

Σ SIGMA

THE BULLETIN OF EUROPEAN STATISTICS

Getting the price right

Focus on price statistics



Editorial



This edition of *Sigma* focuses on price statistics in all forms. Prices are essential to all of us, be it the price of a cup of coffee, a loaf of bread or a hair cut, thus the issue of changing prices is something that we feel directly in our wallets. The prices for wheat and fertilisers are important for farmers; likewise for industry and business, the evolution of prices for energy, accounting and intermediate products is crucial. Prices are, simply put, at the heart of the economy.

Sigma features statisticians from Eurostat and the European statistical system who explain the results of their work, the methodologies they use and the problems they are confronted with. At the same time, some of the users of price statistics explain their needs and how they use the data.

The spotlight first falls on the European Union's first-class inflation measure — the harmonised index of consumer prices (HICP) — produced by Eurostat for the past 14 years. The Economic and Monetary Affairs Commissioner, Joaquín Almunia, is interviewed about the use of the HICP in European economic policy and the European Central Bank explains the role of the HICP in monetary policy. Other highlights include the difficult work of including house prices in the index and developing new standards for quality adjustments, as well as an insight into how the changeover to the euro affected prices in Europe and in Slovenia in particular.

Sigma also sheds light on the constantly evolving field of energy prices, so crucial to the liberalisation of EU energy markets, and highlights the robust sector of industrial producer prices as well as the emerging sector of service producer prices. Another featured subject is agricultural prices, which have been at the core of European policy since the very birth of the European Union. Today demands are changing. Data on agricultural land prices are, for example, becoming indispensable for the proper management of the European common agricultural policy.

Sigma also shows the importance of purchasing power parities in international comparisons of, for example, GDP across countries and introduces the 'world's largest statistical initiative'. Import prices and unit value indices are the subject of an interview with two Eurostat experts. These are just a few of the focal points in this issue of *Sigma*, which also gives a glimpse of the world and work of the National Institute of Statistics in Romania.

Hervé Carré

Director-General, Eurostat



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The HICP — a first class inflation measure

Keith Hayes, Head of the HICP Methodology and Harmonisation Section in the Price Statistics Unit, Inna Steinbuka, Eurostat Director for Economic and Regional Statistics and Alexandre Makaronidis, Head of Eurostat's Price Statistics Unit.
Photo: Christine Ardillac

The harmonised index of consumer prices (HICP) was created in 1993 when the EU countries decided upon economic and monetary union in Maastricht. Fourteen years later, it compares the evolution of prices between the 27 EU Member States in a harmonised way. It has a solid legal framework, is one of the key indicators used by the European Central Bank (ECB) for the euro area's monetary policy and it is favoured by all those who work in the financial markets worldwide. Today, communication with the public, further methodological developments and compliance monitoring are top of the agenda for the HICP team at Eurostat.



Consumer price indices (CPIs) have a variety of uses, for example, the indexation of commercial contracts, wages, social benefits or financial instruments. They may also serve as a guide to national monetary policy. The HICP has been set up to specifically measure price stability in the euro area and to be the best measure for international comparisons of household inflation within the EU.

'In the early stages, the HICP was used to assess price stability and price convergence required for entry into the economic and monetary union. Now the focus is on the euro-area aggregate, reflecting its key role for the ECB's objective of price stability — a year-on-year increase of below but close to 2 % in the euro-area index. However, for the countries that wish to enter the euro area, such as Cyprus and Malta, compli-

ance with the legislation and price stability is, of course, in the spotlight', says Alexandre Makaronidis, Head of Eurostat's Price Statistics Unit.

Some flexibility

Eurostat has developed the HICP in close collaboration with price experts from the EU national statistical institutes. The approach taken towards harmonisation was first to adopt legislation setting out the broad principles and scope for the HICP. The first milestone in the development of HICPs, in October 1995, was the adoption of a Council regulation, which set the legal framework for establishing harmonised methodology for compiling comparable CPIs, as required by the convergence criteria in the Maastricht Treaty. This has

The HICP is a high-quality price measurement, which has quickly evolved to become a key economic indicator for the European Commission, the European Central Bank and the financial markets.
Photo: PixelQuelle.de

been built on over the years using a series of legally binding implementation regulations, each addressing one or more specific areas of methodology.

'The methods specified in the legislation can usually be applied with some flexibility, since the aim is the comparability of results rather than the application of uniform methods in all circumstances', says Keith Hayes, Head of the HICP Methodology and Harmonisation Section in the Price Statistics Unit.



Speeding up the release of data

In 1997, the first data on harmonised consumer prices were published around 35 days after the end of the reference month. By 1999, the HICP team had managed to shorten the delay by a half, but it was still not enough. The main users, such as the ECB and the Commission's Directorate-General for Economic and Financial Affairs, needed the information more quickly. The team then developed an econometric model to give a flash estimate of the key euro-area inflation figure, using early available energy price data and early HICP data from a small number of individual euro-area countries. The flash estimate was born in October 2001 and is published on the last working day of the current month (see article on page 14). The full HICP is nowadays published two weeks later and, on average, there has hardly been any deviation from the flash estimate.

'Eurostat wrote a piece of history with the launch of the HICP and, later on, with the release of the flash estimate, shortly before the changeover to the euro. At first, people both at Eurostat and in Member States were sceptical about the flash and with good reason — the credibility of the index was at stake. But we were successful!', says Mr Makaronidis.

The HICP data, which are released each month, cover the price indices themselves, annual average price indices and monthly and annual rates of change. As well as the all-item HICP, a range of 100 indices for different goods and services is made available. Some of the main headings are: food, clothing, housing, health, transport, education, communication, hotels and restaurants. In addition, a series of special aggregates is released, such as the HICP excluding energy, tobacco, food and alcohol.

The weights for the component goods and services and the individual countries are also made available.

Communicating with the public

In 2006, the Price Statistics Unit launched a communication strategy to improve communication on the HICP to its users — financial analysts, journalists and the general public.

'Prices are a very important issue for citizens and there is a debate in some Member States about the difference between perceived and measured inflation. In general, the changeover to the euro was perceived to have caused much higher price changes than the statistical offices measured', says Inna Steinbuka, Eurostat Director for Economic and Regional Statistics.

'There are a number of reasons for this, for example, the cost of some goods and services which are typically bought relatively frequently, such as a coffee in a café or a visit to the hairdresser, went up very noticeably with the changeover to the euro. On the other hand, prices for goods such as computers and household appliances, which are bought much less frequently, may have been falling — but that was "felt" much less by consumers', says Mr Hayes.

Action is being taken to widen and deepen communications with the public on inflation in the Member States and the debate really focuses on the national CPIs rather than the HICP, but Eurostat and its partners have realised that it is crucial to convey more information on the HICPs as well.

'We need to explain what we measure and how it is done to avoid any misunderstandings and we need to do it in a coordinated way with the HICP main actors', says Ms Steinbuka.

To this end, Eurostat has set up a taskforce together with the Economic and Financial Affairs DG and the ECB. By the end of the year, the taskforce should come up with some concrete proposals to enhance the understanding and appreciation



In 2006, the Price Statistics Unit launched a communication strategy to improve communication on the HICP to the users. Actions include a HICP section on Eurostat's website and a guide for HICP expert users etc. There have also been actions to better explain the difference between the national CPIs and the HICPs in the Member States and to inform the public of the real effect of the euro changeover on prices. Photo: PixelQuelle.de

of the HICP and promote its reputation as a high-quality statistical indicator.

Some concrete actions are already ongoing. A specific section dedicated to the HICPs was created within Eurostat's website, providing easy access to a wide range of HICP information. It gathers together in one place many HICP reference documents and is being progressively extended to give further information on key projects and methodological developments. There have also been efforts to better explain the difference between the national CPIs and the HICPs and to inform the public of the real effect of the euro changeover on consumer prices. The publication of a guide for HICP expert users is in the pipeline.

Way forward

The top priority, in technical terms, for Eurostat's price statistics team is the completion of the HICP methodological frame-

work, in particular regarding the treatment of owner-occupied housing and quality adjustment (see separate articles).

'There are also some other important technical issues, which may be less fundamental for the HICPs, but which, nevertheless, may still affect comparability — such as the treatment of seasonal items and the level of elementary aggregation', says Mr Hayes.

Last year more resources were given to compliance monitoring of the HICP regulations (see article on page 12).

'The idea is to develop country specialists who can follow the work in Member States closely, signal if there is a problem and give advice if needed. The aim is to increase even further the credibility of the HICP and improve quality and reliability', says Ms Steinbuka.

By Annika Östergren Pofantis, Communication Unit, Eurostat

Basic facts about the HICP

- Over two million prices are collected every month by the national statistical institutes in the Member States, typically by a combination of visits to local retailers and service providers and central collection. Some countries, such as the Netherlands and the UK, are also using the data collected electronically at supermarket check-outs, whether directly for calculating their HICP or for cross-checking their calculations.
- There is no average EU basket. Each country collects prices and expenditure on goods and services that are consumed in that country. The weight of different goods also changes from country to country. For example, olive oil has a higher weight in the southern Member States than in the northern ones.
- Quality adjustments are an important part of a price statistician's work. It is not possible to compare the price of a particular car with a 'similar' one sold five years ago. The quality of the car has changed — more options are included in the newer models, they use newer technology etc. Price comparisons must take account of this change in quality (see article on page 7).
- Each country has a different weight in the euro area or the EU aggregates. The country weights are derived from national accounts data for household final monetary consumption expenditure.
- The HICP covers all expenditure in the territory of a country by residents and non-residents.
- The HICP covers the prices paid for with money.
- The prices measured are those actually faced by consumers, so they do include sales taxes, such as VAT, deduct subsidies and take account of end-of-season sales.
- The HICP excludes interest and credit charges, since they are financing costs rather than consumption expenditure.
- The HICP is a Laspeyres-type of price index, reflecting its use for measuring price stability. CPIs are often cost of living indices — measuring the minimum cost of maintaining a given level of welfare. These different underlying concepts are important as they define the way one views housing within a consumer price index, but often do not lead to substantial differences in practice.

Hands-on tips for quality adjustment

Quality adjustment is at the top of the agenda for Eurostat and national price statisticians. The aim is to agree on concrete best-practices for a range of specific goods and services for which price changes are partially caused by rapid quality improvements and technical progress. To this end, a centre and network of excellence (Cenex) has been created within the European statistical system. The project team is based at the German Statistical Office, Destatis, in Wiesbaden and partners are the statistical offices in Belgium, Ireland, the Netherlands, Austria, Portugal and Sweden.

The Cenex team. One of the project's main objectives is to produce a hands-on manual on quality adjustment. Photo: Destatis



‘**O**ne of the basic ideas of price comparisons is that you pick a sample of goods at one point in time and then you track the changes in prices that happen over time to those goods. The results of price statistics provide an answer to the question of how much that same basket of goods costs today’, says Dr Stefan Linz, Head of the Section for Methodology and Dissemination in Price Statistics at Destatis, Germany.

‘But this comparison only works when the products remain constant. If the quality of a product changes, for instance because of technical progress, a so-called quality adjustment is carried out by the price statistician’, he continues.

There are many methods for quality adjustment — two of them are the main subjects of the Cenex project. The first is called option pricing. It is used when evaluating how much of the change of price, for example for a car, is caused by the inclusion of a new feature, such as an additional airbag, which previously was an extra option for which you had to pay separately.

The other is called the Hedonic method. It is used primarily for technical products that are subject to rapid progress and frequent changes in quality, for example computers. It uses regression analysis to relate the observed prices of the computers sold in the shops to their quality characteristics such as hard-disk capacity or computer speed. This gives a



One method for dealing with quality adjustment is called option pricing. It is used when evaluating how much of the change of a price, for example of a car, is caused by the inclusion of a new feature, such as an additional airbag, which previously was an extra option, that needed to be paid for separately. Photo: PixelQuelle.de

market valuation of the quality of the computers, which is used as the 'monetary value of the change in quality' when comparing prices.

One of the project's main objectives is to put together a hands-on manual on quality adjustment. 'The handbook will be user-oriented and concrete. It will have clear "recipes" for price statisticians on how to handle quality adjustment both in general and more specifically for a number of product groups', says Katrin Dorka, project coordinator at Destatis.

The first part of the handbook will be devoted to the basic concepts of quality adjustment methods and their practical

implications. It will also have cross references to HICP regulations as well as to other manuals.

The second part of the handbook will provide concrete and detailed guidance for the application of quality adjustment methods for specific products such as books, cars, computers and software. Guidance for the specific product groups will be put together by the Cenex partners.

The handbook will be presented to all price experts in the national statistical institutes at a workshop at the end of 2008 and the hope is that it will provide a good complement to existing legislation.

'The regulation from 1996 on quality adjustment has moved the system forward. With the handbook we can give direction to this movement and also speed it up. The hope is that harmonisation work on quality adjustment will leap forward to improve inflation measurement even further', says Dr Linz.

By Annika Östergren Pofantis, Communication Unit Eurostat



The Hedonic method for quality adjustment is used primarily for technical products, such as computers, that are subject to rapid progress and frequent changes in quality. The Hedonic method uses regression analysis to relate the observed prices of the computers sold in the shops to their quality characteristics, such as hard-disk capacity or computer speed. This gives a market valuation of the computers' quality, which is used as the 'monetary value of the change in quality' when comparing prices.

Photo: PixelQuelle.de

House prices — a hard nut to crack

The way owner-occupiers' housing costs are treated when measuring inflation is a much debated topic among price statisticians. To some, the theory is quite simple: dwellings are assets that their owners use to produce 'housing services' for their own consumption and this service has a price which should be measured. However, it quickly gets complicated... How much of your living in your house is an investment and how much is consumption? How do you deal with the land the house is built on — because that is surely an asset? Do you include only new buildings or houses that are sold between consumers as well? How and when do you account for the transaction? How do you compare prices of dwellings that are very different from each other? These questions are just a few examples of the complex issues surrounding the discussions on the inclusion of owner-occupied housing costs in the harmonised index of consumer prices (HICP) and consumer price indices (CPIs) in general.



David Baran, Head of Branch, Harmonised Index of Consumer Prices and Purchasing Power Parities at the Office for National Statistics in the United Kingdom and a member of the OOH pilot and steering groups. Photo: Christine Ardillac

The cost of living in your own home represents a substantial share of household expenditure and the purchases of dwellings by households represent a big part of real estate markets. For the national CPIs, the EU Member States take a variety of approaches to owner-occupied housing, either excluding them altogether or applying one of three main methods: the rental equivalence or the imputed rent approach, the net acquisitions approach or the user cost approach.

Today, the harmonised index for consumer prices measures price changes for rented housing and for minor repairs and maintenance. The price of owner-occupied housing is currently excluded.

Net acquisition ideal for HICP

The HICP aims to be a 'pure price' index which focuses on the households' final monetary consumption expenditure based on national accounts definitions. This means that monetary transactions are at the heart of all calculations.

The rental equivalence or the imputed rents approach uses actual rents observed for rented homes to impute the equivalent rents that would be payable for owner-occupied housing.

The user cost approach estimates the costs of owner-occupation indirectly, by calculating the user costs associated with their housing capital at market prices. It therefore uses a combination of data sources, such as dwelling prices, mortgage repayments data, interest and depreciation rates.

The net acquisitions approach uses prices for the net acquisitions of dwellings by households (that is, purchases less sales of dwellings) excluding the cost of land, in combination with prices for major repairs and renovations and prices for transaction fees incurred when purchasing and selling dwellings.

'In conceptual terms, both the imputed rent approach and user cost can be justified for a compensation or cost of living index. However, an index that is based on real observed house prices, rather than imputed rents and unobservable shelter cost elements, is better from our point of view. In the HICP, the purpose is to measure price changes in goods and services that are exchanged in monetary transactions', says Jarko Pasanen, OOH project coordinator in the Price Statistics Unit in Eurostat.

'The net acquisition approach therefore suits the HICP better and a pilot project was launched in 2002 to study the possibilities of producing an owner-occupied housing index', he continues.



'An index that is based on real, observed house prices, rather than imputed rents and unobservable shelter cost elements, is better from Eurostat's point of view. In the HICP, the purpose is to measure price changes in goods and services that are exchanged in monetary transactions', says Jarko Pasanen, OOH project coordinator in the Price Statistics Unit in Eurostat. Photo: Christine Ardillac

The results of the study showed that there would be several practical problems related to the implementation of the net acquisitions approach in all Member States.

'In smaller countries, for example, it would be a problem to construct a price index for newly built dwellings and dwellings new to the household sector, since the markets are so small that the results would not be statistically reliable. It is also very difficult in practice to separate the price of land on which the dwelling is built, from the actual price of the dwelling', explains David Baran, Head of Branch, Harmonised Index of Consumer Prices and Purchasing Power Parities at the Office for National Statistics in the UK and a member of the OOH pilot and steering groups.

A more flexible approach

At the beginning of 2006, a second project was started and the focus changed. While the net acquisition approach has been maintained, the intention now is to also produce a wider dwellings price index, which will serve both the needs of the HICP and those users whose main interest is in dwelling prices per se.

'House price changes is a topic that interests us all and such data are also in a great demand by policymakers and economic analysts. Although our prime objective is to obtain data for the HICP, we have realised that we could use our work to produce a more general house price index. One finding of the first pilot was that it would be necessary to gather price data on second-hand dwellings, which would be needed for the net acquisitions index', Mr Pasanen says.

'With this approach, Eurostat will be able to meet general demand and to include owner-occupied housing in the HICP. To continue excluding owner-occupied housing expend-

itures from the HICP is not ideal, as housing forms a big part of people's monthly expenses and dwelling inflation erodes the purchasing power of money.'

The scope of the project was expanded in 2006 from the original five to 12 national statistical offices (NSIs) in order to cover, among others, the major euro-area countries. In each country, a pilot index for all homes bought by households should be developed and compiled on a monthly or quarterly basis as a self-standing index. It should incorporate both second-hand homes and new dwellings, and an index for additional acquisition costs related to the purchase of the dwelling, such as transfer costs, legal fees and taxes should also be developed.

'Countries use different sources for their data. For the UK official house price index we use a large sample of transactions prices (around 50 000 per month) which are recorded by lenders for people buying a house with a mortgage. The data are based on the actual price paid by the buyer', says Mr Baran.

'Some countries use data from estate agents, land registers, tax authorities or surveys, while others are building their OOH index from scratch. Therefore the coverage of certain types of houses and the geographical scope of the index during the pilot phase will be limited in some countries', he continues.

'Another constraint is that, at present, some countries are having difficulties in receiving timely data. In general, the delays are much longer than the normal production time for the HICP.'

The pilot project also studies land prices. Germany and Slovenia are aiming to produce land price indices in order to separate the dwelling prices from land prices in their country. The UK is also investigating the possibilities of excluding land. An OOH manual is in the pipeline and will be presented



'A provisional house price index is in the pipeline for early 2008, but whether or not owner-occupied housing will be included in the actual HICP index in the future is still an open question. One scenario is to have a family of HICP indices where the OOH would be one index', says Mr Pasanen. Photo: Phovoir

to all NSIs in 2008 by Portugal. Piloting the compilation of a price index on major repairs and renovations has been postponed due to limited resources, but remains on the agenda.

The impact

Eurostat has made a study of the likely impact of including OOH in the euro-area HICP index according to the net acquisition approach over the period 1998–2002. It showed a difference in the inflation rate of up to 0.3 percentage points, almost 15 % above the measured inflation rate of the HICP excluding OOH. The impact for individual Member States' HICP, however, may vary somewhat from this estimate.

The European Central Bank (ECB) has done a similar analysis with data covering the period 1996–2005 and the results show an increase of the euro-area HICP by on average 0.22 percentage points. Both the Eurostat and the ECB estimates use house prices including land.

A family of indices?

At the end of this year, the OOH project's steering group, whose members come from Eurostat, the European Commission's Directorate-General for Economic and Financial Affairs, the ECB and the national statistical institutes of the Netherlands and the UK, will evaluate the results of the project and decide on a future direction.

'A provisional house price index is in the pipeline for early 2008, but whether or not owner-occupied housing will be included in the actual HICP index in the future is still an open question. One scenario is to have a family of HICP indices where the OOH would be one index', says Mr Pasanen.

By Annika Östergren Pofantis, Communication Unit, Eurostat

Measuring correctly

Country desks and compliance visits form the central part of Eurostat's new HICP compliance strategy. The initial work will focus on countries close to euro or EU accession, but the old Member States are not off the hook. *Sigma* talks to both sides of the compliance coin: the Price Statistics Units in Eurostat and the Slovenia Statistical Office — the latter in a country which switched to the euro on 1 January 2007.

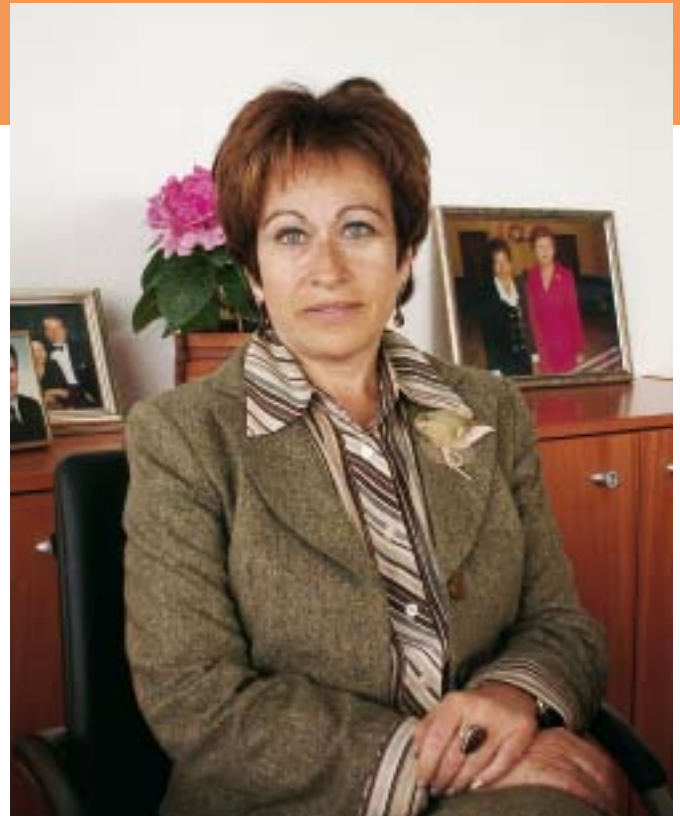
Inna Steinbuka is the Director for Economic and Regional Statistics at Eurostat. Photo: Christine Ardillac

HICP compliance monitoring is not new to Eurostat, but following the adoption of the new strategy last year we are more structured and we have more resources', says Inna Steinbuka, Director for Economic and Regional Statistics at Eurostat.

The aim of compliance monitoring is to generate improvements in the quality and reliability of the HICPs, since data and methodological weaknesses will be identified. It should also provide reassurance about the quality of HICPs to users.

'It is important to check once in a while that Member States are measuring inflation in a correct way and that they are following the HICP regulations. At the same time, we see if they are battling with any particular problems and if they have enough resources', continues Ms Steinbuka.

Country desks have been set up in the Price Statistics Unit of Eurostat. Country specialists work closely with the European Commission's Directorate-General for Economic and Financial Affairs and the European Central Bank (ECB). The desks will monitor developments in a number of key markets, such as energy, some durables and communications and they will also follow methodological work being carried out on consumer prices in their respective countries. The desks go hand in hand with compliance visits to the Member States.



'Our first priority, of course, are those countries that want to join the euro in the short term, such as Cyprus and Malta. We are also planning to follow up HICP-related work in those countries which have just joined the European Union, and this year we may also pay visits to Germany and Italy', says Alexandre Makaronidis, Head of Eurostat's Price Statistics Unit.

'It is a two-way process. We will check how countries are doing on HICP methods and practices, but we are also there to give assistance on methodological issues if needed', he continues.

Eurostat is also aiming to provide up-to-date documentation of all national HICPs and to explain to users the most important differences between the HICP and national consumer price index.



Slovenia entered the euro area on 1 January 2007. Next in line are Cyprus and Malta, who will join in January 2008.
Photo: European Commission



The old city of Ljubljana. The aim of the compliance monitoring is to generate improvements in the quality and reliability of the HICPs, since data and methodological weaknesses will be identified. After examining the Slovenian HICP, Eurostat concluded that, in general, the methods used for producing it were of a good standard and that the indices conform with the HICP methodological requirements.
Photo: European Commission

Roses to Slovenia

In the case of Slovenia, a number of questionnaires were sent to the Statistical Office and this was followed up by a meeting in April 2006.

'It was a detailed examination of our price indices. For example, we had to explain why certain items had seen unusual price changes compared to the previous five years and how we dealt with headings that have the most significant impact on the HICP, such as energy', says Ema Misic, Head of the Price Statistics Section at the Statistical Office of Slovenia.

'It was stressful of course, but also very helpful in the sense that it helped us deal with the public perception that the CPI

and the HICP were not correctly calculated. When Eurostat's report was published on our respective websites, people could see that our price indices were up to standard.'

Eurostat concluded that, in general, the methods used for producing the Slovenian HICP were of a good standard and that the indices conform with the HICP methodological requirements. The Statistical Office should, however, closely monitor changes in taxation and excise duties and changes to the provision of medical products and services.

By Annika Östergren Pofantis, Communication Unit Eurostat

For further information:

See Eurostat's website: www.europa.eu.int/comm/eurostat -> HICP -> Methodology

The ‘flash’ in the limelight

The Flash team — Christine Wirtz, Angèle Costanzi and Colin Stewart, who work in Eurostat’s Price Statistics Unit. The Flash estimate has an extremely good record of being accurate.

Photo: Christine Ardillac

Eurostat wrote a little piece of history with the launch of the flash estimate of the harmonised indices for consumer prices (HICP) in November 2001, just before the changeover to the euro in 2002. Today, the flash estimate is issued on the last working day of the month, two weeks before the full HICP, and it is praised for its quality, accuracy and timeliness.



The flash HICP gives an early estimate of the development of annual inflation in the euro area. In most months it is based on early data from nine euro-area countries, which represent 95 % of the euro-area total expenditure weight. The econometric model which is used to calculate the flash also includes data on energy prices and takes into account historical data and seasonal trends.

Statistical handicraft

However, the work to produce a flash figure is not completely automatic. There is a fair share of statistical handicraft done by the flash team — Christine Wirtz, Colin Stewart and Angèle Costanzi, who work in Eurostat’s Price Statistics Unit.

‘We put together several figures from national data sources and information on energy prices. This information is used by our estimation programmes, but it also needs to be analysed from an expert point of view’, says Ms Costanzi.

The flash estimate has a record of being very accurate. Over the last two years, the team has predicted the inflation rate on the decimal 16 times and eight times with a difference of 0.1.

January is the most difficult month, not only because there is less time due to the Christmas holidays, but also because the weights of the sectors are updated every year in January. If there is a change in the data collection, an example being the changed VAT rate in Germany in 2007, it also has to be introduced in the January figures. As a result, there can be

bigger revisions than usual in the Members States' figures, which results in a risk for larger inaccuracy between the flash and the real HICP.

The flash estimate is normally issued on the last working day of the month according to a calendar issued in the December of the previous year. The flash team has never missed a scheduled date.

No details ... yet

The flash gives a single figure for inflation in the euro area. Details for countries and price developments in sectors such as food, housing and transport are released two weeks later in the normal HICP release.

'One of our objectives in the medium to long term is to re-release forecasts at a more detailed level, for example for "all items excluding energy". However, we do not plan to issue monthly inflation estimates', says Ms Wirtz.

'The present level of accuracy achievable for flash estimates makes monthly inflation rate estimates almost impossible. If the actual monthly rate of inflation turned out to be, say, 0.1 %, a flash estimate of 0.2 % would simply not be good enough. Hence, we have to stick to annual figures', says Mr Stewart.

Interest in Europe and beyond

The flash is used by the European Central Bank (ECB) for monetary policy decisions, but it is also important for other central banks and financial analysts, not only in Europe.

'As the inflation rate influences the ECB's decisions about euro-area interest rates and, thereby, the financial markets and capital flows, it is obviously watched closely by the Americans and other countries as well', says Mr Stewart.



The 'flash' estimate gives a single figure for inflation in the euro area and is issued on the last working day of the month. More detailed data are released two weeks later in the HICP release. Photo: PixelQuelle.de

In fact, Eurostat's flash HICP estimate is among the top three most used indicators by financial analysts according to Goldman & Sachs, a leading global investment banking and management firm.

By Annika Östergren Pofantis, Communication Unit, Eurostat

27–28 August

The flash team contacts all the national statistical institutes to remind everyone of the deadline and to get information on important events, such as strikes and tax changes, which could influence the flash figure and the timing of the release.

30 August

- 9.00 The flash team calls the Member States and ensures that they will deliver at 11.00.
- 11.00 HICP data are received from the Members States and put into the production system. The estimation programme, which is based on an econometric model developed by Eurostat, is run.
- 14.00 The flash estimate team looks at the results from the estimation programme. They analyse background information and details received from the Member States before they decide on the flash

inflation figure for August for the euro area.

- 16.00 Eurostat's Press Office receives the figure and produces a press release in English. It is translated into German and French.
- 17.00 The HICP team checks the different language versions of the press releases. A background briefing is prepared for the Spokesperson, the Press Office and senior management.
- 18.00 The Press Office finalises the different versions in order to release the data the following morning.

31 August

- 10.00 Eurostat's website, the database NewCronos and news releases are prepared.
- 11.00 The data are released on Eurostat's website and the news release is issued. Data are also transmitted to central banks.

Investing in inflation



Nick Matthews is European Economics Director at Barclays Capital.
Photo: Barclays Capital

‘Both the flash and the normal HICP are crucial for the financial markets given the importance of analysing and understanding inflation developments and trends in the euro area’, says Nick Matthews, European Economics Director at Barclays Capital.

‘Not only does the evolution of HICP inflation over time have direct implications from a monetary policy standpoint, but inflation is also becoming universally recognised as a separate asset class, with a variety of investors dedicating portions of their portfolios to the various instruments available’, he continues.

‘These developments resulted in an improvement in the reliability of the flash estimate in 2006, when it correctly projected the exact final HICP rate 75 % of the time — its best year to date — even better than the 67 % success rate in 2003’, says Mr Matthews.

Providing risk assessment

However, he underlines that the financial markets need to remain alert to the fact that the flash estimate can at times deviate from the final HICP, because provisional country data incorporated in the flash may be revised, inflation in countries yet to report may behave differently or volatility in some components (e.g. food and energy) may be difficult to capture using econometric techniques.

‘With financial markets often sensitive to the flash and final HICP releases, particularly if there is a surprise relative to the market consensus, an important role of an economist within an investment bank like Barclays Capital (which has a strong reputation in inflation-linked bond markets and economics research) is to provide clients with a risk assessment as to whether market expectations for the flash HICP are likely to prove correct and also whether the Eurostat flash HICP estimate is likely to be confirmed or revised with the final data’, says Mr Matthews.

Barclays Capital also makes its own flash HICP estimate which is produced back-to-back to Eurostat’s flash estimate. Mr Matthews says that since its current inflation forecasting framework was established in 2004, it has proven to be on average as good as the Eurostat flash. On the other hand, Eurostat stresses that its own flash estimate tends to cope better with turning points. Taken alongside the official measure, both flash estimates ensure that investors are kept well informed on prospective inflation developments in the euro area. However the recent improvements to the quality of the Eurostat flash are providing a new benchmark for the performance of Barclays Capital’s forecasting.

Bonds and future contracts linked to the HICP

The total issuance of government bonds globally linked to inflation amounts to approximately EUR 790 billion. Of this, around one quarter, EUR 198 billion, is issued by euro-area governments. Two thirds of this euro-area issuance, EUR 136 billion, is linked directly to the euro-area HICP index (excluding tobacco) with the remainder being linked to the French CPI (excluding tobacco). In addition, there is now a futures contract listed on the Chicago Mercantile Exchange linked to the euro-area HICP (excluding tobacco) index, which has enhanced the depth and breadth of the whole euro inflation market.

‘With all this in mind, it is critical for financial markets to have a flash estimate of the euro-area HICP that is both timely and reliable in terms of its effectiveness in anticipating the final HICP that is published around two weeks later’, says Mr Matthews.

Reliability is key and Mr Matthews believes that the flash estimate has a ‘good track record’, having successfully predicted the exact final rate 59 % of the time since first published in October 2001. He also finds it encouraging in terms of its potential reliability, that the country coverage increased to approximately 95 % of the euro area in April 2006 and that early price information from France (the second largest country in terms of its weight in the euro-area HICP) has been included since the end of 2005.

By Annika Östergren Pofantis, Communication Unit, Eurostat

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Did the euro cause prices to rise?



Stefan Pflüger is Head of the External Communication Unit in the Directorate-General for Economic and Financial Affairs of the European Commission. Photo: Stefan Pflüger

The European Commission does a monthly consumer survey which focuses on how consumers think prices have changed over the last 12 months. In the decade before the changeover to the euro, the perceived and measured inflation was more or less the same, but after the introduction of the euro the two curves no longer followed the same path. *Sigma* spoke to Stefan Pflüger who is in charge of the External Communication Unit in the Directorate-General for Economic and Financial Affairs of the European Commission about the common belief that prices rose with the introduction of the euro.

Did prices rise when we started paying with euros?

In fact, in 2002, the year when euro banknotes and coins were introduced, average price inflation, as measured by the harmonised index of consumer prices (HICP), was 2.3 %, the same as the year before. This means that a basket of goods that cost EUR 100 in a supermarket in 2001, would cost on average, EUR 102.3 in 2002. Since the euro cash introduction, inflation in the euro area has continued to be at historically low levels.

average price inflation, as measured by the harmonised index of consumer prices (HICP), was 2.3 %, the same as the year before. This means that a basket of goods that cost EUR 100 in a supermarket in 2001, would cost on average, EUR 102.3 in 2002. Since the euro cash introduction, inflation in the euro area has continued to be at historically low levels.

Did the switchover to the euro contribute to the higher prices we pay today?

Yes, but only by a small amount. In fact, the average consumer price increase due to the euro changeover was estimated to be only 0.3 % out of the 2.3 % measured inflation rate for 2002. So if the average price rise was EUR 2.3 for a EUR 100 basket, then no more than EUR 0.30 of this increase was due to the euro. The remaining EUR 2 was due to other factors.

These are averages, what happened to the real prices that we all pay?

A few individual prices rose by quite a lot, but most did not and others fell. The price changes we can attribute to the euro changeover vary according to the sector, for example prices of telecommunication services or electronic material did not rise or even decreased, but the price of a coffee or

a meal in a restaurant, a car repair and a haircut did. These price changes were confined to smaller, local shops and services that could take advantage of the new euro to raise prices, despite calls not to do so.

The important point is that the introduction of the euro added little to overall inflation and the cost of living for most euro-area citizens. The euro has been a currency with extremely little price increases compared to national currencies in the past or compared to other currencies in the world.

So why do many people believe that the euro brought higher prices?

There are several factors that can explain the mismatch between actual inflation and what is perceived.





'One of the reasons why many think prices have increased more than they have is because everyday purchases influence our perceptions more than larger ones, which showed little or no price increases. In the period of the euro cash changeover, the price of bread, or a cup of coffee increased in many places, whereas the price of a washing machine or a car did not. It was the price of these small items, which formed our impressions about inflation in that tricky period,' says Mr Pflüger. Photo: Phovoir

Everyday purchases influence our perceptions more than larger ones, which showed little or no price increases. In the period of the euro cash changeover, the price of bread or a cup of coffee increased in many places, whereas the price of a washing machine or a car did not. It was the price of these small items which formed our impressions about inflation in that tricky period.

Moreover, during the cash changeover there have undoubtedly been an unusually large number of price changes, in both directions. However, people pay more attention to price rises and our perceptions are more influenced by an exceptionally high increase of a price of a product that has a very low value (like a cup of coffee) than a decrease in the price of a product that has a higher value (like a personal computer). All this created a somewhat 'biased impression'.

Some other factors can also explain why the gap between the measured inflation and the perceived one persisted for

a long time and has not yet closed in some euro-area countries. Consumers may have mistakenly interpreted the slow-down in the growth of their disposable income as mainly caused by the introduction of the euro. The increase of oil prices (which were surely not due to the euro cash changeover), or the increase of house prices (which do not even enter in the consumer price basket), have certainly played a role in inflation perceptions.

Finally, national currencies remain a very strong reference point for an important share of euro-area consumers. Therefore, perceptions of prices often remain 'frozen' at the 2001 level. That means that many consumers compare 2007 prices with the price in national currency in 2001 disregarding that, even with annual inflation of only 2 % or so each year, prices in 2007 would have increased by some 12 % compared with six years ago.

By Annika Östergren Pofantis, Communication Unit, Eurostat

Communication top priority for the euro changeover in Slovenia



Ema Mistic is Head of the Price Statistics Section at the Statistical Office of Slovenia.
Photo: Christine Ardillac



Alexandre Makaronidis is Head of Eurostat's Price Statistics Unit.
Photo: Christine Ardillac

To ensure a smooth changeover to the euro, the Slovenian government set up a Committee chaired by the Central Bank and the Ministry of Finance in the beginning of 2006. The Slovene Consumer Association, the Statistical Office and the Chamber of Commerce and Industry as well as the Ministry of Economy were some of the members and they coordinated their work when it came to the euro and shared the workload.

just as in the first wave of countries that changed currency in 2002', says Ms Mistic.

'The total impact of the changeover on consumer price inflation during and after the changeover period reaches around 0.3 percentage points in Slovenia, and, although the effect is noticeable, it is not of such a magnitude as to drive headline inflation', says Alexandre Makaronidis, Head of Eurostat's Price Statistics Unit.

'These observations are very much in line with the experience of the first-wave changeover countries', he continues.

The Ministry of Economy was legally obliged to enforce the dual display of all prices in tolar and euros from 1 March 2006 to 30 June 2007. The Slovene Consumer Organisation launched a price-watch campaign and monitored prices for a basket of 1 000 goods and services on a quarterly basis and they published a blacklist of all those shops and outlets which increased prices by more than 6 %.

'The blacklist was a very effective pressure tool on companies, particularly in the food sector. In fact, one supermarket chain created advertisements which compared a basket of their goods with average prices published by the Statistical Office and, of course, showed their prices were lower. We received lots of free marketing this way, as the ads were in several different media outlets, says Ema Mistic, Head of the Price Statistics Section at the Statistical Office of Slovenia.

The Slovenian Statistical Office also published a personal inflation calculator and prepared special information material about movements in the national CPIs as well as average national prices on selected items. They held press conferences to inform journalists about what was happening.

In the end, Slovenia saw higher than usual price rises in restaurants, bars and cafés as well as in some other service-related groups, such as repairs and transport services, hair cuts and parking fees.

'In general, the higher-than-usual price increases took place in the service sector and it was smaller establishments which took advantage of the change in currency to increase prices,

Lessons for the future

Cyprus and Malta are next in line for the euro. Based on her experience, Ms Mistic suggests that: 'It is better if two "different sides" conclude the same thing. It was very helpful to work together with the Slovene Consumer Association, Institute for Macroeconomic Analyses and Development and Eurostat in this respect. It increased the reliability of our information and no one questioned the quality of our data', she says.

By Annika Östergren Pofantis, Communication Unit, Eurostat



Photo: European Commission

‘HICP is timely, reliable and comparable’

Joaquín Almunia is the European Commissioner responsible for Economic and Monetary Affairs in the European Commission. *Sigma* met him to hear how he uses the harmonised index of consumer prices (HICP) in his job and to get his opinion on the inflation measure.



Joaquín Almunia is the European Commissioner responsible for Economic and Monetary Affairs in the European Commission. Photo: European Commission

Does the HICP provide a good measure of inflation?

The economic governance of the European Union and the need to conduct a single monetary policy for the euro area make it necessary to measure price trends in an accurate and comparable way. In this sense, the HICP index produced by Eurostat

is the only measure available to compare consumer price inflation across the EU. By contrast, the national consumer price indexes vary across countries and their CPI calculation methods differ.

In its current formulation, the HICP is the result of efforts over the past years to agree on a common definition of how the final consumption price index should be calculated to be both informative and acceptably comparable across countries. Its production on a monthly basis demands a considerable and permanent effort to ensure its accuracy and timeliness. The flash estimate is released as soon as the month ends and the full HICP only two weeks later. Most of the time, the flash estimate is confirmed by the full HICP release, and

What is the role of the HICP in economic policy?

The HICP is an extremely important indicator for economic policy. As a measure of consumer prices, it provides us with timely, reliable and comparable information to better understand consumption and savings trends by households and, overall, to detect potential cost strains and threats to price stability. For the Commission, it is also an important input to factor in when preparing economic forecasts or when examining the budgetary projections of the Member States in the stability and convergence programmes, which are a key instrument for assessing compliance with the sound principles set in the Stability and Growth Pact.

The euro has not contributed to increased prices. 'Price inflation has never been so low and for such long period of time in most of the euro area countries,' says Commissioner Joaquín Almunia. Photo: European Commission

on the rare occasions when there was a correction, the difference was 0.1 percentage points.

But there is always room for improvement. Eurostat carries out regular visits to the Member States to check compliance, which helps improve the quality of the index while enhancing comparability. Eurostat also works to enhance the index coverage of all major consumption items that are relevant for tracking inflation trends. Improvements are underway concerning, for example, a common methodology on how to deal with quality adjustments for certain products such as cars, consumer durables, clothing, computers, etc. This is important as price indices should measure the price of comparable products over time and not price increases that are due to quality improvements in a product, such as an extra airbag in a car or better memory capacity in a computer. Eurostat is also studying methods for including prices of owner-occupied housing in the HICP, to better reflect the overall living costs for European families.

A common perception is that the euro has contributed to increased prices. Does it?

This is a false and unfair perception, but one which, unfortunately, appears well anchored in people's minds. It is false because price inflation has never been so low and for such a long period of time in most of the euro-area countries — including France, Portugal and Italy, where the perception exists.

Inflation in the euro area has fallen from rates of around 7 % on average in the 1980s and above 4 % in the early 1990s to just around 2 % since the mid-1990s, bringing substantial savings for citizens and businesses. This is a record. And those are average rates! Inflation in Portugal, Greece and Spain was above 10 % in the early 1980s with peaks of 25 % or more. Currently, the rates in those three countries are higher than the EU average but only by about one percentage point.

While it is true that some abuses were recorded in certain categories of consumption goods and in certain countries (not all) during the short changeover period to the euro coins and banknotes, in 2002, the cumulated impact of the introduction of the euro has been calculated at about 0.3 % of the HICP.

It is unfair because not only has inflation been low, but it has remained low in spite of the shocks which have hit our economies. If you look at the period before the euro, for example after the oil crises in the 1970s and 1980s, inflation in those years shot up in response to the price shock to much higher



rates. The truth is that without the euro, which is a strong world currency, inflation would have been much higher in the Member States of the euro area because of the sharp increase of oil prices since 2004.

Also, apart from contributing to historically low rates of inflation, the euro has brought with it a number of other major advantages, such as low interest rates both for private households and industry. This in turn creates jobs and boosts the economy.

How can we go about the fact that consumers' perceptions of inflation differ from the official measures of inflation?

We need to communicate better and more. There is a need for an improved understanding of what the HICP or the national consumer prices measure. One should keep in mind, for example, that all inflation rates are averages that measure inflation on a national or European level, not on a personal level. This means that the baskets include some coffee — probably not enough for a serious coffee drinker and too much for someone who drinks tea! They include a little bit of heating fuel, which is irrelevant for those who do not use fuel to heat their houses, and so on.

Some euro-area members, such as Germany, the UK, France and Slovenia have created 'inflation calculators' on their websites to make it easier for a citizen to see how price changes affect him or her on a more personal level.

Eurostat has launched a specific website dedicated to the HICP, where there is already a lot of information. There is, for example, a frequently asked questions section, which provides answers to many HICP questions on data, definitions, methods and documentation. There are all the reports from the compliance visits that Eurostat carries out in the Member States and of course all the explanations, reference documents and data related to the HICP.

The HICP for monetary policy purposes



Werner Bier is deputy Director for Statistics at the European Central Bank.
Photo: Werner Bier

High and volatile inflation generates significant uncertainty about the future. There is a widespread consensus that inflation has a significant negative impact on economic growth and welfare. This common belief, anchored in the general public's opinion, is translated by the Treaty establishing the European Community into a clear mandate: the primary objective of the Eurosystem, comprising the European Central Bank (ECB) and the national central banks of the euro area, is to maintain price stability in the euro area.

Within the Eurosystem's monetary policy strategy, the euro-area harmonised index of consumer prices (HICP) is the price index used to assess price stability. The Eurosystem defines its objective as a year-on-year increase in the HICP for the euro area of

below, but close to, 2 % over the medium term. This definition also provides a sufficient margin to address the implications of inflation differentials across the euro area, so that none of the currently 13 countries of the euro area have to structurally live with too low rates of inflation, or even deflation.

Beyond monetary policy, the HICP is a key indicator in assessing the suitability of non-euro area EU Member States for the adoption of the euro. According to the Treaty establishing the European Community, one of the criteria guiding this assessment is that average annual inflation must not exceed the inflation rate of, at most, the three best-performing Member States by more than 1.5 percentage points. This criterion calls for a comparable price index for all EU Member States.

The HICP, a high-quality statistic

In view of its important uses, the HICP should embody a number of essential properties, such as credibility, accuracy, reliability, timeliness, broad coverage and high frequency. Work on the HICP started already in 1993 and a first major achievement was the adoption of a framework Council regulation in 1995. Today, this harmonisation of the HICP is supported by more than 15 further European regulations.

Monthly HICPs are available for all EU Member States and several other countries. Since May 1998, when the countries participating in the monetary union from January 1999 on-

wards became known, the euro area HICP was published by Eurostat in addition to the result for the EU. Moreover, Eurostat publishes a flash estimate of the euro area HICP around the last working day of the reference month. This flash estimate is not only very timely but has also proved to be reliable; revisions have been rare and minor.

The ECB has always been very supportive of the HICP work carried out by the European Commission (Eurostat). This has been the case not only in its formal opinions on draft HICP regulations, but also in its public communication, such as when explaining the role of the HICP in the Eurosystem's monetary policy strategy.

There are two main priorities for further work by the European statistical system on the HICP:

- more harmonised adjustment methods for changes in product quality;
- coverage of owner-occupied housing services.

Work on these two priorities, in particular the pilot project on owner-occupied housing and the new Cenex for quality adjustment techniques, is expected to produce tangible results in the near future (see articles on pages 9 and 7).

The HICP and perceived inflation

The euro area HICP showed an average year-on-year increase in the price level of 2.1 % in the first eight years of the single monetary policy which began in January 1999. Following the introduction of euro banknotes and coins in 2002, there was no significant increase in euro area HICP inflation (see Chart 1). By contrast, results from opinion surveys of the general public in the euro area showed that perceived inflation indicators derived from surveys rose significantly around the time of the cash changeover. In particular, the European Commission's consumer survey indicated a significant increase in the derived indicator of inflation perceptions. Although this indicator decreased

Chart 1 HICP inflation
(annual percentage changes)

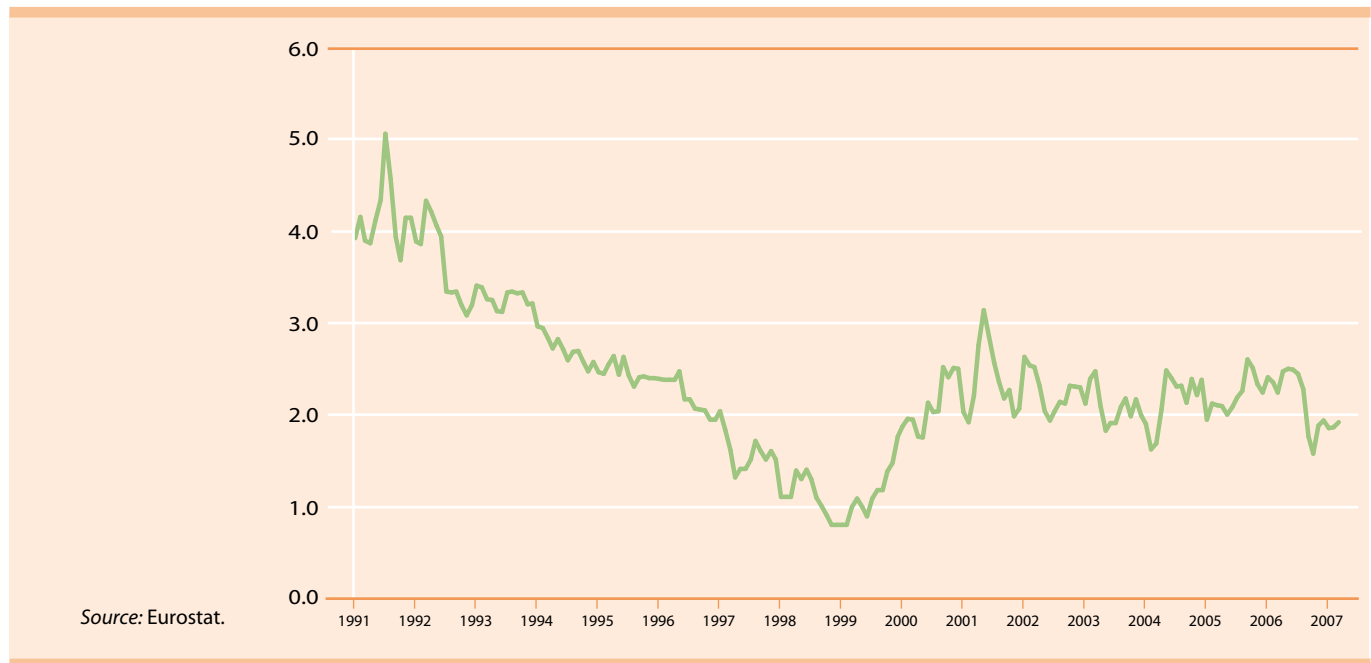


Chart 2 Indicator of perceived inflation
(percentage balances)



again in 2003 and in 2004, it has remained at elevated levels compared with the period before the cash change-over (see Chart 2).

A direct comparison of the inflation rate measured by the HICP and perceived inflation is not possible given the different nature of these indicators. The HICP is based on an objective and methodologically well-founded quantita-

tive measure of price changes in a broad basket of goods and services. By contrast, the indicator of perceived inflation stems from a consumer opinion survey, which is summarised by a balance statistic, i.e. weighting together the shares of different qualitative response categories. The resulting balance statistic does not give an indication of the magnitude of the perceived inflation rate, but is of a qualitative nature. It reflects individual assessments of a complex



The main decision-making body of the European Central Bank is the Governing Council. It consists of the governors of the national central banks from the 13 euro area countries and the six members of the ECB Executive Board. The Governing Council is responsible for formulating the euro area monetary policy. This includes decisions relating to monetary objectives, key interest rates, the supply of reserves in the euro area and the establishment of guidelines for the implementation of those decisions. Photo: ECB

issue, which can vary over time. Inflation perceptions could be influenced by the evolution of other variables related to consumers' economic situation, such as changes in disposable income, the general economic situation as well as psychological factors, which may not all be directly related to developments in consumer prices.

Consequently, somewhat divergent evolutions between the HICP inflation rate and perceived inflation should not be considered evidence of a measurement error in consumer price statistics. But it is important for monetary policy purposes to raise the general public's awareness of the HICP in order to anchor inflation expectations to be in line with price stability.

Enhancing public communication

Consumer price indices are widely used as economic indicators, not only by the Eurosystem but also by the European Commission, governments, businesses, trade unions and households. Almost all EU Member States publish both non-harmonised consumer price indices for national use and the HICP for European use. While it seems that there are two different consumer price statistics in place, the differences between the non-harmonised consumer price indices and the HICP are either minor (e.g. they concern specific goods and services) or clear-cut (e.g. owner-occupied housing).

The seeming dichotomy between the HICP for monetary policy purposes and non-harmonised consumer price indices for other economic purposes is increasingly hard to justify. It is high time to review the relationship between the HICP and the other non-harmonised consumer price indices in order to develop a strategic framework for the future. Such a framework could further enhance the transparency, comparability and credibility of consumer price statistics in Europe.

Given the high policy relevance of consumer prices, their different uses and users, the ECB and the European Commission are taking the initiative to enhance public communication on price developments and perceptions, based on facts and figures. Taking into account national experience, the main subjects are identified, the basic facts presented and the key messages for different target groups developed. The results of the initiative will be shared widely with other organisations who may wish to make use of them in their own communication efforts.

Like any important and independent institution in a modern society, the Eurosystem must be close to the general public and understood by the citizens of Europe. It is therefore important that the mandate, strategies and policies of the Eurosystem are clearly explained to a wide audience. This also applies to the HICP as an essential part of the Eurosystem's monetary policy strategy.

*By Werner Bier, Deputy Director General Statistics,
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Comparing prices across countries

Paul Konijn is Head of the PPP section in the National Accounts, Methodology and Analysis Unit in Eurostat.
Photo: Christine Ardillac

For many years, Eurostat, together with the OECD, has run the European comparison programme. The aim is to compile purchasing power parities, which are a kind of alternative exchange rates that allow a comparison of, for example, GDP across countries, that is unaffected by differences in price levels between the countries.



To compile purchasing power parities (PPPs), prices of a basket of comparable and representative goods and services are collected in all participating countries. For consumer products, in total about 3 000 products are priced. In addition, information is gathered about prices for housing, investment goods (including construction services) and government services.

46 countries participate

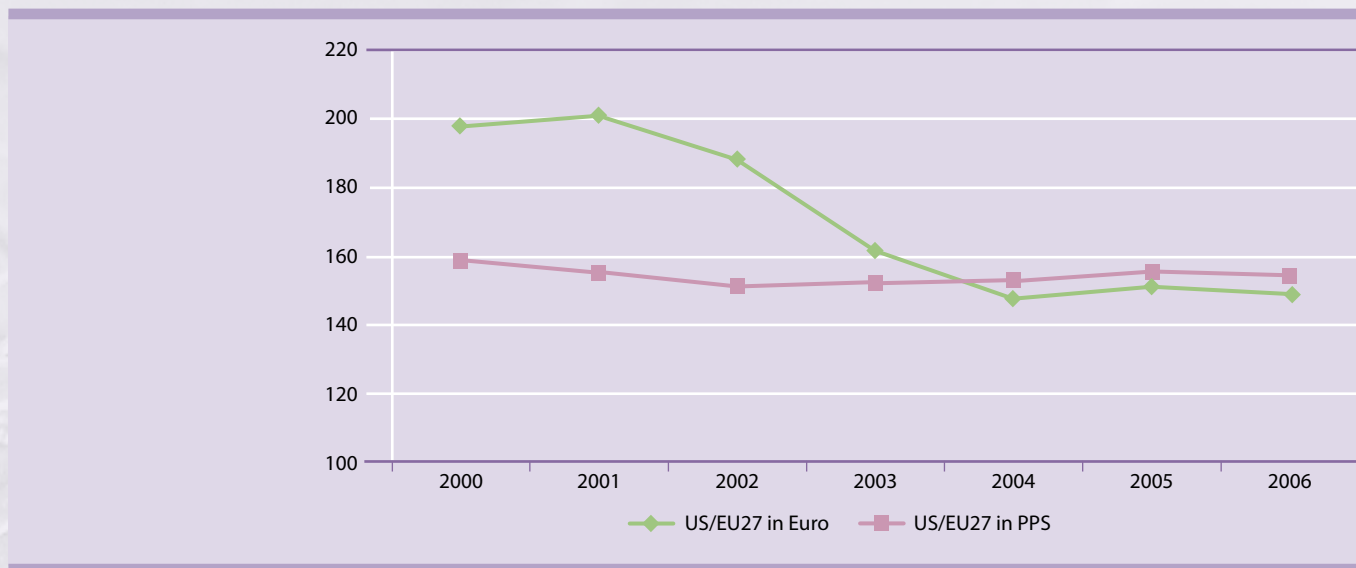
Currently, 46 countries participate in the European comparison programme, of which 37 are European countries, whose survey work is coordinated by Eurostat, while the other nine countries are non-European OECD countries. The 37 countries in the Eurostat part of the exercise comprise all 27 Member States, three EFTA countries, three candidate countries and four western Balkan countries, although the latter are not yet fully integrated.

Data collection on consumer goods and services are carried out in continuous cycles. Each cycle takes three years and comprises six surveys, two each year. This means that each product is priced once every three years. For the intervening years, the prices are extrapolated with suitable consumer price indices. The advantages of this approach are that it reduces the response burden on participating countries, it enables them to include the price surveys in their regular programme of data collection and it fosters continuity of expertise in the NSIs.

Key for allocation of EU Structural Funds

The PPPs are compiled on an annual basis. Twice a year, in June and December, the latest price survey results are incorporated to calculate the freshest PPPs. The main derived

GDP per inhabitant



indicator is real GDP per inhabitant, which is the GDP per head of the population divided by the PPPs. An important use of this indicator is for the allocation of the Structural Funds within the EU. Regions where real GDP per capita is less than 75 % of the EU average (taken over a period of three years) are eligible for Structural Funds.

Comparing price levels of products

Another output of considerable interest to users is the resulting price level indices. For any category of products, these are calculated by dividing the PPPs by the exchange rates. If the result is higher than 1, the price level for this product in this country is higher than the EU average. If the result is lower than 1, the price level is lower than the average. Eurostat publishes the results of the price surveys at regular intervals. For example, in March 2007, Eurostat published two *Statistics in focus* with comparative price level indices for pharmaceuticals and furniture. Public interest for this information is generally high.

Why PPPs and not exchange rates?

Why would one use PPPs instead of exchange rates when converting economic indicators into a common currency? Consider the graph above comparing GDP per inhabitant of the EU-27 and the United States.

The green line shows the ratio of GDP per inhabitant between the US and the EU-27 if the US GDP was converted into euros using the exchange rate. As the development of the exchange rate between the euro and the US dollar was rather volatile in this period, it appears as if US citizens have had a turbulent time, especially in 2002 and 2003. However, that would of course not reflect their actual situation in those years. If we would divide the US GDP by the PPP between the EU-27 and the US the trend would be as depicted by the pink line, i.e. an almost stable pattern. "PPS" stands for "Purchasing Power Standard" which is an artificial currency unit defined so that GDP per inhabitant in the EU-27 in euros equals that in PPS.

'The world's largest statistical initiative'

The PPPs calculated by Eurostat and the OECD are also used in the international comparison programme (ICP) run by the World Bank. This programme, labelled recently by *The Economist* as the 'world's largest statistical initiative', comprises currently around 150 countries around the world. The ICP is to publish PPPs for the year 2005 in the second half of 2007. These data will be extremely useful for understanding the global distribution of income and will be used extensively for poverty analysis.

By Paul Konijn, National Accounts, Methodology and Analysis Unit, Eurostat

For further information:

'A prime example of international statistical cooperation: purchasing power parities', *Sigma* 1/2007.
'Eurostat-OECD methodological manual on purchasing power parities', available on Eurostat's website: ec.europa.eu/eurostat

Energy prices come of age

Eurostat has collected electricity and natural gas prices for over two decades. With the progress of energy market liberalisation, to be fully completed by mid-2007, the methodology for the collection of energy prices had to be adapted. So a new methodology for energy prices collection was agreed by Member States in 2006.



'The methodology for the prices data collection in a liberalised market and what energy prices should cover, had to reflect the fact that real prices are set by market forces', says Peter Tavoularis, Head of Eurostat's Energy statistics Unit G4 (first on the right). Here he can be seen with Emmanuel Clement (left) and John Goerten (middle) responsible for energy prices in Eurostat. Photo: Christine Ardillac

The first directive for the collection of energy prices was approved in 1990. It covered prices charged to industrial consumers only; household energy prices were only provided on a voluntary basis. Back then, the process of liberalisation of the European energy market was just starting, basically in the United Kingdom. The price statistics at the time were collected on the basis of tariffs for standard consumers. Consumers

paid a fixed tariff based on their key consumption characteristics: annual consumption, voltage and the so-called 'load factor' (number of hours consumed per days).

As the liberalisation process progressed, the notion of tariffs, especially for industries, did not make much sense. 'The methodology for the prices data collection in a liberalised market and what energy prices should cover had to reflect



the fact that real prices are set by market forces and are not the fixed tariffs used in the past', says Peter Tavoularis, Head of Eurostat's Energy Statistics Unit.

New prices for the European single market

A new methodology for the collection of prices paid by industry customers was agreed by Member States in December 2006. John Goerten, responsible for energy prices in Eurostat's Energy Statistics Unit, explains the changes introduced by this new methodology.

'First, we will move away from regional prices to collect national prices. Second, companies will provide prices for electricity and natural gas based on the real prices paid by industrial customers averaged over a given period of six months. Another change incorporated by the new methodology is that the definition of standard consumers will be replaced by consumption bands, including one for big industrial users.'

As with all important methodological changes, there has been a transition phase. Member States have to supply the first energy prices (using the new methodology) for 1 January 2008, although they had the chance to provide data for 1 July 2007.

On the question of how countries will adapt to the new methodology, Mr Goerten says: 'It is difficult to satisfy 27 Member

A new methodology for the collection of prices paid by industry customers was agreed by Member States in December 2006. Photo: European Commission

States, but we have tried to take into account all points of view during the meetings of the Energy Working Group, also seeking advice from the two industry associations: Eurelectric and Eurogas. I believe we have found a good compromise for all.'

New time series

'The drawback is that we lose all historical data; we have to start from zero. The good news is that we will really get the average prices that customers pay for their consumption', says Mr Goerten.

'We will also be able to compare prices at national level first, and also compare just the energy component of the prices, as the new methodology requests disaggregated data — that is, split into the energy part, network prices and tax and levies', he adds.

Concerning the trend of energy prices in the last decade, there are a number of factors affecting the evolution of energy prices, such as oil prices, an important element in the generation of electricity through natural gas, and global market evolution. So it is difficult to see what the impact has been of market liberalisation on prices.

The future

The completion of the European energy market for all customers by 1 July 2007 was an important goal of European energy policy. Eurostat's Energy Statistics Unit collects data and produces indicators to measure progress towards market liberalisation, such as the number and size of electricity and natural gas companies, market shares, etc. The Unit was also in charge of a customer switching survey assessing how many companies and citizens change energy supplier, and for what reasons. The survey is now done by the European Commission's Directorate-General for Energy and Transport as they receive data directly from the energy regulators.

'Our aim is to further improve timeliness. Some 90 % of the price data comes in four months after the reference period. In practice, that means that we can only publish EU aggregates six months after the reference period. There is certain room for improvement, but sometimes countries cannot do much better because of the systems in place at home', says Mr Goerten.

'We would also like to bring household prices into a legal framework, but this will happen after 2010', he adds.

By Beatriz Fernández Nebreda, Communication Unit, Eurostat

The cornerstone of a single energy market

'For us it is crucial to be able to analyse the price structure,' says Matti Supponen from the European Commission Directorate-General for Energy and Transport.
Photo: B. Fernández Nebreda

The main business of the Directorate-General for Energy and Transport in the field of electricity and gas is the completion of the internal energy market. One of the challenges is to increase and improve the information provided to market stakeholders, in order to spark fair competition. To this end, Eurostat's high-quality, reliable energy price data are a cornerstone of the daily work of this Commission service.



Matti Supponen from the Directorate-General's Electricity and Gas Unit says that although some progress has been made, 'we are still far from the target of having a completely liberalised European internal market for energy in 2007'.

There are several obstacles to truly achieving a single energy market for all European customers. In the first place, there are still significant dominant energy suppliers, both in national and regional markets. In addition, the lack of efficient unbundling makes it more difficult for new companies to enter the energy market, thus increasing the competition.

'In our view,' says Mr Supponen, 'the transmission network is key to truly opening up the market and that's where unbundling should start. Most Member States have already

separated the transmission business from the energy generation and distribution ones'.

Cooperation is another important aspect, both between national regulators and national transmission system operators. The latter would help create an independent grid — the energy transmission network which transmits electricity and gas from generators to distributors and major industrial users, to which all European customers could have non-discriminatory access — whether they be located in Spain or Finland.

'There is already a European regulatory group for electricity and gas that acts as an advisory body and we would like to see it more in the role of a European regulator. In addition,



'We would like to create a European Transmission System Operator, so that customers can benefit from a truly single European grid,' says Mr Supponen. Photo: European Commission

we would like to improve the cooperation between national transmission system operators, so that customers can benefit from a truly single European grid.'

Finally, there is the transparency issue and the need for more and improved information.

'The current information on the market is not sufficient. We need to have better information on grid and generation capacity and availability, physical flows in the grid, etc. in order to enable fair competition. One of the reasons for the current lack of information is that vertical-integrated companies are better off without supplying this data,' says Mr Supponen.

'The energy price statistics published by Eurostat are part of this transparency. We use them in our communications and analysis, to measure progress towards the issues just mentioned. It is very important to have a reliable source that is consistent, comparable over time and available,' he adds.

Benefits of comparable price statistics

'In absolute terms, one important effect in itself is benchmarking — Member States are very sensitive to peer comparison. It has a huge effect, without any interference from our side,' says Mr Supponen.

At a structural level, the benchmarking of energy prices between customer groups is very revealing, as it shows whether prices are distorted for a given customer group for whatever reason.

'There is also the connection to other services — public services obligations. Let's take, for example, household energy prices. Although the main goal is to have a competitive market, there are also social targets to be met. When you analyse

household prices you may see whether they are excessive for the customers with the lowest income.'

In other cases, the breakdown of the price components allows the analysis of related policies, such as social, environmental and tax policy. This is the case for the funding of renewable energy collected through tariffs on prices.

The new methodology has two main dimensions. It recognises the changes introduced by market liberalisation, by moving from fixed tariffs to dynamic prices, and it breaks down energy prices into the different components: energy, network and taxes and levies.

'For us, it is crucial to be able to analyse the price structure,' Mr Supponen ends.

By Beatriz Fernández Nebreda, Communication Unit, Eurostat



Mr Supponen says that it is important to have better information on grid and generation capacity and availability, as well as physical flows in the grid in order to enable fair competition. The energy price statistics published by Eurostat are used in the Directorate-General for Energy and Transport's communications and analysis to measure progress in this domain. Photo: European Commission

The benefits of a new system for energy prices collection: the German case

The liberalisation of the German electricity and gas markets started in 1998. The Federal Ministry of Economics and Technology is the national authority responsible for the Council Directive on improving the transparency of gas and electricity prices. In December 2006, Member States adopted a new methodology for the collection of these prices. *Sigma* met Dagmar Weinberg, Deputy Head of Division for the Electricity Industry of the Federal Ministry of Economics and Technology to learn what procedures need to be put in place to collect prices under the new methodology.



The Federal Ministry of Economics and Technology in Berlin is the central point for German energy prices. Photo: BMWi

In order to implement the Council Directive on improving the transparency of gas and electricity prices, the Federal Ministry of Economics and Technology — *Bundesministerium für Wirtschaft und Technologie* (BMWi) — concluded a contract in 1991 with the industry

associations representing the electricity and gas industries in Germany.

'For the electricity industry, for example, the Association of the Electricity Industry (VDEW) collects electricity prices

from the representative companies. Once validated by us, VDEW sends the data to Eurostat', says Ms Weinberg.

The Federal Statistical Office of Germany, Destatis, collects energy cost data, but not in the format required by Eurostat to publish harmonised energy prices.

National net prices

'The new prices will be better adapted to what we need. Firstly, we will have prices at national level, which makes more sense in a liberalised market. Secondly, we will have net prices, which will allow us to compare energy prices across Europe', says Ms Weinberg.

Net prices are calculated by deducting the tax and levy components from the total energy price. The percentage of taxes and levies in energy prices varies greatly from country to country, in some cases representing more than 50 % of the total price. 'Network' prices, i.e. transmission and distribution tariffs, will be provided separately annually too.

'One of the countries with the highest levies is Germany, due to environmental levies such as the electricity tax, the Renewable Energy Sources Act and the Act on Combined Heat and Power. Deducting taxes and levies, the prices for private households, on average, have remained stable since the start of the liberalisation process until 2006. In fact, there was a strong decline in net prices from 1998 to 2000', she says.

'Concerning the collection of prices over a given period, I personally think this is preferable to the previous tariffs, which were provided at a specific point in time. Again, it makes more sense in a liberalised market as it levels prices in countries with strong changes in prices due to climate or other reasons. Should we need prices at a given point in time, there are a number of agencies and energy advisers that could provide such data — although it would not be comparable to the Eurostat data, of course', says Ms Weinberg.

As to the implementation by Member States of cost-effective procedures to ensure a representative compilation of prices, Ms Weinberg explains that the representative samples are already in place in the contract with the industry associations.

'Some minor changes will have to be introduced due to the change from regional to national prices, and to the request for disaggregated price data, that is, data split into the energy components: generation, transmission and taxes and levies', she says.

'Another benefit of the new methodology is the introduction of consumption bands also covering large industrial consumers. The Association of the Electricity Industry can now get representative data from large companies much more easily', she ends.

By Beatriz Fernández Nebreda, Communication Unit, Eurostat



'If you deduct taxes and levies, the electricity prices for private households, on average, have remained stable since the start of the liberalisation process', says Ms Weinberg.
Photo: PixelQuelle.de

Comparing electricity prices at pan-European level

'Despite consumer perception, electricity prices have decreased in real terms,' says Gunnar Lorenz, adviser at the Union of the Electricity Industry. Photo: B. Fernández Nebreda

The Union of the Electricity Industry – Eurelectric – is a professional association which represents the common interests of the electricity industry across Europe. Its members include the national associations and business associates from the electricity and related industries in the European Union Member States and Candidate Countries.



Our association is really pan-European. Our aim within the EU is to present the positions and promote the interests of our members before the European institutions,' says Gunnar Lorenz, adviser at Eurelectric.

Eurelectric formulates its opinions and policy positions in working groups composed of experts from the electricity industry. This structure of expertise ensures that Eurelectric documents are based on high-quality input with up-to-date information.

Eurostat as key source of data

'Reliable data are important to start the discussions,' says Mr Lorenz. 'It is very important for us to have an independent source of data. Statistics are the tool with which to gain credibility and provide information to the various stakeholders. We use Eurostat's data because of their reliability and availability. It is not the only source we use, but one we use often, especially to analyse the developments in electricity prices, thanks to the existing time-series.'



A power station in Austria. 'We use Eurostat's data to analyse the developments in electricity prices because of their reliability and availability', says Mr Lorenz. Photo: PixelQuelle.de

There is a common belief that electricity prices have gone up since the introduction of liberalisation. This perception must, however, be looked at carefully, explains Mr Lorenz.

'Taking into consideration inflation and other factors that affect end-user prices, the reality of rising prices is explained by a variety of reasons. On the one hand, there is the fact that many taxes and parafiscal charges, such as environmental levies, have dramatically risen in the recent years. On the other hand, energy prices are also growing, inter alia due to a very volatile oil-market, overall increasing fuel prices, the impact of emissions trading and the need for new investment in generation. In real terms, however, electricity end-user prices are still below pre-liberalisation time. In addition, it must also be kept in mind that the first years of liberalisation led to a considerable fall in electricity prices on average in the EU', he says.

Comparing national price systems

As to the question of how to improve data on energy prices, Mr Lorenz is of the opinion that it is necessary to increase the transparency of the parafiscal charges, e.g. feed-in tariffs imposed by governments. Parafiscal charges which are included in the energy prices make it difficult to compare prices.

'In general, fiscal charges and taxes represent an important part, but the situation changes greatly from country to country. In addition, the different national price structures also pose a challenge. Now that the European market is coming

together, it is very desirable to have comparable prices, and the new methodology for collecting disaggregated energy prices is a step in the right direction', he says.

'Let's take, for example, the sector of renewable energy. We would like to analyse what works best in terms of cost-efficiency and market-based mechanisms, and implement the best practices in other markets. If you have the industry overview, you can see what factors affect prices', says Mr Lorenz.

The future will be less national, but there are still some issues to address in the development towards enlarged electricity markets, such as market transparency, the development of more network connections and closer cooperation of network operators and regulators to name a few examples.

'The more connections between countries, the closer are the prices. A major constraint to the industry is the lengthy procedures to authorise the construction of power plants and transmission lines in many countries', he says.

'Electricity is a commodity — a product, so it would be interesting to collect wholesale market prices in Europe. Given that all conditions for an enlarged electricity market are met, producers and users could have the opportunity to trade in electricity as in any other commodity through one European exchange market', Mr Lorenz concludes.

By Beatriz Fernández Nebreda, Communication Unit, Eurostat

Services producer price index: filling a gap in macroeconomic statistics

'With the creation of a services producer price index, Eurostat is filling a gap in macroeconomic statistics that has existed for many years', say Brian Newson, Head of Eurostat's Short-term Statistics Unit, and Isabelle Rémond-Tiedrez. Photo: Christine Ardillac

The evolution in short-term statistics has followed that of European Union policies. For the first 40 years, most Community policies were structural and EU statistics were only published annually or sometimes even less frequently. Back then, Eurostat collected whatever data were produced by the NSIs and simply put it together. This changed in the mid-1990s when it became clear that the EU was heading towards economic and monetary union and that short-term statistics (STS) were needed in order to manage monetary policy.



'We realised in the EU community that a more solid basis for short-term statistics was needed', says Brian Newson, Head of the Short-term Statistics Unit D3. 'Until then, STS mainly focused on manufacturing. The first STS regulation was adopted in 1998, introducing the requirement to provide services turnover at current prices on a quarterly basis.'

By the early 2000s, both Directorate-General for Economic and Financial Affairs in Brussels and the European Central Bank (ECB) were focusing on short-term developments in the newly created single economy of the euro area. It was

clear that better data were needed. In addition, the ever-increasing importance of services in our economy could not continue unmeasured. Eurostat started to work in 2002 towards amending the STS regulation, to accelerate the transmission of data in the first place and to include output prices for services, which were missing from the 1998 regulation.

The regulation was amended in July 2005 and required Member States to provide a services producer price index (SPPI), broken down by type of service, on a quarterly basis, from 2006 onwards (see box on page 37).

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lèches	1.5392.259	38/56€
alavage	1.13091.815	28/35€

POUR LUI - VOOR HEM

Prices posted in euros at a hairdressing salon. 'The SPPI would allow us to have a volume index of services output, which would give us a better picture of growth in services, and, in turn, a better picture of GDP growth', says Mr Newson. Photo: European Commission

gregate by the end of 2008. That is, if we have enough coverage in terms of turnover for the euro area and the EU levels', says Isabelle Rémond-Tiedrez, a member of Eurostat's Short-term Statistics Unit.

Benefits of a services price index

'The SPPI is useful in its own right as a measurement of inflation and to analyse the origins of inflation, as services account for over half of modern economies. Inflation experienced by consumers is measured by the harmonised index of consumer prices (HICP). But for economists it is also important to know which industries are the sources of price increases, now only known for goods and not for services', says Mr Newson.

'A weakness of the present STS is that services turnover is at current prices, so it is difficult to tell which change

As regards implementation of the SPPI at national level, the picture varied greatly from country to country. With the exception of some Member States doing theoretical work on the subject, such as Finland, France, Sweden and the UK, in general most Member States were not involved in the collection of service prices until 2005. The amended regulation obliges Member States to collect service prices but allows them transition periods, mostly to August 2008, but sometimes longer, for some activities or smaller Member States.

'At present, only half a dozen Member States are providing output prices for some types of service. If all goes as planned, we will be able to produce the first EU SPPI ag-

in value is due to growth, or change in volume, and which is due to a change in price. Once we have complete service prices, the SPPI will act as a deflator by applying it to services turnover (the volume) and enabling a comparison to be made over a given period', says Ms Rémond-Tiedrez.

'In addition, services are a significant component of gross domestic product (GDP). So better statistics on service prices and volumes will help provide more reliable estimates of GDP growth', continues Mr Newson.

Those who will benefit most from this index are players in the macroeconomic policy field: the European Central Bank,

Commission Directorates-General such as Economic and Financial Affairs, Transport, Enterprise and Internal Market and Services, national governments and financial markets.

Challenges in collecting service prices

Services are rather heterogeneous. The notion of price is the value per unit. The problem is to identify the unit of a service. Let's take, for example, legal activities. Are fees per hour the correct unit? This may vary depending on the size of the client or project. In addition, services often come bundled in a package, as happens in IT-related services, making it difficult to disentangle the price of the service from the product. Another particularity is that, unlike goods, a service cannot be resold, which allows service providers to charge quite different prices to different customers. Thus, the creation of a set of SPPIs is complex and costly — even more so when they are to be compared at European level. As in all price statistics, quality adjustment is a crucial issue, especially given the reasons just mentioned.

Working together for maximum comparability

While the long derogation period is inconvenient for users, Eurostat is using it positively to work with the NSIs to jointly develop methods and indicators. This will ensure maximum comparability from the start for the indices when ready. The sharing of best practices will also help keep costs and burden as low as possible. The first step was the publication in February 2006 of a manual together with the OECD: a *Methodological guide for developing producer price indices for services*. Eurostat then organised a workshop in October 2006 to share experiences in the compilation of SPPIs and to disseminate the practices presented in the SPPI guide. Some 30 countries participated, including both EU and non-EU countries such as the USA, Canada, Australia, New Zealand and Japan, together with the OECD, as the services price index has international relevance.

Scope of the index

The idea was to measure the output prices of services offered to all, whether to consumers or enterprises. However, as consumer consumption is measured by the consumer price index, the regulation stipulates that as a minimum requirement only business consumption (business-to-business) need be covered, to avoid the duplication of efforts.

All market services sold at some kind of market price should be covered. Public services are excluded, as the notion of

price is not obvious and the ways they are provided are very different from country to country, as for example with health and education.

Going forward

'Our objective is to implement the 2005 regulation successfully and arrive at the beginning of 2009 with this new index, SPPI. In the medium term, this would allow us to have a volume index of services output, such as the volume index of industrial production, which has existed for over 50 years. That would give us a better picture of growth in services, and in turn, a better picture of GDP growth', ends Mr Newson.

By Beatriz Fernández Nebreda, Communication Unit, Eurostat

Activities for which service price indices are to be produced in accordance with STS amending Regulation (EC) No 1158/2005

Selected transport services

- Freight transport by road
- Sea and coastal water transport
- Scheduled air transport
- Cargo handling
- Storage and warehousing

All post and telecommunications

- Post and courier services
- Telecommunications

All computer and related services

- Hardware consultancy
- Software consultancy and supply
- Data processing
- Database activities
- Maintenance and repair of office and computing machinery

All 'other business activities'

- Accounting, book-keeping, legal activities, auditing, consultancy, etc.
- Architectural and engineering activities, technical testing
- Advertising
- Labour recruitment and provision of personnel
- Investigation and security activities
- Industrial cleaning

For further information:

Methodological guide for developing producer price indices for services, available on Eurostat's website: ec.europa.eu/eurostat

Service prices vital for GDP

Given the increasing importance of the service sector in the economy, the work undertaken to develop services producer price indices is extremely useful for improving the quality of national accounts data, and in particular the reliability of GDP growth rates.



The economic and monetary union and the common currency require good macroeconomic statistics.
Photo: European Commission

National accounts are a major user of price indices, in particular, for the deflation of current prices into constant prices and thus for the estimation of real GDP growth, which is one of the most used figures from national accounts.

'Services producer price indices (SPPIs) will provide important information to assess the structure of the economy in terms of the contribution of the service sector to real growth in the economy. In addition, the existence of SPPIs will enable productivity analysis to be carried out, which until now was not possible for the service sector,' says Paul Konijn, Head of the Purchasing Power Parities (PPP) team in Eurostat's National Accounts — Methodology and Analysis Unit.

The economic and monetary union and the common currency require good macroeconomic statistics. In particular, the Stability and Growth Pact created a renewed demand

methods and procedures for the measurement of prices and volumes in national accounts. This led to the publication in 2001 of the *Handbook on price and volume measures in national accounts* by Eurostat, which underlines the need for better price data on services. Since then, the national accounts community has been continuously working on improving national accounts price and volume data.

Currently, the coverage of price indices for services is limited to services to consumers (business-to-consumers), as far as they are covered by national consumer price indices. However, there is currently little information available on the prices of services to businesses (business-to-business). This is the part that is covered by Regulation (EC) No 1158/2005 amending Council Regulation (EC) No 1165/98 concerning short-term statistics (see previous article).

By Beatriz Fernández Nebreda, Communication Unit, Eurostat

For further information:

The *Handbook on price and volume measures in national accounts* is available on Eurostat's website: ec.europa.eu/eurostat

Development of a services producer price index for business telecommunications — an example

Jakob Holmgaard, Head of Services Producer Price Indices in Statistics Denmark Prices and Consumption Division. Photo: B. Fernández Nebreda

Statistics Denmark started collecting service price data at the end of 2003. Today, it produces services producer price indices (SPPIs) for all activities covered by the short-term statistics amending Regulation (EC) No 1158/2005. The last service activity for which SPPI data was collected was telecommunications, in August 2006. *Sigma* met Jakob Holmgaard, Head of SPPI in Statistics Denmark Prices and Consumption Division, to learn about these indices.



‘Statistics Denmark has closely followed the recommendations of Eurostat and of the more advanced countries on services methodology and pricing methods, such as the UK and Sweden. We are a small country with limited resources to dedicate to research in this area — there is just me developing the SPPIs and three other people helping in the production process’, says Jakob Holmgaard.

The Danish strategy was to start the data collection and produce indices for all service activities. In a second stage, the sample would be enlarged and the pricing methods within each service activity improved. Open questionnaires were sent out to the selected business sample from the service activities for which a price could be provided over time. That included all enterprises except in the sea and coastal water

transport and telecommunications sectors, given the size and complexity of these two industries.

‘At first we used the consumer price index as a proxy to calculate the prices for telecommunication services, as we had no real price data from the telecommunications companies. The first set of data was collected in August 2006, around one and a half years after the preliminary research into the telecommunication sector started’, says Mr Holmgaard.

‘The major problem was to convince the Telecommunication Industries Association (TIA), the organisation that represents telecommunication companies in Denmark, that detailed disaggregated data were needed to develop a telecommunications SPPI’, says Mr Holmgaard.



After discussions between Statistics Denmark and the major respondents, it was agreed to use the unit value method as the pricing method for the index. The Danish telecommunication sector was liberalised in 1995 and is today characterised by oligopolistic competition, where three major enterprises share around 80 % of the market. It was concluded by Statistics Denmark, that the sample should include the top eight enterprises covering most of the market for business telecommunication.

Statistics Denmark produces services producer price indices (SPPIs) for all activities, covered by the short-term statistics amending regulation. The last SPPI index dealt with telecommunications. Photo: PixelQuelle.de

As for the questionnaire, it was decided to use, with some adjustments, the existing *IT- og Telestyrelsen's* questionnaire to minimise as much as possible the statistical burden on the companies, which was TIA's main concern. Given the rapidly changing nature of the business telecommunications sector, the questionnaire will be updated every year in December. It will also be adapted to take into account changes in the service offered, such as the increasing speed of Internet connections for which customers pay the same price. In this sense, it is not a pure price change but a quality change adjustment.

'For many years, the statistical system has been centred on consumer goods statistics. Service producer price indices have been neglected because of the difficulties in developing them. For Statistics Denmark, the hardest part is over. We can now start looking into the indices produced and analyse what is happening to service prices.'

Furthermore, Statistics Denmark is currently working on developing an electronic report system to release some staff resources in the production phase of the indices.

By Beatriz Fernández Nebreda, Communication Unit, Eurostat

Development of the Telecommunications SPPI (NACE 64.2) in Denmark

Phase 1 — Preparatory work

Feb–Mar 2005 Preliminary market study, drawing on existing telecommunication statistics from the regulatory price body *IT- og Telestyrelsen*.

April 2005 Communication to the national Telecommunication Industries Association (TIA) about the STS amending Regulation (EC) No 1158/2005.

June 2005 The TIA requests further details on the need to report disaggregated level data to Statistics Denmark, as required by the unit value method.

Meeting with the telecommunication industry to agree on key issues: the data collection questionnaire, the respondents' sample and pricing method.

Aug–Dec 2005 Discussions with TIA about the need for disaggregated data. The TIA finally agrees that Statistics Denmark collects the data directly from the respondents. The data collection questionnaire is finalised.

June 2006 End of data collection discussions with the TIA.

Phase 2 — Data collection and production

June 2006 First telecom SPPI questionnaire sent to the eight selected respondents.

August 2006 First set of 'real' business data based on unit value method received in Statistics Denmark, for first quarter of 2006.

December 2006 Annual meeting with *IT- og Telestyrelsen* and the major respondents to improve and adjust the existing *IT- og Telestyrelsen's* questionnaire.

January 2007 Annual change in the database of the weights from the previous CPI proxy to business data.

Phase 3 — Data analysis and quality improvements

February 2007 International comparison of data with other similar-sized indexes.

February 2007 Adapting the questionnaire to service quality improvements.

Phase 4 — Public dissemination of the index

Expected in 2008.

Industrial producer prices: a pillar of short-term economic statistics

In many European countries, measuring the price of industrial products has been done for more than 20 years. Germany, the United Kingdom and Sweden had a domestic producer price index even earlier — by the late 1940s, 1950s and 1960s respectively. To statisticians this index is known as the producer price index (PPI). In the industrial sector, the PPI is one of the pillars of short-term economic analysis together with the production index and employment indicators.

Isabelle Rémond-Tiedrez works in the Short-term Statistics Unit at Eurostat.
Photo: Christine Ardillac



The producer price index seeks to measure the monthly change in the selling price of products on the domestic market and the non-domestic market.

The data collection at the European level is the outcome of the short-term statistics (STS) regulation which was adopted in 1998 and amended in 2005. In many countries, the 1998 STS regulation was the legal basis for developing the non-domestic market PPIs — sometimes called export prices index as well. In parallel to the adoption of the legal texts, Eurostat, with the help of Member States, has developed a methodological guide to ensure a common methodology for all STS indicators.

The PPIs permit monthly monitoring of prices at different stages of the manufacturing process. They are also a means of distinguishing real growth of the activity from price changes for the national accounts and index of industrial production. They provide information to the business community on particular markets of interest to them.

Essential to national accounts and business

In the industrial sector, prices are used as an output indicator for the seller and as a cost factor for the buyer. In many coun-

tries, there is quite an important demand for these PPIs from the business and trade organisations. As these indices have existed for some decades already, they are part of the economic life for national accountants and businesses. Therefore they have to be maintained by the national statistical institutes at quite a detailed level. Even if medium-sized and small countries are not obliged to transmit detailed PPIs, many of them do calculate them anyhow to satisfy national demand.

Challenge ahead is to rationalise

Because of the decrease in the share of the industrial sector in favour of the services sector in the economy in recent years, the challenge is to rationalise the collection and calculation procedures in the Member States for the industrial PPI and to take advantage of the experience of the industrial PPIs when developing the indices for services prices. (see article on page 35).

Dealing with evolving products

In the regular collection process, one key issue is to measure the price of the same product over time. In many industrial sectors, the products evolve very quickly. Therefore methods to deal with the change of product and the quality adjustment are crucial. The aim is to measure more accurately which part of the price development comes from a quality change, leaving the other part of the price development to a real price change.

Methods used to treat this issue range from simple models, such as the 'overlapping method' (where the price difference recorded on the market between two successive products

is totally attributed to the quality effect) or an unadjusted price comparison (where it is assumed that there is no quality change) to more complex ones, such as option prices and hedonic adjustment models.

Most of the industrial products are clearly specified products for which the price is observed for each collection period. Only a few industrial sectors have tailor-made products: structural metal products or railway locomotives for example. These tailor-made products require more sophisticated pricing methods such as model pricing.

By Isabelle Remond-Tiedrez, Short-term Statistics Unit, Eurostat



In many countries, there is a strong demand for PPIs from the business and trade organisations. As these indices have existed for some decades already, they are part of the economic life for national accountants and businesses. Photo: European Commission

EU agricultural prices — a robust field with a long record

The common agricultural policy first saw the light in 1962 and from the outset it was designed to meet two objectives. The first was to guarantee the food supply in the European Union at lowest possible prices to the consumer. The second was to secure farmers' incomes with guaranteed prices, which required harmonised statistics on agricultural prices. Eurostat has therefore collected data on agricultural prices since the beginning of the 1960s to analyse price developments and their effect on agricultural income.



Fausto Cardoso, Head of the Crop Statistics Section, and Iulia Pop, responsible for agricultural price and account methodology at Eurostat, are updating the *Handbook on EU agricultural price statistics*. It will be ready by the end of 2007. Photo: Christine Ardillac

Impact on farmers' income

In the last five years, prices for agricultural products have decreased in almost all countries of the European Union. In the case of input prices, the decrease is not as sharp as for output prices and in 2004 and 2005 input prices

The agricultural price indices (API) cover a wide range of products coming in and out of the farm. The output products range from cereals, vegetables and meat to milk and eggs and the input products from animal feed, fertilisers and seeds to energy and pesticides.

'The output price indices reflect the variations in the level of prices received by farmers when they sell their products. As most agricultural products are processed before they are consumed and almost always change hands more than once before they arrive at the consumer's table, they are different from the consumer price indices which measure the change of price directly paid by consumers,' says Fausto Cardoso, Head of the Crop Statistics Section in Eurostat.

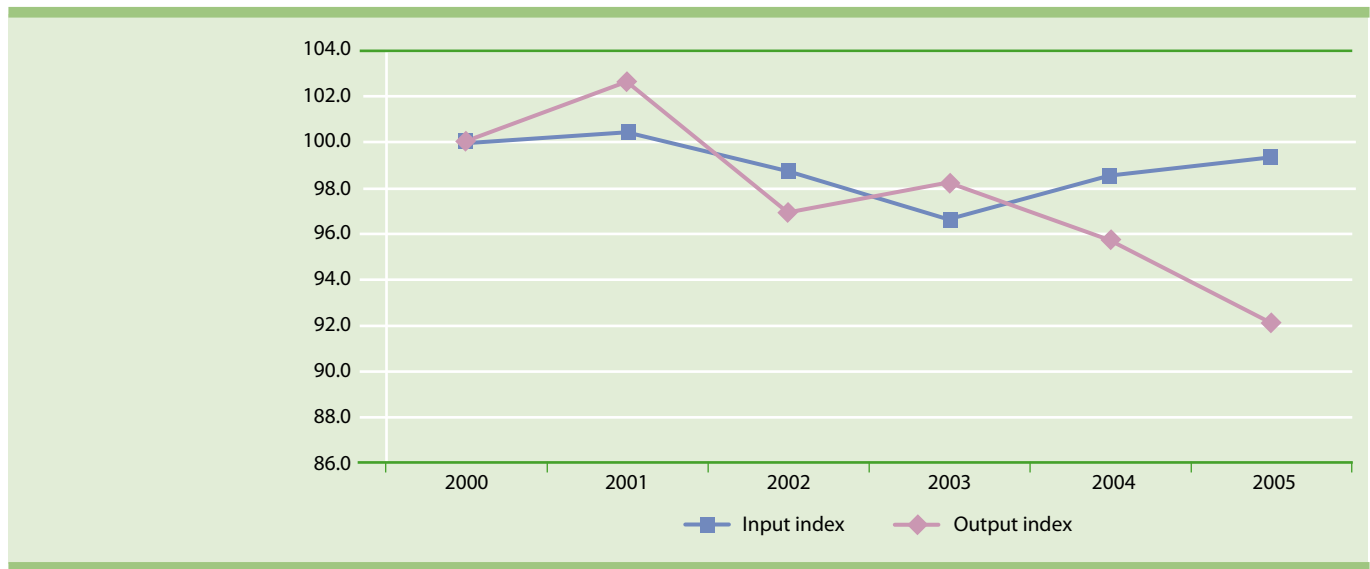
'The input price indices on the other hand reflect what the farmer has to pay to feed his animals and fertilise his land,' he continues.

rose again. This means that farmers had to pay relatively more for the input products needed to run their farms than they received from selling their products (see graph on page 44).

'The decline in producer prices that has been affecting the sector for years and the growth in prices of input products and services, are having a negative impact on income from production in almost all Member States,' says Iulia Pop, who is responsible for agricultural price and account methodology in Eurostat.

'The impact on farmers' income is, however, "diluted" as the average size of farms is continuously growing and labour force productivity (most of which is the holding's family) is increasing. Due to the greater role of market mechanisms in the reformed common agricultural policy, the EU agricultural sector is becoming more competitive as EU agricultural prices are closing in on world market prices,' says Mr Cardoso.

Input and output agricultural prices in EU-25



Gentlemen's agreements

Agricultural prices are collected through so called 'gentlemen's agreements', which means that collection is not based on EU legislation. Despite this, methods are harmonised and based on the *Handbook for EU agricultural price statistics* and there are no major problems with delays or coverage, as Members States need the data for their own use.

'The handbook is being updated, as the present one covering both agricultural price indices and absolute prices dates back to 2002. The updates have been discussed with Mem-

ber States and we will present the new edition by the end of the year', says Ms Pop.

Variety of uses

The quarterly agricultural price indices are used by the Commission's Directorate-General for Agriculture to form and evaluate agricultural policy (see article on page 50). Farming organisations such as the European Committee of Professional Agricultural Organisations (COPA), are also users (see article on page 52).

Eurostat also collects annual absolute prices for a number of limited products as well as data on agricultural land prices and rent. The absolute prices are used mainly by Agriculture DG to observe the variation in prices for a product in different countries. However, the absolute prices are also an important input in OECD's producer support estimate indicator, which is used in international agricultural and trade policy negotiations to measure gross transfer to producers.





Following the European Commission's drive to simplify and reduce the administrative burden for respondents, agricultural input and output prices are collected quarterly and absolute prices annually from 2006. Photo: PixelQuelle.de

Simplification

From 2006, the frequency and details in some agricultural price data collection have been reduced. For example, the API is now produced quarterly instead of monthly, and collection of monthly absolute prices is now an annual collection. The list of variables for the collection of annual absolute prices has also been reduced to half — from 414 products to 201. This follows the European Commission's approach to simplifying and reducing the administrative burden for respondents.

Legislation possible

Although no legislation is planned for the near future, Mr Cardoso says that it is quite likely that agricultural price statistics will also be regulated.

'The trend at Eurostat is to base data collection on legislation and there are also many Member States who would appreciate such a move. In these days of scarce resources, it is easier to collect data that are mandatory rather than voluntary. Whether there will be legislation or not has still not been decided, but as far as methodology is concerned, it will be based on the *Handbook for EU agricultural price statistics*', says Mr Cardoso.

By Annika Östergren Pofantis, Eurostat Communication Unit

Measuring agricultural prices in changing markets

Imagine a market where farmers sell fruit, vegetables, flowers and animals. In between the stalls and auctions a person is recording prices. The person takes care to interview both the sellers and buyers, as it could be in the buyer's interest to state a lower price in order to bring down prices for future purchases. The prices are grouped, compiled and published in the local paper the following day where all parties can follow the development of the market, see what products give the highest yield, get hints on what to plant next year, what to stock up on, when to resale, etc.

Physical markets are a thing of the past in France. Today only a small proportion of agricultural products are sold this way', says Jacques Berger, agricultural price statistician at the National Institute for Statistics and Economic Studies (INSEE) in France.

Instead, farmers sell directly or join forces in cooperatives, which sell their goods to specialised purchasing centres, supermarket chains or to the food processing industry. Transactions are made with modern communication tools and take place at various stages, sometimes even after the products are processed. Nevertheless, following the development of agricultural prices remains important.

INSEE publishes three different types of agricultural price indices: input, output and gross price indices each month.

The output indices measure the evolution of prices delivered by farmers to non-farmers. They are based on prices reported by professional organisations and the 'agricultural offices'. These are public institutions, attached to the Ministry of Agriculture, which manage and regulate the agricultural markets. Data also come from some surveys carried out directly by the ministry.

The agricultural input prices make it possible to follow the development of goods and services the farmers need to carry out their job. The price of fertilisers, feed, grain, pesticides, costs for veterinaries and some other smaller posts are based on a survey carried out by the Ministry of Agriculture, whereas the prices for machinery, such as tractors and harvesters, are based on price indices for industrial sales.

The wholesale market outside Paris, called *Rungis*, which supplies the retailers in the Paris region with agricultural products, is also monitored in a gross prices index. Prices are collected by the Ministry of Agriculture.

Multiple use

The National Accounts Unit in INSEE is the main user of the three different indices, in order to measure the added



Chicken are usually not owned by the farmer, but by the food industry. The farmers provide 'room and board' for the chicken and then deliver them to their owner. As the chickens are not sold, there is no price. Instead the farmer is paid for the service of breeding the chicken. The prices used in the output index in France are those paid by the slaughter houses.

Photo: PixelQuelle.de

value of agricultural goods and services in the economy. The French Ministry of Agriculture, the farmers' unions and professional organisations are also major users. However, often professional organisations calculate their own price indices for their specific products.

'The pork industry, for example, has an index for different types of pork meat. With this index, pork producers can follow very precisely the price developments depending on quality', says Mr Berger.

Measuring the same

'The main challenge with agricultural prices is to measure the "same" product, i.e. the "same" tomato and the "same" pig over time. The price depends on the variety, the quality, the size, as well as the level of maturity, type of packaging (if any), the time of year the product is sold etc. Just think about how many different types of tomatoes are available in our supermarkets at different prices. It is difficult to establish a tomato price', Mr Berger says.

The output index is furthermore calculated every month, which does not of course match the biology, storage suitability, organisation of production and trade, requirements for processing and consumer habits of all products. Therefore, a number of models are used to calculate the index based on species that are recorded differently over time. One of these is the 'variable basket'. An index based on 'variable baskets' is not suitable for monthly comparisons, but only for annual comparisons.

'However, this generally reflects the agricultural markets, where few are interested in the changes of the price of cherries between May and June — what is interesting is the annual change', Mr Berger says.

Some types of products, such as chicken and veal, pose other types of problems. Chickens, for example, are usually not owned by the farmer, but by the food industry. In fact, the farmers provide food and care for the chicken and then deliver them to their owner. As the chickens are not sold, there is no price. Instead the farmer is paid for the service



'Variable baskets' is one method, which is used, for example, to calculate the price of cherries. The result is an index, which can only be used for annual comparisons. Few are interested in the changes of the price of cherries between May and June — what is interesting is the annual change', says Mr Berger.

Photo: PixelQuelle.de

of breeding the chicken. The prices used in the output index are those paid by the slaughter houses.

'One of our concerns is how to adapt the observed prices to the evolution of the agricultural markets. These developments mean we frequently have to modify the way we collect and record prices', Mr Berger says.

An index for processed food inputs in the future

In future, Mr Berger would like to see a special index for the agricultural products that are processed.

'As 95 % of peas grown in France are tinned, many vegetables are frozen or used for pizza, fruits are made into jam and marmalade, the processed food industry is becoming increasingly important for agricultural products. Often these products are grown under contract by the processing industry, which is reluctant to provide the price information at the moment.'

European prices

France, like other EU Members States, supplies Eurostat with agricultural output and input price indices on a quarterly basis according to a harmonised methodology and based on a common nomenclature. For the EU indices, the monthly



Professional organisations use the price indices published by INSEE, but often they also calculate their own. The pork industry is one example. With their index pork producers can follow price developments very precisely. Photo: PixelQuelle.de



Mr Berger would like to have a special index for agricultural products that are processed, as many vegetables grown in France are frozen, tinned or used in pre-made food dishes. Photo: PixelQuelle.de

'Contrary to common belief, there is nothing even like "milk" anymore. Milk has different percentages of fat, different levels of bacteria, protein and in all countries these levels are different', says Mr Berger.

'A tonne of cereal is often sold "delivered to Rouen" on the French coast. Depending on where you are situated you have more or less transport costs to add to the price. Therefore, if you live on the eastern side of France, maybe a tonne of cereal "delivered to Hamburg" is cheaper than one from Rouen or Bordeaux-Bayonne. This means that

French output and input indices are adapted and presented slightly differently. The number of items varies and the groups are somewhat different. However, the absolute prices required by Eurostat on an annual basis are somewhat problematic.

price comparisons between countries for a tonne of cereal or a litre of milk do not really mean much', he says.

By Annika Östergren Pofantis, Eurostat Communication Unit

The first official records of agricultural prices in France date back to 1539 when King François 1 issued a decree, which proclaimed that in order to improve the justice system and reduce the number of trials and proceedings for the good of his subjects, agricultural prices had to be collected on a weekly basis:

Art 102 That in the centres of our Provinces, merchants shall record every week the prices charged for the main foodstuffs such as wheat, wine, hay and others, without expecting any salary for this and on pain of a fine, ban on trading, imprisonment and any other method of law.

Art 103 To this end, two or three of their representatives shall every market day bring these prices to the

clerk of the court or his agent who will record them without delay and without remuneration.

Art. 104 The extract from the clerks' register and this alone shall henceforth be law, in the execution of any legal ruling where it will be necessary to evaluate these foodstuffs.

...

We ask the members of our Parliaments in Paris, Toulouse, Bordeaux, Dijon, Rouen, Dauphiné and Provence, our officers of the law and other competent persons, to publish, record, preserve and carry out these orders and to oppose acts contrary to them, for such is our wish.

Villers-Cotterets, August 1539, the 25th year of our reign.

François

Agricultural land prices — by expert estimates?



Ole Olsen, Senior Advisor at Statistics Denmark, responsible for an EU project to estimate agricultural land prices. Photo: Ole Olsen

represented in the Working Party on Economics in Agriculture have been elaborating on possibilities to find better data sources — in a cost-efficient way.

At the same time, the definitions of land and rent have been analysed. Prices should be representative of an active farmer, who purchases or rents additional land, but the purchase or rent should not include farm buildings or dwellings. The challenge is to find sources and collection methods covering this definition.

In Denmark, there are well-developed and reliable statistics on prices on purchase of real property, and among the subgroups, agricultural units are covered. These statistics, however, only cover units identically before and after the purchase, and also include, for example, agricultural units sold for urban purposes for a very high price.

Existing statistics not precise enough

The main problem with these statistics is that most real properties in agriculture are divided when they are sold, normally by separating land and buildings. The purchase of additional land by active farmers is also not covered by these statistics. Furthermore, there is no combined information about the type of land, i.e. whether it is arable land or permanent grassland.

In the Member States, the situation on registration prices on sales of real property varies from country to country. In some

With the reform of the common agricultural policy it has become crucial to have an accurate indicator of farm land prices, as subsidies are now tied directly to the size of land. Photo: European Commission

The purchase price and rent of agricultural land have been one of the most important indicators of European agricultural policy for a long time. With agricultural reform, the importance of these indicators has increased even more, as the main agricultural subsidy is now tied directly to land.

However, for many years, the statistics in this field have suffered from a lack of comparable data and, after the accession to the EU of 12 new countries, the statistical coverage has become relatively lower than before. Therefore, Eurostat and the EU Member States repre-

sented in the Working Party on Economics in Agriculture have been elaborating on possibilities to find better data sources — in a cost-efficient way.

Therefore there is a need, at least for some countries, to circumvent the traditional approach to statistics. A new idea is to ask local experts in these countries, such as the farmers' advisory services or sales agents, to estimate prices. Denmark has promised to try this method in 2007 with reference to land prices in 2006. The advantage for Denmark is the possibility of comparing the outcome of this pilot exercise with the existing system. Even though the definition is not the same, it should be possible to assess the overall picture of prices — broken down by regions.

In search of a cost-efficient method

Another important aspect is to find an inexpensive way to get these data and to avoid new costly applications in agricultural statistics. Overall in the EU, there is a determination to spend less money on compiling statistics and this especially applies to sectors with decreasing economic importance. On the other hand, agriculture still makes up nearly 50 % of the EU budget.

Results from the Danish pilot project will be ready in autumn 2007 and Statistics Denmark will then evaluate the method and provide some figures. By looking at sales statistics and reading agricultural magazines, it is clear that prices of agricultural land have increased in Denmark, from about EUR 15 000 per hectare some five years ago to EUR 25 000 per hectare today. This development and the size of the figures indicate the relevance of improving statistics on agricultural land.

By Ole Olsen, Senior Advisor, Statistics Denmark



Photo: European Commission

Growing need for agriculture prices — also at consumer level



I see a growing need for agricultural price statistics in the future, in particular timely and accurate information on land prices and rents. We also need to have more information on the prices of agricultural and food products at consumer level', says Pierre Bascou, Head of the Economic Analysis of EU Agriculture Unit in the European Commission's Directorate-General for Agriculture and Rural Development.

Pierre Bascou, Head of the Economic Analysis of EU agriculture Unit in the European Commission's Directorate-General of Agriculture and Rural Development. Photo: Pierre Bascou

Weekly prices essential

In its daily work, Agriculture and Rural Development DG mostly uses weekly absolute price information for those products that benefit from a common market organisation, in particular those that receive price support through an intervention system — wheat, maize, barley, butter, skimmed milk powder and sugar.

'These data come directly from the Member States and are used to evaluate the market situation and to decide, when judged necessary and appropriate, to adapt the EU's market management mainly as regards exports of agricultural products to third countries and public intervention stores', says Mr Bascou.

In the implementation of EU market policy, the Commission is assisted by a management committee which gives its opinion on draft measures on a regular basis — sometimes once a week. The rules and modalities vary across products. The overall aim is to achieve the objectives of the CAP, in particular market stabilisation and a fair standard of living for farmers.

In principle, the weekly data are only used to get a snapshot of the situation, as comparisons are not made over time and the data are not always harmonised and representative in all EU Member States. For trends and analysis of the economic and income situation of the farming sector, the quarterly price indices and annual absolute prices are crucial.

Reform of the CAP

The CAP has embarked on a process of reform in 1992. In 2003, the EU adopted a major reform of the CAP that drastically changed the way the European Union supports the

The European Commission's Directorate-General for Agriculture and Rural Development is by far the biggest user of Eurostat's agricultural statistics, as they form a cornerstone of the common agricultural policy (CAP).

'Of all the agricultural data available at Eurostat, price statistics are perhaps not the most used for the day-to-day management of the CAP, but they are crucial for the economic analysis underlying our policy work. Agricultural prices in absolute values or indices are also widely used for statistical and quantitative modelling, which form the backbone of the impact assessments of our policies, our evaluation activities and the design of new policies', says Mr Bascou.

'Eurostat's data are also very important for the enlargement process, not only when we prepare the pre-accession strategy, the negotiations and evaluation of the impact on the agricultural sectors and on the budget, but also in the final stages of the negotiations in preparing the implementation of the CAP', he continues.



farming sector. The high price support that many citizens link with EU farm surplus has been dramatically reduced. From 2005, the vast majority of subsidies are paid directly to agricultural producers in the form of 'decoupled' payments that are independent from production. Furthermore, market intervention has been substantially reduced. The granting of subsidies is also made conditional on respect for environmental, food safety and animal welfare standards.

'The aim is for farmers to produce what the market wants, become more competitive and give better value for consumers and taxpayers, while at the same time benefiting from stable incomes,' says Mr Bascou.

Land and consumer prices needed

The cornerstone of the reform has been the introduction of the 'decoupled' payments. These payments are implemented differently by Member States: in some Member States, each farmer continues to receive the same payments as in the past. In other Member States, all farmers are granted the same payment per hectare. These payments and the systems of implementation can change land values and rents which are an important factor for the economic situation of farmers.

One of the aims of the agricultural reform is to lower the prices of agricultural products for consumers. In order to assess the impact of the reforms, Agriculture DG also needs to see price developments at producer, industry and consumer levels. Photo: PixelQuelle.de

A likely outcome of the new support system is that producer prices could fluctuate more, with potential impact on income levels. As a result, monitoring price developments in an accurate and timely way will become even more important than today. Photo: PixelQuelle.de

'The main consequence for Eurostat is that we need comparable and timely price statistics on land,' says Mr Bascou (see article on page 49).

The purpose of the whole agricultural reform process was also to lower the prices of agricultural products for consumers.

'At the moment, agricultural prices have gone down while consumer prices for agricultural and food products have increased slightly. These diverging trends can be explained by the rising costs of other components of food prices, including energy, labour and transport costs. However, some have argued that it is the food industry that is cashing in, while the consumer is not benefiting at all. In order to investigate these arguments and assess the impact of our reforms, we also need to see price developments at producer, industry and consumer level,' says Mr Bascou.

'At first glance, it looks as though agricultural price statistics will be of less use in the future, due to the reform of the common agricultural policy and the lower use of price support. However, a likely outcome of the new support system might be that producer prices could fluctuate more, with potential impact on income levels. As a result, monitoring price developments in an accurate and timely way could become even more important than today. This could be reinforced with the further liberalisation of the agricultural sector and markets that may emerge from the ongoing multilateral negotiations at WTO level,' he says.

By Annika Östergren Pofantis, Communication Unit, Eurostat



Photo: PixelQuelle.de

A daily need for price statistics



Shelby Matthews, Director of General Affairs at COPA.
Photo: COPA



Vincent Cordonnier, Policy Advisor at COPA.
Photo: COPA

The voice of the European farmers — the Committee of Professional Agricultural Organisations (COPA) — is a consumer of agricultural statistics, but the use of price statistics is limited. 'We mainly use the output and input agricultural price indices to follow the impact on farmer income and to analyse the cost-price squeeze farmers experience in the long run', says Shelby Matthews, Director of General Affairs at COPA.

One problem is that the data provided by Eurostat are not fresh enough for our daily work. Therefore, we base most analysis on statistics and forecasts published by the European Commission's Directorate-General for Agriculture and Rural Development (Agriculture DG). However, often these figures are based on Eurostat data', she continues.

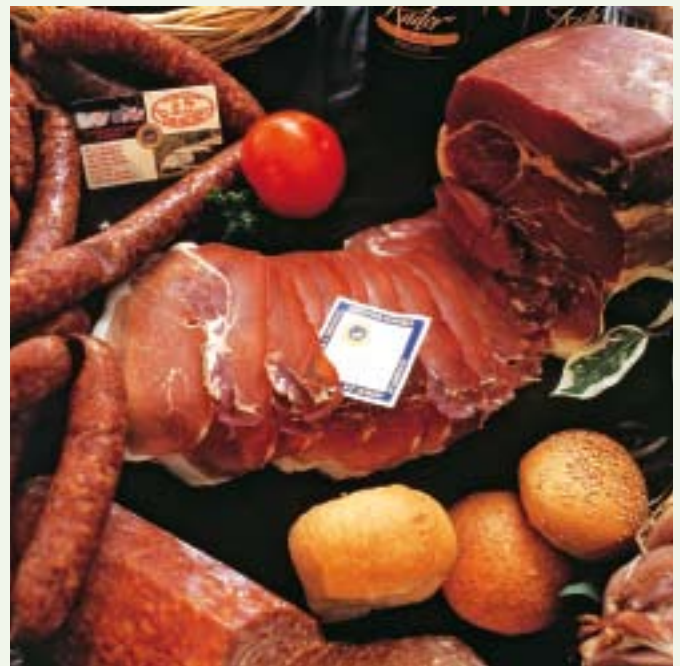
Vincent Cordonnier, Policy Advisor at COPA and responsible for the eggs, poultry and pig meat sectors confirms the analysis.

'For the daily follow-up of markets, I use data from professional publications, such as the weekly *European Market Survey*. And in discussions with Agriculture DG and the Member States, I rely on the results of the Agriculture DG's Forecast Working Groups where experts from COPA and the European Livestock and Meat Trading Union compare their own estimates to those provided by Agriculture DG', he says.

From time to time though, he uses Eurostat data on issues especially related to trade and tariffs and price developments for different product groups. COPA also follows the development of prices for specific products such as pig meat.

'It is important to follow the trend so that we know when a sector is in difficulty and what actions we should ask the Commission to enforce. At the end of 2003 and beginning of 2004 when there was a crisis in the pig meat sector, statistics were a main tool for analysing the situation. For this purpose they need to be accurate, timely and regular', says Mr Cordonnier.

By Annika Östergren Pofantis, Communication Unit, Eurostat



The farmers' voice

The Committee of Professional Agricultural Organisations (COPA) represents farm organisations in 25 of the EU Member States and is associated with the organisations in Bulgaria, Romania, EFTA and the candidate countries. COPA works very closely with the General Confederation for Agricultural Cooperation (Cogeca), which represents agricultural cooperatives.

COPA is recognised by the EU authorities as the voice of the agricultural sector and is therefore in contact with European Commission officials at all levels. COPA experts participate in advisory groups and Commission experts attend COPA meetings. Much of the work is also done by submitting reports and positions on different issues to the European Commission.

New indicator for import prices

Liliana Apostol in the Short-term Statistics Unit and Karo Nuortila in the International Trade Statistics Production Unit in Eurostat work with the import price index and the unit value indices.
Photo: Christine Ardillac

Eurostat will shortly have two indicators to use to assess increases in the price of imports. Alongside the long-established import unit value indices (UVIs), there will also be the import price index (IPI). Liliana Apostol of Eurostat's Short-term Statistics Unit, responsible for the IPIs, and Karo Nuortila of the International Trade Statistics Production Unit, responsible for the UVIs, explain the differences between these two indicators and why the IPI is needed.



Mr Nuortila starts by explaining what the UVIs are. 'The UVIs are calculated directly from the existing external trade data. In principle, they are simply the total value of imports of a product, divided by the total amount imported — for most products this is measured in weight. They have a long history, and long time series are available.'

One of the key features of the UVIs is the level of detail available. As Mr Nuortila says, 'We can calculate elementary UVIs for around 10 000 products, based on the most detailed level of the Combined Nomenclature used for classifying external trade. These elementary UVIs are further aggregated by different product classifications, such as Standard Industrial Trade Classification (SITC) or Broad Economic Categories (BEC). Then there are more than 200

partner countries, and the 27 Member States as well as the European aggregates. As you can see this gives a very large number of possible series.'

The new import price indices

In contrast to the long history of UVIs, IPIs are a new product for Eurostat, although some Member States, including in particular Germany, have already produced them.

'In 2000, in the context of the economic and monetary union action plan, the European Commission's Directorate-General for Economic and Financial Affairs and the European Central Bank (ECB) strongly expressed a need for more specific statistical information to reflect short-term economic developments in the euro area. In line with this plan the regulation



The import price index includes mostly manufactured goods, but also minerals, electricity, gas and water. Photo: PixelQuelle.de

on short-term business statistics was amended in 2005. One important amendment was the addition of a new variable to be delivered by euro-area Member States: the import price index,' Ms Apostol explains.

'The first priority for Eurostat is to get reliable results at a euro-area level rather than all the detailed results at a country level. So Eurostat has put in place a European sample scheme for the transmission of the data. Member States who take part in the scheme only have to collect prices of a few products that are big enough to be significant at the level of the euro area. Those Member States who do not take part in the European sample scheme provide a full set of data,' she continues.

'The European sample scheme both allows a more rapid implementation of the import prices indicator in order to meet the users' needs and a significant reduction of the collection burden, especially for small Member States.'

'The IPI covers the industry sector, mostly manufactured goods but also minerals, electricity, gas and water. It measures the change in the import price of products coming from abroad and it reflects an average of the changes in the prices of a specified set of items.'

'The IPI should become available in autumn 2007, and the series is monthly and started in January 2006. As for the level of detail, this will be the two digit level of the statistical classification of products by activity, about 28 product categories, with priority for the partner "extra-euro area"'

Why a new indicator?

So why is this new indicator needed? Ms Apostol explains: 'The IPI is designed to capture pure price changes. The UVIs

record price changes due not only to the evolution of prices, but also due to quality changes and changes in the mix of products. All these are hidden in the same index.'

Mr Nuortila expands on this point. 'For some products the Combine Nomenclature defines a product very precisely. For many products though the definition covers a range of products, with very different prices. Motor cars for example are divided into only about 20 codes, based on the engine size and whether they are new or used.... A change in the mix of imports, with no real price increase, can therefore affect the UVI.'

Strengths and weaknesses

So what are the strengths of each index, and who uses them?

'For the IPI, its strength is the link with the real economy, showing inflationary pressures due to prices changes in imported goods. Its weaknesses are the level of detail available. Due to the potential response burden, it is likely this will remain limited,' says Ms Apostol. 'The IPI will be used by the ECB and Economic and Financial Affairs DG for macroeconomic analyses.'

'For the UVIs, their strengths are the huge amount of detail available, and their cost effectiveness, as they are collected as a side product of external trade data. Their weakness is that they include a range of effects in one index,' explains Mr Nuortila. 'They are the only source of data for detailed analyses by product and partner.'

Romania: bridging the gap between the world of official and academic statistics

For two years, the President of the National Institute of Statistics of Romania, Dr Vergil Voineagu, has led the office through the final preparations leading up to EU accession. *Sigma* spoke to him and to Daniela Stefanescu, Head of the European Integration and International Cooperation Direction, to learn about the challenges of the preparation period and those that lie ahead.

The President of the National Institute of Statistics of Romania, Dr Vergil Voineagu, together with Daniela Stefanescu, Head of the European Integration and International Cooperation Direction.
Photo: B. Fernández Nebreda



Dr Vergil Voineagu was asked to lead the National Institute of Statistics of Romania in 2005. 'A challenge I had the urge to accept', he says. Due to his wide experience as a professor of statistics, an activity he continues to be active in, he describes himself as being 'new to professional statistics and old to academic statistics.' In fact, he would like to bring closer the worlds of official and academic statistics.

Evolution of Romanian statistics

Statistics in Romania have followed an interesting evolution since the 1989 revolution through to the transition leading to EU accession in January 2007.

The period between 1990 and 1994 is known as the period of the 'statistics of the transition'. New statistics were needed to measure the market economy. From 1995 to 1997, the office started the adoption of new methods, based on European standards and nomenclature — it was the period of the 'transi-

tion of the statistics'. The following seven years, until 2004, were dedicated to the absorption of the 'hard' *acquis*: the norms and standards, with the objective of adapting Romanian statistics to European standards. Since 2004 the office is focused on the 'soft' *acquis*: the adoption of the quality standards.

The start of international cooperation

The year 1991 marks the start of the international cooperation between the office and Eurostat and the other national statistical institutes. An important milestone was achieved in



The Opera Plaza in the city of Timisoara. The National Institute of Statistics of Romania wants to introduce the total quality management concept in all processes of the Office. 'Although we will continue to take care of national needs, we will take over and monitor closely topics from the European agenda, such as structural indicators and sustainable development indicators,' says Dr Voineagu, the President of the Institute. Photo: EPA Photo / Szasz Istvan

1992 with the adoption of the first Romanian Statistical Law. It included, from the beginning, the fundamentals of statistics; the internationally adopted 'ten commandments', such as international and national cooperation, coordination, accuracy, confidentiality and transparency.

It was also in 1991 that Daniela Stefanescu, currently Head of the European Integration and International Cooperation Direction, joined the international statistics department of the office, straight after graduating in statistics and economic informatics.

'I'm happy to have been one of the main actors in the integration of our office into the European Union. When I look back at the last 16 years, I have vivid memories of the integration

process. My role model has always been the key actor, Mr Dumitrescu, now adviser to the President, from whom I have learned a lot,' she says.

Ms. Stefanescu is also a lecturer at a private university in Bucharest, teaching international statistics and management and evaluation of European projects — now also for Structural Funds projects.

Active partners

'The key to the success of the integration process has been to have Eurostat by our side at all times. We have always felt part of a team and had a dialogue with a partner at the other side. During the participation in the annual meetings

on cooperation we have also helped define, together with the members of the European statistical system, the lines for further progress', says Ms Stefanescu.

'As proof of this efficient cooperation, the chapter on statistics was among the very first to be closed during the accession negotiations. The main engine for the integration process has been, without a doubt, the Phare programme. We have benefited from this programme since 1992, first from IT acquisition and then from the aid which was allocated to the harmonisation of specific subject fields and the creation of a National Centre for Training in Statistics', she explains.

Thanks to the creation of the National Centre for Training in Statistics, the Romanian Statistical Institute is now able to offer technical assistance to other countries.

'We can now assist our neighbours. We have helped carry out a population census in Kosovo, an agricultural census in Armenia and Georgia and made the global assessment of the national statistical system of Ukraine and many statistical fields in Moldova, to name but a few cases', she says.

'Where are we today? The progress is obvious. Romanian statistics are adapted to European standards and comparable to European statistics. We are no longer observers, but active partners in the decision-making process. It has been a fascinating story, one I have enjoyed very much and thanks to which I have good friends all over the world!'

The National Institute of Statistics of Romania

Romania's first official statistics body was established in 1859. The organisation was one of the first national statistics organisations in Europe.

Today the National Institute of Statistics is run by a president and three vice-presidents who coordinate the directions into which it is organised: European integration, national accounts, coordination of the national statistical system and dissemination of statistical information; agriculture and environment statistics; economic and social statistics and IT and statistical infrastructure.

The office has around 2 000 staff, one quarter working at the Bucharest headquarters and the remaining in the 42 territorial offices. Almost 80 % of the staff are women and two thirds are university graduates. Close to 11 % of the staff are under 31 years old, and about half are over 45.

Total quality and getting closer to the user

As far as future challenges are concerned, Dr Voineagu explains they are clearly set out in the strategy for 2007–13. One of the key goals is to deal with the improvement of the quality of statistics.

'We are going to introduce the concept of total quality management in all processes of the Romanian National Institute of Statistics. Although we will continue to take care of national needs, we will take over and monitor closely topics from the European agenda, such as structural indicators, sustainable development indicators, rural development and poverty, among others. We will also work towards reducing the statistical burden on respondents', says Dr Voineagu.

Concerning the public image of the Institute, Dr Voineagu has been actively promoting its image and its 'openness' to the general public, which helped raise the profile of the office and the users' confidence in statistics. In line with this process is the objective of setting up a national statistical system, having a network of specialised statistical services in the different ministries.

By Beatriz Fernández Nebreda, Communication Unit, Eurostat

Vergil Voineagu

Vergil Voineagu, Ph.D., was born in a picturesque area of Constanta near the Black Sea. He graduated from the Faculty of Economic Cybernetics and Statistics in Bucharest in 1976. In 1987 he obtained a doctorate in the field of economy and statistics.

After a brief experience as an economist in an import-export company, he started working at the university — the Academy for Economic Studies (ASE) in Bucharest, where he spent most of his career. He started as an assistant, then worked as a senior lecturer, and since 1997, as a professor. Since 1999, he has been the Head of the Economic Statistics and Econometric Department and coaches students preparing their doctorate thesis. He was appointed President of the National Institute of Statistics of Romania in June 2005. In May 2007, he received an honorary doctorate from the Andrei Saguna University in Costanta, Romania.

Docendo discimus — We learn by teaching



This Roman saying *Docendo discimus* 'We learn by teaching' is the inspiration for Ilie Dumitrescu, adviser to the President of the National Institute of Statistics of Romania. He graduated from the Institute of Economy and Statistics in 1956 and has since worked at the NSI.

'You cannot do anything in life without enthusiasm,' says Ilie Dumitrescu, Adviser to the President of the National Institute of Statistics. Photo: NIS Romania

What I have learnt from working abroad is the ability to work in a team and share your opinion with people from all over the world,' he says.

'When we started the transition in Romania, we were confronted with many options. Options which were difficult to adapt to — we had to choose priorities, what to do, how to do it and just do it. We understood that the first thing necessary to build a market economy is to have information. Information that is reliable and comparable to others.'

'What were the priorities? Everything! We had to adapt to new methodologies, we had to provide data, but first we had to think about what data was to be provided. Just as an example, the last statistical book published in 1988, before the revolution, was very thin. During the former regime, it was forbidden to publish the data; it was reserved for the authorities,' he says.

The essence of statistics

'I believe I have succeeded in understanding the essence of statistics. Statistics do not belong to the producer. They have to be scientifically independent. Our obligation is to make statistics internationally comparable for the users of statistics, the politicians and society in general. The other part of this philosophy is that you are not alone in the world. Everybody has the same rights to access data and to receive it simultaneously.'

'Looking back, I don't know if I would have done something different. However, I am convinced that whatever you do, you have to put your devotion and feelings into it. You cannot do anything in life without enthusiasm,' he ends.

For almost 50 years, Ilie Dumitrescu has done nothing else but statistics. At the young age of 26 he was made Director of the International Statistics Department. He has worked at the Statistical Division of the United Nations Economic Commission for Europe (UNECE), in a number of countries in central Europe and has visited more than 50 countries over the course of his career, whether for meetings, conferences or lately as technical expert to provide assistance to former Soviet Union countries. Thanks to his international experience, he speaks four languages fluently.

Passing from one idea to the next, Mr Dumitrescu tries to squeeze his broad experiences into an hour.

'I started my career in statistics almost by chance. I had the opportunity to do a course on statistics at school, and when later it was suggested I study statistics at university, I agreed.

By Beatriz Fernández Nebreda, Communication Unit, Eurostat

A young graduate interested in international statistics



Sigma met a young graduate, Ionela Floricel, who joined the Romanian National Institute of Statistics (NIS) in 2003 and who now works in the Direction of European Integration and International Cooperation.

Ionela Floricel from the European Integration and International Cooperation Direction likes to keep in touch with developments in international statistics. Photo: NIS Romania

From September 2006 to March 2007, Ms Floricel worked at Eurostat's Key Indicators for European Policies Unit as a Phare trainee.

'The experience provides a unique chance to work in a multicultural environment. It is really very interesting to work with people from such different backgrounds and cultures. Thanks to this experience, I am now also working with the sustainable development indicators, a new domain for our Institute', she says.

As for the future, Ms Floricel sees herself working in the National Institute of Statistics.

'There is a very good working environment, and it provides me stability, which is important for me if I wanted to raise a family. In addition, here I can work with statistics while keeping in touch with developments in international statistics and politics. And there is also the possibility to work at Eurostat as a national expert', she ends.

By Beatriz Fernández Nebreda, Communication Unit, Eurostat

Ms Floricel is responsible for the regular transmission of statistics to international organisations such as the International Monetary Fund, the OECD or Eurostat and for editing publications on international statistics.

'It is an interesting job. We are in close contact with all the NIS production units and coordinate the activity of filling in the questionnaires requested for every statistical field', she says.

As to the question of why she chose the INS, she explains: 'It was by chance. I saw a job opening in the International Cooperation Department and thought it was challenging. When I graduated in 2002 with a degree in public administration it was hard to find a job, especially for someone with no experience. The labour market is changing now, and companies go directly to the universities to look for young graduates.'



Photo: EPA Photo / Robert Ghement

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Overview publications

Statistics in focus: This collection provides updated summaries of the main results of surveys, studies and statistical analyses. It is published for all the themes and comprises 4 to 12 pages per issue, more than 200 issues are published per year.

Data in Focus: Similar to Statistics in focus, although their emphasis is on publishing the latest data as quickly as possible (with no accompanying analyses).

Statistical books: Comprehensive studies, often focusing on a particular subject; usually quite lengthy, providing analyses, tables and graphs from one or more statistical themes.

Pocketbooks: These are pocket-sized publications providing the main indicators for the European Union, the euro area, the Member States and their partners.

Methodologies and working papers: Intended for those who want to consult methodologies, nomenclatures, or specific studies on a particular data set.

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