ia}} * \frac{\sum_i P_{ia} * Q_{ia}}{\sum_i P_{ix} * Q_{ia}}$$

In this case a represents the base period in which the basket of goods and services was determined and x the index reference period (period where the index=1) for the chain-link.

Note that in this chain-link representation of the fixed basket Laspeyres index the sets of weights $W_{i,a,x}$ are calculated in each period using the same product quantities Q_{ia} but they differ because of different price relatives of the products in each period. This right hand term of equation 6 shows the process of price-updating. The three parts of the expression on the right of equation 6 represent:

[2] The Lowe index is a more general index than the Laspeyres index in that the quantities Q_{ia} in a Laspeyres index represent the consumption basket in the base period a, whereas in the Lowe index the period in which the consumption basket was measured is not strictly defined.

- the weights in the base year at base year prices,
- the relative of the price of product *i* in period *x* compared to base period *a*,
- the inverse of the price development of the full basket between the two periods.

2.3 The general case of the chain-linked Laspeyres index

A more general case of the Laspeyres formula for a longer term period is one where the weights may be adjusted on other grounds than changing price relatives, namely changing consumption patterns. The weights W_{ix} in equation (7) represent estimates for the expenditure shares of product *i* used in the index calculation in period *x*+1.

$$(7)\ U_{ab} = \Pi_{x=a}^{b-1}\left(\sum_i W_{ix} * \frac{P_{i,x+1}}{P_{ix}}\right)$$

Note that the subscript *a* has disappeared in the weights since the weights in period *x* are no longer based on the expenditures in period *a*. Each period a new estimate for the weights is entered and used for the calculation of the index in *t*+1.

3. Annual weights and monthly indices

The consumption basket in the CPI is usually based on a 12-month consumption period. This is very often, but not necessarily a calendar year. The choice of a 12-month period is based on the fact that the consumption pattern is not the same in each month of the year, due to varying weather conditions, availability of seasonal products, holiday periods and etcetera. By taking the consumption in 12 months (or a multiple of 12 months) we make sure that all consumption during the year is covered by the CPI.

This does not prevent statisticians from making monthly or quarterly CPIs. The production of monthly figures may in principle introduce two kinds of seasonality: seasonality in the consumption pattern and seasonality in the prices. The aim of the CPI is to measure the development of prices and therefore the impacts of changing consumption patterns are eliminated to the extent possible.

Seasonality in consumption patterns is related to seasonal products that are not available for purchase by consumers in all months. This also means that prices for these products cannot be observed when they are out of season. The HICP-regulations[3] have defined two distinct methods that can be used for the treatment of seasonal products.

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[3] Details of the HICP methods can be found in the Commission Regulation (EC) no. 330/2009 of 22 April 2009. It goes beyond the scope of this paper to discuss fully the treatment of seasonal products.

The first one is the “class confined seasonal weights method”. This method is based on seasonal product weights, with restrictions that ensure that product weights add up to fixed aggregate weights at each subdivision of COICOP.

The second allowed method is the use of a strict annual weights index where missing prices are estimated using either “counter-seasonal estimation” or “all-seasonal estimation”.

What is important here is that in both methods for the treatment of seasonal products in the HICP, the COICOP weights are fixed at each subdivision of COICOP.

The fact that in principle there is no seasonal pattern in the consumption as represented by the weighting scheme of the CPI reflects the general property of the CPI that the monthly indices do not represent the prices for the basket consumed in the reporting month but the price level of the annual basket in that month.

For the rest of this paper we will only deal with the seasonal patterns of prices, not with the seasonal patterns of consumption.

4. Weights in a chain-linked and monthly HICP

The HICP is a chain-linked Laspeyres-type price-index series[4]. For a month *m* in the period of 12 months between December *t*-1 and December *t* the index is calculated and linked as in equations (8) and (9). The index reference period or the base year of the published series is 2005. In these equations *m* represents the reporting month and *D* represents December:

$$(8)\quad U_{2005(m,A)} = \frac{\sum_i P_{i(D,2005)} * Q_{i,2005}}{\sum_i P_{i,2005} * Q_{i,2005}} * \Pi_{x=2005}^{A-2} \left(\frac{\sum_i P_{i(D,x+1)} * Q_{i(D,x)}}{\sum_i P_{i(D,x)} * Q_{i(D,x)}} \right) * \frac{\sum_i P_{i(m,A)} * Q_{i(D,A-1)}}{\sum_i P_{i(D,A-1)} * Q_{i(D,A-1)}}$$

This can be written as:

$$(9)\quad U_{2005(m,A)} = \left(\sum_i W_{i(2005)} * \frac{P_{i(D,2005)}}{P_{i(2005)}} \right) * \Pi_{x=2005}^{A-2} \left(\sum_i W_{i(D,x)} * \frac{P_{i(D,x+1)}}{P_{i(D,x)}} \right) * \left(\sum_i W_{i(D,A-1)} * \frac{P_{i(m,A)}}{P_{i(D,A-1)}} \right)$$

with

$$(10)\qquad W_{i(D,x)} = \frac{P_{i(D,x)} * Q_{i(D,x)}}{\sum_i P_{i(D,x)} * Q_{i(D,x)}}$$

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[4] The term "Laspeyres-type" follows from the HICP-regulations of 1996. Actually the HICP is a chain-linked series of Lowe indices. The use of the term Lowe index was introduced with the ILO-CPI-manual in 2004.

is the December weight for product group *i* in the year *x*. This weight is used from December *x* till December *x*+1. Furthermore

$$(11) \qquad W_{i(2005)} = \frac{P_{i(2005)} * Q_{i(2005)}}{\sum_i P_{i(2005)} * Q_{i(2005)}}$$

is the annual weight for 2005, the index reference year for the long time HICP series.[5]

It was explained is section 4 that the monthly indices are based on annual baskets of goods and services and therefore $Q_{i(D,A)}$ is in fact Q_{iA} and equation (10) may be rewritten as

$$(12) \; W_{i(D,A)} = \frac{P_{i(D,A)} * Q_{iA}}{\sum_i P_{i(D,A)} * Q_{iA}} = W_{i,A} * \frac{P_{i(D,A)}}{P_{iA}} * \frac{\sum_i P_{iA} * Q_{iA}}{\sum_i P_{i(D,A)} * Q_{iA}}$$

where

$$(13) \; W_{i,A=} \frac{P_{iA} * Q_{iA}}{\sum_i P_{iA} * Q_{iA}}$$

Equation (12) states that the weight in December of year *A* for product group *i* can be written as the product of three elements[6]:

- the weight in the full year *A*.

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[5] Actually the HICP series started in 1996. In 2006 the results at all levels of publication were rescaled to make the average indices in 2005 equal 100.

[6] Note that P_{iA} is not the average transaction price in year *A* but the average of the 12 monthly price indices for product group *i*:

$$(5.1) \; P_{iA} = 1/12 * \sum_{m=1}^{12} P_{i(m,A)}$$

The average expenditure share for a product *i* in year *A* could be written as

$$(5.2) \; W_{i,A=} \frac{\sum_{m=1}^{12} P_{i(m,A)} * Q_{i(m,A)}}{\sum_i \sum_{m=1}^{12} P_{i(m,A)} * Q_{i(m,A)}}$$

However, since in the CPI $Q_{i(m,A)}$=Q_{iA} we can write

$$(5.3) \; W_{i,A=} \frac{\sum_{m=1}^{12} P_{i(m,A)} * Q_{iA}}{\sum_i \sum_{m=1}^{12} P_{i(m,A)} * Q_{iA}} = \frac{Q_{iA} * \sum_{m=1}^{12} P_{i(m,A)}}{\sum_i Q_{iA} * \sum_{m=1}^{12} P_{i(m,A)}} = \frac{Q_{iA} * P_{iA}}{\sum_i Q_{iA} * P_{iA}}$$

- The price relative for product group *i* comparing the December price index with the annual average price index
- The inverse of the Laspeyres price index comparing December prices of the full basket of year *A* with the annual average prices in year *A*.

5. The relationship between the consumption basket and the published weights

Consumption patterns change over time and therefore a regular update of the weighting schemes of the CPI is necessary to guarantee the representativeness of the basket. A decade ago base revisions once every five years were rather common, but ever more countries have changed to an annual base revision. In the same period there was a development of the sources used for the weights. Where in the past the Household Budget Survey was the main source for the weights, the focus has shifted towards weights based on National Accounts consumption data.

The HICP regulation on weights prescribes that weights in the HICP in year t are based on an estimate of the consumption pattern of year *t*-1. When the weights for year *t* are first needed, in January of year *t*, National Accounts (NA) results for the year *t*-1 are not yet available. Therefore NA-consumption data for the year *t*-2 are used. Under normal circumstances the distribution of expenditures in *t*-2 is used directly as an estimate for the expenditures in year *t*-1.[7]

Member states are recommended to check the weights and correct for known sudden changes in the expenditures distribution for year *t*-1 before finalizing the year *t*-1 HICP annual weights. In a final step these annual weights are price-updated to December *t*-1 weights, i.e the expenditure shares estimated for year *t*-1 are expressed in prices of December of that year *t*-1.

6. Seasonal adjustment; direct and indirect approach

Seasonality in prices complicates the interpretation of short term index development. These problems can be solved either by focussing on year-on-year changes of the index, the annual inflation, or by seasonal adjustment of the series.

The headline index series is an aggregate of the price indices of underlying series. Seasonal adjustment of the headline series can be performed in two ways, either by direct seasonal adjustment of the headline series or by making seasonally adjusted series for a set of underlying series and then aggregate them. We will call the second method the indirect approach of seasonal adjustment.

[7] Several European countries investigated in the past years what is a better predictor of the expenditures distribution in year *t-1*. Was it either the expenditures distribution in year *t-2* or was it the expenditures distribution in year *t-2* price-updated to the year *t-1*? It came out that the expenditure distribution was the better predictor.

The indirect approach might be preferred, since the seasonal adjustment factors for the separate product groups are easier to identify, estimate and interpret than the seasonal pattern of the headline series which may be composed of various different seasonal patterns. Another relevant aspect is the fact that changing consumption patterns in the course of time may affect the seasonal adjustment factors of the aggregate index, even if the seasonal patterns of the prices for the underlying product groups do not change. Extracting seasonal patterns of underlying series whose profiles are pronounced and sufficiently stable over time may give better results than an adjustment for a changing pattern when applying a direct approach of seasonal adjustment to the headline series. For the purpose of interpretation, inflation analyses and forecasting the indirect approach to seasonal adjustment has the advantage of providing a set of seasonally adjusted component series which perfectly aggregate to the total series. By contrast, a directly seasonally adjusted total series might deviate to a significant extent from the aggregate of its seasonally adjusted component series.

It is to the researchers to decide which of the underlying series are to be seasonally adjusted and for which series the unadjusted series can be used. However, the sum of all the minor seasonalities in the unadjusted series used in the aggregation may add up to some seasonal pattern in the seasonally adjusted aggregate headline series. If a direct approach of the seasonal adjustment of the headline index were used all these minor seasonal effects may also be extracted.

We will not go deeper into this choice between the direct or indirect approach, but for the rest concentrate on how the indirect approach is to be performed.

7. Weights in a fixed base seasonally adjusted CPI-series

We will now discuss what the weights will be if we make a seasonal adjustment in a number of the underlying price index series of product groups *i*. These were the equations for the unadjusted series:

$$(14)\quad U_{a(m.t)} = \frac{\sum_i P_{i(m,t)} * Q_{ia}}{\sum_i P_{ia} * Q_{ia}} = \sum_i W_{ia} * \frac{P_{i(m,t)}}{P_{ia}}$$

with

$$(15)\quad W_{ia} = \frac{P_{ia} * Q_{ia}}{\sum_i P_{ia} * Q_{ia}}$$

Now if we use seasonally adjusted price series instead of the unadjusted series, these equations become:

$$(16)\quad U^{sa}_{a(m.t)} = \frac{\sum_i P^{sa}_{i(m,t)} * Q^{sa}_{ia}}{\sum_i P^{sa}_{ia} * Q^{sa}_{ia}} = \sum_i W^{sa}_{ia} * \frac{P^{sa}_{i(m,t)}}{P^{sa}_{ia}}$$

with

$$(17)\ W_{ia}^{sa} = \frac{P_{ia}^{sa} * Q_{ia}^{sa}}{\sum_i P_{ia}^{sa} * Q_{ia}^{sa}}$$

For the compilation of (16) we need both the seasonally adjusted series and the seasonally adjusted weights. The series can be calculated by researchers on the basis of published series, but only the unadjusted weights W_{ia} are available. The question therefore is under what conditions the weights W_{ia} and the seasonally adjusted weights W_{ia}^{sa} are equal.

We can write

$$(18)\ W_{ia}^{sa} = W_{ia} * \frac{P_{ia}^{sa} * Q_{ia}^{sa}}{\sum_i P_{ia}^{sa} * Q_{ia}^{sa}} * \frac{\sum_i P_{ia} * Q_{ia}}{P_{ia} * Q_{ia}}$$

As explained in section 4 we are dealing only with seasonal pattern of prices and not with a seasonal pattern of consumption. Therefore we can replace Q_{ia}^{sa} by Q_{ia} and the equation (18) reduces to

$$(19)\ W_{ia}^{sa} = W_{ia} * \frac{P_{ia}^{sa}}{P_{ia}} * \frac{\sum_i P_{ia} * Q_{ia}}{\sum_i P_{ia}^{sa} * Q_{ia}}$$

It is clear that if all P_{ia}^{sa} are equal to P_{ia} the weights W_{ia}^{sa} and W_{ia} are equal. However, whether or not P_{ia}^{sa} and P_{ia} are equal may depend on the procedure that was used for the calculation of the seasonally adjusted price index series and therefore cannot be taken for granted.

We may however conclude that in general the weights W_{ia}^{sa} and W_{ia} are equal if $\frac{P_{ia}^{sa}}{P_{ia}} * \frac{\sum_i P_{ia} * Q_{ia}}{\sum_i P_{ia}^{sa} * Q_{ia}} = 1$.

Considering that both P_{ia}^{sa} and P_{ia} are annual averages of prices we may assume that, in practice, they will tend to be very close to each other.

8. Weights in a chain linked seasonally adjusted CPI-series

In a chain linked Laspeyres index series weights are updated annually and they are determined in a way that differs from the fixed base Laspeyres case. The formula for the weights was developed in section 4 and according to equation (10)

(20) $$W_{i(D,A)} = \frac{P_{i(D,A)} * Q_{i(D,A)}}{\sum_i P_{i(D,A)} * Q_{i(D,A)}}$$

is the December weight for product group i in the year A. This weight is used from December A till December A+1.

Again we are dealing only with seasonal pattern of prices and not with a seasonal pattern of consumption. Therefore after replacing $Q_{i\,(D,\,A)}$ by Q_{iA} the equation (20) reduces to

(21) $$W_{i(D,A)} = \frac{P_{i(D,A)} * Q_{iA}}{\sum_i P_{i(D,A)} * Q_{iA}}$$

Likewise the weights for the seasonally adjusted series can be written as:

(22) $$W^{sa}_{i(D,A)} = \frac{P^{sa}_{i(D,A)} * Q^{sa}_{iA}}{\sum_i P^{sa}_{i(D,A)} * Q^{sa}_{iA}}$$

Combining (21) and (22) we can write

(23) $$W^{sa}_{i(D,A)} = W_{i(D,A)} * \frac{P^{sa}_{i(D,A)} * Q^{sa}_{iA}}{P_{i(D,A)} * Q_{iA}} * \frac{\sum_i P_{i(D,A)} * Q_{iA}}{\sum_i P^{sa}_{i(D,A)} * Q^{sa}_{iA}}$$

The last term of this expression is constant for all product groups i and also we know that Q^{sa}_{iA} is equal to Q_{iA} and that the sum of the weights must be 1. Therefore the expression (23) can be reduced to

(24) $$W^{sa}_{i(D,A)} \propto W_{i(D,A)} * \frac{P^{sa}_{i(D,A)}}{P_{i(D,A)}}$$

and where

(25) $$\sum_i W^{sa}_{i(D,A)} = 1$$

The seasonally adjusted December price $P^{sa}_{i(D,A)}$ is not equal to the non-adjusted price $P_{i(D,A)}$ and therefore $W^{sa}_{i,(D,A)}$ is not in general equal to $W_{i(D,A)}$.

9. Calculating the weights in practice

Having established what the correct weights should be in an indirect approach of seasonal adjustment of the HICP, the question remains how it works out in practice.

First of all the question is whether all necessary information is publicly available. Unfortunately this is not the case.

The weights $W_{i(D,A)}$ are published by Eurostat. Price indices $P_{i(D,A)}$ are also published. Eurostat does not perform any seasonal adjustment on any of the series. Researchers who want to perform seasonal adjustments can perform them by themselves on the basis of the published original series to obtain $P^{sa}_{i(D,A)}$.

But even then not all necessary data are available for researchers that want to calculate the correct weights and perform the seasonal adjustment. The problem is that the weights for December of year *A* are based on the consumption expenditures of the year *A*-1, price updated from annual average prices to December prices of this new basket. On the other hand the published price index for December of year *A* and the published average annual index for year *A* were still calculated on the basis of the basket of year *A*-2. Therefore the impact of the price-updating process of the new weights cannot be calculated exactly.

10. A practical example; comparison of series

In this section we will compare some results of indirect seasonal adjustment using different weights. Statistics Netherlands does not publish any seasonally adjusted time series for the CPI or HICP of the Netherlands. In order to make a comparison we used time series of seasonally adjusted HICP results for the euro area.

The European Central Bank (ECB) publishes a number of seasonally adjusted series for the euro area HICP. We extracted these series from their database (www.ecb.int). Original HICP series and weights were extracted from the Eurostat database. We used the following series to make test calculations for the aggregation.

The first subdivision is in four major groups of products:

- Food (including alcohol and tobacco),
- Non-energy industrial goods,
- Services and
- Energy. For Energy the ECB does not publish a seasonally adjusted series, and therefore we used the original one[8].

A summary table 1 with all data and results is at the end of this document.

In the second subdivision we subdivided Food into 5 parts to get a total of 8 series:

- Meat,
- Fish and seafood,
- Fruits,

[8] According to the ECB's DG Statistics identifiable seasonality is not found in the euro area HICP series for energy.

- Vegetables and
- The other Food subgroups called "Processed food including alcohol and tobacco".

Results of this subdivision are in summary table 2. The original weights as published and the corrected weights after applying equation (24) are in tables 3 and 4.

To test the possible accuracy of the aggregation process we first calculated aggregated time series from December 2003 till December 2012 from the published original series. Since the published series for the euro area are rounded at two decimal figures (both the indices and the weights) there are minor rounding differences in the calculation.

Secondly we replaced the original index series by the seasonally adjusted series, as published by the ECB and we used the same weights for the unadjusted series.

Finally we corrected the weights according to equation (24) and (25) using the published December figures for the original and seasonally adjusted series, and again performed the aggregation of the seasonally adjusted series.

The results of the calculations can be summarized as follows:

- The level of detail in the publication of the Eurostat data (2 decimal places for indices and for weights) allows the recalculation of the aggregation process with rather high precision. Since 2006 the difference between the published and recalculated figures in table 1 is between -0.0089 and +0.0135. Before 2006 (series 1996=100) the indices were published at one decimal place and the differences are larger. The results in table 2 are almost the same.
- The ECB currently calculates the seasonally adjusted headline inflation figure from aggregation of the four series specified in table 1 using the original weights published by Eurostat. The difference between my recalculation and the ECB publication is between -0.0006 and +0.0004 may be attributable to the rounding at 5 decimal places of the seasonally adjusted series. The differences in table 2 are bigger than in table 1
- After replacing the weights by adjusted weights in the aggregation the indices develop a bit faster. While the differences are zero in 2005 they are 0.03 by the end of 2012, both in table 1 and 2.

It appears that the differences between the aggregated series using unadjusted weights and those using adjusted weights are very small in this practical example. The practical importance in this example is therefore limited. The question remains under what conditions the use of adjusted weights may have a larger impact.

Under what conditions may we expect a higher impact?

- It depends on the size of the seasonal factor in December. If December prices are on the long term trend line the right hand term of equation (24) becomes 1 and the weights are the same.

- It depends on the difference between the price trend of the product with a large seasonal pattern and the overall inflation. Product groups that closely follow the general inflation trend have hardly any impact on the aggregated results. In this respect it is interesting to see that the ECB does not calculate a seasonally adjusted series for energy where the price trend is far above average inflation.

Furthermore the fact that the results were calculated for euro area average figures may have contributed to the small size of the impact. The differences may be larger for some individual countries but cancel out to a larger extent in the euro area aggregate.

Lastly the presented example is an aggregation of four rather high aggregates. It may be that within these aggregates certain seasonal effects at lower level and the impact of the correct weights have cancelled out. The available data did not allow to test this hypothesis.

A. Glossary

The following notation was used in the text and equations.

Variables

P	Price
Q	Quantity
W	Weight factor
U	Laspeyres or Lowe index

Subscripts

i	subscript denoting product group
A	subscript denoting year A
(m,A)	subscript denoting month m of year A
(D,A)	subscript denoting month December of year A
a	subscript denoting base period
b	subscript denoting reporting period

Superscript

sa	superscript denoting seasonally adjusted figure

Miscellaneous

$\propto$	is proportional to

Example:

$U_{2005,(m,A)}$ is the index comparing prices in month m of year A with the average price level in the year 2005.

HICP Index series, 2005=100, euro area																
	Original series; source Eurostat					Seasonally adjusted series; source ECB					Own aggregation on published data			Comparison of results		
											Original series	*Seasonally adjusted series*				
												unadjusted weights	*adjusted weights*			
	Food including alcohol and tobacco	Energy	Non-energy industrial goods	Services (overall index excluding goods)	All-items HICP	Food including alcohol and tobacco	Energy (not sa)	Non-energy industrial goods	Services (overall index excluding goods)	All-items HICP	Chained series 2005=100	Chained series 2005=100	Chained series 2005=100	Column 11 - column 5	Column 12 - column 10	Column 13 - column 10
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2012Dec	120,88	144,84	107,30	115,89	116,89	121,0851	144,8400	106,1534	115,7489	116,5028	116,8971	116,5026	116,5327	0,0071	-0,0002	0,0299
2012Nov	120,48	145,63	107,59	114,70	116,48	120,7460	145,6300	106,0720	115,3566	116,3239	116,4880	116,3235	116,3533	0,0080	-0,0003	0,0295
2012Oct	120,04	147,76	107,44	115,10	116,71	120,4934	147,7600	105,8804	115,3382	116,4042	116,7212	116,4037	116,4343	0,0112	-0,0005	0,0302
2012Sep	119,26	148,43	106,75	115,14	116,44	119,8828	148,4300	105,7357	115,2327	116,2629	116,4422	116,2631	116,2935	0,0022	0,0002	0,0306
2012Aug	119,00	146,82	103,17	116,21	115,59	119,5828	146,8200	105,5665	115,2673	116,0232	115,5949	116,0232	116,0532	0,0049	0,0000	0,0300
2012Jul	119,05	143,36	103,12	115,91	115,14	119,2031	143,3600	105,5801	115,0859	115,5667	115,1480	115,5668	115,5953	0,0080	0,0001	0,0285
2012Jun	119,49	142,15	106,76	114,78	115,76	119,1616	142,1500	105,6677	114,8092	115,3613	115,7649	115,3611	115,3887	0,0049	-0,0002	0,0274
2012May	119,08	144,55	107,07	114,42	115,85	118,6359	144,5500	105,6083	114,6024	115,3776	115,8527	115,3778	115,4056	0,0027	0,0002	0,0279
2012Apr	118,89	146,60	107,02	114,48	116,01	118,4818	146,6000	105,5068	114,4698	115,4498	116,0142	115,4493	115,4777	0,0042	-0,0004	0,0279
2012Mar	118,81	145,03	106,30	114,09	115,47	118,3249	145,0300	105,3758	114,2187	115,1329	115,4727	115,1326	115,1603	0,0027	-0,0003	0,0275
2012Feb	118,40	142,78	102,58	113,95	113,99	118,0534	142,7800	105,1635	114,0647	114,7484	113,9920	114,7480	114,7751	0,0020	-0,0005	0,0267
2012Jan	117,66	141,17	102,40	113,42	113,43	117,4930	141,1700	105,0772	113,8950	114,4005	113,4314	114,4006	114,4267	0,0014	0,0001	0,0262
2011Dec	117,18	137,64	106,19	113,85	114,35	117,3978	137,6400	105,0650	113,7073	113,9803	114,3610	113,9800	114,0048	0,0110	-0,0003	0,0245
2011Nov	116,94	137,75	106,42	112,85	113,98	117,2146	137,7500	104,9806	113,4921	113,8407	113,9834	113,8408	113,8655	0,0034	0,0002	0,0248
2011Oct	116,43	136,86	106,27	113,14	113,88	116,8728	136,8600	104,8327	113,3765	113,6024	113,8789	113,6018	113,6260	-0,0011	-0,0006	0,0237
2011Sep	115,85	136,06	105,48	113,22	113,48	116,4423	136,0600	104,6310	113,3017	113,3542	113,4866	113,3544	113,3784	0,0066	0,0002	0,0242
2011Aug	115,54	134,86	102,07	114,14	112,65	116,0874	134,8600	104,1416	113,2326	112,9981	112,6523	112,9982	113,0225	0,0023	0,0001	0,0244
2011Jul	115,68	135,11	101,60	113,86	112,43	115,7983	135,1100	103,8638	113,0547	112,8077	112,4420	112,8076	112,8321	0,0120	-0,0001	0,0244
2011Jun	115,79	133,98	105,40	112,82	113,09	115,4694	133,9800	104,4287	112,8461	112,7312	113,0944	112,7307	112,7531	0,0044	-0,0005	0,0219
2011May	115,86	134,69	105,72	112,42	113,10	115,4261	134,6900	104,3793	112,5723	112,6595	113,1059	112,6595	112,6820	0,0059	0,0000	0,0225
2011Apr	115,31	135,56	105,63	112,53	113,09	114,9301	135,5600	104,2480	112,5313	112,5886	113,0997	112,5885	112,6110	0,0097	-0,0001	0,0224
2011Mar	115,07	133,62	104,86	112,12	112,46	114,6186	133,6200	104,0371	112,2443	112,1690	112,4707	112,1688	112,1907	0,0107	-0,0002	0,0217
2011Feb	114,57	130,34	101,52	111,91	110,96	114,2531	130,3400	103,7963	112,0089	111,6288	110,9641	111,6282	111,6491	0,0041	-0,0006	0,0202
2011Jan	114,10	129,24	101,44	111,32	110,50	113,9083	129,2400	103,9302	111,7724	111,4065	110,5060	111,4065	111,4261	0,0060	0,0000	0,0196
2010Dec	113,62	125,49	104,95	111,68	111,29	113,8385	125,4900	103,8655	111,5416	110,9353	111,2952	110,9347	110,9531	0,0052	-0,0005	0,0178
2010Nov	113,13	122,68	105,10	110,80	110,62	113,4137	122,6800	103,7966	111,4313	110,5306	110,6257	110,5306	110,5479	0,0057	0,0000	0,0172
2010Oct	112,66	121,72	104,94	111,10	110,52	113,0865	121,7200	103,6850	111,3318	110,3062	110,5245	110,3058	110,3226	0,0045	-0,0003	0,0165
2010Sep	112,48	121,02	104,23	111,06	110,19	113,0491	121,0200	103,6222	111,1375	110,1348	110,1924	110,1349	110,1514	0,0024	0,0001	0,0166
2010Aug	112,54	120,66	102,05	111,90	109,85	113,0527	120,6600	103,7299	111,0403	110,0957	109,8514	110,0955	110,1116	0,0014	-0,0003	0,0159
2010Jul	112,71	120,83	101,62	111,59	109,63	112,7964	120,8300	103,6954	110,8132	109,9592	109,6388	109,9586	109,9745	0,0088	-0,0006	0,0153
2010Jun	112,78	120,77	104,42	110,64	110,10	112,4723	120,7700	103,5952	110,6612	109,7995	110,1097	109,7988	109,8144	0,0097	-0,0006	0,0150
2010May	112,65	121,23	104,63	110,43	110,10	112,2168	121,2300	103,4415	110,5618	109,7054	110,1049	109,7048	109,7206	0,0049	-0,0006	0,0151
2010Apr	112,78	120,55	104,55	110,29	109,98	112,3949	120,5500	103,3285	110,3093	109,5363	109,9841	109,5364	109,5521	0,0041	0,0001	0,0158
2010Mar	112,41	118,21	103,97	110,33	109,53	112,0287	118,2100	103,3282	110,4692	109,3195	109,5383	109,3193	109,3342	0,0083	-0,0002	0,0147
2010Feb	112,02	115,26	101,45	110,12	108,33	111,7365	115,2600	103,3170	110,2063	108,8819	108,3351	108,8818	108,8953	0,0051	-0,0001	0,0134
2010Jan	111,94	115,41	100,94	109,69	107,99	111,7113	115,4100	103,1416	110,1146	108,7993	107,9995	108,7989	108,8127	0,0095	-0,0005	0,0134
2009Dec	111,24	113,06	104,21	110,27	108,88	111,4536	113,0600	103,1961	110,1252	108,5563	108,8932	108,5562	108,5690	0,0132	-0,0001	0,0127
2009Nov	111,11	113,68	104,21	109,36	108,54	111,4055	113,6800	103,0166	109,9727	108,4863	108,5523	108,4863	108,4995	0,0123	0,0001	0,0132
2009Oct	110,84	112,14	104,06	109,62	108,41	111,2591	112,1400	102,9692	109,8617	108,2559	108,4191	108,2559	108,2685	0,0091	0,0000	0,0126

Summary table 1: HICP Index series, 2005=100, euro area

	Original series; source Eurostat					Seasonally adjusted series; source ECB					Own aggregation on published data			Comparison of results		
											Original series	*Seasonally adjusted series*				
												unadjusted weights	*adjusted weights*			
	Food including alcohol and tobacco	Energy	Non-energy industrial goods	Services (overall index excluding goods)	All-items HICP	Food including alcohol and tobacco	Energy (not sa)	Non-energy industrial goods	Services (overall index excluding goods)	All-items HICP	Chained series 2005=100	Chained series 2005=100	Chained series 2005=100	Column 21 - column 10	Column 22 - column 20	Column 23 - column 20
	1	7	8	9	10	11	17	18	19	20	21	22	23	24	25	26
2012Dec	120,88	144,84	107,30	115,89	116,89	121,0851	144,8400	106,1534	115,7489	116,5028	116,8971	116,5026	116,5327	0,0071	-0,0002	0,0299
2012Nov	120,48	145,63	107,59	114,70	116,48	120,7460	145,6300	106,0720	115,3566	116,3239	116,4880	116,3235	116,3533	0,0080	-0,0003	0,0295
2012Oct	120,04	147,76	107,44	115,10	116,71	120,4934	147,7600	105,8804	115,3382	116,4042	116,7212	116,4037	116,4343	0,0112	-0,0005	0,0302
2012Sep	119,26	148,43	106,75	115,14	116,44	119,8828	148,4300	105,7357	115,2327	116,2629	116,4422	116,2631	116,2935	0,0022	0,0002	0,0306
2012Aug	119,00	146,82	103,17	116,21	115,59	119,5828	146,8200	105,5665	115,2673	116,0232	115,5949	116,0232	116,0532	0,0049	0,0000	0,0300
2012Jul	119,05	143,36	103,12	115,91	115,14	119,2031	143,3600	105,5801	115,0859	115,5667	115,1480	115,5668	115,5953	0,0080	0,0001	0,0285
2012Jun	119,49	142,15	106,76	114,78	115,76	119,1616	142,1500	105,6677	114,8092	115,3613	115,7649	115,3611	115,3887	0,0049	-0,0002	0,0274
2012May	119,08	144,55	107,07	114,42	115,85	118,6359	144,5500	105,6083	114,6024	115,3776	115,8527	115,3778	115,4056	0,0027	0,0002	0,0279
2012Apr	118,89	146,60	107,02	114,48	116,01	118,4818	146,6000	105,5068	114,4698	115,4498	116,0142	115,4493	115,4777	0,0042	-0,0004	0,0279
2012Mar	118,81	145,03	106,30	114,09	115,47	118,3249	145,0300	105,3758	114,2187	115,1329	115,4727	115,1326	115,1603	0,0027	-0,0003	0,0275
2012Feb	118,40	142,78	102,58	113,95	113,99	118,0534	142,7800	105,1635	114,0647	114,7484	113,9920	114,7480	114,7751	0,0020	-0,0005	0,0267
2012Jan	117,66	141,17	102,40	113,42	113,43	117,4930	141,1700	105,0772	113,8950	114,4005	113,4314	114,4006	114,4267	0,0014	0,0001	0,0262
2011Dec	117,18	137,64	106,19	113,85	114,35	117,3978	137,6400	105,0650	113,7073	113,9803	114,3610	113,9800	114,0048	0,0110	-0,0003	0,0245
2011Nov	116,94	137,75	106,42	112,85	113,98	117,2146	137,7500	104,9806	113,4921	113,8407	113,9834	113,8408	113,8655	0,0034	0,0002	0,0248
2011Oct	116,43	136,86	106,27	113,14	113,88	116,8728	136,8600	104,8327	113,3765	113,6024	113,8789	113,6018	113,6260	-0,0011	-0,0006	0,0237
2011Sep	115,85	136,06	105,48	113,22	113,48	116,4423	136,0600	104,6310	113,3017	113,3542	113,4866	113,3544	113,3784	0,0066	0,0002	0,0242
2011Aug	115,54	134,86	102,07	114,14	112,65	116,0874	134,8600	104,1416	113,2326	112,9981	112,6523	112,9982	113,0225	0,0023	0,0001	0,0244
2011Jul	115,68	135,11	101,60	113,86	112,43	115,7983	135,1100	103,8638	113,0547	112,8077	112,4420	112,8076	112,8321	0,0120	-0,0001	0,0244
2011Jun	115,79	133,98	105,40	112,82	113,09	115,4694	133,9800	104,4287	112,8461	112,7312	113,0944	112,7307	112,7531	0,0044	-0,0005	0,0219
2011May	115,86	134,69	105,72	112,42	113,10	115,4261	134,6900	104,3793	112,5723	112,6595	113,1059	112,6595	112,6820	0,0059	0,0000	0,0225
2011Apr	115,31	135,56	105,63	112,53	113,09	114,9301	135,5600	104,2480	112,5313	112,5886	113,0997	112,5885	112,6110	0,0097	-0,0001	0,0224
2011Mar	115,07	133,62	104,86	112,12	112,46	114,6186	133,6200	104,0371	112,2443	112,1690	112,4707	112,1688	112,1907	0,0107	-0,0002	0,0217
2011Feb	114,57	130,34	101,52	111,91	110,96	114,2531	130,3400	103,7963	112,0089	111,6288	110,9641	111,6282	111,6491	0,0041	-0,0006	0,0202
2011Jan	114,10	129,24	101,44	111,32	110,50	113,9083	129,2400	103,9302	111,7724	111,4065	110,5060	111,4065	111,4261	0,0060	0,0000	0,0196
2010Dec	113,62	125,49	104,95	111,68	111,29	113,8385	125,4900	103,8655	111,5416	110,9353	111,2952	110,9347	110,9531	0,0052	-0,0005	0,0178
2010Nov	113,13	122,68	105,10	110,80	110,62	113,4137	122,6800	103,7966	111,4313	110,5306	110,6257	110,5306	110,5479	0,0057	0,0000	0,0172
2010Oct	112,66	121,72	104,94	111,10	110,52	113,0865	121,7200	103,6850	111,3318	110,3062	110,5245	110,3058	110,3226	0,0045	-0,0003	0,0165
2010Sep	112,48	121,02	104,23	111,06	110,19	113,0491	121,0200	103,6222	111,1375	110,1348	110,1924	110,1349	110,1514	0,0024	0,0001	0,0166
2010Aug	112,54	120,66	102,05	111,90	109,85	113,0527	120,6600	103,7299	111,0403	110,0957	109,8514	110,0955	110,1116	0,0014	-0,0003	0,0159
2010Jul	112,71	120,83	101,62	111,59	109,63	112,7964	120,8300	103,6954	110,8132	109,9592	109,6388	109,9586	109,9745	0,0088	-0,0006	0,0153
2010Jun	112,78	120,77	104,42	110,64	110,10	112,4723	120,7700	103,5952	110,6612	109,7995	110,1097	109,7988	109,8144	0,0097	-0,0006	0,0150
2010May	112,65	121,23	104,63	110,43	110,10	112,2168	121,2300	103,4415	110,5618	109,7054	110,1049	109,7048	109,7206	0,0049	-0,0006	0,0151
2010Apr	112,78	120,55	104,55	110,29	109,98	112,3949	120,5500	103,3285	110,3093	109,5363	109,9841	109,5364	109,5521	0,0041	0,0001	0,0158
2010Mar	112,41	118,21	103,97	110,33	109,53	112,0287	118,2100	103,3282	110,4692	109,3195	109,5383	109,3193	109,3342	0,0083	-0,0002	0,0147
2010Feb	112,02	115,26	101,45	110,12	108,33	111,7365	115,2600	103,3170	110,2063	108,8819	108,3351	108,8818	108,8953	0,0051	-0,0001	0,0134
2010Jan	111,94	115,41	100,94	109,69	107,99	111,7113	115,4100	103,1416	110,1146	108,7993	107,9995	108,7989	108,8127	0,0095	-0,0005	0,0134
2009Dec	111,24	113,06	104,21	110,27	108,88	111,4536	113,0600	103,1961	110,1252	108,5563	108,8932	108,5562	108,5690	0,0132	-0,0001	0,0127
2009Nov	111,11	113,68	104,21	109,36	108,54	111,4055	113,6800	103,0166	109,9727	108,4863	108,5523	108,4863	108,4995	0,0123	0,0001	0,0132
2009Oct	110,84	112,14	104,06	109,62	108,41	111,2591	112,1400	102,9692	109,8617	108,2559	108,4191	108,2559	108,2685	0,0091	0,0000	0,0126

Summary table 1: HICP Index series, 2005=100, euro area																
	Original series; source Eurostat					Seasonally adjusted series; source ECB					Own aggregation on published data			Comparison of results		
											Original series	*Seasonally adjusted series*				
												unadjusted weights	*adjusted weights*			
	Food including alcohol and tobacco	Energy	Non-energy industrial goods	Services (overall index excluding goods)	All-items HICP	Food including alcohol and tobacco	Energy (not sa)	Non-energy industrial goods	Services (overall index excluding goods)	All-items HICP	Chained series 2005=100	Chained series 2005=100	Chained series 2005=100	Column 21 - column 10	Column 22 - column 20	Column 23 - column 20
	1	7	8	9	10	11	17	18	19	20	21	22	23	24	25	26
2009Sep	110,82	112,33	103,29	109,56	108,16	111,3535	112,3300	102,9389	109,6262	108,1854	108,1704	108,1850	108,1976	0,0104	-0,0004	0,0123
2009Aug	110,82	113,75	101,75	110,33	108,14	111,2778	113,7500	103,1780	109,5121	108,3304	108,1432	108,3301	108,3425	0,0032	-0,0003	0,0122
2009Jul	111,25	111,74	101,22	110,09	107,77	111,3007	111,7400	103,1129	109,3530	108,0622	107,7743	108,0624	108,0743	0,0043	0,0001	0,0121
2009Jun	111,73	113,74	103,82	109,21	108,48	111,4353	113,7400	103,0600	109,2336	108,2077	108,4917	108,2075	108,2201	0,0117	-0,0002	0,0124
2009May	111,76	110,97	104,12	109,06	108,27	111,3357	110,9700	103,0657	109,1595	107,9032	108,2707	107,9033	107,9151	0,0007	0,0002	0,0119
2009Apr	111,85	110,53	104,09	109,01	108,21	111,4794	110,5300	103,0231	109,0414	107,8282	108,2168	107,8276	107,8393	0,0068	-0,0006	0,0111
2009Mar	111,91	110,26	103,42	108,60	107,82	111,5928	110,2600	102,9245	108,7371	107,6678	107,8272	107,6680	107,6797	0,0072	0,0002	0,0119
2009Feb	112,03	111,57	101,57	108,66	107,42	111,7922	111,5700	103,0637	108,7194	107,8632	107,4245	107,8627	107,8746	0,0045	-0,0005	0,0115
2009Jan	112,01	110,98	101,05	108,13	106,98	111,7352	110,9800	102,9610	108,5265	107,6867	106,9872	107,6862	107,6980	0,0072	-0,0005	0,0113
2008Dec	111,43	111,01	103,77	108,53	107,88	111,6416	111,0100	102,8405	108,3915	107,5786	107,8865	107,5786	107,5905	0,0065	0,0000	0,0119
2008Nov	111,27	116,48	103,94	107,62	108,02	111,5902	116,4800	102,8354	108,2234	107,9919	108,0293	107,9918	108,0049	0,0093	-0,0001	0,0129
2008Oct	111,29	122,54	103,71	107,73	108,55	111,7258	122,5400	102,7636	107,9672	108,4372	108,5557	108,4373	108,4519	0,0057	0,0001	0,0147
2008Sep	111,01	126,16	102,81	107,67	108,52	111,5353	126,1600	102,6268	107,7271	108,5869	108,5281	108,5867	108,6021	0,0081	-0,0002	0,0152
2008Aug	110,90	126,61	101,14	108,38	108,32	111,3244	126,6100	102,4969	107,5990	108,4946	108,3257	108,4943	108,5098	0,0057	-0,0003	0,0152
2008Jul	111,20	130,53	100,71	108,07	108,47	111,2301	130,5300	102,4248	107,3774	108,7173	108,4784	108,7168	108,7332	0,0084	-0,0004	0,0159
2008Jun	110,99	128,83	103,15	107,12	108,64	110,6942	128,8300	102,4391	107,1444	108,3701	108,6445	108,3700	108,3853	0,0045	-0,0002	0,0152
2008May	110,80	125,51	103,32	106,82	108,23	110,3513	125,5100	102,3091	106,8949	107,8624	108,2368	107,8624	107,8768	0,0068	0,0000	0,0144
2008Apr	110,34	121,19	103,25	106,39	107,55	109,9728	121,1900	102,2541	106,4276	107,1918	107,5597	107,1917	107,2045	0,0097	0,0000	0,0128
2008Mar	109,80	119,98	102,61	106,55	107,21	109,5663	119,9800	102,2352	106,6854	107,1046	107,2156	107,1047	107,1171	0,0056	0,0001	0,0125
2008Feb	109,34	117,27	100,88	106,12	106,17	109,1297	117,2700	102,1875	106,1603	106,5473	106,1737	106,5468	106,5579	0,0037	-0,0005	0,0106
2008Jan	109,09	117,13	100,56	105,60	105,80	108,7959	117,1300	102,1637	105,9656	106,3832	105,8012	106,3832	106,3939	0,0012	0,0000	0,0107
2007Dec	107,92	115,24	102,90	105,80	106,20	108,1100	115,2400	102,0778	105,6658	105,9323	106,2072	105,9321	105,9418	0,0072	-0,0002	0,0095
2007Nov	107,34	115,64	103,01	104,87	105,78	107,6792	115,6400	101,9956	105,4580	105,7768	105,7860	105,7764	105,7858	0,0060	-0,0005	0,0089
2007Oct	106,58	111,80	102,70	104,97	105,22	107,0127	111,8000	101,8643	105,2130	105,1476	105,2242	105,1476	105,1557	0,0042	0,0001	0,0081
2007Sep	105,56	111,14	101,90	104,95	104,71	106,0453	111,1400	101,7883	104,9982	104,7879	104,7125	104,7875	104,7946	0,0025	-0,0003	0,0067
2007Aug	105,05	110,46	100,39	105,52	104,31	105,4289	110,4600	101,7522	104,7919	104,5090	104,3235	104,5092	104,5156	0,0135	0,0003	0,0066
2007Jul	104,80	111,44	100,22	105,36	104,25	104,8186	111,4400	101,7540	104,7099	104,4497	104,2499	104,4498	104,4558	-0,0001	0,0001	0,0061
2007Jun	104,89	110,93	102,34	104,48	104,50	104,5771	110,9300	101,6304	104,5017	104,2328	104,5042	104,2328	104,2385	0,0042	-0,0001	0,0057
2007May	104,77	110,35	102,57	104,25	104,40	104,3256	110,3500	101,5869	104,3178	104,0415	104,4024	104,0415	104,0469	0,0024	0,0000	0,0054
2007Apr	104,66	109,34	102,44	104,03	104,15	104,3049	109,3400	101,4953	104,0687	103,8134	104,1570	103,8135	103,8187	0,0070	0,0001	0,0053
2007Mar	103,98	107,85	101,71	103,64	103,50	103,7885	107,8500	101,4179	103,7671	103,4279	103,5041	103,4274	103,4317	0,0041	-0,0005	0,0038
2007Feb	103,91	106,24	100,06	103,59	102,81	103,7311	106,2400	101,3498	103,6125	103,1814	102,8182	103,1817	103,1857	0,0082	0,0003	0,0043
2007Jan	104,01	105,90	99,84	103,05	102,51	103,7250	105,9000	101,2523	103,3738	103,0217	102,5188	103,0218	103,0257	0,0088	0,0000	0,0040
2006Dec	103,46	105,53	101,87	103,18	103,04	103,6514	105,5300	101,0888	103,0489	102,7904	103,0460	102,7907	102,7945	0,0060	0,0003	0,0041
2006Nov	103,25	105,40	101,91	102,30	102,64	103,6027	105,4000	100,9615	102,8712	102,6575	102,6470	102,6577	102,6616	0,0070	0,0002	0,0041
2006Oct	102,94	105,94	101,63	102,44	102,60	103,3611	105,9400	100,8928	102,6866	102,5637	102,6069	102,5636	102,5674	0,0069	-0,0002	0,0037
2006Sep	102,77	107,87	100,90	102,42	102,52	103,2429	107,8700	100,8330	102,4643	102,6066	102,5162	102,6064	102,6106	-0,0038	-0,0002	0,0040
2006Aug	102,50	111,49	99,42	102,86	102,52	102,8650	111,4900	100,7025	102,1870	102,7080	102,5163	102,7080	102,7127	-0,0037	0,0000	0,0046
2006Jul	102,48	111,43	99,34	102,71	102,43	102,4969	111,4300	100,6872	102,0962	102,5896	102,4211	102,5899	102,5942	-0,0089	0,0003	0,0046

Summary table 1: HICP Index series, 2005=100, euro area

	Original series; source Eurostat					Seasonally adjusted series; source ECB					Own aggregation on published data			Comparison of results		
											Original series	*Seasonally adjusted series*				
												unadjusted weights	*adjusted weights*			
	Food including alcohol and tobacco	Energy	Non-energy industrial goods	Services (overall index excluding goods)	All-items HICP	Food including alcohol and tobacco	Energy (not sa)	Non-energy industrial goods	Services (overall index excluding goods)	All-items HICP	Chained series 2005=100	Chained series 2005=100	Chained series 2005=100	Column 21 - column 10	Column 22 - column 20	Column 23 - column 20
	1	7	8	9	10	11	17	18	19	20	21	22	23	24	25	26
2006Jun	102,46	109,94	101,33	101,87	102,56	102,1074	109,9400	100,6484	101,8837	102,2816	102,5521	102,2813	102,2850	-0,0079	-0,0002	0,0034
2006May	102,33	110,02	101,52	101,58	102,48	101,8718	110,0200	100,5550	101,6578	102,1220	102,4744	102,1223	102,1258	-0,0056	0,0003	0,0038
2006Apr	101,90	108,91	101,34	101,49	102,20	101,5395	108,9100	100,4500	101,5125	101,8660	102,1983	101,8660	101,8691	-0,0017	0,0000	0,0031
2006Mar	101,68	105,94	100,49	101,25	101,53	101,4940	105,9400	100,3123	101,3660	101,4859	101,5267	101,4861	101,4886	-0,0033	0,0002	0,0027
2006Feb	101,51	105,44	98,95	101,17	100,95	101,3400	105,4400	100,2019	101,1820	101,3022	100,9417	101,3020	101,3044	-0,0083	-0,0002	0,0022
2006Jan	101,22	105,00	98,96	100,72	100,66	100,9694	105,0000	100,2338	101,0091	101,1305	100,6652	101,1302	101,1321	0,0052	-0,0002	0,0016
2005Dec	100,71	102,52	100,98	101,12	101,10	100,9320	102,5200	100,2603	100,9853	100,8970	101,1264	100,8969	100,8982	0,0264	-0,0001	0,0012
2005Nov	100,21	103,27	101,11	100,23	100,76	100,5875	103,2700	100,2297	100,7884	100,8091	100,7750	100,8095	100,8105	0,0150	0,0003	0,0014
2005Oct	99,96	106,48	100,82	100,37	101,02	100,3813	106,4800	100,1333	100,6156	100,9654	100,9908	100,9650	100,9665	-0,0292	-0,0004	0,0011
2005Sep	99,88	106,23	100,08	100,43	100,76	100,3201	106,2300	100,0258	100,4709	100,8382	100,7508	100,8382	100,8397	-0,0092	0,0000	0,0015
2005Aug	99,65	103,10	98,82	100,90	100,25	100,0011	103,1000	99,9881	100,2759	100,3969	100,2244	100,3972	100,3978	-0,0256	0,0002	0,0009
2005Jul	99,83	101,77	98,74	100,61	100,00	99,8270	101,7700	99,9593	100,0151	100,1256	99,9943	100,1259	100,1261	-0,0057	0,0002	0,0005
2005Jun	100,28	99,05	100,59	99,87	100,08	99,9041	99,0500	99,9425	99,8890	99,8344	100,0942	99,8340	99,8338	0,0142	-0,0004	-0,0006
2005May	100,37	97,49	100,82	99,75	100,00	99,8824	97,4900	99,9206	99,8342	99,6570	99,9892	99,6572	99,6567	-0,0108	0,0003	-0,0002
2005Apr	100,08	98,09	100,68	99,35	99,75	99,7069	98,0900	99,8577	99,3606	99,4662	99,7822	99,4662	99,4656	0,0322	0,0000	-0,0006
2005Mar	100,06	95,87	99,94	99,39	99,32	99,8495	95,8700	99,8417	99,4869	99,3361	99,3641	99,3361	99,3353	0,0441	0,0000	-0,0009
2005Feb	99,67	93,70	98,68	99,20	98,65	99,5035	93,7000	99,8329	99,2124	98,9545	98,6260	98,9547	98,9530	-0,0240	0,0002	-0,0015
2005Jan	99,31	92,44	98,74	98,77	98,31	99,1047	92,4400	99,9222	99,0420	98,7195	98,2826	98,7191	98,7168	-0,0274	-0,0004	-0,0028
2004Dec	99,06	92,18	100,59	99,05	98,90	99,3372	92,1800	99,9286	98,9406	98,7009	98,8883	98,7011	98,6988	-0,0117	0,0001	-0,0021
2004Nov	98,09	93,87	100,73	98,17	98,48	98,5227	93,8700	99,9058	98,7005	98,5913	98,5314	98,5912	98,5884	0,0514	0,0000	-0,0029
2004Oct	98,08	95,00	100,52	98,24	98,56	98,5161	95,0000	99,8751	98,4840	98,5944	98,5984	98,5939	98,5912	0,0384	-0,0004	-0,0031
2004Sep	98,13	92,36	99,90	98,30	98,22	98,5579	92,3600	99,8658	98,3242	98,2927	98,2061	98,2927	98,2896	-0,0139	0,0000	-0,0031
2004Aug	98,25	92,50	98,83	98,69	98,05	98,6059	92,5000	99,9094	98,1106	98,2392	98,0825	98,2394	98,2363	0,0325	0,0002	-0,0029
2004Jul	98,76	91,11	98,72	98,39	97,88	98,7398	91,1100	99,8055	97,8143	97,9845	97,8975	97,9848	97,9817	0,0175	0,0002	-0,0029
2004Jun	99,15	90,57	100,34	97,68	98,05	98,7325	90,5700	99,7598	97,6968	97,8722	98,1163	97,8717	97,8686	0,0663	-0,0004	-0,0036
2004May	99,09	91,25	100,48	97,33	98,05	98,5722	91,2500	99,6466	97,4163	97,7525	98,0637	97,7524	97,7492	0,0137	-0,0001	-0,0032
2004Apr	98,79	89,07	100,35	97,25	97,72	98,3826	89,0700	99,6220	97,2436	97,4382	97,7345	97,4383	97,4347	0,0145	0,0002	-0,0035
2004Mar	98,58	88,13	99,58	96,96	97,29	98,3359	88,1300	99,4742	97,0550	97,2215	97,2566	97,2211	97,2174	-0,0334	-0,0004	-0,0041
2004Feb	97,82	86,97	98,49	96,91	96,62	97,6583	86,9700	99,5224	96,9112	96,9399	96,6552	96,9395	96,9349	0,0352	-0,0004	-0,0050
2004Jan	97,88	87,02	98,27	96,43	96,45	97,7136	87,0200	99,3325	96,6702	96,7979	96,4065	96,7977	96,7933	-0,0435	-0,0003	-0,0046
2003Dec	97,16	86,21	99,83	96,44	96,62	97,4930	86,2100	99,2227	96,3511	96,5156	96,6653	96,5160	96,5114	0,0453	0,0004	-0,0042

Summary table 2: HICP Index series, 2005=100, euro area; five food-categories

Original series; source Eurostat

	Meat	Fish and seafood	Fruit	Vege-tables	Processed food including alcohol and tobacco	Energy	Non-energy industrial goods	Services (overall index excluding goods)	All-items HICP
	2	3	4	5	6	7	8	9	10
2012Dec	119,41	118,96	118,34	118,29	122,08	144,84	107,30	115,89	116,89
2012Nov	118,99	118,49	119,28	114,64	121,97	145,63	107,59	114,70	116,48
2012Oct	118,25	118,63	118,77	113,52	121,68	147,76	107,44	115,10	116,71
2012Sep	117,56	119,21	116,18	111,12	121,14	148,43	106,75	115,14	116,44
2012Aug	117,03	118,66	116,78	110,11	121,00	146,82	103,17	116,21	115,59
2012Jul	116,65	118,17	118,74	111,33	120,88	143,36	103,12	115,91	115,14
2012Jun	116,42	117,51	124,28	114,12	120,79	142,15	106,76	114,78	115,76
2012May	116,31	117,98	116,82	115,36	120,74	144,55	107,07	114,42	115,85
2012Apr	116,05	117,74	113,85	117,40	120,59	146,60	107,02	114,48	116,01
2012Mar	115,91	117,28	112,51	119,97	120,34	145,03	106,30	114,09	115,47
2012Feb	115,84	117,05	110,96	118,84	120,04	142,78	102,58	113,95	113,99
2012Jan	115,56	118,05	110,48	112,37	119,70	141,17	102,40	113,42	113,43
2011Dec	115,34	117,45	111,60	109,72	119,26	137,64	106,19	113,85	114,35
2011Nov	114,81	116,46	112,05	109,03	119,16	137,75	106,42	112,85	113,98
2011Oct	114,64	116,46	112,00	105,79	118,82	136,86	106,27	113,14	113,88
2011Sep	114,34	116,61	109,73	105,38	118,23	136,06	105,48	113,22	113,48
2011Aug	114,00	115,81	110,22	105,47	117,85	134,86	102,07	114,14	112,65
2011Jul	113,55	114,85	114,10	108,66	117,47	135,11	101,60	113,86	112,43
2011Jun	113,00	114,41	119,22	111,33	116,99	133,98	105,40	112,82	113,09
2011May	112,73	114,29	118,37	115,25	116,77	134,69	105,72	112,42	113,10
2011Apr	112,32	113,75	114,68	116,66	116,25	135,56	105,63	112,53	113,09
2011Mar	111,98	113,50	114,74	117,85	115,81	133,62	104,86	112,12	112,46
2011Feb	111,61	112,56	112,64	118,53	115,33	130,34	101,52	111,91	110,96
2011Jan	111,40	113,24	110,09	116,96	115,02	129,24	101,44	111,32	110,50
2010Dec	111,29	112,46	110,12	115,05	114,59	125,49	104,95	111,68	111,29
2010Nov	111,19	111,50	110,13	112,31	114,27	122,68	105,10	110,80	110,62
2010Oct	111,08	111,29	109,62	109,83	113,94	121,72	104,94	111,10	110,52
2010Sep	110,88	111,50	108,84	110,24	113,72	121,02	104,23	111,06	110,19
2010Aug	110,87	111,31	111,37	108,95	113,75	120,66	102,05	111,90	109,85
2010Jul	110,65	110,42	114,64	111,13	113,56	120,83	101,62	111,59	109,63
2010Jun	110,44	110,07	117,45	111,27	113,47	120,77	104,42	110,64	110,10
2010May	110,46	109,59	113,25	115,19	113,20	121,23	104,63	110,43	110,10
2010Apr	110,43	109,99	109,11	120,66	113,07	120,55	104,55	110,29	109,98
2010Mar	110,17	109,56	106,61	119,37	113,01	118,21	103,97	110,33	109,53
2010Feb	110,37	109,12	105,54	115,15	113,02	115,26	101,45	110,12	108,33
2010Jan	110,41	110,23	107,12	112,16	113,01	115,41	100,94	109,69	107,99
2009Dec	110,55	109,44	107,00	104,79	112,89	113,06	104,21	110,27	108,88
2009Nov	110,51	108,73	106,65	104,75	112,79	113,68	104,21	109,36	108,54
2009Oct	110,61	108,55	105,84	103,55	112,57	112,14	104,06	109,62	108,41

Seasonally adjusted series; source ECB

	Meat	Fish and seafood	Fruit	Vege-tables	Processed food including alcohol and tobacco	Energy (not sa)	Non-energy industrial goods	Services (overall index excluding goods)	All-items HICP
	12	13	14	15	16	17	18	19	20
2012Dec	119,2133	118,6614	120,0536	119,1862	122,1839	144,8400	106,1534	115,7489	116,5028
2012Nov	118,8933	118,7764	120,3864	117,4190	121,9754	145,6300	106,0720	115,3566	116,3239
2012Oct	118,1421	118,7293	120,0091	118,1397	121,7386	147,7600	105,8804	115,3382	116,4042
2012Sep	117,5303	118,6628	118,8994	116,2845	121,2914	148,4300	105,7357	115,2327	116,2629
2012Aug	116,9629	118,3539	118,2053	115,7855	121,1132	146,8200	105,5665	115,2673	116,0232
2012Jul	116,7680	118,4225	116,5307	114,2398	120,9291	143,3600	105,5801	115,0859	115,5667
2012Jun	116,6309	117,9902	117,1726	114,3787	120,7962	142,1500	105,6677	114,8092	115,3613
2012May	116,4045	118,2963	113,4924	112,3116	120,6795	144,5500	105,6083	114,6024	115,3776
2012Apr	116,1449	117,8822	113,6441	112,7749	120,4567	146,6000	105,5068	114,4698	115,4498
2012Mar	116,0059	117,4766	113,5034	113,8411	120,2199	145,0300	105,3758	114,2187	115,1329
2012Feb	115,8085	117,3603	112,6088	113,5391	119,9328	142,7800	105,1635	114,0647	114,7484
2012Jan	115,4628	117,0853	112,5080	109,8632	119,6301	141,1700	105,0772	113,8950	114,4005
2011Dec	115,1528	117,1242	113,2487	110,7197	119,3577	137,6400	105,0650	113,7073	113,9803
2011Nov	114,7187	116,7625	113,1925	111,7176	119,1687	137,7500	104,9806	113,4921	113,8407
2011Oct	114,5269	116,6125	113,3276	110,0472	118,8852	136,8600	104,8327	113,3765	113,6024
2011Sep	114,2924	116,1032	112,2240	110,1913	118,3792	136,0600	104,6310	113,3017	113,3542
2011Aug	113,9205	115,5037	111,4874	110,8334	117,9449	134,8600	104,1416	113,2326	112,9981
2011Jul	113,6688	115,0998	111,7616	111,2737	117,5184	135,1100	103,8638	113,0547	112,8077
2011Jun	113,2088	114,8801	112,5647	111,5375	116,9969	133,9800	104,4287	112,8461	112,7312
2011May	112,8357	114,6771	115,0015	112,1285	116,7202	134,6900	104,3793	112,5723	112,6595
2011Apr	112,4365	113,8961	114,4243	112,2179	116,1237	135,5600	104,2480	112,5313	112,5886
2011Mar	112,1046	113,6732	115,7488	112,0490	115,6887	133,6200	104,0371	112,2443	112,1690
2011Feb	111,5900	112,7760	114,2701	113,4012	115,2292	130,3400	103,7963	112,0089	111,6288
2011Jan	111,2998	112,1791	112,0830	114,3395	114,9505	129,2400	103,9302	111,7724	111,4065
2010Dec	111,1143	112,1067	111,8182	116,3288	114,6880	125,4900	103,8655	111,5416	110,9353
2010Nov	111,0898	111,8151	111,3734	114,9786	114,2954	122,6800	103,7966	111,4313	110,5306
2010Oct	110,9554	111,5188	111,0348	114,1220	114,0041	121,7200	103,6850	111,3318	110,3062
2010Sep	110,8055	111,0791	111,1518	115,1588	113,8603	121,0200	103,6222	111,1375	110,1348
2010Aug	110,7810	111,0159	112,5661	114,3471	113,8313	120,6600	103,7299	111,0403	110,0957
2010Jul	110,7559	110,6645	112,1217	113,4673	113,6010	120,8300	103,6954	110,8132	109,9592
2010Jun	110,6455	110,5219	111,1846	111,3774	113,4754	120,7700	103,5952	110,6612	109,7995
2010May	110,5762	110,0391	110,0188	111,8746	113,1533	121,2300	103,4415	110,5618	109,7054
2010Apr	110,5561	110,1556	108,8380	116,0964	112,9448	120,5500	103,3285	110,3093	109,5363
2010Mar	110,3201	109,7041	107,5109	114,2596	112,8930	118,2100	103,3282	110,4692	109,3195
2010Feb	110,3767	109,2423	106,9682	110,5971	112,9141	115,2600	103,3170	110,2063	108,8819
2010Jan	110,3013	109,0282	108,9653	109,5250	112,9297	115,4100	103,1416	110,1146	108,7993
2009Dec	110,3728	109,0341	108,7954	105,9715	112,9817	113,0600	103,1961	110,1252	108,5563
2009Nov	110,4031	109,0747	108,0163	107,1362	112,8298	113,6800	103,0166	109,9727	108,4863
2009Oct	110,4612	108,8838	107,3742	107,4385	112,6508	112,1400	102,9692	109,8617	108,2559

	Own aggregation on published data			Comparison of results		
	Original series	*Seasonally adjusted series*				
		unadjusted weights	*adjusted weights*			
	Chained series 2005=100	Chained series 2005=100	Chained series 2005=100	Column 21 - column 10	Column 22 - column 20	Column 23 - column 20
	21	22	23	24	25	26
2012Dec	116,8952	116,4976	116,5272	0,0052	-0,0052	0,0244
2012Nov	116,4862	116,3259	116,3552	0,0062	0,0021	0,0313
2012Oct	116,7210	116,4049	116,4352	0,0110	0,0008	0,0310
2012Sep	116,4410	116,2644	116,2943	0,0010	0,0015	0,0314
2012Aug	115,5941	116,0212	116,0506	0,0041	-0,0020	0,0274
2012Jul	115,1472	115,5660	115,5933	0,0072	-0,0007	0,0266
2012Jun	115,7646	115,3532	115,3798	0,0046	-0,0081	0,0185
2012May	115,8523	115,3757	115,4018	0,0023	-0,0019	0,0242
2012Apr	116,0144	115,4456	115,4724	0,0044	-0,0042	0,0226
2012Mar	115,4712	115,1357	115,1621	0,0012	0,0029	0,0293
2012Feb	113,9927	114,7458	114,7714	0,0027	-0,0026	0,0230
2012Jan	113,4310	114,3985	114,4228	0,0010	-0,0020	0,0223
2011Dec	114,3606	113,9753	113,9985	0,0106	-0,0050	0,0182
2011Nov	113,9824	113,8439	113,8672	0,0024	0,0032	0,0266
2011Oct	113,8789	113,6044	113,6272	-0,0011	0,0020	0,0249
2011Sep	113,4856	113,3554	113,3779	0,0056	0,0011	0,0236
2011Aug	112,6525	112,9974	113,0203	0,0025	-0,0007	0,0222
2011Jul	112,4401	112,8085	112,8319	0,0101	0,0008	0,0242
2011Jun	113,0929	112,7278	112,7494	0,0029	-0,0034	0,0182
2011May	113,1045	112,6545	112,6766	0,0045	-0,0050	0,0171
2011Apr	113,0998	112,5803	112,6025	0,0098	-0,0084	0,0138
2011Mar	112,4692	112,1676	112,1895	0,0092	-0,0014	0,0204
2011Feb	110,9642	111,6183	111,6392	0,0042	-0,0106	0,0104
2011Jan	110,5045	111,4015	111,4212	0,0045	-0,0050	0,0147
2010Dec	111,2938	110,9320	110,9507	0,0038	-0,0033	0,0154
2010Nov	110,6241	110,5331	110,5505	0,0041	0,0025	0,0198
2010Oct	110,5235	110,3115	110,3283	0,0035	0,0053	0,0222
2010Sep	110,1922	110,1380	110,1548	0,0022	0,0032	0,0200
2010Aug	109,8508	110,0970	110,1135	0,0008	0,0012	0,0178
2010Jul	109,6384	109,9587	109,9748	0,0084	-0,0004	0,0157
2010Jun	110,1095	109,7976	109,8131	0,0095	-0,0018	0,0136
2010May	110,1046	109,7011	109,7166	0,0046	-0,0043	0,0112
2010Apr	109,9829	109,5261	109,5420	0,0029	-0,0102	0,0057
2010Mar	109,5371	109,3156	109,3302	0,0071	-0,0039	0,0107
2010Feb	108,3338	108,8708	108,8835	0,0038	-0,0111	0,0016
2010Jan	107,9983	108,7961	108,8093	0,0083	-0,0032	0,0100
2009Dec	108,8935	108,5548	108,5665	0,0135	-0,0015	0,0101
2009Nov	108,5518	108,4867	108,4987	0,0118	0,0004	0,0125
2009Oct	108,4181	108,2603	108,2719	0,0081	0,0045	0,0160

Summary table 2: HICP Index series, 2005=100, euro area; five food-categories

Original series; source Eurostat

	Meat	Fish and seafood	Fruit	Vege-tables	Processed food including alcohol and tobacco	Energy	Non-energy industrial goods	Services (overall index excluding goods)	All-items HICP
	2	3	4	5	6	7	8	9	10
2009Sep	110,76	109,43	105,26	102,58	112,60	112,33	103,29	109,56	108,16
2009Aug	110,81	109,36	105,16	102,04	112,67	113,75	101,75	110,33	108,14
2009Jul	110,60	108,53	109,79	105,55	112,60	111,74	101,22	110,09	107,77
2009Jun	110,50	108,38	114,35	108,99	112,51	113,74	103,82	109,21	108,48
2009May	110,60	108,18	112,72	112,72	112,23	110,97	104,12	109,06	108,27
2009Apr	110,66	108,55	110,46	114,05	112,37	110,53	104,09	109,01	108,21
2009Mar	110,81	108,51	109,97	114,56	112,40	110,26	103,42	108,60	107,82
2009Feb	111,06	109,75	109,34	115,38	112,37	111,57	101,57	108,66	107,42
2009Jan	111,16	110,92	109,13	114,21	112,36	110,98	101,05	108,13	106,98
2008Dec	111,01	110,13	108,86	110,06	112,12	111,01	103,77	108,53	107,88
2008Nov	110,78	109,17	109,88	107,93	112,19	116,48	103,94	107,62	108,02
2008Oct	110,55	109,22	109,79	108,63	112,20	122,54	103,71	107,73	108,55
2008Sep	110,27	109,92	110,48	105,97	112,05	126,16	102,81	107,67	108,52
2008Aug	109,93	109,91	111,99	104,91	111,95	126,61	101,14	108,38	108,32
2008Jul	109,32	109,73	116,22	108,70	111,70	130,53	100,71	108,07	108,47
2008Jun	108,91	110,40	115,60	109,93	111,33	128,83	103,15	107,12	108,64
2008May	108,67	108,97	113,10	112,72	111,12	125,51	103,32	106,82	108,23
2008Apr	108,27	109,34	110,55	110,52	111,02	121,19	103,25	106,39	107,55
2008Mar	107,90	109,20	109,01	108,86	110,64	119,98	102,61	106,55	107,21
2008Feb	107,67	109,06	107,83	107,89	110,22	117,27	100,88	106,12	106,17
2008Jan	107,58	110,81	106,74	110,87	109,38	117,13	100,56	105,60	105,80
2007Dec	107,19	108,53	105,54	108,18	108,28	115,24	102,90	105,80	106,20
2007Nov	106,73	107,28	105,52	107,65	107,67	115,64	103,01	104,87	105,78
2007Oct	106,40	106,65	105,49	106,24	106,77	111,80	102,70	104,97	105,22
2007Sep	105,77	107,01	104,72	104,80	105,52	111,14	101,90	104,95	104,71
2007Aug	105,33	107,01	105,12	104,34	104,83	110,46	100,39	105,52	104,31
2007Jul	104,88	106,45	106,67	106,50	104,20	111,44	100,22	105,36	104,25
2007Jun	104,73	105,83	109,64	107,21	104,07	110,93	102,34	104,48	104,50
2007May	104,61	105,71	105,30	110,56	103,93	110,35	102,57	104,25	104,40
2007Apr	104,48	106,02	102,15	112,74	103,80	109,34	102,44	104,03	104,15
2007Mar	104,00	105,80	100,98	107,50	103,64	107,85	101,71	103,64	103,50
2007Feb	103,86	105,61	100,73	108,50	103,49	106,24	100,06	103,59	102,81
2007Jan	103,98	107,27	100,99	109,41	103,31	105,90	99,84	103,05	102,51
2006Dec	104,00	106,34	100,68	105,43	103,03	105,53	101,87	103,18	103,04
2006Nov	103,73	104,83	100,81	105,05	102,96	105,40	101,91	102,30	102,64
2006Oct	103,64	104,38	100,37	102,84	102,84	105,94	101,63	102,44	102,60
2006Sep	103,47	104,84	100,12	105,11	102,32	107,87	100,90	102,42	102,52
2006Aug	103,18	104,50	100,90	102,53	102,24	111,49	99,42	102,86	102,52
2006Jul	102,73	103,52	103,28	102,52	102,22	111,43	99,34	102,71	102,43

Seasonally adjusted series; source ECB

	Meat	Fish and seafood	Fruit	Vege-tables	Processed food including alcohol and tobacco	Energy (not sa)	Non-energy industrial goods	Services (overall index excluding goods)	All-items HICP
	12	13	14	15	16	17	18	19	20
2009Sep	110,6556	109,1054	107,3126	106,9894	112,7474	112,3300	102,9389	109,6262	108,1854
2009Aug	110,7111	109,0791	106,0642	106,8179	112,7485	113,7500	103,1780	109,5121	108,3304
2009Jul	110,7032	108,7803	107,1462	107,4925	112,6378	111,7400	103,1129	109,3530	108,0622
2009Jun	110,7056	108,8345	108,4881	108,9858	112,5224	113,7400	103,0600	109,2336	108,2077
2009May	110,7347	108,7288	109,6295	109,3115	112,1871	110,9700	103,0657	109,1595	107,9032
2009Apr	110,8037	108,6889	110,2474	109,8545	112,2352	110,5300	103,0231	109,0414	107,8282
2009Mar	111,0020	108,6280	110,9420	110,4045	112,2696	110,2600	102,9245	108,7371	107,6678
2009Feb	111,0896	109,8238	110,7184	111,2320	112,2631	111,5700	103,0637	108,7194	107,8632
2009Jan	111,0378	109,5172	110,8210	111,4588	112,2716	110,9800	102,9610	108,5265	107,6867
2008Dec	110,8224	109,6524	110,7218	111,3731	112,2102	111,0100	102,8405	108,3915	107,5786
2008Nov	110,6733	109,5378	111,3886	110,3011	112,2443	116,4800	102,8354	108,2234	107,9919
2008Oct	110,3946	109,6602	111,5303	112,4786	112,2885	122,5400	102,7636	107,9672	108,4372
2008Sep	110,1405	109,6826	112,5202	110,3177	112,1993	126,1600	102,6268	107,7271	108,5869
2008Aug	109,8063	109,6409	112,9319	109,5034	112,0147	126,6100	102,4969	107,5990	108,4946
2008Jul	109,4099	109,9985	113,3904	110,6169	111,7355	130,5300	102,4248	107,3774	108,7173
2008Jun	109,0984	110,8545	109,7712	109,7327	111,3406	128,8300	102,4391	107,1444	108,3701
2008May	108,8066	109,6224	109,9513	109,1191	111,0647	125,5100	102,3091	106,8949	107,8624
2008Apr	108,4331	109,4726	110,3457	106,4974	110,8771	121,1900	102,2541	106,4276	107,1918
2008Mar	108,1213	109,3197	109,9151	105,4900	110,5034	119,9800	102,2352	106,6854	107,1046
2008Feb	107,7211	109,0795	109,1402	104,3952	110,1059	117,2700	102,1875	106,1603	106,5473
2008Jan	107,4660	109,2380	108,2275	108,3046	109,3026	117,1300	102,1637	105,9656	106,3832
2007Dec	106,9971	107,9970	107,3843	109,3182	108,3792	115,2400	102,0778	105,6658	105,9323
2007Nov	106,6265	107,6659	107,1422	110,1069	107,7397	115,6400	101,9956	105,4580	105,7768
2007Oct	106,2489	107,1299	107,3736	109,8281	106,8702	111,8000	101,8643	105,2130	105,1476
2007Sep	105,6179	106,8645	106,6636	108,9218	105,6660	111,1400	101,7883	104,9982	104,7879
2007Aug	105,1817	106,7900	106,0361	108,6784	104,8977	110,4600	101,7522	104,7919	104,5090
2007Jul	104,9399	106,7119	103,9587	108,4466	104,2272	111,4400	101,7540	104,7099	104,4497
2007Jun	104,8939	106,2784	103,9887	106,7023	104,0646	110,9300	101,6304	104,5017	104,2328
2007May	104,7550	106,4017	102,3535	106,8647	103,8580	110,3500	101,5869	104,3178	104,0415
2007Apr	104,6695	106,1466	101,9499	108,7476	103,6571	109,3400	101,4953	104,0687	103,8134
2007Mar	104,2315	105,9065	101,7489	104,3971	103,5069	107,8500	101,4179	103,7671	103,4279
2007Feb	103,9369	105,6110	101,9056	105,2421	103,3909	106,2400	101,3498	103,6125	103,1814
2007Jan	103,8912	105,5999	102,2754	107,1450	103,2501	105,9000	101,2523	103,3738	103,0217
2006Dec	103,8148	105,8091	102,5046	106,4610	103,1514	105,5300	101,0888	103,0489	102,7904
2006Nov	103,6343	105,2239	102,5642	107,4915	103,0481	105,4000	100,9615	102,8712	102,6575
2006Oct	103,4951	104,8535	102,3693	106,1006	102,9491	105,9400	100,8928	102,6866	102,5637
2006Sep	103,2936	104,7583	102,1170	109,1561	102,4577	107,8700	100,8330	102,4643	102,6066
2006Aug	102,9961	104,3220	101,9046	106,7729	102,2985	111,4900	100,7025	102,1870	102,7080
2006Jul	102,7686	103,7642	100,5849	104,6049	102,2274	111,4300	100,6872	102,0962	102,5896

	Own aggregation on published data			Comparison of results		
	Original series	*Seasonally adjusted series*				
		unadjusted weights	*adjusted weights*			
	Chained series 2005=100	Chained series 2005=100	Chained series 2005=100	Column 21 - column 10	Column 22 - column 20	Column 23 - column 20
	21	22	23	24	25	26
2009Sep	108,1701	108,1848	108,1962	0,0101	-0,0006	0,0108
2009Aug	108,1427	108,3292	108,3401	0,0027	-0,0012	0,0097
2009Jul	107,7750	108,0633	108,0741	0,0050	0,0011	0,0118
2009Jun	108,4915	108,2082	108,2201	0,0115	0,0005	0,0124
2009May	108,2718	107,9020	107,9133	0,0018	-0,0012	0,0101
2009Apr	108,2173	107,8220	107,8334	0,0073	-0,0062	0,0052
2009Mar	107,8269	107,6676	107,6792	0,0069	-0,0002	0,0114
2009Feb	107,4258	107,8503	107,8621	0,0058	-0,0129	-0,0011
2009Jan	106,9872	107,6847	107,6966	0,0072	-0,0020	0,0098
2008Dec	107,8880	107,5791	107,5910	0,0080	0,0004	0,0123
2008Nov	108,0301	107,9910	108,0040	0,0101	-0,0010	0,0121
2008Oct	108,5558	108,4417	108,4567	0,0058	0,0045	0,0195
2008Sep	108,5294	108,5872	108,6029	0,0094	0,0003	0,0159
2008Aug	108,3261	108,4935	108,5093	0,0061	-0,0011	0,0147
2008Jul	108,4778	108,7136	108,7305	0,0078	-0,0037	0,0132
2008Jun	108,6450	108,3648	108,3799	0,0050	-0,0054	0,0097
2008May	108,2370	107,8590	107,8732	0,0070	-0,0034	0,0108
2008Apr	107,5611	107,1884	107,2009	0,0111	-0,0034	0,0091
2008Mar	107,2168	107,1021	107,1140	0,0068	-0,0025	0,0094
2008Feb	106,1749	106,5381	106,5486	0,0049	-0,0091	0,0014
2008Jan	105,8014	106,3859	106,3966	0,0014	0,0027	0,0133
2007Dec	106,2077	105,9329	105,9427	0,0077	0,0006	0,0104
2007Nov	105,7872	105,7760	105,7857	0,0072	-0,0008	0,0089
2007Oct	105,2251	105,1517	105,1602	0,0051	0,0041	0,0126
2007Sep	104,7128	104,7878	104,7953	0,0028	-0,0001	0,0074
2007Aug	104,3223	104,5097	104,5165	0,0123	0,0007	0,0075
2007Jul	104,2503	104,4513	104,4574	0,0003	0,0015	0,0076
2007Jun	104,5052	104,2295	104,2352	0,0052	-0,0033	0,0024
2007May	104,4025	104,0419	104,0470	0,0025	0,0004	0,0055
2007Apr	104,1567	103,8112	103,8163	0,0067	-0,0022	0,0029
2007Mar	103,5041	103,4215	103,4252	0,0041	-0,0065	-0,0027
2007Feb	102,8186	103,1732	103,1768	0,0086	-0,0082	-0,0046
2007Jan	102,5183	103,0285	103,0324	0,0083	0,0067	0,0106
2006Dec	103,0460	102,7920	102,7958	0,0060	0,0016	0,0054
2006Nov	102,6478	102,6585	102,6626	0,0078	0,0011	0,0051
2006Oct	102,6071	102,5672	102,5711	0,0071	0,0035	0,0074
2006Sep	102,5174	102,6083	102,6128	-0,0026	0,0017	0,0062
2006Aug	102,5162	102,7104	102,7152	-0,0038	0,0024	0,0072
2006Jul	102,4219	102,5933	102,5974	-0,0081	0,0037	0,0078

Summary table 2: HICP Index series, 2005=100, euro area; five food-categories

Original series; source Eurostat

	Meat	Fish and seafood	Fruit	Vege-tables	Processe d food including alcohol and tobacco	Energy	Non-energy industrial goods	Services (overall index excluding goods)	All-items HICP
	2	3	4	5	6	7	8	9	10
2006Jun	102,13	103,39	103,87	104,89	102,02	109,94	101,33	101,87	102,56
2006May	101,63	102,64	103,03	106,26	101,96	110,02	101,52	101,58	102,48
2006Apr	101,16	103,15	99,98	104,79	101,83	108,91	101,34	101,49	102,20
2006Mar	100,96	102,52	99,31	104,28	101,72	105,94	100,49	101,25	101,53
2006Feb	101,06	101,74	99,59	105,31	101,34	105,44	98,95	101,17	100,95
2006Jan	100,85	103,05	99,55	102,74	101,12	105,00	98,96	100,72	100,66
2005Dec	100,74	101,85	99,76	99,10	100,89	102,52	100,98	101,12	101,10
2005Nov	100,31	100,87	98,31	96,67	100,73	103,27	101,11	100,23	100,76
2005Oct	100,14	100,49	97,03	96,34	100,57	106,48	100,82	100,37	101,02
2005Sep	100,22	100,49	96,31	96,42	100,48	106,23	100,08	100,43	100,76
2005Aug	100,31	100,57	96,87	96,42	100,02	103,10	98,82	100,90	100,25
2005Jul	100,05	99,74	101,45	97,26	99,93	101,77	98,74	100,61	100,00
2005Jun	99,96	99,36	106,27	100,85	99,83	99,05	100,59	99,87	100,08
2005May	99,96	98,53	105,14	104,27	99,73	97,49	100,82	99,75	100,00
2005Apr	99,71	98,90	101,61	104,19	99,66	98,09	100,68	99,35	99,75
2005Mar	99,53	98,98	100,32	106,86	99,46	95,87	99,94	99,39	99,32
2005Feb	99,53	99,43	98,55	103,10	99,41	93,70	98,68	99,20	98,65
2005Jan	99,53	100,79	98,39	98,51	99,28	92,44	98,74	98,77	98,31
2004Dec	99,53	98,45	98,15	98,34	99,15	92,18	100,59	99,05	98,90
2004Nov	99,36	98,45	96,87	94,67	98,20	93,87	100,73	98,17	98,48
2004Oct	99,28	98,45	97,03	94,50	98,22	95,00	100,52	98,24	98,56
2004Sep	99,02	98,68	97,83	94,59	98,26	92,36	99,90	98,30	98,22
2004Aug	99,19	98,53	98,80	94,17	98,38	92,50	98,83	98,69	98,05
2004Jul	98,93	98,38	104,42	97,34	98,38	91,11	98,72	98,39	97,88
2004Jun	98,42	97,77	107,87	102,02	98,32	90,57	100,34	97,68	98,05
2004May	98,25	97,92	104,10	104,86	98,27	91,25	100,48	97,33	98,05
2004Apr	98,07	98,00	101,29	105,44	98,04	89,07	100,35	97,25	97,72
2004Mar	98,07	98,22	100,16	104,52	97,89	88,13	99,58	96,96	97,29
2004Feb	97,90	98,15	100,08	103,52	96,84	86,97	98,49	96,91	96,62
2004Jan	97,99	99,81	100,00	105,27	96,55	87,02	98,27	96,43	96,45
2003Dec	98,07	98,15	98,55	101,85	96,06	86,21	99,83	96,44	96,62

Seasonally adjusted series; source ECB

	Meat	Fish and seafood	Fruit	Vege-tables	Processed food including alcohol and tobacco	Energy (not sa)	Non-energy industrial goods	Services (overall index excluding goods)	All-items HICP
	12	13	14	15	16	17	18	19	20
2006Jun	102,2825	103,8534	98,2140	104,1976	101,9981	109,9400	100,6484	101,8837	102,2816
2006May	101,7595	103,3090	99,9440	102,6076	101,8604	110,0200	100,5550	101,6578	102,1220
2006Apr	101,3554	103,3012	99,6986	100,9169	101,6818	108,9100	100,4500	101,5125	101,8660
2006Mar	101,1930	102,6101	99,9973	101,0789	101,5885	105,9400	100,3123	101,3660	101,4859
2006Feb	101,1620	101,6969	100,7489	102,3326	101,2352	105,4400	100,2019	101,1820	101,3022
2006Jan	100,8037	101,3706	100,7235	100,9399	101,0791	105,0000	100,2338	101,0091	101,1305
2005Dec	100,5760	101,3446	101,7627	100,0414	101,0290	102,5200	100,2603	100,9853	100,8970
2005Nov	100,2250	101,2725	100,3831	99,0544	100,8369	103,2700	100,2297	100,7884	100,8091
2005Oct	100,0030	100,9391	99,2064	99,2765	100,7021	106,4800	100,1333	100,6156	100,9654
2005Sep	100,0245	100,4478	98,3904	100,0533	100,6089	106,2300	100,0258	100,4709	100,8382
2005Aug	100,0872	100,4150	97,8737	100,5718	100,0760	103,1000	99,9881	100,2759	100,3969
2005Jul	100,0553	99,9723	98,6035	99,4833	99,9184	101,7700	99,9593	100,0151	100,1256
2005Jun	100,0965	99,8182	100,1345	100,0518	99,7818	99,0500	99,9425	99,8890	99,8344
2005May	100,0801	99,1538	101,7788	100,6300	99,6096	97,4900	99,9206	99,8342	99,6570
2005Apr	99,8962	99,0715	101,1508	100,2119	99,5110	98,0900	99,8577	99,3606	99,4662
2005Mar	99,7547	99,0601	101,0075	103,0828	99,3432	95,8700	99,8417	99,4869	99,3361
2005Feb	99,6635	99,3400	99,6745	100,1190	99,3148	93,7000	99,8329	99,2124	98,9545
2005Jan	99,5431	99,1081	99,4762	96,9593	99,2622	92,4400	99,9222	99,0420	98,7195
2004Dec	99,4047	98,0041	100,4333	99,5088	99,3221	92,1800	99,9286	98,9406	98,7009
2004Nov	99,3145	98,8636	99,2962	97,1362	98,3175	93,8700	99,9058	98,7005	98,5913
2004Oct	99,1672	98,8854	99,4495	97,2933	98,3532	95,0000	99,8751	98,4840	98,5944
2004Sep	98,7992	98,6551	100,1006	98,2321	98,3770	92,3600	99,8658	98,3242	98,2927
2004Aug	98,9397	98,3665	99,8907	98,5575	98,4292	92,5000	99,9094	98,1106	98,2392
2004Jul	98,9107	98,6235	101,1789	99,7001	98,3569	91,1100	99,8055	97,8143	97,9845
2004Jun	98,5240	98,2552	101,3896	101,0816	98,2446	90,5700	99,7598	97,6968	97,8722
2004May	98,3272	98,5271	100,4600	101,1150	98,1368	91,2500	99,6466	97,4163	97,7525
2004Apr	98,2279	98,1752	100,6235	101,2179	97,8938	89,0700	99,6220	97,2436	97,4382
2004Mar	98,2633	98,3011	100,8057	100,3009	97,7838	88,1300	99,4742	97,0550	97,2215
2004Feb	98,0528	97,9705	101,2682	100,4994	96,7369	86,9700	99,5224	96,9112	96,9399
2004Jan	98,0509	98,1190	101,1035	103,7834	96,5402	87,0200	99,3325	96,6702	96,7979
2003Dec	97,9861	97,7221	101,2246	103,1741	96,2606	86,2100	99,2227	96,3511	96,5156

Own aggregation on published data / Comparison of results

	Own aggregation on published data: *Original series* Chained series 2005=100	*Seasonally adjusted series*, *unadjusted weights*: Chained series 2005=100	*Seasonally adjusted series*, *adjusted weights*: Chained series 2005=100	Comparison of results: Column 21 - column 10	Column 22 - column 20	Column 23 - column 20
	21	22	23	24	25	26
2006Jun	102,5513	102,2831	102,2860	-0,0087	0,0015	0,0045
2006May	102,4752	102,1236	102,1267	-0,0048	0,0016	0,0047
2006Apr	102,1984	101,8676	101,8701	-0,0016	0,0016	0,0042
2006Mar	101,5264	101,4772	101,4793	-0,0036	-0,0087	-0,0066
2006Feb	100,9425	101,2962	101,2986	-0,0075	-0,0059	-0,0036
2006Jan	100,6646	101,1396	101,1415	0,0046	0,0092	0,0110
2005Dec	101,1278	100,8974	100,8987	0,0278	0,0004	0,0017
2005Nov	100,7747	100,8100	100,8108	0,0147	0,0009	0,0017
2005Oct	100,9897	100,9674	100,9685	-0,0303	0,0020	0,0031
2005Sep	100,7505	100,8388	100,8398	-0,0095	0,0006	0,0016
2005Aug	100,2245	100,3998	100,4000	-0,0255	0,0029	0,0031
2005Jul	99,9943	100,1295	100,1293	-0,0057	0,0039	0,0037
2005Jun	100,0952	99,8316	99,8314	0,0152	-0,0028	-0,0030
2005May	99,9888	99,6570	99,6571	-0,0112	0,0000	0,0002
2005Apr	99,7832	99,4673	99,4672	0,0332	0,0012	0,0010
2005Mar	99,3640	99,3244	99,3244	0,0440	-0,0117	-0,0117
2005Feb	98,6251	98,9483	98,9468	-0,0249	-0,0062	-0,0077
2005Jan	98,2821	98,7284	98,7258	-0,0279	0,0089	0,0062
2004Dec	98,8888	98,7024	98,7005	-0,0112	0,0015	-0,0004
2004Nov	98,5320	98,5899	98,5869	0,0520	-0,0014	-0,0044
2004Oct	98,5997	98,5967	98,5940	0,0397	0,0024	-0,0004
2004Sep	98,2058	98,2947	98,2920	-0,0142	0,0020	-0,0007
2004Aug	98,0829	98,2428	98,2400	0,0329	0,0036	0,0008
2004Jul	97,8989	97,9865	97,9842	0,0189	0,0020	-0,0003
2004Jun	98,1175	97,8653	97,8633	0,0675	-0,0069	-0,0089
2004May	98,0641	97,7498	97,7476	0,0141	-0,0027	-0,0049
2004Apr	97,7360	97,4392	97,4366	0,0160	0,0010	-0,0015
2004Mar	97,2569	97,2094	97,2067	-0,0331	-0,0121	-0,0148
2004Feb	96,6552	96,9310	96,9277	0,0352	-0,0089	-0,0122
2004Jan	96,4072	96,8025	96,8000	-0,0428	0,0046	0,0021
2003Dec	96,6648	96,5160	96,5132	0,0448	0,0003	-0,0024
Mnimum since 2006				-0,0087	-0,0129	-0,0066
Maximum since 2006				0,0135	0,0092	0,0314
Mean value since 2006				0,0048	-0,0013	0,0130

Table 3: HICP Index series, 2005=100, euro area; Weights and corrected weights for SA-series

	Original weights; source Eurostat					Price-updated weights for SA-series				
COICOP	Food including alcohol and tobacco	Energy (not sa)	Non-energy industrial goods	Services (overall index excluding goods)	All-items HICP	Food including alcohol and tobacco	Energy (not sa)	Non-energy industrial goods	Services (overall index excluding goods)	All-items HICP (before rescaling)
2012	190,71	109,87	284,72	414,70	1.000,00	191,0645	109,87	281,7036	414,1804	996,8185
2011	192,98	103,64	289,07	414,31	1.000,00	193,3511	103,64	286,0829	413,7964	996,8704
2010	191,67	95,59	292,94	419,79	999,99	192,0380	95,59	290,0899	419,2388	996,9567
2009	193,32	95,71	297,24	413,73	1.000,00	193,6870	95,71	294,5774	413,2021	997,1766
2008	195,01	98,15	297,87	408,97	1.000,00	195,3533	98,15	295,4898	408,4511	997,4443
2007	195,57	96,15	300,04	408,23	999,99	195,9317	96,15	297,7391	407,7114	997,5323
2006	192,75	91,99	307,41	407,84	999,99	193,1749	91,99	305,2190	407,2965	997,6804
2005	195,62	85,97	310,32	408,09	1.000,00	196,1675	85,97	308,2796	407,6391	998,0562
2004	195,26	81,32	310,10	413,33	1.000,01	195,9292	81,32	308,2137	412,9488	998,4117

Table 4: HICP Index series, 2005=100, euro area; Weights and corrected weights for SA-series; 5 food categories

	Original weights; source Eurostat									Price-updated weights for SA-series								
COICOP	Meat	Fish and seafood	Fruit	Vegetables	Processed food including alcohol and tobacco	Energy (not sa)	Non-energy industrial goods	Services (overall index excluding goods)	All-items HICP	Meat	Fish and seafood	Fruit	Vegetables	Processed food including alcohol and tobacco	Energy (not sa)	Non-energy industrial goods	Services (overall index excluding goods)	All-items HICP (before rescaling)
2012	35,78	10,60	11,76	14,05	118,52	109,87	284,72	414,70	1.000,00	35,7219	10,5706	11,9337	14,1780	118,6171	109,87	281,7036	414,1804	996,7754
2011	35,69	10,41	11,66	15,76	119,46	103,64	289,07	414,31	1.000,00	35,6337	10,3773	11,8398	15,9352	119,5621	103,64	286,0829	413,7964	996,8674
2010	36,08	10,79	11,43	14,66	118,71	95,59	292,94	419,79	999,99	36,0222	10,7500	11,6218	14,8253	118,8064	95,59	290,0899	419,2388	996,9444
2009	36,48	11,07	11,59	15,41	118,77	95,71	297,24	413,73	1.000,00	36,4184	11,0220	11,7882	15,5938	118,8655	95,71	294,5774	413,2021	997,1775
2008	36,76	11,46	12,12	15,70	118,97	98,15	297,87	408,97	1.000,00	36,6938	11,4037	12,3318	15,8652	119,0790	98,15	295,4898	408,4511	997,4645
2007	37,52	11,70	11,71	15,37	119,28	96,15	300,04	408,23	1.000,00	37,4532	11,6416	11,9222	15,5203	119,4206	96,15	297,7391	407,7114	997,5584
2006	36,91	11,55	11,34	14,56	118,40	91,99	307,41	407,84	1.000,00	36,8499	11,4927	11,5677	14,6983	118,5631	91,99	305,2190	407,2965	997,6772
2005	37,77	11,45	11,40	14,76	120,24	85,97	310,32	408,09	1.000,00	37,7225	11,3981	11,6652	14,9354	120,4487	85,97	308,2796	407,6391	998,0586
2004	38,23	11,38	11,77	15,51	118,36	81,32	310,10	413,33	1.000,00	38,1973	11,3304	12,0894	15,7116	118,6072	81,32	308,2137	412,9488	998,4184