

# UPDATE ON DEVELOPMENTS IN GENERAL ECONOMIC STATISTICS FOR THE EURO AREA

## ARTICLES

Update on developments  
in general economic  
statistics for  
the euro area

*General economic statistics, comprising data on prices, costs, output, demand and the labour market, are of crucial importance for the fulfillment of the ECB's role in monetary policy and financial stability. Euro area general economic statistics have become increasingly complete, comparable and timely. At the same time, the experience of 11 years of EMU has highlighted the ECB's need to further strengthen the underlying dataset in the area of general economic statistics. A number of deficiencies and gaps have been identified that need to be taken up by the European Statistical System. The highest priorities for the ECB are reflected in the revised list of Principal European Economic Indicators as included in both the 2008 and the 2009 Status Report on Information Requirements in EMU<sup>1</sup> issued by the Economic and Financial Committee. These indicators establish targets and priorities for euro area statistics. Furthermore, in an increasingly globalised world, it is necessary for statistical indicators to become internationally comparable in order to properly assess the impact of economic partner areas on the business cycle, setting additional requirements for the compilers of statistics worldwide.*

## I INTRODUCTION

General economic statistics as referred to in this article cover a wide range of macroeconomic indicators on prices, costs, output, demand and labour market developments. The statistical responsibility for the provision of most of these euro area statistics lies with the European Statistical System<sup>2</sup> and, in many cases, these statistics are covered by legal acts adopted by the European Parliament and the EU Council or the European Commission.

The ECB makes extensive use of general economic statistics. The Harmonised Index of Consumer Prices (HICP) provides the quantitative reference point for its definition and the measurement of price stability. The Governing Council takes monetary policy decisions on the basis of a comprehensive assessment of the risks to price stability. The economic analysis focuses on real activity and takes account of the fact that price developments over the short and medium horizon are influenced by the interplay of supply and demand in goods, services and factor markets. Therefore, the ECB regularly reviews developments in overall output, demand and labour market conditions, a broad range of price and cost indicators, as well as surveys of business sentiment as early indicators of economic developments.

The ECB published its requirements in the field of general economic statistics in 2000 and

reviewed these requirements in 2004.<sup>3</sup> Overarching reviews of developments in the provision of general economic statistics were included in the April 2001 and April 2003 issues of the ECB's Monthly Bulletin. Subsequently, progress made in individual statistical domains was also referred to in several issues of the ECB's Monthly Bulletin. Section 2 introduces the Principal European Economic Indicators (PEEIs), which have detailed targets on timeliness and data quality that match the highest international standards. Section 3 summarises the progress achieved in recent years for each statistical domain, as well as the challenges ahead. It also introduces the new classification of economic activities "NACE Revision 2" (Box 1) and addresses several more horizontal issues relating to general economic statistics, for example seasonal adjustment. Section 4 concludes.

- 1 The 2008 and 2009 Status Reports on Information Requirements in EMU issued by the Economic and Financial Committee are available on the ECB's website.
- 2 The European Statistical System comprises the Statistical Office of the European Communities (Eurostat) and the national statistical authorities. Both the European Statistical System and the European System of Central Banks (ESCB) develop, collect, compile and disseminate European statistics. A Memorandum of Understanding between Eurostat and the ECB sets out the division of labour between the two institutions. The ECB is primarily responsible for monetary and financial statistics, as well as statistics on financial institutions, payment systems, effective exchange rates and quarterly financial accounts; Eurostat is chiefly responsible for (general) economic statistics and for all non-economic statistics. The two institutions have shared responsibility for external statistics (balance of payments and international investment position), for the European non-financial sector accounts and for the statistical infrastructure.
- 3 See "Requirements in the field of general economic statistics" and "Review of the requirements in the field of general economic statistics" on the ECB's website.

## 2 THE PRINCIPAL EUROPEAN ECONOMIC INDICATORS REVISITED

In February 2003 the ECOFIN Council laid down requirements for PEEIs, which are a set of key euro area and EU statistics to improve the statistical information available for euro area economic analysis and policy making. They were developed from the September 2000 Action Plan on EMU Statistical Requirements, established by the European Commission (Eurostat) in close cooperation with the ECB. The list of PEEIs originally specified targets for the timeliness and other quality aspects of 19 key infra-annual macroeconomic statistics covering consumer prices, national accounts,

short-term business statistics, labour market and external trade indicators. The progress made in achieving these targets is regularly monitored by the Economic and Financial Committee, with the assistance of Eurostat and the ECB. Since its launch, the PEEI initiative has proved successful: the targets in terms of timeliness and coverage have largely been met for most PEEIs.

In November 2007 the ECOFIN Council agreed to review the PEEIs so as to take into account new user needs resulting from an evolving economic environment, different perceptions of the data quality of short-term statistics, an increased emphasis on

### Principal European Economic Indicators

Euro area indicator	Periodicity (m=monthly; q=quarterly)	Release target for euro area indicators	Current release of euro area indicators	Current release of US indicators
<b>Consumer price indicators</b>				
HICP flash estimate	m	0	0	n.a.
HICP actual indices	m	17	14-16	14-23
<b>Quarterly national accounts</b>				
First GDP (flash) estimate	q	30 (previously 45)	45	28
First GDP release with more breakdowns	q	60	64	28
Institutional sector accounts	q	90	121	56-60
Government finance statistics	q	90	96	56-60
<b>Business indicators</b>				
Industrial production index	m	40	42	14-17
Industrial producer price index (domestic)	m	30 (previously 35)	34	13-20
Industrial new orders index	m	50/40 <sup>2</sup>	56	23-28
Industrial import price index	m	45	[38]	9-18
Production in construction	m	45	49	31
Turnover index for retail trade and repair	m	30	35	11-15
Turnover index for other services	q (ideally m)	60	59	75
Corporate output price index for services	q (ideally m)	60	n.a.	17
<b>Labour market indicators</b>				
Unemployment rate	m	30	30	3
Job vacancy rate	q	45	74	40
Employment	q	45	75	1-8
Labour cost index	q	70	74	29
<b>External trade indicators</b>				
External trade balance	m	46	48	42
<b>Housing market indicators</b>				
Residential property prices <sup>1</sup>	q	90	n.a.	45 <sup>3</sup>
House sales	q	90	n.a.	25
Building permits	q	90	89	20

Source: Economic and Financial Committee, "Status Report on Information Requirements in EMU", 2009.

Notes: n.a. = not available; [ ] = available but not released.

Releases refer to the number of calendar days after the end of the reporting period. The position of weekends and public holidays within a month may cause small changes in the number of calendar days after the end of the reporting period.

1) The European Statistical System does not yet compile a euro area residential property price index. Available data for example, the semi-annual indicator compiled by the ECB, are partially based on non-official sources.

2) Long-term release target of 40 days.

3) Monthly data.

euro area figures, globalisation aspects and comparisons with other major economies. The existing PEEI targets were found to be largely appropriate for economic and monetary policy purposes, but some shortcomings were identified, notably for services. The absence of harmonised information on euro area housing markets was considered to be critical and, consequently, three new indicators were added to the list of PEEIs: residential property prices, house sales and building permits.

In addition, it was proposed that more ambitious medium to long-term timeliness targets for selected PEEIs be pursued (e.g. publishing the flash estimate of GDP growth 30 days after the reference period), provided that the reliability of the estimates was not compromised. These improvements in timeliness would better serve the policy-making needs of the ECB and other institutions, and would compare more favourably with international standards. The positive experience gained from the introduction of GDP flash estimates 45 days after the reference period has demonstrated that improvements in timeliness do not necessarily come at the expense of reduced reliability. In general, the medium to long-term aim is to achieve a harmonised release calendar according to which the PEEIs would be published with a delay of 30, 60 or 90 days after the reference period, depending on the indicator. This approach takes into account the interdependent nature of the PEEIs, which means that the compilation of a particular PEEI (e.g. the GDP flash estimate) often requires the timely availability of other PEEIs. The table provides an overview of the revised list of PEEIs.

In addition to timeliness and availability, the review also investigated other data quality aspects aimed at improving the accuracy, reliability and communication of PEEIs, requiring a coordinated approach across PEEIs and the basic statistics. Moreover, good coordination within the European Statistical System is needed as euro area data are based on national contributions. Eurostat and the ECB have already taken several initiatives in this direction, including proposals for a harmonised

revision policy, for European guidelines for seasonal adjustment, as well as for guidelines for the communication of major revisions.

The review of the PEEIs<sup>4</sup> foresees that the revised list of PEEIs and the associated quality targets will be implemented by 2012. It also includes a research agenda for the next ten years, which should shape the future set of key European short-term economic indicators. This approach will allow the European Statistical System to swiftly respond to new challenges and user requirements. The positive experience gained with the PEEIs has inspired similar initiatives at a global level, such as the Principal Global Indicators (PGIs), which are discussed in Section 3.7.

### 3 PROGRESS ACHIEVED, ASSESSMENT AND FUTURE PLANS

#### 3.1 HARMONISED INDEX OF CONSUMER PRICES

The Harmonised Index of Consumer Prices (HICP) for the euro area is explicitly mentioned in the ECB's quantitative definition of price stability and is therefore the main yardstick against which the success of the ECB's monetary policy is measured. The national HICPs also play a crucial role in assessing the convergence of non-euro area EU Member States.

The euro area HICP is first published as a flash estimate of the overall index on the last day of the reference month and then with a full set of details around two weeks later. The flash estimate has proved to be extremely reliable. The revised list of PEEIs includes a breakdown of the flash estimate into five main aggregates. Work is under way within the European Statistical System to investigate the feasibility of providing such a breakdown, starting with the energy and non-energy components.

<sup>4</sup> ECOFIN Council conclusions on the Economic and Financial Committee's 2008 Status Report on Information Requirements in EMU, 4 November 2008.

A large body of EU regulations govern the methodology that must be followed by national statistical institutes when compiling national HICPs and, as a result, the HICP is one of the most harmonised statistics across EU countries. In recent years, new regulations have been adopted in order to harmonise the days in each month on which prices are collected<sup>5</sup> and to further clarify the conceptual basis of the HICP.<sup>6</sup> In 2009 a new regulation was adopted on the treatment of seasonal products<sup>7</sup> (i.e. products which are not available for purchase during certain times of the year) and will be implemented in 2011.

In terms of international comparability beyond the EU, an important improvement has been the publication of an experimental HICP for the United States by the US Bureau of Labor Statistics. Moreover, an increasing number of non-EU countries within Europe are either compiling or developing HICPs.

Another important area in which good progress has been achieved is that relating to the measurement of the impact of government decisions on inflation. The ECB has developed and published experimental HICP-based estimates of administered prices – i.e. prices which are either set or significantly influenced by governments.<sup>8</sup> In parallel, Eurostat has developed an HICP at constant tax rates, which was first published in October 2009.<sup>9</sup> These indices help the ECB to assess HICP inflation more accurately and enrich the analysis of consumer price developments.

Over recent years, inflation statistics in many countries across the world have come under particular scrutiny by the media and the general public. It is important that the public have confidence in the reliability of official measures of inflation, even when these measures may differ from their subjective perceptions of price developments. Within the euro area, a number of national statistical institutes have taken measures to improve public understanding of inflation and how it is measured. The ECB has contributed to these initiatives via a dedicated

section on the ECB's website that features an interactive tool to visualise developments in the euro area HICP and its components.<sup>10</sup>

Despite the progress made, the further development of the HICP remains of paramount importance. Top priority must continue to be given to the improvement and harmonisation of the methods of sampling and quality adjustment, i.e. common procedures for updating the national baskets of goods and services and for identifying and removing the part of price changes that are due to changes in the quality of products. Whilst much development work has been done on these topics over the past few years, further efforts are needed to ensure the methods used are fully comparable. Another priority is the finalisation of the work on the treatment of owner-occupied housing. A pilot project, coordinated by Eurostat, has now been extended to all but one EU Member State, and results from this project are expected in 2010. This project should also provide timely and reliable information on house price developments.

### 3.2 STATISTICS ON HOUSING

The analysis of euro area and EU housing markets intensified prior to and during the crisis, as has the demand for high-quality statistics on national, euro area and EU housing market supply and demand conditions, with particular

5 See Council Regulation (EC) No 701/2006 of 25 April 2006 laying down detailed rules for the implementation of Regulation (EC) No 2494/95 as regards the temporal coverage of price collection in the harmonised index of consumer prices.

6 See Commission Regulation (EC) No 1334/2007 of 14 November 2007 amending Regulation (EC) No 1749/96 on initial implementing measures for Council Regulation (EC) No 2494/95 concerning harmonised indices of consumer prices.

7 See Commission Regulation (EC) No 330/2009 of 22 April 2009 laying down detailed rules for the implementation of Council Regulation (EC) No 2494/95 as regards minimum standards for the treatment of seasonal products in the Harmonised Indices of Consumer Prices (HICP).

8 See the box entitled "Measuring and assessing the impact of administered prices on HICP inflation" in the May 2007 issue of the Monthly Bulletin.

9 See the box entitled "New statistical series measuring the impact of indirect taxes on HICP inflation" in the November 2009 issue of the Monthly Bulletin.

10 See the "Inflation and the euro" section on the ECB's website.

emphasis on changes in residential property prices over time. However, the availability and the statistical quality of existing non-financial data on housing markets are far from satisfactory. In several cases, such housing statistics are only available from non-official sources. Given the importance of comparable, high-quality statistics on housing markets, three new indicators were added to the list of PEEIs in 2008: residential property prices, house sales and building permits. While data on building permits are already being compiled by the European Statistical System and need only to be improved further in terms of statistical reliability, there are currently no official harmonised data at the European level on residential property prices and house sales. The most promising work in progress towards harmonised residential property price indices and house sales data is currently being undertaken by the European Statistical System in the context of measuring transaction prices on owner-occupied housing.

In order to fill the gap in the statistics on changes in house prices for the euro area and EU Member States, the ECB has been collecting national residential property price data for EU countries in cooperation with the national central banks of the EU. Since 2001, the ECB has compiled and published an aggregate for the euro area by weighting together changes in prices for houses and flats for the euro area countries. Since early 2005, dwelling price statistics have also been collected for non-euro area EU Member States.

Although every effort has have been made to compile data that are as comparable as possible, the raw data stem from various national official and non-official sources which may differ in several respects. There are differences regarding the type of recorded prices, the coverage of regions and dwelling types, and other statistical aspects, particularly in the way changes in prices over time are corrected for changes in the composition of dwellings sampled over time. Against this background, fully comparable house price indices are urgently required in order to complete the conjunctural analysis that serves as input into monetary policy-making.

### 3.3 NATIONAL ACCOUNTS

National accounts are compiled in accordance with the European System of Accounts (ESA 95)<sup>11</sup> and provide a comprehensive and consistent overview of the economy.

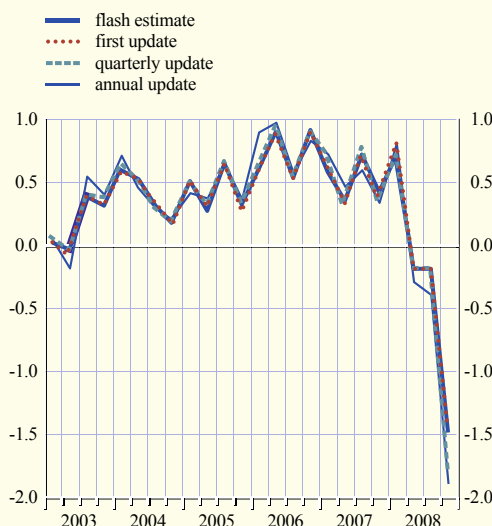
Since May 2003 Eurostat has published a flash estimate of quarterly seasonally and working day-adjusted GDP volume growth 45 days after the end of the reference quarter. The timeliness of the first estimates of the main expenditure components and the activity breakdown of value added has improved from 70 to 64 days at present. The euro area GDP flash estimate is a reliable<sup>12</sup> and widely recognised indicator with a country coverage that now extends to 95% of euro area GDP. The development of euro area GDP growth indicated by the flash estimates does not differ much from subsequent estimates, with most revisions stemming from the incorporation of annual information sources, as illustrated in the chart below.

11 See Council Regulation (EC) No 2223/96 of 25 June 1996 on the European system of national and regional accounts in the Community.

12 See the article entitled "Revisions to GDP estimates in the euro area" in the April 2009 issue of the Monthly Bulletin.

Euro area quarter-on-quarter GDP volume growth

(percentage changes)



Sources: Eurostat and ECB calculations.



The first estimates of income data (including compensation of employees), as well as the asset breakdown of gross fixed capital formation and the goods and services breakdown of foreign trade, generally become available as part of the employment release (national accounts concept) after 72 days. The remaining variables – including the activity breakdown for compensation of employees – are published within 100 days after the reference quarter. Another important release concerns the quarterly integrated euro area accounts by institutional sector,<sup>13</sup> which Eurostat and the ECB have been publishing since June 2007. This data set, currently disseminated around 120 days after the reference quarter, provides a comprehensive overview of the economic process from production to financial transactions and balance sheets. At present, work is ongoing to integrate the quarterly euro area non-financial assets and households' housing wealth data that the ECB has published annually since 2006 in the euro area accounts.

In line with the PEEI review, further improvements in timeliness are envisaged. The medium-term aim is to publish by 2012 euro area quarterly national accounts according to a harmonised release calendar, starting with a GDP flash estimate, after 30 days, followed by a first estimate of the GDP components after 60 days and finally, the quarterly sector accounts after 90 days. The publication of a GDP flash estimate after 30 days would better address policy-making needs and bring the timeliness into line with international standards. Its feasibility is currently being investigated.

In December 2007 the European Parliament and the Council adopted a regulation that requires national statistical institutes to provide Eurostat with additional quarterly national accounts data, such as data on the durability of private consumption expenditure and the geographical breakdown of exports and imports. The latter will allow data on euro area foreign trade that only reflects the transactions of euro area countries with countries outside the euro area to be compiled. At present, euro area exports and

imports reflect intra-euro area trade in goods and services, and are not adjusted for asymmetries in the recording of trade at the national level. This is the main conceptual shortcoming of euro area quarterly national accounts and also the main difference to the quarterly integrated euro area accounts by institutional sector.

Other challenges relate to the harmonisation both of seasonal adjustment practices and of release and revision policies (see Section 2). In the course of 2005-06, the European Statistical System introduced important changes<sup>14</sup> in the national accounts, such as chain-linked volume measures and a new treatment of the imputed output of financial intermediaries (FISIM). Since the national statistical institutes have incorporated these changes at national level in a staggered way, the national revisions were shown in the euro area results on an ongoing basis, which negatively affected the comparability and stability of the latter, and highlighted the need for a close coordination of major revisions. In addition, the length of the time series with consistent back data was reduced for a number of countries, which implied a shortening of Eurostat's official euro area time series from 1991 to 1995. In order to address the user needs for long time series, the ECB has recently published estimates for quarterly euro area GDP and its main expenditure components starting in 1980.<sup>15</sup> To avoid similar changeover problems, significant attention is being devoted to the coordination of the next major revision, which concerns the implementation of the revised classification of economic activities "NACE Revision 2" (see the box) in the national accounts, scheduled to take place in September 2011. Comprehensive coordination will also be required for the implementation of the revised European System of Accounts which is foreseen for 2014.

13 See the article entitled "The introduction of quarterly sectoral accounts statistics for the euro area" in the November 2007 issue of the Monthly Bulletin.

14 See the box entitled "Improvements to euro area GDP and national accounts" in the December 2005 issue of the Monthly Bulletin.

15 These long time series on euro area GDP and its main expenditure components are available from the Statistical Data Warehouse on the ECB's website.

A number of recent initiatives propose the development of a set of alternative indicators that go beyond GDP.<sup>16</sup> The latter is mainly a measure of market production and, although it may shed some light on certain aspects of welfare, it was never intended to be an indicator of economic well-being as such. Households' disposable income is suggested as a more relevant measure of the well-being or living standards of citizens, as there may be large differences between the income of the citizens of a country and measures of domestic production (some of the income is generated by non-residents, and some residents receive income from abroad).

In addition, the measure of disposable income for households, for example, takes into account the fact that the taxes paid by households are deducted from their available income and, in turn, takes into account transfers received from governments. For the same reason, the proposals to complement data on income flows with measures of assets, liabilities and net worth are welcomed, in particular for the households sector. This has been one of the key concerns of the ECB when developing, jointly with Eurostat, the quarterly integrated euro area accounts, including financial balance sheets, and also in the current plans to introduce non-financial balance sheet data by institutional sector. Finally, these proposals also confirm the importance of the ongoing Eurosystem project to develop a household finance and consumption survey.

Complementing GDP with a limited number of (non-monetary) indicators on well-being could be beneficial, provided that certain conditions are fulfilled: the indicators should be well-defined, compiled by an independent institution and use a transparent methodology that is accompanied by sufficient metadata.

### 3.4 SHORT-TERM BUSINESS STATISTICS

Short-term business statistics, such as statistics on industrial production, retail trade turnover, new orders and producer prices, provide important information for conjunctural analysis

and also feed into the ECB's analysis of the business cycle and price pressures. They provide timely and detailed information, often at a monthly frequency, supplementing the more comprehensive data provided by the national accounts. Timeliness of short-term indicators is an important quality feature for the ECB. Since 2004, first estimates for euro area retail trade statistics (with limited breakdown) have been available around 35 days after the end of the reference month – representing a considerable gain when compared with the former timeliness of around 65 days.<sup>17</sup> In recent years, timeliness has also improved for other short-term indicators, albeit less noticeably.

A revision of the EU Regulation concerning short-term statistics was adopted in 2005.<sup>18</sup> This Regulation required, for indicators with an international dimension, an additional breakdown into euro area and non-euro area transactions. It also called for the compilation of an import price index for the euro area, which has now been published by Eurostat. The import price index<sup>19</sup> fills an important gap in the analysis of price pressures within the euro area economy.

Data on new passenger car registrations in the euro area is based on the national data available from the European Automobile Manufacturers' Association, covering all euro area countries except Cyprus and Malta. This monthly indicator is released about 15 days after the reference month, and the data are seasonally and working day-adjusted by the ECB.

Traditionally, short-term business statistics have focused on developments in the manufacturing and construction industries. However, nearly 72% of value added in the euro area comes from

16 See, for example, Joseph E. Stiglitz, Amartya Sen and Jean-Paul Fitoussi, "Report by the Commission on the Measurement of Economic Performance and Social Progress", 2009.

17 See the box entitled "First estimates of retail trade turnover in the euro area" in the April 2004 issue of the Monthly Bulletin.

18 See Regulation (EC) No 1158/2005 of the European Parliament and of the Council of 6 July 2005 amending Council Regulation (EC) No 1165/98 concerning short-term statistics.

19 See the box entitled "New euro area industrial import price and industrial producer export price indices" in the December 2008 issue of the Monthly Bulletin.

services (market and non-market). In order to address the lack of reliable indicators for the services sector, the revised Regulation also requires producer price and turnover indices for a number of market services. These data have started to become available in recent years, although only at a quarterly frequency, with a delay of around 60 days for turnover and of around 90 days for output prices. Furthermore, available data currently cover only a limited number of services. Coverage is expected to increase by mid-2010, as the remaining national derogations expire.

A major challenge for short-term business statistics in 2009 was the updating of the base year from 2000 to 2005 and the implementation

of the new NACE classification (see the box below). Looking ahead, key areas for improvement, aside from the continued development of services sector indicators, are the further harmonisation of, and improvements to, the reliability of existing indicators. Work in this respect is already underway for the retail trade turnover index and producer price index. The successfully established production of reliable flash estimates for euro area GDP and the HICP should encourage the European Statistical System to also develop flash estimates for other economic indicators. Work towards the provision of a euro area flash industrial production indicator around one month after the end of the observation period (“*t+30*”) has been proposed.

## Box

### UPDATE OF THE CLASSIFICATION OF ECONOMIC ACTIVITIES

The classification of economic activities or “NACE”<sup>1</sup> provides the statistical framework for a wide range of European statistics, comprising national accounts, short-term business and labour market statistics.<sup>2</sup> The changeover to the NACE Revision 2 is organised by statistical domain and scheduled throughout the period 2009-11. Revisions of statistical classifications are necessary to reflect changes in the structure of the economy, for example by including new economic activities and products.

#### Characteristics of the NACE Revision 2

The NACE classification is mandatory for the European Statistical System and is fully consistent with the worldwide classification of economic activities “ISIC” (International Standard Industrial Classification of all Economic Activities). The NACE has a hierarchical structure, dividing economic activities into sections, divisions, groups and classes. At the national level, classes can be sub-divided further.

Under the NACE Revision 2, the basic classification rule remains unchanged, i.e. the allocation of statistical units on the basis of the main activity generating value added. However, the NACE Revision 2 comprises an additional number of details aimed at reflecting new forms of production and emerging industries. For example, the new division “Manufacture of computer, electronic and optical products” has been created to combine high-tech activities. The largest increase in detail

1 “NACE” is derived from the French title “Nomenclature générale des Activités économiques dans les Communautés Européennes”, the statistical classification of economic activities in the European Communities.

2 Regulation (EC) No 1893/2006 of the European Parliament and of the Council of 20 December 2006 establishing the statistical classification of economic activities NACE Revision 2 and amending Council Regulation (EEC) No 3037/90 as well as certain EC Regulations on specific statistical domains.



relates to the services industries. For example, the section “Accommodation and food service activities” now better reflects certain activities like mobile food services or event catering. The new section “Information and communication” combines activities involving the production and distribution of information, information technology activities and data processing, which were formerly classified under various categories.

The majority of the new NACE classes remained unchanged, needed simple relabelling or were derived from two or more former NACE classes. In about one-third of the cases, one former NACE class was split into two or more classes. The most complicated rearrangement was necessary in cases in which two or more classes from the former NACE corresponded to two or more classes in the NACE Revision 2.

### Implementation of the NACE Revision 2

Short-term business indicators such as industrial production, industrial producer prices, new orders and retail trade turnover, follow the NACE Revision 2 since the reporting period January 2009 for monthly indicators and since the first quarter of 2009 for quarterly indicators. The overall assessment of the introduction of NACE Revision 2 is favourable, as this demanding and complex project was done without major delays by the European Statistical System.<sup>3</sup> However, a few issues remain open and require further work, for example some extensive revisions in national series, the occasionally unsatisfactory provision of back data and the lack of a fully consistent set of weights at the country and European levels. Euro area labour cost indices for the first quarter of 2009 were released for the first time under the NACE Revision 2, although with only limited back data from several Member States and an overall lack of the required seasonally and working day adjusted data. The changeover for the Labour Force Survey results took place with the release of the data for the first quarter of 2009 for the European aggregates by Eurostat in October 2009, representing a delay of one year.

The changeover process will continue in 2010 and 2011. In particular, for national accounts, the changeover planned for September 2011, requires that all Member States adhere strictly to the agreed timetable in order to allow for the provision of complete and reliable results for the euro area in a timely manner.

<sup>3</sup> See the box entitled “Recent changes in short-term statistics” in the April 2009 issue of the Monthly Bulletin.

Some labour market indicators also feature in the short-term business statistics dataset. In particular, series on employment, hours worked and wages are available for the euro area. Monthly estimates are released on a quarterly basis because they are compiled from a mix of monthly and quarterly national data. These data generally outperform the timeliness requirements laid down in the EU Regulation concerning short-term statistics, but in some cases the results can be very volatile (e.g. hours worked). In terms of coverage, these indicators are only provided for the industry and construction branches and are comparable with the related labour

market indicators from the national accounts (see the next section).

## 3.5 LABOUR MARKET STATISTICS

### EMPLOYMENT

In recent years, there have been a number of developments in the compilation of labour market indicators, and significant improvements are expected in 2010. Employment statistics in terms of persons employed were already partially available from the national accounts dataset in 2003, including first estimates of quarterly and annual European aggregates. Since then, these

data have gained in quality and timeliness. Due to the increased coverage of quarterly national series, the euro area employment estimates have been published 75 days after the reference quarter since June 2006, with a breakdown by labour status (employee and self-employed). A further recent development is the simultaneous publication of the employment breakdown by economic activity. As the first estimates of total compensation of employees for the euro area are published with the employment release, estimates can also be calculated of the derived compensation per employee indicator. While this is already a significant achievement, the European Statistical System has yet to achieve the desired target of 45 days after the reference quarter in terms of timeliness.

The preferred measure for the analysis of employment developments and labour productivity calculations are employment data in terms of hours worked. Hours worked give a better approximation of the actual labour input used in the production process than cruder measures, such as the number of persons employed or full-time equivalents. The measure of labour input in terms of hours actually worked is also more comparable across countries as it does not depend on national structural differences, e.g. the shares of part-timers, and allows for more precise data to be compiled on labour productivity by industry when a person works in more than one industry. For the euro area, initial annual estimates up to 2007 became available at the end of 2008 and have been updated with some delay due to the lag in the publication of national data. Quarterly euro area estimates, which were expected in 2004, are not yet available. The national coverage of the data is expected to improve in early 2010, and first euro area aggregates are expected to then become available as well.

Nevertheless, this measure of labour input based on hours worked is still a compromise solution compared with measures that adjust for differences in the composition of labour, qualifications and skill levels. These are key

for a more precise measurement of labour productivity and are still lacking at the euro area level. Eurostat is planning to work on the estimation of these data within the European Statistical System's EU KLEMS<sup>20</sup> project. The main source for this data-intensive estimation will be the EU Labour Force Survey dataset.

Quarterly estimates of employment data are also available from the EU Labour Force Survey. This rich dataset provides a number of additional breakdowns (e.g. by age, gender, occupation, education), which are not available from other sources and are necessary for the analysis of labour market developments. Euro area aggregates can only be compiled 105-115 days after the reference period, when all European countries have provided data.

## UNEMPLOYMENT

Monthly harmonised unemployment statistics for the euro area are usually released on the last day of the month following the reference period. The euro area data are compiled using Labour Force Survey monthly and quarterly national data, interpolated where possible using monthly registered unemployment data. In 2008 there was a significant quality improvement in the euro area data due to the amelioration of the methodology used for the estimation of the monthly national data. Furthermore, the EU Regulation<sup>21</sup> on the compilation of harmonised quarterly job vacancy data came into force in 2009, and new euro area data are expected to become available mid-June 2010.

## LABOUR COSTS

Recently there have been several important improvements in the index of hourly labour costs in the euro area. In 2009 the NACE

20 The acronym "EU KLEMS" denotes the European Union's standard factors of production capital (K) and labour (L), as well as intermediate inputs: Energy (E), Materials (M), and Services (S). Further information on this is provided in Section 3.7.

21 Commission Regulation (EC) No 1062/2008 of 28 October 2008 implementing Regulation (EC) No 453/2008 of the European Parliament and of the Council on quarterly statistics on Community job vacancies, as regards seasonal adjustment procedures and quality reports.

Revision 2 classification was introduced and the index reference year was changed from 2000 to 2008. At the same time, the number of economic activities covered by the labour cost index was extended to include non-market services. The derogations for delivery of the country data have expired, resulting in an almost complete country coverage at the time of the first quarterly estimates published after around 75 days.

The ECB's quarterly indicator of negotiated wage rates is currently the timeliest indicator of wage developments available for the euro area. It is released around 50 days after the reporting period, in comparison with the lag of around 70 days for the compensation per employee and unit labour cost indicators from the national accounts and for the labour cost index. It is based on non-harmonised monthly and quarterly national data on collectively agreed wages. Negotiated wages reflect the increase in basic pay agreed between employers and employees, excluding employers' social contributions. The ECB's definition includes bonuses, overtime and other compensation only if they are the result of collective bargaining at the centralised/union level. At the time of release, country coverage was at around 90-95%.

### 3.6 TENDENCY SURVEYS

Results from tendency surveys for businesses (manufacturing, construction, retail trade, services) and consumers provide leading information for quantitative indicators in a very timely fashion.<sup>22</sup> Tendency surveys are not the responsibility of the European Statistical System and are provided by various statistical institutions and research institutes. The coverage of euro area surveys has been extended to include the services industries in greater detail. For example, the European Commission's programme of business surveys has been supplemented with a new survey covering financial services industries (financial intermediation, insurance and pension funding, auxiliary activities of financial intermediation). The changeover of business surveys to the new NACE Revision 2 classification is scheduled for 2010. This means

that the European Commission survey results will better match corresponding data from official statistics.

Further gains in timeliness have been achieved for the euro area results thanks to the Purchasing Managers' Surveys in manufacturing and services. Since 2006, euro area flash estimates of the Purchasing Managers' Index (PMI), based on approximately 85-90% of total survey respondents, have been available as early as in the third week of the reference month and now provide the first information on euro area developments. The overall reliability of the PMI flash estimate is good. The provision of flash estimates for other PMI surveys, e.g. retail trade or construction, is desirable.

### 3.7 OTHER DEVELOPMENTS

#### EU KLEMS

The EU KLEMS research project started in 2004 and was financed by the European Commission to analyse productivity and growth accounting at the industry level in the EU. In 2007 the ECOFIN Council requested Eurostat to draw up, with the support of the Committee of Monetary, Financial and Balance of Payments Statistics (CMFB), an implementation plan to develop the research project into regular output by the European Statistical System. The implementation plan was endorsed by the ECOFIN Council in 2008. It is foreseen that the database will rely on timely national account data from the ESA 95 transmission programme, complemented by other official national data.

In addition, further research and development work is planned to establish harmonised methodologies for the capital stock, capital services and quality-adjusted labour input estimates, as well as multifactor productivity and growth accounting calculations. The aim is to disseminate the statistical dataset in full in 2012.

<sup>22</sup> See the article "Opinion surveys on activity, prices and labour market developments in the euro area – features and uses" in the January 2004 issue of the Monthly Bulletin and the box entitled "The usefulness of business tendency survey indicators for conjunctural analysis" in the May 2006 issue of the Monthly Bulletin.

## BUSINESS DEMOGRAPHY

Business demography statistics trace developments in the number of businesses (births and deaths) and on the stock of business units over time. These can provide information on the overall “climate” for entrepreneurship in general and on the dynamics of an economy. These aspects not only enrich the structural analysis, but also provide insights for conjunctural analysis. However, official statistics on enterprise demography are not available for the euro area as a whole. Within the framework of structural business statistics, EU Member States have to provide national data on enterprise demography annually. Currently, existing derogations for a number of Member States hamper the provision of euro area aggregates. It is foreseen that for the 2008 reporting period, all EU Member States will provide (annual) enterprise demography data with a timeliness of between 18 months and two years. The current unavailability of euro area totals, as well as the unsatisfactory timeliness expected of future euro area data, have led to a project in which the ECB and euro area national central banks have identified national data that are used to compile euro area aggregates for a small number of business demography indicators. Although the national data are not fully harmonised, they come close to satisfying the definitions for the business demography indicators.

## SEASONAL AND CALENDAR ADJUSTMENT

Many short-term economic indicators are significantly affected by effects that recur regularly in the same period each year. Such seasonal effects may obscure underlying short-term economic developments, and the time series affected are thus usually adjusted for seasonal variations.<sup>23</sup> Calendar adjustment, conducted in addition to seasonal adjustment, aims at eliminating effects related to specific calendar constellations.

Seasonal and calendar adjustment practices have not yet been sufficiently harmonised in the EU and may vary in terms of the approach used for identifying and estimating seasonal effects, revision policies, treatment of total

and component data, etc. In order to harmonise seasonal and calendar adjustment procedures, the European Statistical System has recently developed comprehensive guidelines on seasonal adjustment.<sup>24</sup> In addition, the ECB and Eurostat have cooperated with national producers of seasonally adjusted national accounts data and have provided recommendations for a more harmonised approach to seasonal and calendar adjustment.

## GLOBAL INDICATORS ON GENERAL ECONOMIC STATISTICS

Besides the economic analysis of euro area developments, the ECB regularly analyses the external environment of the euro area with the aim of assessing, inter alia, the impact of developments in the global economy on the euro area business cycle. The devising of statistical standards worldwide, and adherence to them, is far from satisfactory. However, for a number of aspects, international statistical standards have already been adopted. For example, the classification of economic activities (ISIC) is coherent with the European NACE, and the System of National Accounts (SNA 2008) is the reference for the “derived” European System of Accounts (ESA). Furthermore, work by international statistical bodies like the United Nations or the OECD has been intensified in recent years and they have provided recommendations, handbooks and guidance for national statistical institutes worldwide. For the industrial production index, for example, the United Nations (UN) is preparing a manual with international recommendations, which is due to be published in 2010. However, many statistical indicators, including for general economic statistics, are not comparable internationally as different statistical concepts, data coverage, accounting conventions and compilation practices continue to be applied.<sup>25</sup> Partly, in

<sup>23</sup> See the box entitled “Seasonal adjustment of short-term economic indicators for the euro area in the current recession” in the August 2009 issue of the Monthly Bulletin.

<sup>24</sup> Available on Eurostat’s website.

<sup>25</sup> See the article entitled “Comparability of statistics for the euro area, the United States and Japan” in the April 2005 issue of the Monthly Bulletin.

response to the statistical needs thrown up by the financial turmoil and the economic downturn, the Inter-agency Group on Economic and Financial Statistics recently launched a dedicated website featuring principal global indicators for the G20 economies.<sup>26</sup> The website aims to facilitate the monitoring of economic and financial developments for these systemically important economies. The G20 finance ministers and central bank governors have adopted a recommendation to further enhance this website by, for example, closing gaps in national data and adding long runs of historical data.<sup>27</sup> However, important challenges remain for the international statistical community to provide coherent and comparable statistics in a timely manner.

#### 4 CONCLUSIONS

In summary, general economic statistics for the euro area have improved markedly in terms of their availability, quality and timeliness in recent years, and the European Statistical System has responded well to the challenges set by the ESCB. However, a number of gaps remain. The reviewed list of PEEIs addresses many of these and, from the ECB's perspective, their implementation remains the highest priority. Furthermore, the amended PEEIs reflect the experience the ECB has gained from a decade of monetary policy-making for the euro area. Major gaps are indicators on the housing market, which are not or are only partially available, in particular statistics on euro area residential property prices based on comparable data from all euro area countries. Further improvements are also required in the provision of statistics for the increasingly important services industries.

Besides the provision of missing statistics, further efforts on harmonising existing statistics are called for. The public release of euro area statistics 30, 60 or 90 days after the end of the reference period, depending on the information concerned, is of particular interest, as this timetable fits well with the schedule for the meetings of the ECB's Governing Council for

the assessment of the monetary policy stance at the beginning of each month. Similarly, a greater synchronisation of national release and revision policies is desirable. Intensified cooperation among all stakeholders and strong leadership at the European level are necessary to continue to strengthen the provision of euro area general economic statistics required for the conduct of monetary policy in the euro area.

26 See <http://www.principalglobalindicators.org>. The Inter-agency Group comprises the BIS, the ECB, Eurostat, the IMF, the OECD, the UN and the World Bank.

27 See the report "The Financial Crisis and Information Gaps" adopted at the November 2009 meeting of the G20, available on the IMF's website.