

### WORKING PAPER SERIES NO 1145 / JANUARY 2010

AN AREA-WIDE REAL-TIME DATABASE FOR THE EURO AREA

by Domenico Giannone, Jérôme Henry, Magdalena Lalik and Michele Modugno





NO 1145 / JANUARY 2010

## AN AREA-WIDE REAL-TIME DATABASE FOR THE EURO AREA'

by Domenico Giannone<sup>2</sup>, Jérôme Henry<sup>3</sup>, Magdalena Lalik<sup>4</sup> and Michele Modugno<sup>5</sup>





This paper can be downloaded without charge from http://www.ecb.europa.eu or from the Social Science Research Network electronic library at http://srn.com/abstract\_id=1532311.

In 2010 all ECB publications feature a motif taken from the €500 banknote.

fea tal €50



1 The project was initiated by L. Reichlin and conducted within the Euro Area Business Cycle network (EABCN), supported by the CEPR and by participating European central banks. Special thanks go to D. Croushore and A. Orphanides who also greatly helped at various stages of the project. The project benefited from comments by the EABCN Steering Committee and by participants in the EABCN Workshop at Bank of Belgium, June 2005, in the CIRANO / Bank of Canada Workshop on real-time data, October 2005, and in the Link European meeting at UN Geneva, October 2006 as well as from input by M. Ciccarelli. Comments and suggestions by K. H. Dieden, H-J. Klöckers and the editors are also gratefully acknowledged. The opinions expressed in this paper are those of the authors and do not necessarily reflect those of the European Central Bank. Database users are kindly requested to refer to the current paper in their related work and publications.
2 Université Libre de Bruxelles. ECARES CP 144, B-1050 Bruxelles, Belgium; e-mail: giannon@ulb.ac.be Was with ECB-DG-Research at the time the paper was completed.
3 European Central Bank, DG-Economics, Kaiserstrasse 29, 60311 Frankfurt am Main, Germany; e-mail: jerome.henry@ecb.europa.eu

4 European Central Bank, DG-Statistics. Kaiserstrasse 29, 60311 Frankfurt am Main, Germany; e-mail: magdalena.lalik@ecb.europa.eu

5 European Central Bank, DG-Research. Kaiserstrasse 29, 60311 Frankfurt am Main, Germany; e-mail: michele.modugno@ecb.europa.eu

#### © European Central Bank, 2010

Address Kaiserstrasse 29 60311 Frankfurt am Main, Germany

**Postal address** Postfach 16 03 19 60066 Frankfurt am Main, Germany

**Telephone** +49 69 1344 0

Website http://www.ecb.europa.eu

**Fax** +49 69 1344 6000

All rights reserved.

Any reproduction, publication and reprint in the form of a different publication, whether printed or produced electronically, in whole or in part, is permitted only with the explicit written authorisation of the ECB or the author(s).

The views expressed in this paper do not necessarily reflect those of the European Central Bank.

Information on all of the working papers published in the ECB's Working Paper Series can be found on the ECB's website, http://www.ecb.europa.eu/pub/scientific/ wps/date/html/index.en.html

ISSN 1725-2806 (online)

### CONTENTS

Ab	ostract	4			
No	on-technical summary	5			
1	Introduction: The Real-Time DataBase EABCN project	7			
2	An overview of the database				
	content and structure	9			
3	Statistics on data revisions	Ш			
4	Comparison with the United States and Japan	16			
5	Key euro area macroeconomic ratios	18			
6	NAIRU computations in real time	20			
7	Summary and conclusions	23			
Bi	bliography	24			
Та	Tables and figures				
Ar	inexes	<b>46</b>			

3

### Abstract

This paper describes how we constructed a real-time database for the euro area covering more than 200 series regularly published in the European Central Bank Monthly Bulletin, as made available ahead of publication to the Governing Council members before their first meeting of the month. We describe the database in details and study the properties of the euro area real-time data flow and data revisions, also providing comparisons with the United States and Japan. We finally illustrate how such revisions can contribute to the uncertainty surrounding key macroeconomic ratios and the NAIRU.

JEL Classification: C01, C82, E24, E58.

Keywords: real-time, euro area, revisions, database.

#### Non-technical Summary

Monetary policy decisions are taken on the basis of a large set of economic data. However, available data are often incomplete as they are released at differing points in times, with different publication lags and are, to a large extent, subsequently revised. Recent research has emphasised that the resulting data uncertainty can be large and have a bearing on the decisions made, as well as affect the assessment of their relevance. It is therefore key to reconstruct the historical environment of economic decisions at the time they were made rather than using the data as they become available some years later, as stressed by Orphanides (2001). For this purpose, it is necessary to have at hand all data vintages as they were published in real time, the so-called "real-time data" that reflect the economic situation at a given point in time when models are estimated or policy decisions made.

The pioneering project in this field started at the Philadelphia Fed. The data, for the US, were made available through the website of the Philadelphia Fed. On this basis, research has been conducted, both on methodological issues and on economic policy aspects, such as the ex post interpretation of policy actions. This dataset, however, is limited to a few series, moreover covering only the US. Only in the last few years, have efforts been accomplished to archive more series, covering different aspects of the economy (at the St Louis Fed), and data for other countries. Relevant projects have been conducted at the OECD for several countries; at the Bundesbank for Germany; at the Office for National Statistics and Bank of England for the UK. Eurostat has also plans to make available a comprehensive database covering all Principal European Economic Indicators, with daily snapshots of data. Also at the ECB, similar work has been conducted, with analyses focusing on the data revision process.

The combination of stimulating results from the literature on the US especially – as extensively reported in the survey by Croushore (2006) – with the related absence of such dataset for the euro area was the main motivation for the Euro Area Business Cycle Network (website <u>www.eabcn.org</u>) to launch the Real-Time DataBase (RTDB) project which eventually led to the database now documented. With a view to stimulating research on real-time analysis applied to the euro area, it was important to involve the ECB and Eurosystem national central banks as well as researchers. ECB staff from DG Statistics, Research and Economics worked jointly on the project, in consultation with EABCN (academic and central banking) members, thereby combining the expertise and perspective of various interested users. The area-wide RTDB for the euro area has been followed by a multi-country database (produced by Eurosystem National Central Banks), also available on the EABCN website.

We present in detail in this paper how we constructed the area-wide RTDB for the euro area, i.e. a collection of (mostly euro area) series regularly published in the ECB Monthly Bulletin for each month since the euro started. The data therefore represents a historical record of the summary information supplied to the public each month via the Monthly Bulletin. Just ahead of this latter publication, the ECB Governing Council receives the data in time for its first meeting of any given month. This was where in most cases, policy discussions were held and related actions considered. The Governing Council obviously considers a much wider array of material and background documentation when making decisions, than only these data per se.

This dataset, as the ECB Monthly Bulletin, has a very extensive coverage (some 230 series for the euro area as a whole, including some survey data) since 2001 and is regularly updated, all aspects which should be of particular interest to researchers. Resulting successive versions of the datasets have been posted on the EABCN website; the dissemination to the public at large will be operated via the ECB Statistical Data Warehouse (<u>http://sdw.ecb.europa.eu/</u>). The paper provides an overview of the database coverage, content and its technical organisation – along with annexes documenting the database in fuller detail.

We also present a variety of results illustrating the potential use of this "real-time" dataset. We compute revision statistics for the main indicators listed in the ECB Monthly Bulletin "overview table". Results for all series are available in appendices. We study the real-time data revision and data-flow processes in the euro area, also in comparison with the US and Japan. Revisions for the euro area appear, especially for real variables, as relatively limited.

At the same time, revisions to euro area macroeconomic data can be substantial enough to affect the assessment of the macroeconomic situation in the euro area at a given point in time. For instance, GDP composition or Industrial Production indices can experience important changes over time. Also the unemployment rate or the saving ratio are typically subject to sizeable revisions, albeit mostly affecting the level rather than the trends in the reviewed series. Labour productivity trends or the degree of openness seem to be less affected than other key ratios such as terms of trade or propensities to consume or invest out of GDP.

In order to further illustrate the impact of real-time effects and of revisions to data on quantitative macroeconomic analysis, we also provide real-time and pseudo-real time NAIRU estimates for the euro area on the basis of this euro area-wide database. The computations show that the uncertainty relating to data revisions, albeit sizeable, would in the case at hand still be dominated by that arising from the estimation of the parameters.

#### 1. Introduction: The Real-Time DataBase EABCN project

Monetary policy decisions are taken on the basis of a large set of economic data. However, available data are often incomplete as they are released at differing points in times, with different publication lags and are, to a large extent, subsequently revised. Recent research has emphasised that the resulting data uncertainty can be large for certain indicators and can have a bearing on the decisions made, as well as affect the assessment of their relevance. It is therefore key to be in a position to reconstruct the historical environment of economic decisions at the time they were made by private agents and policy-makers rather than using the data as they become available some years later, as stressed in particular by Orphanides (2001). For this purpose, it is necessary to have the information in the form of all the different vintages of data as they were published in real time, the so-called "real-time data" that reflect the economic situation at a given point in time when models are estimated or policy decisions made.

Unfortunately, real-time vintages are generally readily available for only few key variables and typically do not cover a long sample, reflecting the only recent attention paid to such issues by most institutions. The pioneering and most inspiring project in this field started at the Philadelphia Fed. The data, for the US economy, were made available to the public through the website of the Philadelphia Fed<sup>1</sup>. On this basis, research has been conducted, both on methodological issues, such as the robustness of different tools to data revisions (e.g., Croushore and Stark, 2005; Orphanides and Van Norden, 2002),<sup>2</sup> and on economic policy aspects, such as the ex post interpretation of policy actions (e.g., Orphanides, 2001). This information, however, is still limited to few data series, moreover covering only US variables. Only in the last few years, have efforts been accomplished to archive a larger number of series, covering different aspects of the economy (at the St Louis Fed<sup>3</sup>), and data for countries; at the Bundesbank for the German economy<sup>5</sup>; at the Office for National Statistics<sup>6</sup> and Bank of England<sup>7</sup> for the UK. Eurostat has also plans to make publicly available a comprehensive database covering all Principal European Economic Indicators, comprising daily snapshots of

<sup>&</sup>lt;sup>1</sup> The project and its results are documented in Croushore and Stark (2001).

<sup>&</sup>lt;sup>2</sup> In particular the estimation and evaluation of forecasting models would be affected by the use of real-time data (as known already from Fair and Shiller, 1990, or Swanson, 1996).

<sup>&</sup>lt;sup>3</sup> See Anderson (2006). The euro area-wide RTDB work we conducted also aimed at such a broader coverage. <sup>4</sup> See OECD (2003).

<sup>&</sup>lt;sup>5</sup> Data are available at http://www.bundesbank.de/vfz/vfz\_echtzeitdaten.en.php.

<sup>&</sup>lt;sup>6</sup> See Jenkinson (2004).

<sup>&</sup>lt;sup>7</sup> See Castle and Ellis (2002).

data (see Ladiray et al., 2008). Also at the ECB, similar collection work has been conducted, with analyses focusing on the data revision process.<sup>8</sup>

The combination of stimulating results from the literature on the US especially – as extensively reported in the survey by Croushore (2006) – with the related absence of such dataset for the euro area was the main motivation for the Euro Area Business Cycle Network (see its website <u>www.eabcn.org</u>) to launch the Real-Time DataBase (RTDB) project which eventually led to the database now documented. With a view to stimulating research on real-time analysis applied to the euro area as a whole and the comprised countries, it was important to involve the ECB and Eurosystem national central banks as well as the research community in the project. ECB staff from DG Statistics, Research and Economics worked jointly on the project, in consultation with EABCN (academic and central banking) members, thereby combining the expertise and perspective of various interested users. The area-wide RTDB for the euro area has been followed by a corresponding multi-country leg of the project (conducted in turn by Eurosystem National Central Banks), the output of which has lately also become available on the EABCN website.

In this paper, we present in detail how we constructed the area-wide RTDB for the euro area, i.e. a collection of (mostly euro area) series regularly published in the ECB Monthly Bulletin for each month since the euro started. The data therefore represents a historical record of the summary information supplied to the public each month via the Monthly Bulletin. Just ahead of this latter publication, the ECB Governing Council receives the data in time for its first meeting of any given month. This was where in most cases, policy discussions were held and related actions considered.<sup>9</sup> The Governing Council obviously considers a much wider array of material and background documentation when making decisions, than only these data per se.

This dataset, compiling data from the ECB Monthly Bulletin, has a very extensive coverage (some 230 series for the euro area as a whole, including some survey data) since 2001 and is regularly updated, all aspects which should be of particular interest to researchers.<sup>10</sup> Even

<sup>&</sup>lt;sup>8</sup> See Branchi et al. (2007), a related study which focuses on series for main aggregates and on the underlying statistical revision process leading to the latest vintage available. They also provide results on country data. We in turn provide and analyse data on breakdowns, information on the revision process shortly after the first release of data (i.e. when policy-relevant) as well as conduct a number of illustrative albeit simple economic analyses.

<sup>&</sup>lt;sup>9</sup> Until November 2001 the Governing Council had been indeed discussing the policy issues on both meetings, however, decisions made to change interest rates outside the first meeting were exceptional, as e.g. on 17 September 2001.

<sup>&</sup>lt;sup>10</sup> Many "real-time" database constructors indeed stop after to the one-off step of gathering past vintages, without updating the data regularly afterwards – a costly task for which specific logistics and routines had to be set up.

though the sample covered to date remains relatively short – US data vintages had e.g. been collected since 1965 at the Philadelphia Fed – reflecting the still recent start of the euro area, the regular updates imply that the available sample continuously increases. Resulting successive versions of the datasets have been posted on the EABCN website<sup>11</sup>; the dissemination to the public at large will be operated via the ECB Statistical Data Warehouse (http://sdw.ecb.europa.eu/).<sup>12</sup>

The paper is organized as follows. Section 2 provides an overview of the database coverage, content and its technical organisation. Section 3 shows revision statistics, focusing on main indicators, such as reported in the Monthly Bulletin "overview table". Additional results for all series in the database are also made available in appendices to the paper. A comparison with US and Japan comparable series is undertaken in Section 4. Section 5 documents the sensitivity of key macroeconomic ratios to data revisions. A similar illustrative exercise is conducted in Section 6, involving NAIRU computations. Section 7 concludes.

### 2. An overview of the database content and structure

The area-wide RTDB comprises about 230 indicators altogether. Vintages for most variables start in January 2001; for this paper data has been used until the June 2009 edition of the ECB Monthly Bulletin. Moreover, for a selected subset of 38 key selected series (those mostly relevant for economic and econometric analysis), vintages have been included as of October 1999 – data before 2001 were not readily available on a harmonised e-archive basis, hence this limited extension focusing on key series. The time-span covered by these series goes generally back to the mid 1990s, but can extend to 35 years in some cases (e.g. for US series).

The area-wide RTDB contains data as published in the ECB Monthly Bulletin. The dataset is therefore based on a "snapshot" approach, i.e. it represents the state of the information as available at the moment when the snapshot was taken. The idea is to provide database users (and Monthly Bulletin readers) with the same information as available for the meeting of the Governing Council which is held just before the publication of a given Monthly Bulletin issue. This timing aspect plays an important role in the process of the Monthly Bulletin production itself, since it is crucial to assure consistency across series eventually published

<sup>&</sup>lt;sup>11</sup> The data has already been fruitfully used for research purposes (e.g. Marcellino and Musso, 2009, on output gap robustness, and Giannone et al., 2009, on the real-time predictive power of surveys for GDP, and Kaufman and Kugler, 2009, on real-time forecasts of inflation). Database users are kindly requested to refer to the current paper in their related work and publications.

<sup>&</sup>lt;sup>12</sup> The presentation of the dataset in SDW, albeit different due to technical reasons, is consistent with the description provided in what follows. The Explanation pages are available in the SDW with detailed information on how to best utilise its functionalities.

that were reported to the Governing Council beforehand. In statistical jargon, the process of creating such a snapshot is called "freezing" and the day when it takes place is referred to as a "cut-off date" for the information used. As a rule, the cut-off date for the Monthly Bulletin data is scheduled for the day before the first Governing Council meeting in a month. The list of all cut-off dates as of January 2001 can be found in Annex 1.

Data have been grouped by vintages and frequency. Files<sup>13</sup> are therefore available for each frequency used (monthly, quarterly and annual) comprising time-series for all variables for each vintage of the Monthly Bulletin. Given the size of the dataset, this organisation appeared as the easiest to facilitate the construction of the dataset and its regular update. The detailed tables below report for each frequency the content of the various files in terms of main blocks of series included in each available vintage. In line with the presentation followed in the ECB Monthly Bulletin, for many broad indicators not only the total aggregate figure is reported but also a corresponding breakdown in sub-components. For instance, for the industrial production index, corresponding results for seven sub-sectors are provided. Similarly details are provided on the HICP sub-items or on GDP components, in order to allow for deeper analyses of both revision patterns and real-time econometrics. Details on all breakdowns reported can readily be found in the ECB Monthly Bulletin regular methodological notes.

For the smaller subset covering monthly releases since late 1999 (available on the EABCN site), the data was made accessible in turn on the basis of an organisation by variables. For each variable, an excel file comprising all vintages is available in which each column refers to a specific vintage of data. The name of the files is based, when feasible, on the codes used in the ECB Area Wide Model (see Annex 2 for the list of key series).

The definition of the data included in the RTDB follows a "policy" concept. Since it was not possible to collect all of the series based on exactly the same methodological properties over the entire period of interest, it was decided to collect the data according to the concepts as they were presented in the Monthly Bulletin in a given month. For instance, in the course of 2005 and 2006, ESA95 national accounts data underwent major changes as a result of the introduction of chain-linking of annual and quarterly series at constant prices, the new treatment of FISIM and benchmark revisions. Consequently, applying the "policy" concept,

<sup>&</sup>lt;sup>13</sup> The CSV files have been published on the EABCN website until November 2009. Since the dissemination of RTDB data into the ECB Statistical Data Warehouse, they can be downloaded from the corresponding SDW "Explanation" pages.

the vintages for example GDP in real terms consists of constant prices data up to November 2005 and chain-linked series as of December 2005. Also in the period 2005-06, euro area employment statistics were relatively unstable owing to substantial revisions on the country level. Such changes of course need to be documented; details about the precise definition and the tracking of the variables included in the dataset are therefore reported in Annex 3<sup>14</sup>.

Another, very specific, issue pertaining to the area-wide RTDB is that of the relevant definition of the euro area. Following the successive enlargements of the euro zone, the aggregated euro area official statistics have used different definitions for the euro area as an entity. Alternative geographic areas have been introduced that are all called "euro area", but in fact with differing country coverage. Two concepts of euro area country composition are employed: the fixed composition – using the same group of countries throughout all periods - and the changing composition – using the euro area composition at the time to which the statistics relate. In the latter, data prior to 2001 refer to the Euro 11, i.e. the following 11 EU Member States: Belgium, Germany, Ireland, Spain, France, Italy, Luxembourg, the Netherlands, Austria, Portugal and Finland. Data from 2001 to 2006 refer to the Euro 12, i.e. the Euro 11 plus Greece. Data for 2007 refer to the Euro 13, i.e. the Euro 12 plus Slovenia, data for 2008 refer to the Euro 15, i.e. the Euro 15 plus Slovakia.<sup>15</sup>

It is finally worth recalling, that even though the ECB publishes all of the underlying data in its regular statistical publications, it is not the actual data provider for many of them. The source information is therefore mentioned on top of each data block to indicate the primary data source, in many cases the European Commission (Eurostat).

#### 3. Statistics on data revisions

For illustration purposes, focusing on series for which international comparisons are available from the dataset, Figures 1 report all available vintages for four time-series of key indicators, GDP, Industrial Production, Unemployment Rate and HICP (Harmonized Index of Consumer Prices). The plotted series also correspond to the variables for which revisions computed were most substantial among the series reported in the Monthly Bulletin "overview table". A first observation from this quite limited set of variables is that real variables get more often and

<sup>&</sup>lt;sup>14</sup> The Annex is regularly updated and its latest version can be downloaded from the corresponding SDW "Explanation" pages.

<sup>&</sup>lt;sup>15</sup> Official series from Eurostat that are included in this database are official euro area series; Eurostat makes use of the country statistical information as available to derive an aggregation.

more sizeably revised than the HICP. Revisions are nonetheless somewhat limited to overall GDP, while industrial production and even more the unemployment rate seem to be subject to higher and more frequent revisions.

In order to assess more precisely the impact of these revisions on the various series included in the database, revision statistics can be computed for all series included – therefore at monthly, quarterly and annual frequencies. Given that the monthly vintages contain variables observed with different frequencies, a special notation has to be employed for that purpose. We denote by Y(t | t + i) the variables of interest, where x is the quarter (month) to which the quarterly (monthly) observation refers; *i* is the number of months after the last month in the reference quarter (month). For instance, Y(2001Q3 | 2001Q3 + 2) indicates the value of the quarterly series Y for the third quarter 2001 in the November 2001 Monthly Bulletin, while Y(Feb2001 | Feb2001 + 2) indicates the value of the monthly series Y for February 2001 in the April 2001 Monthly Bulletin.<sup>16</sup> One standard revision statistics we have reported in tables is the so-called "revision error", i.e. Y(t | t + i) - Y(t | t + 24) for i = 2,3,...,24; t = Jan00,...,Jun09 for monthly data and t = 00Q1,...,07Q3 for quarterly data. This represent the gap between a given vintage estimate and the corresponding "final" estimate, i.e. the opposite of the revision.

The choice of a final date for computing revisions is neither a trivial nor a neutral step. The revision process affecting some data, e.g. National Accounts, is indeed a never-ending process and there are e.g. substantial revisions even after two years, taking into account also the so-called benchmark revisions. This long-lasting process is strikingly illustrated in Figure 2 which plots GDP growth rate for the fourth quarter of 2001 as reported in different issues of the ECB Monthly Bulletin. This period roughly coincides with an international slowdown, and the first releases then pointed to a decline in euro area economic activity, at the time the largest experienced since the inception of the euro. Subsequent revisions however provided a



<sup>&</sup>lt;sup>16</sup> In line with the definition employed in the above Tables, if the data has quarterly frequency the Publication lag is defined as the number of months between the last month in the reference quarter and the month in which it is published for the first time in the Monthly Bulletin. For monthly data, the Publication lag is defined as the number of months between the reference month and the month in which is published in the Monthly Bulletin.

more positive assessment of business conditions in the euro area then prevailing; most recent figures now even indicating an increase rather than a decline in GDP.<sup>17</sup>

Bearing such revision features in mind, the choice made of computing revisions with respect to the issue of the ECB Monthly Bulletin two years later is somewhat arbitrary but can be equally motivated by the following reasons. First, it is interesting to analyse how a given observation is likely to evolve following a standard, if any, revision pattern along a policy-relevant horizon. Second, the number of vintages available is small, hence using a longer horizon would produce an analysis based only on few data points (as long as the focus is on quarterly data). Third, even though there is hardly a clear definition of what "final" data are, in particular for National Accounts, a two-year period may appear as a good proxy to being closer to that "final" measure – always capturing inter alia the first update of annual data. Finally, work on forecast ex-post accuracy when faced with the same issue of defining the "final" relevant measure tends to make use of similarly relatively short horizons (using typically the first release of the following year), as forecast errors would tend for all practical purposes to be reviewed ex post after a relatively short span of time rather than a decade later.

The revision analysis is conducted, for all series, on the sample between the last observation available in the first (January 2001) vintage to the last available observation comprised in the June 2007 vintage, i.e. exactly 24 months before the last vintage we use. This implies that for each series, revision statistics at all horizons have been computed, broadly speaking, over the period end-2000 to end-2006. This approach ensures that revisions for the various horizons (up to 24 months) considered are analysed on a sample roughly common to all series and also track the whole history of revisions (up to 24 months later) to the analysed observations.

The first releases of any given observation are represented on all charts by crosses. The latter also help to visualise for each observation the magnitude of revisions across subsequent vintages. At the same time, earlier revisions, i.e. to observations located before the first cross, are not accounted for in the reported statistics. This may not be neutral to the results, as some of the earlier revisions (not included in the sample used for computing revisions) can be of an opposite sign – as can be seen e.g. for unemployment.

For all series, we report the mean and the standard deviations of the data revisions. For reference, we also report the mean and the standard deviation of the series itself, as measured

<sup>&</sup>lt;sup>17</sup> See Branchi et al. (2007) for a review of sources of revisions to National Account data. Revisions at the euro area level reflect the incorporation of new information combined with changes in methods.

in the last available vintage corresponding to the Monthly Bulletin of June 2009. This provides useful information, as the magnitude of the revisions to a given series may well relate to the actual size and volatility of the indicator concerned. The impact of the revision and its interpretation – economic or econometric – therefore also depends on the underlying properties of the corresponding series.

Results for key macroeconomic indicators – appearing in the Monthly Bulletin overview Table – are reported in Table 2 below (further tables with comprehensive similar results for other indicators in the database are appended).

Overall, revisions are somewhat contained, especially on the nominal side whereas they are more substantial on the real side. In addition, there is some evidence of possible biases in the first releases, e.g. GDP tending to be somewhat underestimated by these (in the light of the sign of the computed average errors, revisions were positive overall). The statistical significance of this finding, however, cannot be assessed in view of the limited sample available.

More specifically, all changes in HICP are concentrated in January 2003, when Germany, the Netherlands and Portugal moved their weight reference period from 1995 to 2000, and this caused revisions to the euro area figures. Indeed, before January 2003 there are no revisions at all to the Euro Area HICP, and the same happens from January 2003 to June 2009, the last available vintage.

It should be borne in mind that the series for euro area HICP inflation is a particular case, since revisions to historical data cannot arise from changing the weights attributed to the various country indices entering the euro area aggregation. The series reflects the changing composition for the euro area, so that the entry of new members does not lead to any recomputation of past data and the resulting updated country weights are used only for data subsequent to any given new entry.

For the unemployment rate, most revisions originate in a change in definition that resulted in downward shifts of the unemployment level, affecting the entire time-series. As already mentioned, these earlier revisions do not enter however the reported estimates for the revisions. These changes were due to the harmonisation of the unemployment definitions across the member states, following a European Commission regulation adopted in September

2000, which member states had two years to implement. According to the old definition, the number of unemployed comprised all those persons above a specified age who were without work, and who were available for work at that time. In addition, they had to have been seeking work by taking specific steps to obtain paid employment or self-employment during the four weeks preceding the interview. However, it was left to the individual countries to set the upper and lower age limits, to define the time that a person may work and still be considered unemployed, and to determine what would be regarded as active or passive steps to find employment. These choices often gave rise to differences across countries before the harmonisation was implemented.

Finally the tables also report summary information on publication lags. The publication lag is defined as the number of months between the reference period and the month in which it is published for the first time in the Monthly Bulletin<sup>18</sup>. For quarterly (annual) series, the publication lag is computed with respect to the last day of the quarter (year). More precisely, the publication month is computed with respect to the end of the month preceding a given Governing Council (for example, if the Economic Sentiment Indicator for February is available early March, i.e. in time for the March Governing Council, then the publication lag is assessed to be 0 month). The publication lag is not the same across vintages as the real-time data flow – in other words, the timing of data releases – has changed over time and correspondingly its relation to the Governing Council dates. In particular, there has been an improvement over the recent years in the timeliness of macroeconomic data (with e.g. the production of "flash" estimates for both GDP and overall HICP). The lag reported in the tables is the one observed in the last available vintage (June 2009).

The publication lag provides important information about the data availability and the realtime data flow for the Euro Area. This information is important also to identify an eventual trade-off between timeliness and accuracy. The relevance of various indicators may also differ in real time, as e.g. price or money data may combine the advantage of being more quickly available than real side series and moreover less subject to data revisions.

Focusing on the main series considered in Chart 1, Eurostat makes unemployment available for the euro area during the first or the second week of the second month following the reference month. For GDP, Eurostat makes a first release available at the beginning of the third month following the end of the reference quarter that is reported in the immediately

<sup>&</sup>lt;sup>18</sup> See also the explanatory note of Table 1.

subsequent Monthly Bulletin.<sup>19</sup> Industrial Production indices are released in the second third of the second month following the reference month, and therefore published in the Monthly Bulletin of the third month following the reference month. Finally, the euro area HICP is released within the third week of the month following the reference month and is accordingly reported in the Monthly Bulletin of the second month following the reference quarter.

Among other complementary series, the Economic Sentiment Indicator is the most timely information on the real side of the economy. These data are released at the end of the reference month or at the beginning of the following month and hence is available for the first Governing Council of each month. Most revisions to these data relate to the effects of changes in the euro area composition. Another important survey is the Purchasing Managers' Index (PMI) produced by the NTC Economics. The PMI data are especially timely as released just a few days after the end of the reference month. This latter information is however not included in the database for copyright reasons.

When considering all indicators, as reported in the Annex 4, a number of interesting features can be highlighted, focusing specifically on the information provided by analysing the revisions at a less aggregated level. In particular, revisions to the real side (on the Industrial Production e.g.) seem to relate to volatile estimates for some specific sectors, e.g. construction and capital or intermediate goods. Similarly some GDP components tend to be affected by revisions to a relatively larger extent, in particular investment and exports. In some cases, volatile components, e.g. imports for GDP or durable consumer goods for Industrial Production, are nonetheless not significantly revised over time.

#### 4. Comparison with the United States and Japan

The size of revisions from one month to another can be compared across the Euro Area, the US and Japan for the following key variables: GDP, Industrial Production, the Unemployment Rate and the CPI. The set of variables is relatively limited, as it is based on series available in the ECB Monthly Bulletin that have been deemed sufficiently

<sup>&</sup>lt;sup>19</sup> Eurostat has produced a "flash" estimate since May 2003, released in the second week of the second month following the end of the reference quarter – this is not published in the subsequent Monthly Bulletin, as the first release becomes available in the meantime. For the euro area aggregate HICP, however, there is, since November 2001, a so-called "flash" estimate that is released immediately after the closing of the month, and hence it is almost always available for the first Governing Council of the month and there is then no publication lag. These "flash" estimates are however not available for either GDP expenditure components or HICP items. The source is europa.eu.int/comm/eurostat/.

comparable.<sup>20</sup> Figure 3 show "normalised" standard deviations of the revisions for the three countries / areas considered. Standard deviations have been normalised, i.e. divided by the standard deviations of the annual growth rate of the relative series computed on the vintage June 2009. This normalisation allows us to account for possible differences in volatility for the same series across countries, thereby enhancing comparability. If a given series is much more volatile in a country with respect to the other, the revisions could be expected to be of a stronger magnitude without necessarily implying higher relative uncertainty.

First focusing on data release timings and publication lags, it can be seen that for GDP and Industrial Production, the lines for US and Japan start before the euro area. The reason is that in the United States and Japan those variables are always available at least one month before the euro area ones<sup>21</sup>. For unemployment rate, data for both the euro area and Japan are reported to the Governing Council after those for the US. We have however the same timing for consumer prices across the three economic areas.

The earlier reporting for the US relates to the release schedule. In the US, the advance estimate of the GDP is available at the end of the month that follows the last month in the reference quarter, and can then be published in the Monthly Bulletin at the beginning of the second month after the last month in the reference quarter. The US Industrial Production indices are usually released during the second or the third week of the month following the reference month, and are then published in the Monthly Bulletin of the second month following the reference month. The unemployment rate for the US is available during the first or second week of the month following the reference month. For this reason in the Monthly Bulletin of the second month following the reference month, there is always updated data on the US unemployment rate. Both the US consumer price index and the euro area HICP are released within the third week of the month following the reference month, so that they appear in the Monthly Bulletin of the second month following the reference quarter. In general, in Europe the publication lag is much longer for indicators of real economic activity. As a result, the timely but "softer" information provided by surveys may be more valuable in the euro area (such survey data are, as already mentioned, included in the RTDB).

<sup>&</sup>lt;sup>20</sup> For instance monetary aggregates differ substantially in scope across countries (M2 wide for the US has no clear euro area equivalent). See also Branchi et al. (2007) for such country-specific aspects, as well as the following ECB Monthly Bulletin article, on the comparability of international statistics: http:// <u>www.ecb.europa.eu</u> / pub / pdf / other / pp61\_72\_mb200504en.pdf.

<sup>&</sup>lt;sup>21</sup> However until the first half of the 2000 the first release of the euro area GDP was published two months later then the U.S. one. The situation has changed since the second quarter of 2002, with now the euro area GDP being available in the Monthly Bulletin three months after the last month of the reference quarter.

As regards revisions, those affecting US GDP are larger over time than those for the euro area. In view of the much earlier GDP data release and correspondingly much lower publication lag for the US, this may suggest a trade-off between timeliness and accuracy. Japanese revisions in comparison even with the US appear very large, converging in magnitude to those seen for the other two GDP series only after some 20 months. This may relate to the sample covered, where Japanese growth has been relatively more volatile, as evidenced by the high coefficient of variation of this series with respect to that for the US, and was therefore perhaps more than proportionately difficult to exactly and timely assess. Recession, deflation or crises periods may result in enhancing such difficulties.

Similar results about the uncertainty of the revisions are obtained for the euro area Industrial Production Index compared with the US ones. An interesting additional finding is that, very much contrary to the GDP results, Japanese revisions seem to be more moderate than those affecting the other two datasets.

Clearly, from the chart, consumer price indexes are never revised in the US, all statistics revisions being zero. All revisions in the euro area are caused, to recall, by a single event in 2003 – when weights changed, see previous section. Bearing this in mind, Japanese figures appear in between, with larger revisions to the initial releases, but quicker convergence to the final estimate, than seen in the euro area.

Analysing the revisions of the unemployment rate series we get opposite results with respect to the ones obtained for GDP and industrial production indices. Indeed, for this variable it seems that revisions are quite larger in the euro area than both in the US and Japan.

#### 5. Key euro area macroeconomic ratios

We have now studied the effects of data revision on official statistics over a two-year period. In addition to monitoring such raw data, economists, also in policy institutions, need however to process such data with a view to assessing the state of the economy at a given point in time. The simplest way data are processed is through simple transformations (e.g. ratios) which do not require any econometric work. In this section we illustrate the effect of data revisions on a number of such macroeconomic ratios for the euro area, that are key to both economists and policy-makers.

The following illustrative set of ratios has been considered:

- The ratio of real GDP to total employment (Apparent labour productivity);
- The ratio of real consumption to real GDP (Propensity to consume);
- The ratio of real investment to real GDP (Propensity to invest);
- The ratio consumption deflator to GDP deflator (Internal terms of trade).
- The ratio real exports plus real import over twice real GDP (Trade openness).

We aim at assessing whether such key ratios are affected by data revisions to a comparable extent as basic data are, as documented above – revisions to the latter may either offset one another or instead cumulate when considering ratios of interest. Figures 4 show the timeseries for these ratios over all vintages. For labour productivity, we report respectively the yearly growth rate. Revision statistics are reported in Table 4. Since Trade openness is clearly trended, descriptive statistics are reported for the yearly changes.

Revisions to the growth rate of labour productivity are quite substantial and in fact much larger than the corresponding revisions to both growth rates of GDP (the numerator) and employment (the denominator), which in turn then do not offset each other. These revisions to the growth rate of productivity are an essential feature of all vintages – there are however no evident breaks in 2005 associated with the above-mentioned benchmark revisions in national account and employment. At the same time, these findings indicate that studies analysing productivity gains may be subject to a somewhat high degree of real-time data uncertainty.

Substantial revisions also affect both propensities to consume and invest. The average propensities are between 56 and 59 for consumption and between 19 and 22 for investment. These ranges of variability partly reflect cyclical fluctuations, but also a non-negligible real-time data uncertainty, which can be as large as 2% for the propensity to consume and 1% for the propensity to invest. Major revisions took place in 2005 when Eurostat moved from constant prices to chain linking. In view of these results, analyses focusing e.g. on the investment – saving balance for the euro area may not be fully robust to data revisions.

For the internal term of trade, revisions are in terms of size somewhat in between that of the propensity to invest and the propensity to consume. If we exclude a clear outlier corresponding to January 2004, from 2001 onward, the range of revisions has been as large as

two percent. This is quite significant as the in-sample volatility, for any given vintage of that series, appears closer to one percentage point. This pattern of uncertainty has neither increased not decreased with the benchmark revisions of 2005. These results may mirror corresponding revisions affecting trade deflators on both import and export sides, which have been sizeable. Analyses involving income distribution assessment (such as computations of wage or profit shares) or similarly purchasing power evaluation may therefore also be affected by related data revisions.

Finally, in contrast to the previous ratios, the trade openness appears almost unaffected by revisions across vintages, although trade aggregates were subject to strong revisions over time. The reason is that the ratio exhibits a strong upward trend, reflecting the ongoing process of globalisation. With respect to this dominant pattern, data revisions are negligible. However, the effect of data revisions is more sizeable when looking at annual changes in the trade openness, see Table 4.

Overall, the real-time data uncertainty seems to affect also key ratios to a substantial extent, and not only the basic published series that we analysed earlier. It seems then warranted to systematically complement any economic analysis for the euro area with checks for robustness to such effects, as commonly done by now for the US.

#### 6. NAIRU computations in real time

Beyond monitoring key ratios over time on a descriptive basis, economists conduct also some econometric analyses, e.g. to derive other key magnitudes that are representative of the economy. Such results may obviously also not be immune to data revisions, given what we already demonstrated by looking at simple key ratios. To illustrate that point, we now study the impact of data revisions on the real-time assessment of the Non Accelerating Inflation Rate of Unemployment (NAIRU) for the euro area. The NAIRU is estimated following Staiger, Stock and Watson (1997). We strictly aim at showing the possible impact of data revisions on given econom(etr)ic results, and therefore do not intend to conclude on the actual level or evolution over time of the NAIRU for the euro area – in a given sample, the model

employed e.g. assumes that the NAIRU is constant in-sample. Many different alternative methods can be used for NAIRU computations, leading to varied views as to which extent and why the NAIRU changes over time. Such investigation is beyond the scope of this paper.

Staiger, Stock and Watson (1997) propose to determine the NAIRU using the following relation, according to which if unemployment remains fixed at the NAIRU value, then inflation does not change:

$$\Delta \pi_t = \beta_1 (U_{t-1} - \mu) + \beta_2 (U_{t-2} - \mu) + \gamma X + \varepsilon_t$$

where  $\pi_t$  is the rate of inflation (computed using HICP excluding energy and unprocessed food),  $U_t$  is the unemployment rate and  $X_t$  denotes additional control variables – in the case at hand, one lag of the change in inflation and of the change in oil price inflation.

The NAIRU,  $\mu$  enters the formula as an unknown parameter. This relation cannot be easily estimated because the model is non-linear in its parameters. For this reason Staiger, Stock and Watson (1997) suggest estimating the following relation instead:

$$\Delta \pi_t = \alpha + \beta_1 U_{t-1} + \beta_2 U_{t-2} + \gamma X + e_t$$

Given the ordinary least square estimates of the constant term  $\alpha$  and coefficients  $\beta_1$  and  $\beta_2$ , the unique value of the NAIRU for any given data sample can then be estimated as:

$$-\frac{\alpha}{\beta_1+\beta_2}$$

On this basis, we have derived the euro area NAIRU from all available vintages. We also computed the uncertainty surrounding this indicator, using the Fieller's method as also proposed in Staiger, Stock and Watson (1997)<sup>22</sup>. This uncertainty reflects that pertaining to parameters in this given model, not the uncertainty arising from the already mentioned fact that other possible modelling strategies are available to compute the NAIRU.

<sup>&</sup>lt;sup>22</sup> Confidence bands are computed as in Staiger, Stock and Watson (1997) by using an extension of a technique originally proposed by E.C. Fieller (1954) to construct a confidence interval for the ratio of the means of two dependent normal random variables.

We wish to eventually check whether the NAIRU computed on the last available vintage still lays within the resulting (econometric) confidence intervals constructed in real time using past available vintages, in other words, whether the real-time uncertainty is econometrically significant in that specific case. We also then need however to also account for the fact that revisions can arise from data availability, since for each vintage the model is estimated with different samples of available data. In order to assess the relative importance of this uncertainty, we perform a standard pseudo-real-time exercise where we isolate the effect of data revisions by estimating the NAIRU using the data of the last available vintage but preserving the real-time pattern of data availability. More in detail, for each month of our database, we identify which sample of backdata was then was available, in the corresponding issue if the ECB Monthly Bulletin; we then substitute for each observation in that sample the value reported in the latest available vintage of data, June 2009, to the release then available in the ECB Monthly Bulletin.

Figure 5 reports the results of the computations, showing the real-time NAIRU – along with the associated confidence interval, the pseudo-real-time NAIRU, and the NAIRU from the last available vintage (denoted "Last NAIRU"). We also report the real-time unemployment gap, defined as the difference between unemployment and the NAIRU. This variable can be interpreted as an indicator of forthcoming inflationary pressures according to equation (1.1).

Results first show that recursive estimates of the NAIRU changes quite substantially over time. Real-time and pseudo-real-time estimates are moreover quite different over the whole sample from the NAIRU computed using only the last available vintage of data. This indicates that both data revisions and data availability are important sources of the overall real-time uncertainty. However, data availability plays a larger role when the NAIRU is computed with the earlier vintages – using data up to the June 2003 ECB Monthly Bulletin – where the estimation sample remains short. Differences between real-time and pseudo-real-time estimates become smaller when computed using more recent vintages.

However, both the pseudo-real-time and the last-vintage NAIRUs remain within the confidence bands around the real-time NAIRU. This indicates that the combined variation from both data availability and data revisions remain well below that uncertainty affects the accuracy with which the parameters of this given model can be estimated.

Finally, an interesting side-finding of this illustrative exercise, is that, as seen on Figure 6, the focus on the unemployment gap as such can be misplaced – even regardless of parameter or model uncertainty considerations. Data uncertainty per se suffices to render the interpretation

of such variables highly dubious, as for instance can be documented for the periods 2000-02 and 2003-06 where, respectively, the gap is subject to a measurement error of close to 2 p.p. and there is even uncertainty on the very sign of the unemployment gap.

#### 7. Summary and Conclusions

We have described the construction of, and documented, an euro area-wide real-time database, comprising a large number of series, as reported in the ECB Monthly Bulletin. The monthly vintages of the underlying ECB Monthly Bulletin data are made available for external use via the EABCN website and the ECB Statistical Data Warehouse and are regularly updated on a quarterly basis. This database will provide users with regular snapshots of area-wide data, as available to the euro area Governing Council at the beginning of each month.

We have studied the real-time data revision and data-flow processes in the euro area and compared it with those for the US and Japan. Revisions for the euro area appeared especially on the real side as relatively limited in comparison, this being possibly connected to a less quick delivery of first estimates.

At the same time, revisions to euro area macroeconomic data can be substantial enough to affect the assessment of the macro-economic situation in the euro area at a given point in time. For instance, GDP composition or Industrial Production indices can experience important changes over time. Also the unemployment rate or the saving ratio are typically subject to sizeable revisions, albeit mostly affecting the level rather than the trends in the reviewed series. Labour productivity trends or the degree of openness seem to be less affected than other key ratios such as terms of trade or propensities to consume or invest out of GDP.

We have also provided real-time and pseudo-real-time NAIRU estimates for the euro area on the basis of this ECB Monthly Bulletin euro area-wide database and showed that the uncertainty relating to data revision issues albeit sizeable, would be dominated by that arising from the estimation of the parameters.

We plan to use further this comprehensive euro area dataset and would also welcome any further use of such data by researchers.

### **Bibliography**

Anderson, R. G. (2006). "Replicability, real-time data, and the science of economic research: FRED, ALFRED, and VDC," *Review, Federal Reserve Bank of St. Louis*, issue Jan, pages 81-93.

Branchi, M., H. C. Dieden, W. Haine, C. Horváth, A. Kanutin and L. Kezbere (2007) "Analysis of revisions to general economic statistics", ECB Occasional Paper .

Castle, J and C. Ellis (2002). "Building a Real-Time Database for GDP(E)." *Bank of England Quarterly Bulletin* (Spring 2002), pp. 42–49.

Croushore, D. and T. Stark (2001) "A Real-Time Data Set for Macroeconomists," *Journal of Econometrics* 105, pp. 111-130.

Croushore, D., and T. Stark (2005), "A Real Time Data Set for Macroeconomists: Does the Data Vintage Matter?" *Review of Economics and Statistics* 85 (August): 605-17.

Croushore, D. (2006): "Forecasting with Real-Time Macroeconomic Data." In: Graham Elliott, Clive W.J. Granger, and Allan Timmermann, eds., *Handbook of Economic Forecasting* (Amsterdam: North-Holland), pp. 961–982.

Fair, R. C. and R. J. Shiller (1990) "Comparing *Information* in Forecasts from Econometric Models," *American Economic Review* 80, pp. 375-89.

Giannone, D., L. Reichlin and S. Simonelli (2009) "Do Surveys Forecast Real Economic Activity", *National Institute Economic Review*, No. 210, October 2009.

Jenkinson, G. (2004) "ONS Policy on Standards for Presenting Revisions Analysis in Time Series First Releases", *Economic Trends*, No. 604, March 2004

Kaufmann, S. and P. Kugler (2009), "A monetary real time conditional forecast of euro area inflation", *Journal of Forecasting*, Early View, June 2009.

Ladiray, D., G.-L.Mazzi and R. Ruggeri-Cannata (2008), "Euro area data: Issues and implications for economic analysis", EABCN Workshop, Cambridge, March 2008.

Marcellino, M. and A. Musso (2008) "Real-time estimates of the euro area output gap – reliability and inflation forecast performance", mimeo ECB.

OECD (2003). Undertaking Revisions and Real-Time Data Analysis using the OECD Main Economic Indicators Original Release Data and Revisions Database. OECD Statistics Working Paper

Orphanides, A. and S. van Norden, 2002. "The Unreliability of Output-Gap Estimates in Real Time," *The Review of Economics and Statistics*, MIT Press, vol. 84(4), pages 569-583, 07.

Orphanides, A., 2001. "Monetary Policy Rules Based on Real-Time Data," *American Economic Review*, vol. 91(4), pages 964-985, September.

Swanson, N. R. (1996) "Forecasting Using First Available Versus Fully Revised Economic Time Series Data," Working Paper No. 4-96-7, Pennsylvania State University.

#### Selected web resources

http://www.oncampus.richmond.edu/~dcrousho/docs/realtime\_lit.pdf http://www.philadelphiafed.org/econ/forecast/real-time-data/index.cfm http://research.stlouisfed.org/tips/alfred/ http://stats.oecd.org/mei/default.asp?rev=1 http://www.bankofengland.co.uk/statistics/gdpdatabase/ http://www.bundesbank.de/vfz/vfz\_echtzeitdaten.en.php http://www.eabcn.org/data/rtdb/euro\_area\_rtdb.htm

# Table 1: The composition of the dataset – based on the ECB Monthly Bulletin presentation and methodological approach

BLOCK NAME	NUMBER. OF SERIES	BACKDATA (AT LEAST SINCE*)	PUBLICAT ION LAG (MAXIMUM**)
MONTHLY SER	RIES		
Industrial production: by industry (breakdown by end-use of products- is the harmonised sub-division of industry excluding construction (NACE section C to E) into main industrial groupings (MIGs)).	12	January 1990	2 months
Retail sales: by type of goods	10	January 1995	1 month
Unemployment and unemployment rate: by gender and by age groups	10	January 1996	1 month
Harmonised Index of Consumer Prices (incl. breakdown be goods and services components)	15	January 1995	1 month
External transactions and position	13	January 1999	2 months
Exchange rates: effective exchange rates	5	January 1998	0 months
Trade in goods: value, volume and unit value by product group	39	January 2000	3 months
Interest rate, money market overnight to 12 mths, US and Japan 3 mths	7	January 1994	0 months
Government bond yield 2, 3, 5, 7, 10 years, US and Japan, 10 years	7	January 1994	0 months
Dow Jones EURO STOXX, S&P and Nikkei	14	January 1994	0 months
US and Japan: main economic and financial indicators	9	January 1978	1 month
Industry and commodity prices: by type of goods and by industry	13	January 1991	1 month
Money supply M1 M2 M3, Base money, Total loans, Total credit	7	February 1999	1 month
Money supply M1 M2 M3, Base money, Total loans, Total credit	7	February 1999	1 months
Confidence indicators, business and consumers	21	April 1995	0 months
QUARTERLY SE		01 1005	
Employment: by employment status, by economic activity	10	Q1 1995	3 months
GDP deflators: by expenditure components	7	Q1 1995	2 months
Unit labour cost: by economic activity		Q1 1995	4 months
Hourly labour cost: by components and by economic activity	7	Q1 1996	3 months
Exchange rates: effective exchange rates	1	Q4 1995	3 months
US and Japan: main economic and financial indicators Industry and commodity prices: by type of goods and by industry	23	Q1 1995	3 months
(Construction output prices, All residential buildings)	1	Q1 1985	6 months
GDP: by expenditure components at current prices	7	Q1 1995	2 months
GDP: by expenditure components at constant prices	7	Q1 1995	2 months
GDP: by expenditure components at constant prices	7	Q1 1995	2 months
Value added: by economic activity at current prices	9	Q1 1995	2 months
Value added: by economic activity at constant prices	9	Q1 1995	2 months
Confidence indicators: economic construction: (Industry Survey: Current level of capacity utilization)	1	Q1 1985	0 months
ANNUAL SER	IES		
Government finance: deficit/surplus and government consumption	14	1995	4 months
US and Japan: main economic and financial indicators	6	1998	13 months

(\*): Observations for all series in a given block are available at least since the date below for all vintages of the dataset.

(\*\*): We report the publication lag computed using the last available vintage (Sept. 07). If the series within a block have different publication lags we report the maximum lag. The publication lag is computed with respect to the end of the month preceding a given Governing Council – e.g. when the data for February is available early March, i.e. in time for the March Governing Council, then the Publication Lag is assessed to be 0 month. For quarterly series the Publication Lag is computed with respect to the last day of the quarter. For annual series the Publication Lag is computed with respect to the last day of the year

$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		НІСР	Industrial producer prices	Hourly labour costs	GDP deflator	М3	Real GDP	Industrial production excluding construction	Economic sentiment indicator	Capacity utilisation in manufacturing (percentages)	Employment	Unemploymen (% of labour force
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		1	2	3	4	5	6	7	8	9	10	11
Mean of revisions           Y(th+4) - Y(th+24)         0.03         0.02         -0.14         -0.08         0.02         -0.15         -0.21         1.74         -0.08         -0.18           Y(th+6) - Y(th+24)         0.03         0.03         -0.13         -0.12         0.03         -0.11         1.65         -0.06         -0.16           Y(th+6) - Y(th+24)         0.02         0.03         -0.09         -0.11         0.03         -0.12         -0.08         1.56         -0.04         -0.12           Y(th+24)         0.02         0.03         -0.06         -0.11         0.00         -0.10         -0.05         1.18         0.00         -0.10           Y(th+24)         0.01         0.03         -0.01         -0.07         -0.04         0.70         0.02         -0.05           Y(th+10) - Y(th+24)         0.01         0.03         0.01         -0.08         -0.07         -0.04         0.70         0.02         -0.05           Standard deviation of the series           Y(th+4) - Y(th+24)         0.10         0.13         0.27         0.22         0.21         0.19         0.40         2.46         0.22         0.20           Y(t							Mean of the s	eries				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		2.27	2.79	3.05	2.16	7.75	1.65	1.38	97.88	81.68	1.17	8.34
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$							Mean of revis	sions				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Y(tlt+4) - Y(tlt+24)	0.03	0.02	-0.14	-0.08	0.02	-0.15	-0.21	1.74	-0.08	-0.18	-0.06
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Y(tlt+6) - Y(tlt+24)	0.03	0.03	-0.13	-0.12	0.03	-0.14	-0.11	1.65	-0.06	-0.16	-0.06
Y(th+16) - Y(th+24)         0.01         0.03         0.01         -0.08         -0.01         -0.07         -0.04         0.70         0.02         -0.05           Standard deviation of the series           Standard deviation of the series           Standard deviation of revisions           Y(th+4) - Y(th+24)         0.10         0.13         0.27         0.22         0.21         0.19         0.40         2.46         0.22         0.20           Y(th+4) - Y(th+24)         0.10         0.13         0.27         0.22         0.21         0.19         0.40         2.46         0.22         0.20           Y(th+4) - Y(th+24)         0.09         0.12         0.26         0.14         0.20         0.17         0.38         2.23         0.21         0.18           Y(th+2) - Y(th+24)         0.07         0.11         0.26         0.14         0.19         0.14         0.31         1.98         0.18         0.15           Y(th+2) - Y(th+24)         0.06         0.10         0.21         0.07         0.12         0.23         1.61         0.14         0.10	Y(tlt+8) - Y(tlt+24)	0.02	0.03	-0.09	-0.11	0.03	-0.12	-0.08	1.56	-0.04	-0.12	-0.06
Standard deviation of the series           Standard deviation of the series           Standard deviation of the series           Standard deviation of revisions           Y(tlt+4) - Y(tlt+24)         0.10         0.13         0.27         0.22         0.21         0.19         0.46         0.22         0.21         0.19         0.46         0.22         0.21         0.19         0.40         2.46         0.22         0.21         0.19         0.40         0.246         0.22         0.21         0.19         0.40         0.24         0.21         0.17         0.38         2.23         0.21         0.18         0.15           V(tlt+2)         V(tlt+2)         0.11         0.26         0.14         0.12         0.14         0.13         1.98         0.18         0.15           V(tlt+2)           <	Y(tlt+12) - Y(tlt+24)	0.02	0.03	-0.06	-0.11	0.00	-0.10	-0.05	1.18	0.00	-0.10	-0.04
0.59         2.46         0.57         0.32         2.05         1.57         3.34         10.47         2.67         0.64           Standard deviation of revisions           Y(tlt+4) - Y(tlt+24)         0.10         0.13         0.27         0.22         0.21         0.19         0.40         2.46         0.22         0.20           Y(tlt+4) - Y(tlt+24)         0.09         0.12         0.26         0.14         0.20         0.17         0.38         2.23         0.21         0.18           Y(tlt+2) - Y(tlt+24)         0.07         0.11         0.26         0.14         0.19         0.14         0.31         1.98         0.18         0.15           Y(tlt+2) - Y(tlt+24)         0.06         0.10         0.21         0.12         0.07         0.12         0.03         1.61         0.14         0.10	Y(tlt+16) - Y(tlt+24)	0.01	0.03	0.01	-0.08	-0.01	-0.07	-0.04	0.70	0.02	-0.05	-0.03
Standard deviation of revisions           Y(tlt+4) - Y(tlt+24)         0.10         0.13         0.27         0.22         0.21         0.19         0.40         2.46         0.22         0.20           Y(tlt+6) - Y(tlt+24)         0.09         0.12         0.26         0.14         0.20         0.17         0.38         2.23         0.21         0.18           Y(tlt+8) - Y(tlt+24)         0.07         0.11         0.26         0.14         0.19         0.14         0.31         1.98         0.18         0.15           Y(tlt+12) - Y(tlt+24)         0.06         0.10         0.21         0.12         0.07         0.12         0.23         1.61         0.14         0.10						Stan	dard deviation	of the series				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		0.59	2.46	0.57	0.32	2.05	1.57	3.34	10.47	2.67	0.64	0.58
$\begin{array}{cccccccccccccccccccccccccccccccccccc$						Stan	dard deviatior	of revisions				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Y(tlt+4) - Y(tlt+24)	0.10	0.13	0.27	0.22	0.21	0.19	0.40	2.46	0.22	0.20	0.27
Y(tt+12)-Y(tt+24) 0.06 0.10 0.21 0.12 0.07 0.12 0.23 1.61 0.14 0.10	Y(tlt+6) - Y(tlt+24)	0.09	0.12	0.26	0.14	0.20	0.17	0.38	2.23	0.21	0.18	0.25
	Y(tlt+8) - Y(tlt+24)	0.07	0.11	0.26	0.14	0.19	0.14	0.31	1.98	0.18	0.15	0.24
	Y(tlt+12) - Y(tlt+24)	0.06	0.10	0.21	0.12	0.07	0.12	0.23	1.61	0.14	0.10	0.19
Y(ttt+16) - Y(ttt+24) 0.04 0.08 0.20 0.13 0.06 0.09 0.15 1.27 0.16 0.12	Y(tlt+16) - Y(tlt+24)	0.04	0.08	0.20	0.13	0.06	0.09	0.15	1.27	0.16	0.12	0.15
		0	1	3	2	1	2	2	0	1	3	

#### Table 2: Revision statistics for main economic indicators of the ECB Monthly Bulletin

Sources: ECB and European Commission (Eurostat and Economic and Financial Affairs DG).

This table shows some summary statistics about some key series and their revisions. We report the Mean of the series and the Standard deviation of the series that can be used as term of comparison for understanding the dimension of mean and standard deviation of the revisions. We report then the mean and the standard deviation of the revisions defined as Y(tlt+i)-Y(tlt+24), where t indicates the reference period, while t+i - for i=4,6,8,12,16 - is the time in which the value of the series is observed and we consider the observation available two years later - Y(tlt+24) - the "true value". The row Publication lag indicates how many months later the reference period the first observation is available (for quarterly/annual series we count from the last month in the quarter/year)

	financial developme	Unit labour costs (manufacturing) 2	Real GDP	Industrial production index	Unemployment rate	Broad
	price index	costs (manufacturing)	Real GDP	production		
		(manufacturing)			rate	
	1					mone
	1	2			as a % of	
	1	2		(manufacturing)	labour force (s.a.)	
	1	4	3	4	(s.a.)	
			United States			
			Mean of the series			
	2.73	1.26	2.08	0.23	5.36	6.30
			Mean of revisions			
Y(tlt+4) - Y(tlt+24)	0.00	0.65	0.49	0.37	0.00	0.54
Y(tlt+6) - Y(tlt+24)	0.00	0.61	0.48	0.33	0.01	0.48
(tlt+8) - Y(tlt+24)	0.00	0.67	0.45	0.27	0.01	0.40
(tlt+12) - Y(tlt+24) (tlt+16) - Y(tlt+24)	0.00 0.00	0.46 -0.01	0.36 0.24	0.21 0.18	0.01 0.00	0.24
(ur+10) - 1(ur+2+)	0.00	-0.01	Standard deviation of the		0.00	0.0.
	1.19	3.05	1.39	4.36	0.88	1.73
			Standard deviation of rev	visions		
(tlt+4) - Y(tlt+24)	0.00	3.13	0.29	1.01	0.06	1.57
(tlt+6) - Y(tlt+24)	0.00	3.06	0.29	0.97	0.06	1.31
(tlt+8) - Y(tlt+24)	0.00	2.79	0.30	0.94	0.05	1.08
(tlt+12) - Y(tlt+24)	0.00	2.96	0.31	0.93	0.05	0.75
(tlt+16) - Y(tlt+24)	0.00	2.75	0.25	0.87	0.03	0.35
		-	Publication lag (month			
	1	2	1	1	1	1
			Japan Mean of the series			
	-0.08	-1.88	1.39	-0,55	4.60	1.70
	0.00	1100	Mean of revisions	0.00	100	
Y(tlt+4) - Y(tlt+24)	0.05	0.00	0.32	-0.12	0.00	0.05
(tlt+6) - Y(tlt+24)	0.03	0.05	0.27	-0.12	-0.01	0.03
(tlt+8) - Y(tlt+24)	0.01	0.11	0.22	-0.14	-0.01	0.03
(tlt+12) - Y(tlt+24)	-0.01	0.19	0.18	-0.12	0.00	0.02
Y(tlt+16) - Y(tlt+24)	-0.01	0.15	0.14	-0.08	0.00	0.02
			Standard deviation of the			
	0.73	4.33	1.66	8.78	0.56	0.51
			Standard deviation of rev			
Y(tlt+4) - Y(tlt+24)	0.16	0.65	1.26	0.57	0.05	0.0
(tlt+6) - Y(tlt+24)	0.13	0.63	1.22	0.56	0.05	0.0
(tlt+8) - Y(tlt+24)	0.10	0.62	1.11	0.52	0.05	0.0
(tlt+12) - Y(tlt+24)	0.05	0.53	0.84	0.46	0.05	0.0
r(tlt+16) - Y(tlt+24)	0.05	0.43	0.73	0.35	0.04	0.04
	1	3	Publication lag (months	s) 1	1	

#### Table 3: Revision statistics for US and Japan key indicators

Sources: National data (columns 1, 2 (United States), 3, 4, 5 (United States), and 6); OECD (column 2 (Japan)); Eurostat (column 5 (Japan)).

This table shows some summary statistics about some key series and their revisions. We report the Mean of the series and the Standard deviation of the series that can be used as term of comparison for understanding the dimension of mean and standard deviation of the revisions. We report then the mean and the standard deviation of the revisions defined as Y(t|t+i)-Y(t|t+24), where t indicates the reference period, while t+i - for i=4,6,8,12,16 - is the time in which the value of the series is observed and we consider the observation available two years later - Y(t|t+24) - the "true value". The row Publication lag indicates how many months later the reference period the first observation is available (for quarterly/annual series we count from the last month in the quarter/year)

# Table 4: Revision statistics for Apparent labour productivity, Propensity toconsume, Propensity to invest, Internal terms of trade and Trade openness.

Apparent labour productivity gains 1	Propensity to consume 2	Propensity to invest 3	Internal terms of trade 4	Trade openness differences 5
L	Mean of the series		I	
2.37	57.33	21.27	100.68	40.38
	Mean of revisions			
-0.02 -0.02 -0.02	-0.43 -0.38 -0.37	-0.17 -0.13 -0.11	0.37 0.40 0.33	-0.03 -0.08 -0.10
-0.01 -0.04	-0.25 -0.17	-0.07 -0.04	0.31 0.13	-0.07 -0.02
0.86			0.44	2.95
0.26 0.20 0.17 0.20	0.58 0.53 0.52 0.42	0.18 0.17 0.16 0.15	0.37 0.33 0.32 0.32	0.35 0.30 0.27 0.37 0.33
	Iabour           productivity           gains           1           2.37           -0.02           -0.02           -0.02           -0.02           -0.01           -0.04           0.86           0.26           0.20           0.17	I abour productivity gains 1         to consume 2           1         2           Mean of the series         3           2.37         57.33           Mean of the series         3           2.37         57.33           0.02         -0.43           -0.02         -0.38           -0.02         -0.38           -0.02         -0.37           -0.01         -0.25           -0.04         -0.17           Standard deviation of the series         0.86           0.20         0.53           0.17         0.52           0.20         0.42	Iabour productivity gains 1         to consume 2         to invest invest 2.37           Mean of the series         3           2         3           2.37         57.33         21.27           Mean of the series         2         3           0.02         -0.43         -0.13           -0.02         -0.38         -0.13           -0.02         -0.37         -0.11           -0.01         -0.25         -0.07           -0.04         -0.17         -0.04           Standard deviation of the series         0.53           0.86         0.59         0.53           0.20         0.53         0.17           0.21         0.52         0.16           0.22         0.42         0.15	Iabour productivity gains 1         to consume 2         to invest invest         terms of trade tra

Sources: ECB calculations based on Eurostat data.

This table shows some summary statistics about some key big ratios and their revisions. We report the Mean of the ratios and the Standard deviation of the ratios that can be used as term of comparison for understanding the dimension of mean and standard deviation of the revisions. We report then the mean and the standard deviation of the revisions defined as Y(tlt+i)-Y(tlt+24), where t indicates the reference period, while t+i - for i=4,6,8,12,16 - is the time in which the value of the series is observed and we consider the observation available two years later - Y(tlt+24) - the "true value".





This Figure shows the evolution of the GDP annual growth rate through vintages. The different lines are the plots of the GDP series for all the available vintages. At each point in time each plot indicates the value of the GDP annual growth rate, relative to that point in time, but for a different vintage. The crosses indicate the last observation in each vintage.



Figure 1b: Vintages for HICP- euro area data.



This Figure shows the evolution of the annual inflation through vintages. The different lines are the plots of the inflation series for all the available vintages. At each point in time each plot indicates the value of the annual inflation, relative to that point in time, but for a different vintage. The crosses indicate the last observation in each vintage.



Figure 1c: Vintages for Industrial Production – euro area data.

This Figure shows the evolution of the Industrial Production annual growth rate through vintages. The different lines are the plots of the Industrial Production series for all the available vintages. At each point in time each plot indicates the value of the Industrial Production annual growth rate relative to that point in time, but for a different vintage. The crosses indicate the last observation in each vintage.





This Figure shows the evolution of the Unemployment through vintages. The different lines are the plots of the Unemployment series for all the available vintages. At each point in time each plot indicates the value of the Unemployment rate relative to that point in time, but for a different vintage. The crosses indicate the last observation in each vintage.



Figure 2: GDP growth rate for the fourth quarter of 2001 – successive releases

This Figure shows the evolution of the GDP annual growth rate for the fourth quarter of 2001 through different vintages. For each vintage, corresponding to an issue of the monthly bulletin, we have a different value of the GDP annual growth rate for the fourth quarter of 2001.



Figure 3a: Revisions for GDP growth (yoy) – euro area, US and Japan data.

In this figure we compare the ratio of the standard deviation of revisions on the standard deviation of the respective series for the GDP annual growth rate of the Euro Area, the U.S. and Japan. The standard deviation of the series is computed on the last available vintage, i.e. June 2009. The revisions are defined as Y(tlt+i)-Y(tlt+24), where t indicates the reference period, while t+i - for i=1,2,...24 on the category axis - is the time in which the value of the series is observed and we consider the observation available two years later - Y(tlt+24) - the "true value".


Figure 3b: Revisions for HICP inflation (yoy) - euro area, US and Japan data.

In this figure we compare the ratio of the standard deviation of revisions on the standard deviation of the respective series for the annual inflation of the Euro Area, the U.S. and Japan. The standard deviation of the series is computed on the last available vintage, i.e. June 2009. The revisions are defined as Y(t|t+i)-Y(t|t+24), where t indicates the reference period, while t+i - for i=1,2,...24 on the category axis - is the time in which the value of the series is observed and we consider the observation available two years later - Y(t|t+24) - the "true value".



Figure 3c: Revisions IP growth (yoy) - euro area, US and Japan data.

In this figure we compare the ratio of the standard deviation of revisions on the standard deviation of the respective series for the Industrial Production annual growth rate of the Euro Area, the U.S. and Japan. The standard deviation of the series is computed on the last available vintage, i.e. June 2009. The revisions are defined as Y(t|t+i)-Y(t|t+24), where t indicates the reference period, while t+i - for i=1,2,...24 on the category axis - is the time in which the value of the series is observed and we consider the observation available two years later - Y(t|t+24) - the "true value".



Figure 3d: Revisions Unemployment rate – euro area, US and Japan data.

In this figure we compare the ratio of the standard deviation of revisions on the standard deviation of the respective series for the Unemployment of the Euro Area, the U.S. and Japan. The standard deviation of the series is computed on the last available vintage, i.e. June 2009. The revisions are defined as Y(t|t+i)-Y(t|t+24), where t indicates the reference period, while t+i - for i=1,2,...24 on the category axis - is the time in which the value of the series is observed and we consider the observation available two years later - Y(t|t+24) - the "true value".



Figure 4a: Vintages for Apparent labour productivity growth (yoy).

This Figure shows the evolution of the Apparent labour productivity through vintages. The different lines are the plots of the Apparent labour productivity series for all the available vintages. At each point in time each plot indicates the value of the Apparent labour productivity relative to that point in time, but for a different vintage. The crosses indicate the last observation in each vintage.





This Figure shows the evolution of the Propensity to consume through vintages. The different lines are the plots of the Propensity to consume series for all the available vintages. At each point in time each plot indicates the value of the Propensity to consume relative to that point in time, but for a different vintage. The crosses indicate the last observation in each vintage.

Figure 4c: Vintages for Propensity to invest.



This Figure shows the evolution of the Propensity to invest through vintages. The different lines are the plots of the Propensity to invest series for all the available vintages. At each point in time each plot indicates the value of the Propensity to invest relative to that point in time, but for a different vintage. The crosses indicate the last observation in each vintage.







This Figure shows the evolution of the Internal terms of trade through vintages. The different lines are the plots of the Internal terms of trade series for all the available vintages. At each point in time each plot indicates the value of the Internal terms of trade relative to that point in time, but for a different vintage. The crosses indicate the last observation in each vintage.

ECB Working Paper Series No 1145 January 2010

Figure 4e: Vintages for Trade openness.



This Figure shows the evolution of the Trade openness through vintages. The different lines are the plots of the Trade openness of trade series for all the available vintages. At each point in time each plot indicates the value of the Trade openness of trade relative to that point in time, but for a different vintage. The crosses indicate the last observation in each vintage.





This figure reports the evolution of the NAIRU computed in real time along with the associated confidence interval, the NAIRU estimated with the pseudo real time exercise, and the NAIRU computed with the last available vintage (denoted "Last NAIRU"). At each point in time, each plot indicates the value of the variables relative to that point in time, but for a different vintage.

**Figure 6: Unemployment gap in real time** 



This Figure shows the evolution of the unemployment gap, defined as unemployment rate minus NAIRU, through vintages. The different lines are the plots of the unemployment gap series for all the available vintages. At each point in time each plot indicates the value of the unemployment gap relative to that point in time, but for a different vintage. The crosses indicate the last observation in each vintage.

# Annex 1: Cut-off dates

Annex	<i>1.</i> Out 0 <i>i</i>				
Vintage	Cut-off date	GC meeting	Vintage	Cut-off date	GC meeting
Jan-01	03-Jan-01	04-Jan-01	Apr-05	06-Apr-05	07-Apr-05
Feb-01	31-Jan-01	01-Feb-01	May-05	03-May-05	04-May-05
Mar-01	28-Feb-01	01-Mar-01	Jun-05	01-Jun-05	02-Jun-05
Apr-01	10-Apr-01	11-Apr-01	Jul-05	06-Jul-05	07-Jul-05
May-01	08-May-01	10-May-01	Aug-05	03-Aug-05	04-Aug-05
Jun-01	06-Jun-01	07-Jun-01	Sep-05	31-Aug-05	01-Sep-05
Jul-01	04-Jul-01	05-Jul-01	Oct-05	05-Oct-05	06-Oct-05
Aug-01	01-Aug-01	02-Aug-01	Nov-05	02-Nov-05	03-Nov-05
Sep-01	13-Sep-01	13-Sep-01	Dec-05	30-Nov-05	01-Dec-05
Oct-01	10-Oct-01	11-Oct-01	Jan-06	11-Jan-06	12-Jan-06
Nov-01	07-Nov-01	08-Nov-01	Feb-06	01-Feb-06	02-Feb-06
Dec-01	05-Dec-01	06-Dec-01	Mar-06	01-Mar-06	02-Mar-06
Jan-02	16-Jan-02	17-Jan-02	Apr-06	04-Apr-06	06-Apr-06
Feb-02	06-Feb-02	07-Feb-02	May-06	03-May-06	04-May-06
Mar-02	06-Mar-02	07-Mar-02	Jun-06	07-Jun-06	08-Jun-06
Apr-02	03-Apr-02	04-Apr-02	Jul-06	05-Jul-06	06-Jul-06
May-02	30-Apr-02	02-May-02	Aug-06	02-Aug-06	03-Aug-06
Jun-02	05-Jun-02	06-Jun-02	Sep-06	30-Aug-06	31-Aug-06
Jul-02	03-Jul-02	04-Jul-02	Oct-06	04-Oct-06	05-Oct-06
Aug-02	31-Jul-02	01-Aug-02	Nov-06	31-Oct-06	02-Nov-06
Sep-02	11-Sep-02	12-Sep-02	Dec-06	06-Dec-06	07-Dec-06
Oct-02	09-Oct-02	10-Oct-02	Jan-07	10-Jan-07	11-Jan-07
Nov-02	06-Nov-02	07-Nov-02	Feb-07	07-Feb-07	08-Feb-07
Dec-02	04-Dec-02	05-Dec-02	Mar-07	07-Mar-07	08-Mar-07
Jan-03	15-Jan-03	23-Jan-03	Apr-07	11-Apr-07	12-Apr-07
Feb-03	05-Feb-03	06-Feb-03	May-07	08-May-07	10-May-07
Mar-03	05-Mar-03	06-Mar-03	Jun-07	05-Jun-07	06-Jun-07
Apr-03	02-Apr-03	03-Apr-03	Jul-07	04-Jul-07	05-Jul-07
May-03	07-May-03	08-May-03	Aug-07	01-Aug-07	02-Aug-07
Jun-03	04-Jun-03	05-Jun-03	Sep-07	05-Sep-07	06-Sep-07
Jul-03	09-Jul-03	10-Jul-03	Oct-07	02-Oct-07	04-Oct-07
Aug-03	30-Jul-03	31-Jul-03	Nov-07	07-Nov-07	08-Nov-07
Sep-03	03-Sep-03	04-Sep-03	Dec-07	05-Dec-07	06-Dec-07
Oct-03 Nov-03	01-Oct-03 05-Nov-03	02-Oct-03	Jan-08 Eab 08	09-Jan-08	10-Jan-08
Dec-03	03-Nov-03 03-Dec-03	06-Nov-03 04-Dec-03	Feb-08 Mar-08	06-Feb-08 05-Mar-08	06-Mar-08 06-Mar-08
Jan-04	14-Jan-04	22-Jan-04			
Jan-04 Feb-04	04-Feb-04	05-Feb-04	Apr-08 May-08	09-Apr-08 06-May-08	10-Apr-08 08-May-08
Mar-04	04-Feb-04 03-Mar-04	03-Fe0-04 04-Mar-04	Jun-08	00-May-08 04-Jun-08	08-May-08 05-Jun-08
Apr-04	31-Mar-04	04-Mai-04 01-Apr-04	Jul-08	04-Juli-08 02-Jul-08	03-Jul-08
May-04	05-May-04	01-Api-04 06-May-04	Jui-08 Aug-08	02-Jui-08 06-Aug-08	03-Jui-08 07-Aug-08
Jun-04	02-Jun-04	03-Jun-04	Sep-08	03-Sep-08	07-Aug-08 04-Sep-08
Jul-04 Jul-04	30-Jun-04	01-Jul-04	Oct-08	30-Sep-08	02-Oct-08
Aug-04	04-Aug-04	05-Aug-04	Nov-08	05-Nov-08	02-001-08 06-Nov-08
Sep-04	04-Aug-04 01-Sep-04	03-Aug-04 02-Sep-04	Dec-08	03-Dec-08	04-Dec-08
Oct-04	06-Oct-04	02-Sep-04 07-Oct-04	Jan-09	14-Jan-09	15-Jan-09
Nov-04	03-Nov-04	07-Oct-04 04-Nov-04	Jan-09 Feb-09	04-Feb-09	05-Feb-09
Dec-04	03-Nov-04 01-Dec-04	02-Dec-04	Mar-09	04-Feb-09 04-Mar-09	05-Mar-09
Jan-05	12-Jan-05	13-Jan-05	Apr-09	04-141-09 01-Apr-09	02-Apr-09
Feb-05	02-Feb-05	03-Feb-05	May-09	06-May-09	07-May-09
Mar-05			Jun-09	•	04-Jun-09
	52 mai 05	00 mai 00	Jun <sup>-</sup> 07	00 Jun 07	5 i Jun 07



# Annex 2: Core series list

IPP	Industrial Producer Prices
Ulc	Unit Labour Cost
Lnn	Employment, total
Yed	GDP deflator
Ddd	Domestic demand deflator
Pcd	Consumption deflator
Gcd	Government consumption deflator
Itd	Investment deflator
Xtd	Exports deflator
mtd	Imports deflator
yen	GDP, nominal
Pcn	Consumption, nominal
Gcn	Government consumption, nominal
Itn	Investment, nominal
Cin	Changes in inventories, nominal
Xtn	Exports, nominal
Mtn	Imports, nominal
Yer	GDP, real
Pcr	Consumption, real
Gcr	Government consumption, real
Itr	Investment, real
Cir	Changes in inventories, real
Xtr	Exports, real
Mtr	Imports, real
ipSA	Industrial production, total
Unrx	Unemployment rate
Hicp	Harmonized index of consumer prices
Can	Current account balance
gbr10y	10-years government bond
ir3m	3-month Euribor
Sei	Stock exchange index
M3	M3
M1	M1
Bm	Base money
Tloa	Loans, total
Tcre	Credit, total
Hlc	Hourly labour cost: by components and by economic activity
Psd	Public sector deficit

47

# Annex 3: Detailed description of individual variables included in the dataset

The annex follows the organisation of the CSV files, i.e. it is divided into 3 main blocks: annual, quarterly and monthly. Variables within each block are marked with a letter indicating in which column of the file the variable is published<sup>1</sup>.

This annex describes the status of the database as it was at the time of preparing the paper (i.e. up to June 2009). The documentation is, however, regularly updated following the updates of the dataset and its most up-to-date version can be downloaded from the ECB Statistical Data Warehouse, the Explanation page dedicated to RTDB dataset.

# Overview of monthly indicators

Columns in	Block name
the files	
B-M	Industrial production: by industry
N-W	Retail sales: by type of goods
X-AG	Unemployment and unemployment rate: by gender and by age
AH-AV	HICP
AW-BI	External transactions and position: current and capital account, by
	credit and debt
BJ-BN	Exchange rates: effective exchange rates
BO-DA	Trade in goods: value, volume and unit value by product group
DB-DH	Interest rate, money market overnight, 1 to 12 months, US and Japan
	3 months
DI-DO	Government bond yield 2, 3, 5, 7, 10 years, US and Japan, 10 years
DP-EC	Dow Jones EURO STOXX indices by economics sectors, S&P and
	Nikkei
ED-EL	US and Japan: main economic and financial indicators
EM-EY	Industry and commodity prices: by type of goods and by industry
EZ-FF	Money supply M1 M2 M3, Base money, Total loans, Total credit
	(seasonally adjusted
FG-FM	Money supply M1 M2 M3, Base money, Total loans, Total credit (not
	seasonally adjusted)
FN-GH	Confidence indicators: economic, manufacturing, consumer,
	construction, retail trade, services

# **Industrial production: by industry**

В	Total (annual percentage c	hanges)
	Industry excluding constru	ctions-
С	Total (index)	
D	Total (annual perce	ntage changes)
	Industry excluding constru	ctions and energy-
Ε	Total (annual perce	ntage changes)
F	Intermediate goods	
G	Capital goods	
Η	Consumer goods-	Total (annual percentage changes)
Ι	C	Durable
J		Non-Durable
Κ	Energy	
L	Construction	
Μ	Manufacturing	

#### EURO AREA CONCEPT

Since February 2009: Euro 16 April 2008 to January 2009: Euro 15 April 2007 to March 2008: Euro 13 January 2004 to March 2007: Euro 12 January 2001 to December 2003: Euro area changing composition

#### SEASONAL ADJUSTMENT

Data working day adjusted, non-seasonally adjusted (unless otherwise indicated)

#### ADDITIONAL NOTES

- Data on industry excluding constructions includes energy until August 2001 and excludes energy afterwards.
- Change of a base year from 1995 to 2000 in July 2003
- Methodological notes on the ECB's website: http://www.ecb.int/stats/prices/accounts/html/index.en.html

SOURCE: Eurostat

В	
Name	Industrial Production Index, Total Industry
Units	Since January 2004 data available as index, June 2001 to December 2003 data available as annual percentage changes, January 2001 to May 2001 data available as index.

С	
Name	Industrial Production Index, Total Industry (excluding
	construction)
Units	Data available as index
Adjustment	Seasonally adjusted

D

Name	Industrial Production Index, Total Industry (excluding construction)
Units	Since January 2004 data available as index, June 2001 to December 2003 data available as annual percentage changes, January 2001 to May 2001 data available as index.

#### E

E	
Name	Industrial Production Index, Total Industry excluding construction
	and MIG Energy
Units	Since January 2004 data available as index,
	August 2001 to December 2003 data available as annual percentage
	changes
Availability	Published since August 2001

#### F

Г	
Name	Industrial Production Index, MIG Intermediate Goods Industry
Units	Since January 2004 data available as index;
	June 2001 to December 2003 data available as annual percentage
	changes,
	January 2001 to May 2001 data available as index.
Comments	Including energy prior to August 2001 (part of manufacturing),
	excluding energy afterwards.

#### G

Name	Industrial Production Index, MIG Capital Goods Industry
Units	Since January 2004 data available as index;
	June 2001 to December 2003 data available as annual percentage
	changes,
	January 2001 to May 2001 data available as index.
Comments	Including energy prior to August 2001 (part of manufacturing),
	excluding energy afterwards.

Η

п	
Name	Industrial Production Index, Consumer goods industry
Units	Since January 2004 data available as index; June 2001 to December 2003 data available as annual percentage changes,
	March 2001 to May 2001 data available as index
Comments	Prior to March 2001 the series calculated as (0.843*STS.M.U2.W.PROD.NS0060.4.000)+ (0.157*STS.M.U2.W.PROD.NS0070.4.000); values of these two series

	can be found in columns I & J;
	Including energy prior to August 2001 (part of manufacturing),
	excluding energy afterwards
Availability	Since March 2001

×	
н	

Name	Industrial Production Index, MIG Durable Consumer Goods
	Industry
Units	Since January 2004 data available as index,
	June 2001 to December 2003 data available as annual percentage
	changes,
	January 2001 to May 2001 data available as index.
Comments	Including energy prior to August 2001 (part of manufacturing),
	excluding energy afterwards.

#### J

Name	Industrial Production Index, MIG Non-durable Consumer Goods
	Industry
Units	Since January 2004 data available as index,
	June 2001 to December 2003 data available as annual percentage
	changes,
	January 2001 to May 2001 data available as index.
Comments	Including energy prior to August 2001 (part of manufacturing),
	excluding energy afterwards.

#### Κ

K	
Name	Industrial Production Index, MIG Energy
Units	Since January 2004 data available as index,
	August 2001 to December 2003 data available as annual percentage
	changes
Availability	Published since August 2001

#### L

Name	Industrial Production Index, Construction
Units	Since January 2004 data available as index, June 2001 to December 2003 data available as annual percentage changes, January 2001 to May 2001 data available as index.

#### Μ

Name	Industrial Production Index, Manufacturing
Units	Since January 2004 data available as index,
	June 2001 to December 2003 data available as annual percentage
	changes,
	January 2001 to May 2001 data available as index.

# **Retail sales: by type of goods**

	Current prices
Ν	Total (index)
0	Total (annual percentage changes)
	Constant prices:
P	Total (index)
Q	Total (annual percentage changes)
R	Food, beverages, tobacco
S	Non-food
Т	Textiles, clothing, footwear
U	Household equipment
	New passenger car registrations
V	Total (absolute value)
W	Total (annual percentage changes)

EURO AREA CONCEPT

Since February 2009: Euro 16 March 2008 to January 2009: Euro 15 April 2007 to February 2008: Euro 13 January 2004 to March 2007: Euro 12 January 2001 to December 2003: Euro area changing composition

#### SEASONAL ADJUSTMENT

Data seasonally adjusted; unless otherwise indicated

#### ADDITIONAL NOTES

- Change of a base year from 1995 to 2000 in July 2003
- Methodological notes on the ECB's website: http://www.ecb.int/stats/prices/accounts/html/index.en.html

<u>SOURCE:</u> Eurostat except columns V and W (ECB calculations based on data from the ACEA, European Automobile Manufacturers' Association)

Ν	
Name	Total Turnover Index, Retail trade, except of motor vehicles and
	motorcycles

0

Name	Current prices- Total (annual percentage changes)
Units	Since January 2004 data available as index,
	June 2001 to December 2003 data available as annual percentage
	changes,
	January 2001 to May 2001 data available as index

Р	
Name	Total Turnover Index, deflated, Retail trade, except of motor
	vehicles and motorcycles

#### Q

Name	Constant prices- Total (annual percentage changes)
Units	Since January 2004 data available as index,
	June 2001 to December 2003 data available as annual percentage
	changes,
	January 2001 to May 2001 data available as index

# R

Name	Total Turnover Index, deflated, Retail sale of food, beverages and tobacco
Units	Since January 2004 data available as index, June 2001 to December 2003 data available as annual percentage changes, January 2001 to May 2001 data available as index

S	
Name	Total Turnover Index, deflated, Retail sale of non food products
Units	Since January 2004 data available as index, June 2001 to December 2003 data available as annual percentage changes, January 2001 to May 2001 data available as index

Т

Name	Total Turnover Index, deflated, Retail sale of textiles, clothing, footwear & leather goods
Units	Since January 2004 data available as index, June 2001 to December 2003 data available as annual percentage changes, January 2001 to May 2001 data available as index

U

Name	Total Turnover Index, deflated, Retail sale of household equipment
Units	Since January 2004 data available as index,
	June 2001 to December 2003 data available as annual percentage
	changes,
	January 2001 to May 2001 data available as index

V

Name	Car registration, New passenger car
Units	Absolute value
Euro area	Since February 2009: Euro 16
concept	April 2007 to January 2009: Euro 13
	January 2004 to March 2007: Euro 12
	December 2001 to December 2003: Euro area changing composition
	January 2001 to November 2001: Euro 12

54

W	
Name	Car registration, New passenger car
Units	Since March 2003 data available as absolute value,
	Since December 2001 to February 2003 data available as annual
	percentage changes,
	January 2001 to November 2001 data available as absolute value
Euro area	Since February 2009: Euro 16
concept	April 2007 to January 2009: Euro 13
	January 2004 to March 2007: Euro 12
	December 2001 to December 2003: Euro area changing composition
	January 2001 to November 2001: Euro 12
Adjustment	Working day, non-seasonally adjusted

# Unemployment and unemployment rate: by gender and by age

	Total
X	<b>Thousands of Persons</b>
Y	% of labour force
	By age
	Adult
Ζ	<b>Thousands of Persons</b>
AA	% of labour force
	Youth
AB	<b>Thousands of Persons</b>
AC	% of labour force
	By gender
	Male
AD	<b>Thousands of Persons</b>
AE	% of labour force
	Female
AF	<b>Thousands of Persons</b>
AG	% of labour force

EURO AREA CONCEPT Since February 2009: Euro 16 April 2008 to January 2009: Euro 15 March 2007 to March 2008: Euro 13 January 2001 to February 2007: Euro 12

<u>SEASONAL ADJUSTMENT</u> All data seasonally adjusted, not working day adjusted

#### ADDITIONAL NOTES

 Gradual changes in the unemployment definition in December 2000, March 2002 and June 2002 - see the Monthly Bulletin box "<u>Changes in</u> the definition of unemployment in EU Member States March 2001" for more details.

Methodological notes on the ECB's website: http://www.ecb.int/stats/prices/labour/html/index.en.html •

# SOURCE: Eurostat

X	
Name	Standardised unemployment, Level, Total (all ages)
Units	Thousands of Persons,

 $\mathbf{v}$ 

Y	
Name	Standardised unemployment, Rate, Total (all ages)
Units	Percent

#### 7

L	
Name	Standardised unemployment, Level, 25 and over, Total (male & female)
	Temate)
Units	Thousands of Persons

# ٨٨

AA	
Name	Standardised unemployment, Rate, 25 and over, Total (male &
	female)
Units	Percent

#### AB

Name	Standardised unemployment, Level, Under 25, Total (male & female)
Units	Thousands of Persons

#### AC

ne	
Name	Standardised unemployment, Rate, Under 25, Total (male &
	female)
Units	Percent

# AD

AD	
Name	Standardised unemployment, Level, Total (all ages), Male
Units	Thousands of Persons

# AE

Name	Standardised unemployment, Rate, Total (all ages), Male
Units	Percent

#### AF

Name	Standardised unemployment, Level, Total (all ages), Female
Units	Thousands of Persons

#### AG

AU	
Name	Standardised unemployment, Rate, Total (all ages), Female
Units	Percent

# **Harmonised Index of Consumer Prices**

	Total
AH	Total (index)
AI	Total (annual rate of change, flash estimate)
AJ	All-items excluding energy and unprocessed food
AK	Goods
AL	Services
	Goods
	Food (incl. alcoholic beverages and tobacco)
AM	Total
AN	Processed food
AO	Unprocessed food
	Industrial goods
AP	Non-energy industrial goods
AQ	Energy
	Services
AR	Housing
AS	Transport
AT	Communication
AU	<b>Recreation and personal</b>
AV	Miscellaneous

#### EURO AREA CONCEPT

Since January 2001: Euro area changing composition

SEASONAL ADJUSTMENT

All data neither seasonally nor working day adjusted

#### ADDITIONAL NOTES

- Change of the base from 1996 to 2005 in March 2006
- Data from January 2002 onwards- implementation of additional harmonisation rules treatment of price reductions, coverage of services prices
- Expenditure weights are updated annually, however in January 2003, Germany, The Netherlands and Portugal moved their weight reference period from 1995 to 2000 - this caused revisions notably to the German data.
- <u>Methodological notes on the ECB's website</u>: <u>http://www.ecb.int/stats/prices/hicp/html/index.en.html</u>

SOURCE: Eurostat and ECB calculations

AH	
Name	HICP - Overall index, Monthly Index

AI	
Name	HICP - Overall index, Annual rate of change
Comments	Flash estimate
AJ	
Name	HICP - All-items excluding energy and unprocessed food, Monthly
	Index,
AK	
Name	HICP - Goods, Monthly Index
1,000	
AL	
Name	HICP - Services, Monthly Index
AM	
Name	HICP - Food incl. alcohol and tobacco, Monthly Index
AN	IIICD Descent des dies lands das des bester Martilles Inder
Name	HICP - Processed food incl. alcohol and tobacco, Monthly Index
AO	
Name	HICP - Unprocessed food, Monthly Index
AP	
Name	HICP - Industrial goods excluding energy, Monthly Index
AQ	
Name	HICP - Energy, Monthly Index,
۸D	
AR Name	HICP - Housing services, Monthly Index
Nallie	mer - nousing services, wonting muex
AS	
Name	HICP - Transport services, Monthly Index
L	· · · · · · · · · · · · · · · · · · ·
AT	
Name	HICP - Communication, Monthly Index
Comments	Until March 2001 covers only communication services - i.e. excludes
	telephone/fax equipment sub-index. After the date also includes
	telephone & telefax equipment sub-index
AU	
Name	HICP - Recreation and personal services, Monthly Index
1 danie	The Acceleration and personal set vices, monthly index
AV	
Nomo	HICP - Miscellaneous services Monthly Index

Name HICP - Miscellaneous services, Monthly Index
---

# **External transactions and position: current and capital account, by credit and debt**

	Current account
	Total
AW	Credit
AX	Debit
AY	Net
	Goods
AZ	Credit
BA	Debit
	Services
BB	Credit
BC	Debit
	Income
BD	Credit
BE	Debit
	<b>Current transfers</b>
BF	Credit
BG	Debit
	Capital account
BH	Credit
BI	Debit

EURO AREA CONCEPT Since April 2009: Euro 16 April 2008 to March 2009: Euro 15 April 2007 to March 2008: Euro 13 January 2004 to March 2007: Euro 12 January 2001 to December 2003: Euro area changing composition

<u>SEASONAL ADJUSTMENT</u> Neither seasonally or working day adjusted

# ADDITIONAL NOTES

- All data refer to transactions in millions of Euro
- Methodological notes on the ECB's website: http://www.ecb.int/stats/external/balance/html/index.en.html

#### SOURCE: ECB

AW	
Name	Current account - Euro area vis-a-vis World (all entities) - Credit
	flows

AX	
Name	Current account - Euro area vis-a-vis World (all entities) - Debit flows
AY	

Name	Current account - Euro area vis-a-vis World (all entities) - Net
	flows

# AZ

Name	Current account, Goods - Euro area vis-a-vis World (all entities) -
	Credit flows

### BA

ties) -

# BB

DD	
Name	Current account, Services - Euro area vis-a-vis World (all entities)
	- Credit flows

# BC

Name	Current account, Services - Euro area vis-a-vis World (all entities)
	- Debit flows

# BD

Name	Current account, Income - Euro area vis-a-vis World (all entities) -
	Credit flows

# BE

Name	Current account, Income - Euro area vis-a-vis World (all entities) -
	Debit flows

#### BF

Name	Current account, Current transfers - Euro area vis-a-vis World
	(all entities) - Credit flows

# BG

Name	Current account, Current transfers - Euro area vis-a-vis World (all	]
	entities) - Debit flows	

# BH

Name	Capital account - Euro area vis-a-vis World (all entities) - Credit
	flows

# BG

Name	Capital account - Euro area vis-a-vis World (all entities) - Debit
	flows -



# **Exchange rates: effective exchange rates**

	Narrow group (EER-12/EER-23)
BJ	Nominal
BK	Real CPI
BL	Real PPI
	Broad group (EER-38/EER-42)
BM	Nominal
BN	Real CPI

#### ADDITIONAL NOTES

- February 2009– new definition for narrow and broad groups
- February 2008– new definition for narrow and broad groups
- February 2007 new definition for narrow and broad groups
- September 2004 new definition for narrow and broad groups
- Methodological notes on the ECB's website: http://www.ecb.int/stats/exchange/effective/html/index.en.html

#### SOURCE: ECB

BJ	
Name	ECB Nominal effective exch. rate, ECB EER core group of
	currencies against Euro

#### BK

Name	ECB Real effective exch. rate CPI deflated, ECB EER core group	
	of currencies against Euro	

BL

1	
Name	ECB Real effective exch. rate producer prices deflated, ECB EER
i (unic	Leb Real checking exchange produced prices defined, Leb LER
	core group of currencies against Euro
	core group of currencies against Euro

BM

DIT	
Name	ECB Nominal effective exch. rate, ECB EER broad group of
	currencies against Euro

BN

DIN	
Name	ECB Real effective exch. rate CPI deflated, ECB EER broad group
	of currencies against Euro

#### **Trade in goods: value, volume and unit value by product group**

#### Value; volume; unit value

			Total
BO;	CB;	CO	Exports
BP;	CC;	СР	Imports
			Exports (f.o.b.)
BQ;	CD;	CQ	Total
BR;	CE;	CR	Intermediate
BS;	CF;	CS	Capital
BT;	CG;	СТ	Consumption
BU;	CH;	CU	Memo: Manufactures
			Imports (c.i.f.)
BV;	CI;	CV	Total
BW;	CJ;	CW	Intermediate
BX;	CK;	СХ	Capital
BY;	CL;	CY	Consumption
			Memo:
BZ;	CM;	CZ	Manufactures
CA;	CN;	DA	Oil

#### EURO AREA CONCEPT

Since April 2009: Euro 16 April 2008 to March 2009: Euro 15 May 2007 to March 2008: Euro 13 January 2004 to April 2007: Euro 12 (unless otherwise indicated) January 2001 to December 2003: Euro area changing composition (unless otherwise indicated)

#### SEASONAL ADJUSTMENT

Since January 2004: no adjustment (unless otherwise indicated) January 2001 to December 2003: seasonally adjusted, not working day adjusted (unless otherwise indicated)

#### ADDITIONAL NOTES

- Change of a base year from 1995 to 2000 in August 2002
- Methodological notes on the ECB's website: http://www.ecb.int/stats/external/trade/html/index.en.html

<u>SOURCE:</u> Eurostat and ECB calculations based on Eurostat data (volume indices and seasonal adjustment of unit value indices)

ВО	
Name	Total trade - Extra Euro area trade, Export Value index
	(Community concept)
Adjustment	Since January 2004: no adjustment
	September 2001 to December 2003: seasonally adjusted, not working

	day adjusted January 2001 to August 2001: no adjustment
Units	Index (1995=100) until August 2002 and (2000=100) thereafter; levels in May and June 2007

# BP

DI		
Name	Total trade - Extra Euro area trade, Import Value index	
	(Community concept)	
Adjustment	Since January 2004: no adjustment	
	Since September 2001 to December 2003: seasonally adjusted, not	
	working day adjusted	
	January 2001 to August 2001: no adjustment	
Units	Index (1995=100) until August 2002 and (2000=100) thereafter;	
	levels in Many and June 2007	

# BQ

Name	Total trade - Extra Euro area trade, Export Value (Community	
	concept)	
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted	
	January 2001 to December 2003: no adjustment	
Units	Thousands of ECU/EUR	

# BR

Name	Intermediate goods (BEC) - Extra Euro area trade, Export Value	
	(Community concept)	
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted	
	September 2001 to December 2003: no adjustment	
Units	Thousands of ECU/EUR	
Availability	Since September 2001	

# BS

Name	Capital goods (BEC) - Extra Euro area trade, Export Value	
	(Community concept),	
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted	
	September 2001 to December 2003: no adjustment	
Units	Thousands of ECU/EUR	
Availability	Since September 2001	

# BT

Name	Consumption goods (consumer goods & cars & petrol) (BEC) -	
	Extra Euro area trade, Export Value (Community concept)	
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted	
	September 2001 to December 2003: no adjustment	
Units	Thousands of ECU/EUR	
Availability	Since September 2001	

BU	
Name	Manufactured products (SITC 5 to 8) - Extra Euro area trade,
	Export Value (Community concept)
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted
	September 2001 to December 2003: no adjustment
Units	Thousands of ECU/EUR
Availability	Since September 2001

BV

Name	Total trade - Extra Euro area trade, Import Value (Community concept)
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted
	January 2001 to December 2003: no adjustment
Units	Thousands of ECU/EUR

### BW

Name	Intermediate goods (BEC) - Extra Euro area trade, Import Value
	(Community concept)
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted
	September 2001 to December 2003: no adjustment
Units	Thousands of ECU/EUR
Availability	Since September 2001

# BX

Name	Capital goods (BEC) - Extra Euro area trade, Import Value
	(Community concept)
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted
	September 2001 to December 2003: no adjustment
Units	Thousands of ECU/EUR
Availability	Since September 2001

# BY

Name	Consumption goods (consumer goods & cars & petrol) (BEC) -
	Extra Euro area trade, Import Value (Community concept),
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted
	September 2001 to December 2003: no adjustment
Units	Thousands of ECU/EUR
Availability	Since September 2001

ΒZ

DL	
Name	Manufactured products (SITC 5 to 8) - Extra Euro area trade,
	Import Value (Community concept),
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted
	September 2001 to December 2003: no adjustment
Units	Thousands of ECU/EUR
Availability	Since September 2001

CA	
Name	Petroleum, petroleum products and related materials (SITC 33) -
	Extra Euro area trade, Import Value (Community concept)
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted
_	September 2001 to December 2003: no adjustment
Units	Thousands of ECU/EUR
Availability	Since September 2001

#### CB

Name	Total trade - Extra Euro area trade, Export Volume index
	(Community concept),
Adjustment	Since January 2004: no adjustment
	September 2001 to December 2003: seasonally adjusted, not working
	day adjusted
	January 2001 to August 2001: no adjustment
Units	Index (1995=100) until August 2002 and (2000=100) thereafter

#### CC

Name	Total trade - Extra Euro area trade, Import Volume index
	(Community concept)
Adjustment	Since January 2004: no adjustment
	September 2001 to December 2003: seasonally adjusted, not working
	day adjusted
	January 2001 to August 2001: no adjustment

# CD

CD	
Name	Total trade - Extra Euro area trade, Year-to-year percentage
	change of Volume index (Community concept)
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted
	September 2001 to December 2003: no adjustment
Units	Since January 2004 data available as index,
	September 2001 to December 2003 data available as annual percentage
	changes
Availability	Since September 2001

CE

CL	
Name	Intermediate goods (BEC) - Extra Euro area trade, Year-to-year
	percentage change of Volume index (Community concept), Export,
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted
	September 2001 to December 2003: no adjustment
Units	Since January 2004 data available as index,
	September 2001 to December 2003 data available as annual percentage
	changes
Availability	Since September 2001

CF	
Name	Capital goods (BEC) - Extra Euro area trade, Year-to-year
	percentage change of Volume index (Community concept), Export
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted
	September 2001 to December 2003: no adjustment
Units	Since January 2004 data available as index,
	September 2001 to December 2003 data available as annual percentage
	changes
Availability	Since September 2001

#### CG

Name	Consumption goods (consumer goods & cars & petrol) (BEC) -
	Extra Euro area trade, Year-to-year percentage change of Volume
	index (Community concept), Export
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted
	September 2001 to December 2003: no adjustment
Units	Since January 2004 data available as index,
	September 2001 to December 2003 data available as annual percentage
	changes
Availability	Since September 2001

# CH

CII	
Name	Manufactured products (SITC 5 to 8) - Extra Euro area trade,
	Year-to-year percentage change of Volume index (Community
	concept), Export
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted
	September 2001 to December 2003: no adjustment
Units	Since January 2004 data available as index,
	September 2001 to December 2003 data available as annual percentage
	changes
Availability	Since September 2001

#### CI

CI	
Name	Total trade - Extra Euro area trade, Year-to-year percentage
	change of Volume index (Community concept), Import
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted
	September 2001 to December 2003: no adjustment
Units	Since January 2004 data available as index,
	September 2001 to December 2003 data available as annual percentage
	changes
Availability	Since September 2001

CJ

CJ	
Name	Intermediate goods (BEC) - Extra Euro area trade, Year-to-year
	percentage change of Volume index (Community concept), Import
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted
	September 2001 to December 2003: no adjustment
Units	Since January 2004 data available as index,



	September 2001 to December 2003 data available as annual percentage
	changes
Availability	Since September 2001

#### CK

CIX	
Name	Capital goods (BEC) - Extra Euro area trade, Year-to-year
	percentage change of Volume index (Community concept), Import
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted
	September 2001 to December 2003: no adjustment
Units	Since January 2004 data available as index,
	September 2001 to December 2003 data available as annual percentage
	changes
Availability	Since September 2001

# CL

Name	Consumption goods (consumer goods & cars & petrol) (BEC) -
	Extra Euro area trade, Year-to-year percentage change of Volume
	index (Community concept), Import
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted
	September 2001 to December 2003: no adjustment
Units	Since January 2004 data available as index,
	September 2001 to December 2003 data available as annual percentage
	changes
Availability	Since September 2001

# СМ

Name	Manufactured products (SITC 5 to 8) - Extra Euro area trade,
	Year-to-year percentage change of Volume index (Community
	concept), Import
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted
	September 2001 to December 2003: no adjustment
Units	Since January 2004 data available as index,
	September 2001 to December 2003 data available as annual percentage
	changes
Availability	Since September 2001

CN

Name	Petroleum, petroleum products and related materials (SITC 33) -
	Extra Euro area trade, Year-to-year percentage change of Volume
	index (Community concept), Import
Adjustment	Since January 2004: seasonally adjusted, not working day adjusted
	September 2001 to December 2003: no adjustment
Units	Since January 2004 data available as index,
	September 2001 to December 2003 data available as annual percentage
	changes
Availability	Since September 2001

CO	
Name	Total trade - Extra Euro 12 trade, Export Unit value index
	(Community concept)
Adjustment	Since January 2004: no adjustment
	September 2001 to December 2003: seasonally adjusted, not working
	day adjusted
	January 2001 to August 2001: no adjustment

#### CP

Name	Total trade - Extra Euro area trade, Import Unit value index
	(Community concept)
Adjustment	Since January 2004: no adjustment
	September 2001 to December 2003: seasonally adjusted, not working
	day adjusted
	January 2001 to August 2001: no adjustment

# CQ

Name	Total trade - Extra Euro 12 trade, Export Unit value index
	(Community concept)
Euro area	Since April 2009: Euro 16
concept	April 2008 to March 2009: Euro 15
	May 2007 to March 2008: Euro 13
	August 2002 to April 2007: Euro 12
	September 2001 to July 2002: Euro 11
Adjustment	Since April 2008: no adjustment
	May 2005 to March 2008: seasonally and working day adjusted
	January 2004 to April 2007: seasonally adjusted, not working day
	adjusted
	September 2001 to December 2003: no adjustment
Availability	Since September 2001, no data between September and December 2002

# CR

Name	Intermediate goods (BEC) - Extra Euro 12 trade, Export Unit
	value index (Community concept)
Euro area	Since April 2009: Euro 16
concept	April 2008 to March 2009: Euro 15
-	May 2007 to March 2008: Euro 13
	August 2002 to April 2007: Euro 12
	September 2001 to July 2002: Euro 11
Adjustment	Since April 2008: no adjustment
	May 2005 to March 2008: seasonally and working day adjusted
	January 2004 to April 2007: seasonally adjusted, not working day
	adjusted
	September 2001 to December 2003: no adjustment
Availability	Since September 2001, no data between September and December 2002

CS	
Name	Capital goods (BEC) - Extra Euro 12 trade, Export Unit value
	index (Community concept)
Euro area	Since April 2009: Euro 16
concept	April 2008 to March 2009: Euro 15
	May 2007 to March 2008: Euro 13
	August 2002 to April 2007: Euro 12
	September 2001 to July 2002: Euro 11
Adjustment	Since April 2008: no adjustment
	May 2005 to March 2008: seasonally and working day adjusted
	January 2004 to April 2007: seasonally adjusted, not working day
	adjusted
	September 2001 to December 2003: no adjustment
Availability	Since September 2001, no data between September and December 2002

#### CT

Name	Consumption goods (consumer goods & cars & petrol) (BEC) -
	Extra Euro 12 trade, Export Unit value index (Community
	concept)
Euro area	Since April 2009: Euro 16
concept	April 2008 to March 2009: Euro 15
	May 2007 to March 2008: Euro 13
	August 2002 to April 2007: Euro 12
	September 2001 to July 2002: Euro 11
Adjustment	Since April 2008: no adjustment
	May 2005 to March 2008: seasonally and working day adjusted
	January 2004 to April 2007: seasonally adjusted, not working day
	adjusted
	September 2001 to December 2003: no adjustment
Availability	Since September 2001, no data between September and December 2002

# CU

Name	Manufactured products (SITC 5 to 8) - Extra Euro 12 trade,
	Export Unit value index (Community concept)
Euro area	Since April 2009: Euro 16
concept	April 2008 to March 2009: Euro 15
	May 2007 to March 2008: Euro 13
	August 2002 to April 2007: Euro 12
	September 2001 to July 2002: Euro 11
Adjustment	Since April 2008: no adjustment
	May 2005 to March 2008: seasonally and working day adjusted
	January 2004 to April 2007: seasonally adjusted, not working day
	adjusted
	September 2001 to December 2003: no adjustment
Availability	Since September 2001, no data between September and December 2002

CV	
Name	Total trade - Extra Euro 12 trade, Import Unit value index
	(Community concept)
Euro area	Since April 2009: Euro 16
concept	April 2008 to March 2009: Euro 15
	May 2007 to March 2008: Euro 13
	August 2002 to April 2007: Euro 12
	September 2001 to July 2002: Euro 11
Adjustment	Since April 2008: no adjustment
	May 2005 to March 2008: seasonally and working day adjusted
	January 2004 to April 2007: seasonally adjusted, not working day
	adjusted
	September 2001 to December 2003: no adjustment
Availability	Since September 2001 no data between September and December 2002

# CW

Name	Intermediate goods (DEC) Extra Euro 12 trade Import Unit
Iname	Intermediate goods (BEC) - Extra Euro 12 trade, Import Unit
	value index (Community concept)
Euro area	Since April 2009: Euro 16
concept	April 2008 to March 2009: Euro 15
	May 2007 to March 2008: Euro 13
	August 2002 to April 2007: Euro 12
	September 2001 to July 2002: Euro 11
Adjustment	Since April 2008: no adjustment
	May 2005 to March 2008: seasonally and working day adjusted
	January 2004 to April 2007: seasonally adjusted, not working day
	adjusted
	September 2001 to December 2003: no adjustment
Availability	Since September 2001, no data between September and December 2002

# CX

Name	Capital goods (BEC) - Extra Euro 12 trade, Import Unit value
	index (Community concept)
Euro area	Since April 2009: Euro 16
concept	April 2008 to March 2009: Euro 15
	May 2007 to March 2008: Euro 13
	August 2002 to April 2007: Euro 12
	September 2001 to July 2002: Euro 11
Adjustment	Since April 2008: no adjustment
	May 2005 to March 2008: seasonally and working day adjusted
	January 2004 to April 2007: seasonally adjusted, not working day
	adjusted
	September 2001 to December 2003: no adjustment
Availability	Since September 2001, no data between September and December 2002

70 ECB Working Paper Series No 1145 January 2010

CY	
Name	Consumption goods (consumer goods & cars & petrol) (BEC) -
	Extra Euro 12 trade, Import Unit value index (Community
	concept)
Euro area	Since April 2009: Euro 16
concept	April 2008 to March 2009: Euro 15
	May 2007 to March 2008: Euro 13
	August 2002 to April 2007: Euro 12
	September 2001 to July 2002: Euro 11
Adjustment	Since April 2008: no adjustment
	May 2005 to March 2008: seasonally and working day adjusted
	January 2004 to April 2007: seasonally adjusted, not working day
	adjusted
	September 2001 to December 2003: no adjustment
Availability	Since September 2001, no data between September and December 2002

# CZ

Name	Manufactured products (SITC 5 to 8) - Extra Euro 12 trade,
	Import Unit value index (Community concept)
Euro area	Since April 2009: Euro 16
concept	April 2008 to March 2009: Euro 15
	May 2007 to March 2008: Euro 13
	August 2002 to April 2007: Euro 12
	September 2001 to July 2002: Euro 11
Adjustment	Since April 2008: no adjustment
	May 2005 to March 2008: seasonally and working day adjusted
	January 2004 to April 2007: seasonally adjusted, not working day
	adjusted
	September 2001 to December 2003: no adjustment
Availability	Since September 2001, no data between September and December 2002

# DA

DA	
Name	Petroleum, petroleum products and related materials (SITC 33) -
	Extra Euro 12 trade, Import Unit value index (Community
	concept)
Euro area	Since April 2009: Euro 16
concept	April 2008 to March 2009: Euro 15
	May 2007 to March 2008: Euro 13
	August 2002 to April 2007: Euro 12
	September 2001 to February 2003: Euro 11
Adjustment	Since April 2008: no adjustment
	May 2005 to March 2008: seasonally and working day adjusted
	January 2004 to April 2007: seasonally adjusted, not working day
	adjusted.
	September 2001 to December 2003: no adjustment
Availability	Since September 2001
### **Interest rate, money market overnight, 1 to 12 months, US and Japan** <u>3 months</u>

#### Euro area

#### ADDITIONAL NOTES

- All data expressed as percent per annum
- Methodological notes on the ECB's website: <u>http://www.ecb.int/stats/money/indices/html/index.en.html</u>

### SOURCE: ECB

#### DB

Name	Euro area - Money Market - Eonia rate- Last trade price or value
	– Euro

#### DC

Name	Euro area - Money Market - 1-month Euribor- Last trade price or
	value - Euro

### DD

Name	Euro area - Money Market - 3-month Euribor - Last trade price or
	value - Euro

DE

Name	Euro area - Money Market - 6-month Euribor- Last trade price or
	value - Euro

### DF

DF	
Name	Euro area - Money Market - 1-year Euribor- Last trade price or
	value - Euro
	•

DG

Name	United States - Money Market - 3-month Libor interbank USD
	deposit rate - Last trade price or value - US dollar

DH	
Name	Japan - Money Market - 3-month Libor interbank Japanese Yen
	deposit rate - Last trade price or value - Japanese yen

### Government bond yield 2, 3, 5 7 10 years, US and Japan, 10 years

	Euro area
DI	2 years
DJ	3 years
DK	5 years
DL	7 years
DM	10 years
	<b>United States</b>
DN	10 years
	Japan
DO	10 years
DK DL DM DN	5 years 7 years 10 years United States 10 years Japan

#### ADDITIONAL NOTES

- All data expressed as percent per annum
- Methodological notes on the ECB's website: http://www.ecb.int/stats/money/indices/html/index.en.html

SOURCE: ECB

DI	
Name	2-year Euro area Government Benchmark bond yield - Euro
DJ	
Name	3-year Euro area Government Benchmark bond yield- Euro
DK	
Name	5-year Euro area Government Benchmark bond yield- Euro
DL	
Name	7-year Euro area Government Benchmark bond yield- Euro
DM	
Name	10-year Euro area Government Benchmark bond yield- Euro
F	
DN	
Name	USA 10-year Government Benchmark bond yield - US dollar
-	· · · · · · · · · · · · · · · · · · ·
DO	
Name	Japan 10-year Government Benchmark bond yield- Japanese yen,

### Dow Jones EURO STOXX indices by economics sectors, S&P and Nikkei

	Dow Jones EURO STOXX indices
	Benchmark
DP	Broad
DQ	50
_	Main economic sector indices
DR	<b>Basic materials</b>
DS	<b>Consumer cyclical</b>
DT	Consumer non-cyclical
DU	Energy
DV	Financial
DW	Industrial
DX	Technology
DY	Utilities
DZ	Telecom
EA	Healthcare
	United States
EB	Standard & Poor's 500
	Japan
EC	Nikkei 225

### ADDITIONAL NOTES

- All data expressed as index levels in points; period averages
- In November 2004 the formerly published "Consumer cyclical" and "Consumer non-cyclical" indices have been discontinued by STOXX Ltd and replaced by "Consumer services" and "Consumer goods" respectively. The former "Economic sectors" have now been replaced by "Industries" and the composition of the indices is different.
- Methodological notes on the ECB's website: http://www.ecb.int/stats/money/indices/html/index.en.html

### SOURCE: ECB

DP	
Name	Euro area - Equity/index - Dow Jones Euro Stoxx Broad stock exchange index - Historical close - Euro
	exchange muex - Historical close - Euro

DQ

DQ	
Name	Euro area - Equity/index - Dow Jones Eurostoxx 50 index -
	Historical close - Euro

DR

Name	Euro area - Equity/index - Dow Jones, Euro Stoxx, Economic
	sector index Basic Materials - Historical close - Euro

DS	
Name	Euro area - Equity/index - Dow Jones, Euro Stoxx, Economic
	sector index Cyclical Goods - Historical close - Euro

DT

Name	Euro area - Equity/index - Dow Jones, Euro Stoxx, Economic
	sector index Non Cyclical Goods - Historical close - Euro

DU

DU	
Name	Euro area - Equity/index - Dow Jones, Euro Stoxx, Economic
	sector index Energy - Historical close - Euro

DV

DV	
Name	Euro area - Equity/index - Dow Jones, Euro Stoxx, Economic
	sector index Financial - Historical close - Euro

DW

Name	Euro area - Equity/index - Dow Jones, Euro Stoxx, Economic
	sector index Financial - Historical close - Euro

DX

2	
Name	Euro area - Equity/index - Dow Jones, Euro Stoxx, Economic
	sector index Technology - Historical close - Euro

DY

Name	Euro area - Equity/index - Dow Jones, Euro Stoxx, Economic sector index Utilities - Historical close - Euro
Comments	In the vintages of February and March 2001 some observations are missing (not published in the Monthly Bulletin at that time)

DZ

Name	Euro area - Equity/index - Dow Jones, Euro Stoxx, Economic sector index Telecommunications - Historical close - Euro
Comments	In the vintages of February and March 2001 some observations are missing (not published in the Monthly Bulletin at that time)

EA

LA	-
Name	Euro area - Equity/index - Dow Jones, Euro Stoxx, Economic
	sector index Healthcare - Historical close - Euro
Comments	In the vintages of February and March 2001 some observations are
	missing (not published in the Monthly Bulletin at that time)

EB

LD	
Name	United States - Equity/index - Standard & Poor 500 Equity Index -
	Historical close - US dollar

EC

LC	
Name	Japan - Equity/index - Nikkei 225 equity index - Last trade price
	or value - Japanese yen

### US and Japan: main economic and financial indicators

	United States
ED	Consumer price index
EE	Industrial production index (manufacturing)
EF	Unemployment rate
EG	Broad money
	Japan
EH	Consumer price index
EI	Unit labour costs (manufacturing)
EJ	Industrial production index (manufacturing)
EK	Unemployment rate
EL	<b>Broad money</b>

SOURCE: BIS

### ED

ED	
Name	US-Consumer price index
Units	Since January 2001 Index, 1982/1984 = 100

### EE

Name	US-Industrial production index (manufacturing)
Units	Since January 2003 Index, 1997=100
	January 2001 to December 2002 Index, 1989 = 100,

### EF

Name	US-Unemployment rate
Units	Percent

### EG

Name	US-Broad money
Units	Billions of US Dollar
Comments	Prior to October 2001 data refer to M2 aggregate

### EH

Name	JP-Consumer price index
Units	Index, $2000 = 100$

### EI

Name	JP-Unit labour costs (manufacturing)
Units	Index, 2000=100

### EJ

Name	JP-Industrial production index (manufacturing)
Name	Index, $2000 = 100$

EK	
Name	JP-Unemployment rate
Units	Percent

EL	
Name	JP-Broad money
Units	Billions of Japanese Yen

### Industry and commodity prices: by type of goods and by industry

	Industrial producer index
	Industry excluding construction
EM	Total (index)
EN	Total (annual percentage changes)
	Industry excluding construction and energy
EO	Total (annual percentage changes)
EP	Intermediate goods
EQ	Capital goods
	Consumer goods
ER	Total (annual percentage changes)
ES	Durable
ЕТ	Non-durable
EU	Energy –introduced in August 2001
EV	Manufacturing
	World market prices of raw materials
EW	Total
EX	Total excluding energy
EY	Oil prices

EURO AREA CONCEPT

Since February 2009: Euro 16 March 2008 to January 2009: Euro 15 March 2007 to February 2008: Euro 13 January 2004 to February 2007: Euro 12 January 2001 to December 2003: Euro area changing composition (unless otherwise indicated)

SEASONAL ADJUSTMENT Since January 2001: No adjustment

### ADDITIONAL NOTES

- Change of a base year from 1995 to 2000 in June 2003 •
- Data on industry excluding construction and energy (columns EM to ES) • were introduced in August 2001 in combination with the new harmonised definition for the Main Industrial Groupings (MIGS)
- Methodological notes on the ECB's website: • http://www.ecb.int/stats/prices/hicp/html/index.en.html

<u>SOURCE:</u> Eurostat, HWWA, Thomson Financial Datastream and ECB calculations

### EM

Name	Producer Price Index, domestic sales, Total Industry (excluding
	construction)
Euro area	Since January 2001: Euro 12
concept	

### EN

Name	Producer Price Index, domestic sales, Total Industry (excluding
	construction; annual percentage changes)
Units	Since January 2004: data available as index,
	Since May 2001 to December 2003: data available as annual percentage
	changes,
	January 2001 to April 2001: data available as index

### EO

LO	
Name	Producer Price Index, domestic sales, Total Industry excluding
	construction and MIG Energy
Units	Since January 2004: data available as index,
	August 2001 to December 2003: data available as annual percentage
	changes
Availability	Published since August 2001 (see additional note for the block)

### EP

Name	Producer Price Index, domestic sales, MIG Intermediate Goods Industry
Units	Since January 2004: data available as index, May 2001 to December 2003: data available as annual percentage changes, January 2001 to April 2001: data available as index

### EQ

Name	Producer Price Index, domestic sales, MIG Capital Goods Industry
Units	Since January 2004: data available as index,
	January 2001 to December 2003: data available as annual percentage
	changes

### ER

Name	Producer Price Index, domestic sales, Consumer goods industry
Units	Since January 2004: data available as index,
	May 2001 to December 2003: data available as annual percentage
	changes,
	March 2001 to April 2001: data available as index
Availability	Since March 2001

ES	
Name	Producer Price Index, domestic sales, MIG Durable Consumer
	Goods Industry
Units	Since January 2004: data available as index,
	May 2001 to December 2003: data available as annual percentage
	changes,
	January 2001 to April 2001: data available as index

### ET

EI	
Name	Producer Price Index, domestic sales, MIG Non-durable Consumer
	Goods Industry
Units	Since January 2004: data available as index,
	May 2001 to December 2003: data available as annual percentage
	changes,
	January 2001 to April 2001: data available as index

### EU

LU	
Name	Producer Price Index, domestic sales, MIG Energy
Units	Since January 2004: data available as index,
	August 2001 to December 2003: data available as annual percentage
	changes
Availability	Published since August 2001 (see additional notes for the block)

### EV

Name	Producer Price Index, domestic sales, Manufacturing
Units	Since January 2004: data available as index,
	May 2001 to December 2003: data available as annual percentage
	changes,
	January 2001 to April 2001: data available as index

### EW

Name	World market prices of raw materials, Index total , Euro
Euro area	Since January 2002: Euro 12
concept	January 2001 to December 2001: Extra Euro 12

EX

Name	World market prices of raw materials, Index Total excluding energy, Euro
Euro area	Since January 2002: Euro 12
concept	January 2001 to December 2001: Extra Euro 12

EY

Name	Brent Crude-1 Month Fwd, fob US\$/BBL converted in euro
Units	EUR per barrel

### <u>Money supply M1 M2 M3, Base money, Total loans, Total credit</u> (seasonally adjusted)

- EZ M3 (annual growth rate)
- FA M1
- FB M2
- FC M3
- FD Base money
- **FE** Loans to other euro area residents
- FF Credit to other euro area residents

EURO AREA CONCEPT

Since January 2001: Euro area changing composition

<u>SEASONAL ADJUSTMENT</u> All data seasonally and working day adjusted

### ADDITIONAL NOTES:

- All data expressed in millions of Euro
- Methodological notes on the ECB's website: http://www.ecb.int/stats/money/aggregates/aggr/html/index.en.html

### SOURCE: ECB

Name	Monetary aggregate M3, annual growth rate
Availability	Since August 2001

FA

Name	Monetary aggregate M1

FB

10	
Name	Monetary aggregate M2

FC

10	
Name	Monetary aggregate M3

FD

TD	
Name	Base money
Availability	Since April 2001
Comments	The data refers to the month when maintenance period ended - no
	maintenance period ended in February 2004, due to change in the
	operational framework.

FE	
Name	Loans to other euro area residents,
Availability	Published since September 2003

FF

ГГ	
Name	Credit to other euro area residents
Availability	Published since September 2003

### <u>Money supply M1 M2 M3, Base money, Total loans, Total credit</u> (non-seasonally adjusted)

- FG M3 (annual growth rate)
- FH M1
- FI M2
- FJ M3
- FK Base money
- FL Loans to other euro area residents
- FM Credit to other euro area residents

EURO AREA CONCEPT

Since January 2001: Euro area changing composition

<u>SEASONAL ADJUSTMENT</u> All data non-seasonally adjusted

### ADDITIONAL NOTES

- All data expressed in millions of Euro
- Methodological notes on the ECB's website: http://www.ecb.int/stats/money/aggregates/aggr/html/index.en.html

SOURCE: ECB

FG	
Name	Monetary aggregate M3, annual growth rate
FH	
Name	Monetary aggregate M1
FI	
Name	Monetary aggregate M2
FJ	
Name	Monetary aggregate M3
L	

FK	
Name	Base money
Availability	Since April 2001
Comments	The data refers to the month when maintenance period ended - no
	maintenance period ended in February 2004, due to change in the
	operational framework.

FL

Name	Loans, Total maturity
Availability	Published since September 2003

FM

<b>FIVI</b>	
Name	Credit to other euro area residents
Availability	Published since September 2003
	· · · · · · · · · · · · · · · · · · ·

# <u>Confidence indicators: economic, manufacturing, consumer, construction, retail trade, services</u>

FN	Economic sentiment indicator
	Manufacturing industry
	Industrial confidence indicator
FO	Total
FP	Order books
FQ	Stocks of finished products
FR	Production expectations
	Consumer confidence indicator
FS	Total
FT	Financial situation over next 12 months
FU	Economic situation over next 12 months
FV	Unemployment situation over next 12 months
FW	Savings over next 12 months
	Construction confidence indicator
FX	Total
FY	Order books
FZ	Employment expectations
	Retail trade confidence indicator
GA	Total
GB	Present business situation
GC	Volume of stocks
GD	Expected business situation
	Services confidence indicator
GE	Total
GF	Business climate
GG	Demand in recent months
GH	Demand in the months ahead

### EURO AREA CONCEPT Since February 2009: Euro 16 February 2008 to January 2009: Euro 15 February 2007 to January 2008: Euro 13 January 2001 to January 2007: Euro 12, unless otherwise indicated

### ADDITIONAL NOTES

• All data expressed as percentage balances

SOURCE: European Commission: DG ECFIN

FN	
Name	Economic Sentiment Indicator
Units	Index
Availability	Since February 2002
Comments	Economic sentiment indicator (ESI) is a composite indicator calculated as the weighted average of the components of the confidence indicators for industry (weight: 40%), services (weight 30%), consumers (weight: 20%), construction (weight 5%) and retail trade (weight: 5%). A mean index level has been imposed by setting the long-term average of the ESI to 100; a reading of the ESI of above (below) 100 indicates an above (below) average economic sentiment. DG ECFIN changed the components/weighting of this composite indicator from reporting period May 2004 and September 2001 onwards; data have been recalculated accordingly by DG ECFIN. Since the reporting period May 2004, the indicator is no more an index with base year =100, but with long-term average = 100

FO

10	
Name	Industry Survey: Industrial Confidence Indicator
Availability	Since January 2001
Euro area	Since March 2001: Euro 12
concept	January 2001- February 2001: Euro area changing composition
Comments	Confidence indicator calculated as arithmetic average of the answers to
	the questions on order books, stocks of finished goods (inverted sign)
	and production expectations.

FP

Name	Industry Survey: Assessment of order-book levels
Availability	Since January 2001
Euro area	Since March 2001: Euro 12
concept	January 2001- February 2001: Euro area changing composition

FQ

IQ	
Name	Industry Survey: Assessment of stocks of finished products
Availability	Since February 2002

FR	
Name	Industry Survey: Production expectations for the months ahead
Availability	Since January 2001

т	٦O
- H	
. 1	<b>v</b>

Name	Consumer Survey: Consumer Confidence Indicator
Availability	Since January 2001
Comments	Consumer Confidence indicator calculated as the arithmetic average of
	the answers to the questions on $(1)$ the financial situation of the
	household over the next 12 months; (2) the general economic situation
	over the next 12 months; (3) the unemployment expectations over the
	next 12 months; and, (4) savings over the next 12 months.
	DG ECFIN changed the components of this composite indicator from
	reporting period September 2001 onwards; data have been recalculated
	accordingly by DG ECFIN

### FT

1.1	
Name	Consumer Survey: Financial situation over next 12 months
Availability	Since February 2002

### FU

10	
Name	<b>Consumer Survey: General economic situation over next 12 months</b>
Availability	Since February 2002

### FV

Name	Consumer Survey: Unemployment expectations over next 12 months
Availability	Since February 2002

### FW

Name	Consumer Survey: Savings over next 12 months
Availability	Since February 2002
Comments	Percentage balances

FX

Name	Construction Survey: Construction Confidence Indicator
Availability	Since January 2001
Euro area	Since March 2001: Euro 12
concept	January 2001- February 2001: Euro area changing composition
Comments	Confidence indicator calculated as arithmetic average of the answers to
	the questions on order books and employment expectations
	Percentage balances

FY

1.1	
Name	Construction Survey: Assessment of order books
Availability	Published since February 2002

FZ	
Name	Construction Survey: Employment expectations for the months
	ahead
Availability	Published since February 2002

### GA

Name	Retail Trade Survey: Retail Confidence Indicator
Availability	Since January 2001
Euro area	Since March 2001: Euro 12
concept	January 2001- February 2001: Euro area changing composition
Comments	Confidence indicator calculated as arithmetic average of the answers to
	the questions on present and expected business situation and on
	assessment of stocks (inverted sign).

### GB

UB	
Name	<b>Retail Trade Survey: Present business situation</b>
Availability	Since January 2001

### GC

UC	
Name	Retail Trade Survey: Assessment of stocks
Availability	Since January 2001

### GD

6D	
Name	<b>Retail Trade Survey: Expected business situation</b>
Availability	Since February 2002

### GE

Name	Service Survey: Service Confidence Indicator
Availability	Since February 2002
Comments	Confidence indicator calculated as arithmetic average of the answers to
	the question on assessment of business climate, evolution of demand in
	recent months and in the months ahead.

### GF

01	
Name	Service Survey: Assessment of the business climate
Availability	Since February 2002

### GG

Name	Service Survey: Evolution of demand in recent months
Availability	Since February 2002

GH

UII	
Name	Service Survey: Evolution of demand expected in the months ahead
Availability	Since February 2001

Columns in	Block name
the files	
B-K	Employment: by employment status, by economic activity
L-R	GDP deflators: by expenditure components
S-Y	Unit labour cost: by economic activity
Z-AF	Hourly labour cost: by components and by economic activity
AG	Exchange rates: effective exchange rates
AH-BD	US and Japan: main economic and financial indicators
BE	Industry and commodity prices: by type of goods and by industry
BF-BL	GDP: by expenditure components at current prices
BM-BS	GDP: by expenditure components at constant prices
BT-CB	Value added: by economic activity at current prices
CC-CK	Value added: by economic activity at constant prices
CL	Confidence indicators: economic, manufacturing, consumer,
	construction, retail trade, services

## **Overview of quarterly indicators**

### **Employment: by employment status, by economic activity**

	Whole economy
B	Total (millions (s.a.))
С	Total (annual percentage changes)
	By employment status
D	Employees
Ε	Self-employed
	By economic activity
F	Agriculture, hunting, forestry and fishing
G	Mining, manufacturing and energy
Η	Construction
Ι	Trade, repairs, hotels and restaurants, transport and communication
J	Financial, real estate, renting and business services
K	Public administration, education, health and other services

### SOURCE: Eurostat

В	
Name	Total employment
Units	Since August 2002 data in Thousands of Persons,
	March 2001 to July 2002 data available as index (2000=100)
Euro area	Since February 2009: Euro 16
concept	July 2008 to January 2009: Euro 15,
	June 2007 to June 2008: Euro 13,

	August 2002 to May 2007: Euro 12, March 2001 to July 2002: Euro area changing composition
Adjustment	Seasonally adjusted by mixed methods
Availability	Since March 2001

С

Name	Total employment
Units	Since August 2002 data in Thousands of Persons,
	March 2001 to July 2002 data available as index (2000=100)
Euro area	Since February 2009: Euro 16
concept	July 2008 to January 2009: Euro 15,
	June 2007 to June 2008: Euro 13,
	August 2002 to May 2007: Euro 12,
	March 2001 to July 2002: Euro area changing composition
Adjustment	Since January 2004: no adjustment,
	March 2001 to December 2003: seasonally adjusted by mixed methods
Availability	Since March 2001

### D

D	
Name	Employees
Units	Since August 2002 data in Thousands of Persons
	March 2001 to July 2002 data available as index (2000=100)
Euro area	Since February 2009: Euro 16
concept	July 2008 to January 2009: Euro 15,
_	June 2007 to June 2008: Euro 13,
	August 2002 to May 2007: Euro 12,
	March 2001 to July 2002: Euro 11
Adjustment	Since January 2004: no adjustment
	March 2001 to December 2003: seasonally adjusted by mixed methods
Availability	Since March 2001

### Е

L	
Name	Self-employed
Units	Since August 2002 data in Thousands of Persons
	March 2001 to July 2002 data available as index (2000=100)
Euro area	Since February 2009: Euro 16
concept	July 2008 to January 2009: Euro 15,
	June 2007 to June 2008: Euro 13,
	August 2002 to May 2007: Euro 12,
	March 2001 to July 2002: Euro area changing composition
Adjustment	Since January 2004: no adjustment
	March 2001 to December 2003: seasonally adjusted by mixed methods
Availability	Since March 2001

F	
Name	Total employment: agricultural hunting forestry and fishing
	products
Units	Thousands of Persons
Euro area	Since February 2009: Euro 16
concept	July 2008 to January 2009: Euro 15,
	June 2007 to June 2008: Euro 13,
	March 2003 to May 2007: Euro 12
Adjustment	Since January 2004: no adjustment
	March 2003 to December 2003: seasonally adjusted by mixed methods
Availability	Since March 2003

G

U	
Name	Total employment: total industry
Units	Thousands of Persons
Euro area	Since February 2009: Euro 16
concept	July 2008 to January 2009: Euro 15,
	June 2007 to June 2008: Euro 13,
	March 2003 to May 2007: Euro 12
Adjustment	Since January 2004: no adjustment
	March 2003 to December 2003: seasonally adjusted by mixed methods
Availability	Since March 2003

Η

H	
Name	Total employment: construction
Units	Thousands of Persons
Euro area	Since February 2009: Euro 16
concept	July 2008 to January 2009: Euro 15,
	June 2007 to June 2008: Euro 13,
	March 2003 to May 2007: Euro 12
Adjustment	Since January 2004: no adjustment
	March 2003 to December 2003: seasonally adjusted by mixed methods
Availability	Since March 2003

Ι

Name	Total employment: trade, repairs, hotels, restaurants, transport
	and communication
Units	Thousands of Persons
Euro area	Since February 2009: Euro 16
concept	July 2008 to January 2009: Euro 15,
	June 2007 to June 2008: Euro 13,
	March 2003 to May 2007: Euro 12
Adjustment	Since January 2004: no adjustment
	March 2003 to December 2003: seasonally adjusted by mixed methods
Availability	Since March 2003

J	
Name	Total employment: financial intermediation, real estate
Units	Thousands of Persons
Euro area	Since February 2009: Euro 16
concept	July 2008 to January 2009: Euro 15,
	June 2007 to June 2008: Euro 13,
	March 2003 to May 2007: Euro 12
Adjustment	Since January 2004: no adjustment
	March 2003 to December 2003: seasonally adjusted by mixed methods
Availability	Since March 2003

K

Name	Total employment: other services
Units	Thousands of Persons
Euro area	Since February 2009: Euro 16
concept	July 2008 to January 2009: Euro 15,
	June 2007 to June 2008: Euro 13,
	March 2003 to May 2007: Euro 12
Adjustment	Since January 2004: no adjustment
	March 2003 to December 2003: seasonally adjusted by mixed methods
Availability	Since March 2003

### **GDP deflators: by expenditure components**

- L Total (index)
  - **Domestic demand**

### M Total

- N Private consumption
- O Government consumption
- P Gross fixed capital formation
- **Q** Exports
- **R** Imports

### EURO AREA CONCEPT

Since February 2009: Euro 16 June 2008 to January 2009: Euro 15 June 2007 to June May 2008: Euro 13 January 2001 to May 2007: Euro 12

SEASONAL ADJUSTMENT

All data seasonally adjusted by mixed methods

### ADDITIONAL NOTES

- All data available as indexes
- Change of a base year from 1995 to 2000 only for the vintage January 2004

### SOURCE: ECB calculations based on Eurostat data

L	
Name	Gross domestic product at market price - Deflator (ECB compilation) - Euro (estimated)

#### Μ

111	
Name	Domestic demand including stocks - Deflator (ECB compilation) -
	Euro (estimated)

### Ν

1	
Name	Final consumption of households and NPISH's (private
	consumption) - Deflator (ECB compilation) - Euro (estimated)

### 0

0	
Name	Final consumption of general government - Deflator (ECB
	compilation) - Euro (estimated)

Р	
Name	Gross fixed capital formation - Deflator (ECB compilation) - Euro
	(estimated)

### 0

<u> </u>	
Name	Exports of goods and services - Deflator (ECB compilation) - Euro
	(estimated)

### R

Name	Import of goods and services - Deflator (ECB compilation) - Euro
	(estimated)

### Unit labour cost: by economic activity

S	Total (index)
	By economic activity
Т	Agriculture, hunting, forestry and fishing
U	Mining, manufacturing and energy
V	Construction
W	Trade, repairs, hotels and restaurants, transport and communication
X	Financial, real estate, renting and business services
Y	Public administration, education, health and other services

EURO AREA CONCEPT Since February 2009: Euro 16 July 2008 to January 2009: Euro 15 June 2007 to June 2008: Euro 13 January 2001 to May 2007: Euro 12

SEASONAL ADJUSTMENT All data seasonally adjusted

### ADDITIONAL NOTES

- All data available as indices
- Change of a base year from 1995 to 2000 in August 2003
- For the vintages since March 2003 onwards: data before 2001 corrected for exchange rate effects, GDP data used in the calculation of the series are re-scaled to 1995

#### SOURCE: ECB calculations based on Eurostat data

S	
Name	Unit Labour Costs – Total
Euro area	Since June 2007: Euro 13,
concept	March 2003 to May 2007: Euro 12,
_	January 2001 to February 2003: Euro area changing composition
Comments	Change of a base period from 1980=100 to 1985=100 in July 2001

Т

Name	Unit Labour Costs - Agriculture, hunting, forestry, and fishing
Availability	Published since March 2003

U

0	
Name	Unit Labour Costs - Industry, including energy
Availability	Published since March 2003

V

Name	Unit Labour Costs – Construction
Availability	Published since March 2003

W

Name	Unit Labour Costs - Trade, repairs, hotels, restaurants, transport and communications
Availability	Published since March 2003

Х

Name	Unit Labour Costs - Financial, real estate, renting and business activities
Availability	Published since March 2003

Y	
Name	Unit Labour Costs - Other service activities
Availability	Published since March 2003

### Hourly labour cost: by components and by economic activity

Z	Total (index)
	By employment
AA	Wages and salaries
AB	<b>Employers' social contributions</b>
	By selected economic activity
AC	Mining, manufacturing and energy
AD	Construction
AE	Services
AF	Memo item: indicator of negotiated wages

### EURO AREA CONCEPT

Since January 2001: Euro area changing composition

### ADDITIONAL NOTES

• Change of a base year from 1995 to 2000 in August 2003

### SOURCE: Eurostat and ECB calculations based on Eurostat data

Z	
Name	Hourly Labour cost index - total, Whole economy excluding
	agriculture, fishing and government sectors
Adjustment	Working day and seasonally adjusted

### AA

Name	Hourly Labour cost index – total, Whole economy excluding agriculture, fishing and government sectors
Adjustment	Working day adjusted, not seasonally adjusted

### AB

Name	Hourly Labour cost index - wages and salaries, Whole economy excluding agriculture, fishing and government sectors
Adjustment	Since February 2002: not adjusted,
	January 2001 to January 2002: seasonally adjusted, not working day
	adjusted

### AC

110	
Name	Hourly Labour cost index - costs other than wages and salaries,
	Whole economy excluding agriculture, fishing and government
	sectors
Adjustment	Since February 2002: not adjusted,

January 2001 to January 2002: seasonally adjusted, not working day
adjusted

AD

AD .	
Name	Hourly Labour cost index - total, Total Industry (excluding
	construction)
Adjustment	Since February 2002: not adjusted.
	January 2001 to January 2002: seasonally adjusted, not working day
	adjusted

AE

AL	
Name	Hourly Labour cost index - total, Construction
Adjustment	Not adjusted

#### AF

Аг	Hannly Labour cost index. Actal Sourices (NACE now 1 Sectors C
Name	Hourly Labour cost index - total, Services (NACE rev 1. Sectors G
	to K)
Adjustment	Since February 2002: not adjusted,
	January 2001 to January 2002: Seasonally adjusted, not working day
	adjusted
Unit	Since April 2001 data available as an index.
	January 2001 to March 2001 data available as annual percentage
	change

### ECB Real effective exch. rate ULC total economy deflated, EER-12 group of currencies against Euro

### ADDITIONAL NOTES

- Data available as index (99Q1=100)
- February 2009: new definition of a narrow group
- February 2008: new definition of a narrow group
- February 2007: new definition of a narrow group
- September 2004: new definition of a narrow group
- Methodological notes on the ECB's website: http://www.ecb.int/stats/exchange/eurofxref/html/index.en.html
- See also the documentation of monthly variables

### SOURCE: ECB

AG	
Name	ECB Real effective exch. rate ULC total economy deflated, EER-12
	group of currencies against Euro
Availability	Published since August 2003

### US and Japan: main economic and financial indicators

AH	
Name	US- UNIT LABOR COSTS IN MANUFACTURING - INDEX SA
Units	Index, 1992 = 100
Source	BIS

### AI

Name	US- GDP, AT MARKET PRICES - CHAINED 2000 USD SAAR
Units	Billions of Chained 2000 US Dollar
Source	BIS

### AJ

1 13	
Name	United States - Deficit or surplus - All sectors/ unspecified/ not
	applicable (ESA95)-NCBs - General government (ESA95)-NCBs -
	Non-financial flows current prices - Percentage points,
	series(t)/GDP(t) - Neither seasonally or working day adjusted
Availability	Since February 2001
Source	BIS

### AK

1111	
Name	United States - Maastricht assets/liabilities - General government
	(ESA95)-NCBs - All sectors without GG (consolidation) (ESA95)-
	NCBs - Financial stocks - ESA 79 / Maastricht valuation -
	Percentage points, series(t)/GDP(t) - Neither seasonally or working
	day adjusted
Availability	Since February 2001
Source	BIS

### AL

Name	JP- GDP, AT MARKET PRICES (SNA 93) - 1995 PR. NSA
Units	Billions of Chained 2000 Japanese Yen
Source	BIS

### AM

Name	United States, Gross saving, Transaction as a percentage of GDP - United States Total economy (debtor); World not allocated (geographically) Not applicable (creditor), ESA95 valuation, Neither seasonally or working day adjusted
Source	Federal Reserve Board

### AN

Name	United States, Gross capital formation, Transaction as a percentage of GDP - World not allocated (geographically) Not applicable (debtor); United States Total economy (creditor), ESA95 valuation, Neither seasonally or working day adjusted
Source	Federal Reserve Board

AO	
Name	United States, Balancing items, capital accounts, Transaction as a
	percentage of GDP - United States Total economy (debtor); World
	(all entities) Total economy (creditor), ESA95 valuation, Neither
	seasonally or working day adjusted
Source	Federal Reserve Board

AP

Name	United States, Gross capital formation, Transaction as a percentage of GDP - World not allocated (geographically) Not
	applicable (debtor); United States Corporate business (creditor),
	ESA95 valuation, Neither seasonally or working day adjusted
Source	Federal Reserve Board

AQ

112	
Name	United States, Total, financial instruments, Transaction as a percentage of GDP - World (all entities) Total economy (debtor); United States Corporate business (creditor), ESA95 valuation,
	Neither seasonally or working day adjusted
Source	Federal Reserve Board
Source	Tederal Reserve Doard

AR

1 111	
Name	United States, Gross saving, Transaction as a percentage of GDP - United States Corporate business (debtor); World not allocated (geographically) Not applicable (creditor), ESA95 valuation,
	Neither seasonally or working day adjusted
Source	Federal Reserve Board

AS

110	
Name	United States, Total, financial instruments, Transaction as a percentage of GDP - United States Corporate business (debtor);
	World (all entities) Total economy (creditor), ESA95 valuation,
	Neither seasonally or working day adjusted
Source	Federal Reserve Board

AT

111	
Name	United States, Capital expenditures, Transaction as a percentage
	of GDP - World not allocated (geographically) Not applicable
	(debtor); United States Household, Non-profit institutions serving
	households (creditor), ESA95 valuation, Neither seasonally or
	working day adjusted
Source	Federal Reserve Board

AU

110	
Name	United States, Total, financial instruments, Transaction as a
	percentage of GDP - World (all entities) Total economy (debtor);
	United States Household, Non-profit institutions serving
	households (creditor), ESA95 valuation, Neither seasonally or

	working day adjusted
Source	Federal Reserve Board

### AV

Name	United States, Gross saving and expenditures in consumer durables, Transaction as a percentage of GDP - United States Household, Non-profit institutions serving households (debtor);
	World not allocated (geographically) Not applicable (creditor), ESA95 valuation, Neither seasonally or working day adjusted
Source	Federal Reserve Board

### AW

Nama	
Name	United States, Total, financial instruments, Transaction as a
	percentage of GDP - United States Household, Non-profit
	institutions serving households (debtor); World (all entities) Total
	economy (creditor), ESA95 valuation, Neither seasonally or
	working day adjusted
Source	Federal Reserve Board

### AX

AX	
Name	Japan, Gross saving, Transaction as a percentage of GDP - Japan
	Total economy (debtor); World not allocated (geographically) Not
	applicable (creditor), ESA95 valuation, Neither seasonally or
	working day adjusted
Availability	Published since July 2002
Source	Bank of Japan

### AY

111	
Name	Japan, Gross capital formation, Transaction as a percentage of
	GDP - World not allocated (geographically) Not applicable
	(debtor); Japan Total economy (creditor), ESA95 valuation,
	Neither seasonally or working day adjusted
Availability	Since January 2001, no data in October 2001.
Source	Bank of Japan

ΑZ

Name	Japan, Balancing items, capital accounts, Transaction as a percentage of GDP - Japan Total economy (debtor); World (all entities) Total economy (creditor), ESA95 valuation, Neither seasonally or working day adjusted
Availability	Published since July 2002
Source	Bank of Japan

### BA

Name	Japan, Total, financial instruments, Transaction as a percentage of
	GDP - World (all entities) Total economy (debtor); Japan Non-
	financial corporations (creditor), ESA95 valuation, Neither
	seasonally or working day adjusted

Availability	Since January 2001, no data in October 2001.
Source	Bank of Japan

### BB

Name	Japan, Total, financial instruments, Transaction as a percentage of GDP - Japan Non-financial corporations (debtor); World (all entities) Total economy (creditor), ESA95 valuation, Neither
Availability	seasonally or working day adjusted Since January 2001, no data in Oct 01.
Source	Bank of Japan

### BC

Name	Japan, Total, financial instruments, Transaction as a percentage of GDP - World (all entities) Total economy (debtor); Japan Household, Non-profit institutions serving households (creditor), ESA95 valuation, Neither seasonally or working day adjusted
Availability	Since January 2001, no data in Oct 01.
Source	Bank of Japan

### BD

Name	Japan, Total, financial instruments, Transaction as a percentage of
	GDP - Japan Household, Non-profit institutions serving households
	(debtor); World (all entities) Total economy (creditor), ESA95
	valuation, Neither seasonally or working day adjusted
Availability	Since January 2001, no data in Oct 01.
Source	Bank of Japan

### **Industry and commodity prices: by type of goods and by industry**

### ADDITIONAL NOTES

- Change of a base year from 1995 to 2000 in June 2003
- Methodological notes on the ECB's website: http://www.ecb.int/stats/prices/hicp/html/index.en.html

### SOURCE: Eurostat

BE	
Name	Construction output prices, All residential buildings
Units	Since January 2004: data available as index,
	May 2001 to February 2003: data available as annual percentage
	changes,
	January 2001 to April 2001: data available as index
Euro area	Since February 2009: Euro 16
concept	March 2008 to January 2009: Euro 15
	March 2007 to February 2008: Euro 13
	January 2004 to February 2007: Euro 12

	May 2001 to February 2003: Euro area changing composition January 2001 to April 2001: Euro 12
Adjustment	Not adjusted

### **GDP:** by expenditure components at current prices

BF	Total
	Domestic demand
BG	Private consumption
BH	Government consumption
BI	Gross fixed capital consumption
BJ	Changes in inventories
	External balances
BK	Exports
BL	Imports

EURO AREA CONCEPT Since February 2009: Euro 16 June 2008 to January 2009: Euro 15 June 2007 to May 2008: Euro 13 January 2001 to May 2007: Euro 12

SEASONAL ADJUSTMENT All data seasonally adjusted

### ADDITIONAL NOTES

- Data in millions of ECU/EUR
- During 2005 GDP and national accounts data have been subject to revisions due to the implementation of (*i*) the introduction of chain-linking of annual and quarterly volume series, (*ii*) the new partial allocation to final demand of indirectly measured financial intermediation services, and (*iii*) the benchmark revisions that must be implemented once every five to ten years.
- Methodological notes on the ECB's website: http://www.ecb.int/stats/prices/accounts/html/index.en.html

SOURCE: Eurostat

BF	
Name	Gross domestic product at market price

BG

DQ	
Name	Final consumption of households and NPISH's (private
	consumption)

BH	
Name	Final consumption of general government
BI	
Name	Gross fixed capital formation
BJ	
Name	Changes in inventories and acquisitions less disposals of valuables
BK	
Name	Exports of goods and services
BL	
Name	Imports of goods and services

### **GDP:** by expenditure components at constant prices

BM	Total
	Domestic demand
BN	Private consumption
BO	Government consumption
BP	Gross fixed capital consumption
BQ	Changes in inventories
	External balances
BR	Exports
BS	Imports

### EURO AREA CONCEPT

Since February 2009: Euro 16 June 2008 to January 2009: Euro 15 June 2007 to May 2008: Euro 13 January 2001 to May 2007: Euro 12

### SEASONAL ADJUSTMENT

All data seasonally adjusted

### ADDITIONAL NOTES

- Data in millions of ECU/EUR at 1995 prices
- Change to chain linking and base year from 1995 to 2000 in December 2005
- During 2005 GDP and national accounts data have been subject to revisions due to the implementation of *(i)* the introduction of chain-linking of annual and quarterly volume series, *(ii)* the new partial allocation to final demand of indirectly measured financial intermediation services, and *(iii)* the benchmark revisions that must be implemented once every five to ten years.

• Methodological notes on the ECB's website: http://www.ecb.int/stats/prices/accounts/html/index.en.html

### SOURCE: Eurostat

BM	
Name	Gross domestic product at constant price
BN	
Name	Final consumption of households and NPISH's (private
	consumption)
BO	
Name	Final consumption of general government
BP	
Name	Gross fixed capital formation
BQ	
Name	Changes in inventories and acquisitions less disposals of valuables
Comments	Discontinued as of June 2007
BR	1
Name	Exports of goods and services
BS	
Name	Imports of goods and services

### Value added: by economic activity at current prices

Gross value added (basic prices)

	Gross value added (basic prices)
BT	Total
BU	Agriculture, hunting, forestry and fishing activities
BV	Mining, manufacturing and energy
BW	Construction
BX	Trade, repairs, hotels and restaurants, transport and communication
BY	Financial, real estate, renting and business activities
BZ	Public administration, education, health and other services
CA	Intermediate consumption of FISIM

**CB** Taxes less subsidies on product

EURO AREA CONCEPT Since February 2009: Euro 16 June 2008 to January 2009: Euro 15

ECB Working Paper Series No 1145 January 2010 June 2007 to May 2008: Euro 13 January 2001 to May 2007: Euro 12

SEASONAL ADJUSTMENT All data seasonally adjusted

#### ADDITIONAL NOTES

- Data in millions of ECU/EUR
- During 2005 GDP and national accounts data have been subject to revisions due to the implementation of (*i*) the introduction of chain-linking of annual and quarterly volume series, (*ii*) the new partial allocation to final demand of indirectly measured financial intermediation services and (*iii*) the benchmark revisions that must be implemented once every five to ten years.
- Methodological notes on the ECB's website: http://www.ecb.int/stats/prices/accounts/html/index.en.html

SOURCE: Eurostat

ВТ	
Name	Gross value added at basic prices: Total
BU	
Name	Gross value added at basic prices: agricultural, hunting, forestry
	and fishing products
BV	
Name	Gross value added at basic prices: total industry
BW	
Name	Gross value added at basic prices: construction
BX	
Name	Gross value added at basic prices: trade, repairs, hotels,
	restaurants, transport and communication
Availability	Since April 2001

BY

Name	Gross value added at basic prices: financial intermediation, real estate
Availability	Since April 2001

ΒZ

Name	Gross value added at basic prices: other services
Availability	Since April 2001

CA	
Name	Financial intermediation services indirectly measured
Availability	Since April 2001
Comments	In November 2005 Eurostat introduced a new treatment of FISIM,
	allocating financial intermediation services to the different
	branches/sectors rather than recording FISIM as the output of a fictious
	sector. Hence, from November 2005 FISIM series were set to zero.
	The series was discontinued in the database as of June 2007

 CB

 Name
 Taxes less subsidies on products

 Availability
 Since April 2001

### Value added: by economic activity at constant prices

Gross value added (basic prices)

CC **Total** CD Agriculture, hunting, forestry and fishing activities CE Mining, manufacturing and energy Construction CF CG Trade, repairs, hotels and restaurants, transport and communication CH Financial, real estate, renting and business activities Public administration, education, health and other services CI CJ **Intermediate consumption of FISIM** CK Taxes less subsidies on product

EURO AREA CONCEPT Since February 2009: Euro 16 June 2008 to January 2009: Euro 15 June 2007 to May 2008: Euro 13 January 2001 to May 2007: Euro 12

SEASONAL ADJUSTMENT

All data seasonally adjusted

### ADDITIONAL NOTES

- Data in millions of ECU at 1995 prices
- Chain-linking introduced in June 2007
- During 2005 GDP and national accounts data have been subject to revisions due to the implementation of (*i*) the introduction of chain-linking of annual and quarterly volume series, (*ii*) the new partial allocation to final demand of indirectly measured financial intermediation and (*iii*) the benchmark revisions that must be implemented once every five to ten years.

• Methodological notes on the ECB's website: http://www.ecb.int/stats/prices/accounts/html/index.en.html

Working Paper Series No 1145 January 2010

CC	
Name	Gross value added at basic prices: Total
CD	
Name	Gross value added at basic prices: agricultural, hunting, forestry
	and fishing products
CE	
Name	Gross value added at basic prices: total industry
CF	
Name	Cross value added at basic prices: construction
1 Junio	Gross value autuen at basic prices; construction
	Gross value added at basic prices: construction
CG	GIUSS VALUE AUUEU AL DASIC PLICES: CONSTLUCTION
	Gross value added at basic prices: construction Gross value added at basic prices: trade, repairs, hotels,
CG	
CG	Gross value added at basic prices: trade, repairs, hotels,
CG	Gross value added at basic prices: trade, repairs, hotels,
CG Name	Gross value added at basic prices: trade, repairs, hotels,
CG Name CH	Gross value added at basic prices: trade, repairs, hotels, restaurants, transport and communication
CG Name CH	Gross value added at basic prices: trade, repairs, hotels, restaurants, transport and communication Gross value added at basic prices: financial intermediation, real
CG Name CH	Gross value added at basic prices: trade, repairs, hotels, restaurants, transport and communication Gross value added at basic prices: financial intermediation, real
CG Name CH Name	Gross value added at basic prices: trade, repairs, hotels, restaurants, transport and communication Gross value added at basic prices: financial intermediation, real estate
CG Name CH Name CI	Gross value added at basic prices: trade, repairs, hotels, restaurants, transport and communication Gross value added at basic prices: financial intermediation, real

C	r
U.	)

Name	Financial intermediation services indirectly measured
Comments	In November 2005 Eurostat introduced a new treatment of FISIM,
	allocating financial intermediation services to the different
	branches/sectors rather than recording FISIM as the output of a fictious
	sector. Hence, from November 2005 FISIM series were set to zero.
	The series discontinued in the database as of June 2007.

CV

UK	
Name	Taxes less subsidies on products

### Confidence indicators: economic, manufacturing, consumer, construction, retail trade, services

### ADDITIONAL NOTES

• See the documentation of monthly variables

SOURCE: European Commission: DG ECFIN

CL	
Name	Industry Survey: Current level of capacity utilization
Units	Percentage balances
Euro area	Since February 2009: Euro 16
concept	February 2008 to January 2009: Euro 15
	February 2007 to January 2008: Euro 13
	February 2006 to January 2007: Euro 12
Availability	Since February 2006
Comments	Owing to changes in the questionnaire used for the French survey, euro area results from January 2004 onwards are not fully comparable with
	previous results.
Source	European Commission: DG ECFIN



### **Overview of annual indicators**

### **Government finance: deficit/surplus and government consumption**

	Deficit (-)/surplus (+)
B	Total
С	Central government
D	State government
Ε	Local government
F	Social security funds
G	Primary deficit (-)/ surplus (+)
	Government consumption
Η	Total
Ι	Compensation of employees
J	Intermediate consumption
K	Transfers in kind via market producers
L	Consumption of fixed capital
Μ	Sales (minus)
Ν	Collective consumption
0	Individual consumption
U	

### EURO AREA CONCEPT

Since May 2009: Euro 16 May 2008 to April 2009: Euro 15 May 2007 to April 2008: Euro 13 January 2001 – March 2007: Euro 12

SEASONAL ADJUSTMENT No adjustment

### METHODOLOGICAL NOTES

- Data expressed as percentage of GDP
- Methodological notes on the ECB's website: http://www.ecb.int/stats/acc/gov/html/index.en.html

SOURCE: ECB

В	
Name	Deficit/surplus without UMTS proceeds - All sectors/ unspecified/
	not applicable (ESA95)-NCBs - General government (ESA95)-
	NCBs - Non-financial flows current prices
С	
Name	Deficit/surplus without UMTS proceeds - All sectors/ unspecified/
	not applicable (ESA95)-NCBs - Central government (ESA95)-NCBs
	- Non-financial flows current prices

D	
Name	Deficit or surplus - All sectors/ unspecified/ not applicable (ESA95)- NCBs - State government (ESA95)-NCBs - Non-financial flows current prices

### Е

(ESA95)-NCBs - Local government (ESA95)-NCBs - Non-financia flows current prices	Name	Deficit or surplus - All sectors/ unspecified/ not applicable (ESA95)-NCBs - Local government (ESA95)-NCBs - Non-financial flows current prices
---	------	---

### F

Name	Deficit or surplus - All sectors/ unspecified/ not applicable (ESA95)- NCBs - Social security funds (ESA95)-NCBs - Non-financial flows
	current prices

### G

Name	Primary deficit/surplus without UMTS proceeds - All sectors/
	unspecified/ not applicable (ESA95)-NCBs - General government
	(ESA95)-NCBs - Non-financial flows current prices

### Η

Name Final consumption expenditure	(P3, ESA 95) - All sectors/
unspecified/ not applicable (ESA	A95)-NCBs - General government
(ESA95)-NCBs - Non-financial	lows current prices

### Ι

Name	Compensation of employees - All sectors without GG
	(consolidation) (ESA95)-NCBs - General government (ESA95)-
	NCBs - Non-financial flows current prices

### J

Name	Intermediate consumption - All sectors/ unspecified/ not applicable
Ivallie	
	(ESA95)-NCBs - General government (ESA95)-NCBs - Non-
	financial flows current prices

### K

Name	Social transfers in kind via non-government producers -
	Households (ESA95)-NCBs - General government (ESA95)-NCBs -
	Non-financial flows current prices

### L

Name	Consumption of fixed capital - All sectors/ unspecified/ not
	applicable (ESA95)-NCBs - General government (ESA95)-NCBs -
	Non-financial flows current prices

Μ

141	
Name	Sales - General government (ESA95)-NCBs - All sectors without
	EU institutions (ESA95)-NCBs - Non-financial flows current prices

N	
Name	Collective consumption expenditure (P32, ESA 95) - All sectors/
	unspecified/ not applicable (ESA95)-NCBs - General government
	(ESA95)-NCBs - Non-financial flows current prices

### 0

Name Euro 12 - Individual consumption expenditure (P31, ESA 9	
sectors/ unspecified/ not applicable (ESA95)-NCBs - Gener government (ESA95)-NCBs - Non-financial flows current p Percentage points, series(t)/GDP(t) - Neither seasonally or adjusted	eral prices -

### US and Japan: main economic and financial indicators

<u>SEASONAL ADJUSTMENT</u> Neither seasonally or working day adjusted

### METHODOLOGICAL NOTES

• Data expressed as a percentage of GDP

SOURCE: Bank of Japan

#### Р

P	
Name	Japan - Deficit or surplus - All sectors/ unspecified/ not applicable
	(ESA95)-NCBs - General government (ESA95)-NCBs - Non-
	financial flows current prices

### Q

Name	Japan - Maastricht assets/liabilities - General government (ESA95)- NCBs - All sectors without GG (consolidation) (ESA95)-NCBs - Financial stocks - ESA 79 / Maastricht valuation
Availability	Since October 2002

R

Name	Japan, Gross capital formation, Transaction as a percentage of GDP - World not allocated (geographically) Not applicable
	(debtor); Japan Non-financial corporations (creditor), ESA95 valuation,

S

Name	Japan, Gross saving, Transaction as a percentage of GDP - Japan Non-financial corporations (debtor); World not allocated
	(geographically) Not applicable (creditor), ESA95 valuation,
Name	Japan, Gross capital formation, Transaction as a percentage of
------	---
	GDP - World not allocated (geographically) Not applicable
	(debtor); Japan Household, Non-profit institutions serving
	households (creditor), ESA95 valuation
U	
Name	Japan, Gross saving, Transaction as a percentage of GDP - Japan
	Household, Non-profit institutions serving households (debtor);
	World not allocated (geographically) Not applicable (creditor),

ESA95 valuation



## Annex 4: Additional detailed revision statistics

- T1.1 HICP breakdown
- T1.2 Industrial producer prices
- T1.3 Hourly labour costs
- T1.4 Unit labour costs
- T1.5 GDP deflators
- T2.1 GDP breakdown
- T2.2 Value added breakdown
- T2.3 Industrial production
- T2.4 Retail sales
- T2.5 Business and Consumer Surveys

## TI HICP, other prices and costs

#### 1. Harmonised Index of Consumer Prices

1		Total					Goods		1			Services		
		Total excl. unprocessed	Goods	Services		Food		Industrial g	oods	Housing	Transport	Commu- nication	Recreation and	Miscella- neous
		food and energy			Total	Processed food	Unprocessed food	Non-energy industrial	Energy				personal	
	1	2	3	4	5	6	7	goods 8	9	10	11	12	13	14
							Mean of the	series						
	2.27	1.96	2.13	2.48	3.02	3.12	2.88	0.83	4.74	2.36	3.06	-2.18	2.97	3.15
							Mean of rev	isions						
Y(tlt+4) - Y(tlt+24)	0.03	0.03	0.06	0.00	0.02	0.01	0.03	0.08	0.05	0.01	0.03	0.02	-0.05	-0.01
Y(tlt+6) - Y(tlt+24)	0.03	0.03	0.05	0.00	0.02	0.01	0.03	0.07	0.05	0.01	0.03	0.03	-0.06	-0.01
Y(tlt+8) - Y(tlt+24)	0.02	0.02	0.04	0.00	0.01	0.01	0.02	0.06	0.05	0.01	0.02	0.05	-0.06	-0.01
Y(tlt+12) - Y(tlt+24)	0.02	0.01	0.03	-0.01	0.01	0.00	0.01	0.04	0.05	0.01	0.01	0.09	-0.06	-0.01
Y(tlt+16) - Y(tlt+24)	0.01	0.01	0.02	0.00	0.00	0.00	0.00	0.02	0.05	0.01	0.00	0.10	-0.03	-0.01
						Sta	andard deviatio	n of the series						
	0.59	0.39	1.00	0.35	1.31	1.38	2.23	0.38	5.88	0.27	0.56	1.73	0.67	0.86
						Sta	andard deviatio	n of revisions						
Y(tlt+4) - Y(tlt+24)	0.10	0.08	0.15	0.03	0.05	0.04	0.08	0.21	0.18	0.05	0.08	0.52	0.17	0.04
Y(tlt+6) - Y(tlt+24)	0.09	0.07	0.14	0.03	0.05	0.04	0.07	0.20	0.17	0.05	0.07	0.51	0.17	0.04
Y(tlt+8) - Y(tlt+24)	0.07	0.06	0.12	0.03	0.04	0.03	0.06	0.16	0.16	0.05	0.07	0.50	0.18	0.03
Y(tlt+12) - Y(tlt+24)	0.06	0.05	0.10	0.03	0.02	0.02	0.04	0.14	0.16	0.04	0.05	0.45	0.18	0.03
Y(tlt+16) - Y(tlt+24)	0.04	0.03	0.06	0.05	0.01	0.01	0.02	0.06	0.14	0.04	0.02	0.45	0.21	0.04
							Publication lag	(months)						
	0	1	1	1	1	1	1	1	1	1	1	1	1	1

Sources: Eurostat and ECB calculations based on Eurostat data.



### TI HICP, other prices and costs (annual percentage changes)

### 2. Industrial producer prices excluding construction

	Т	otal		Industr	y excluding const	ruction and en	ergy		Energy
	Γ	Manu- facturing	Total	Intermediate goods	Capital goods		Consumer goods		
		Tacturing		goous	goods	Total	Durable	Non-durable	
	1	2	3	4	5	6	7	8	9
	I			Mean of the	he series				
	2.79	2.47	1.94	2.55	1.20	1.83	1.65	1.78	6.27
				Mean of r	evisions				
Y(tlt+4) - Y(tlt+24)	0.02	-0.02	0.04	0.12	0.04	0.01	0.00	0.04	-0.04
Y(tlt+6) - Y(tlt+24)	0.03	-0.02	0.05	0.06	0.04	0.02	0.01	0.04	-0.03
Y(tlt+8) - Y(tlt+24)	0.03	-0.02	0.05	0.01	0.03	0.03	0.01	0.05	-0.03
Y(tlt+12) - Y(tlt+24)	0.03	-0.01	0.03	0.01	0.01	0.04	0.03	0.06	0.02
Y(tlt+16) - Y(tlt+24)	0.03	-0.01	0.02	0.01	0.00	0.04	0.03	0.05	0.05
				Standard devia	tion of the series				
	2.46	1.91	1.35	2.51	0.75	1.26	0.68	1.39	8.02
				Standard devia	tion of revisions				
Y(tlt+4) - Y(tlt+24)	0.13	0.14	0.08	0.54	0.14	0.16	0.17	0.19	0.54
Y(tlt+6) - Y(tlt+24)	0.12	0.14	0.08	0.38	0.14	0.14	0.16	0.18	0.51
Y(tlt+8) - Y(tlt+24)	0.11	0.14	0.08	0.10	0.13	0.15	0.16	0.17	0.48
Y(tlt+12) - Y(tlt+24)	0.10	0.10	0.07	0.09	0.12	0.13	0.15	0.16	0.42
Y(tlt+16) - Y(tlt+24)	0.08	0.07	0.06	0.09	0.11	0.10	0.14	0.14	0.36
				Publication 1	ag (months)				
	1	1	1	1	1	1	1	1	1

### 3. Hourly labour costs

	Total	By comp	onent	By selected	economic activity	
	1	Wages and salaries 2	Employers' social contributions 3	Mining, manufacturing and energy 4	Construction 5	Services 6
		2	Mean of the series	•	5	
	3.05	3.05	3.01	3.20	3.24	3.18
			Mean of revisions			
Y(tlt+4) - Y(tlt+24)	-0.14	-0.15	-0.08	-0.37	-0.21	-0.26
Y(tlt+6) - Y(tlt+24)	-0.13	-0.15	-0.07	-0.34	-0.19	-0.28
Y(tlt+8) - Y(tlt+24)	-0.09	-0.11	-0.06	-0.25	-0.15	-0.24
Y(tlt+12) - Y(tlt+24)	-0.06	-0.07	-0.03	-0.20	-0.07	-0.20
Y(tlt+16) - Y(tlt+24)	0.01	-0.02	0.01	-0.12	-0.01	-0.07
		Stan	dard deviation of the series			
	0.57	0.60	0.59	0.94	0.71	1.03
		Stan	dard deviation of revisions			
Y(tlt+4) - Y(tlt+24)	0.27	0.28	0.33	0.77	0.44	0.57
Y(tt+6) - Y(tt+24)	0.26	0.26	0.32	0.71	0.43	0.58
Y(tlt+8) - Y(tlt+24)	0.26	0.27	0.29	0.67	0.40	0.58
Y(tlt+12) - Y(tlt+24)	0.21	0.24	0.22	0.56	0.37	0.51
Y(tlt+16) - Y(tlt+24)	0.20	0.22	0.22	0.47	0.27	0.44
		P	ublication lag (months)			
	3	3	3	3	3	3

Sources: Eurostat and ECB calculations based on Eurostat data.



## TI HICP, other prices and costs

#### 4. Unit labour costs

(seasonally adjusted)

	Total				By economic activity		
		Agriculture, hunting, forestry and fishing	Mining, manufacturing and energy	Construction	Trade, repairs, hotels and restaurants, transport and communication	Financial, real estate, renting and business services	Public administration, education, health and other services
	1	2	3	4	5	6	7
				Mean of the se	ries		
	1.80	1.74	0.34	3.07	1.27	2.80	2.66
				Mean of revisi	ons		
Y(tlt+4) - Y(tlt+24)	-0.09	1.76	-0.80	-0.20	0.16	0.19	-0.52
Y(tlt+6) - Y(tlt+24)	-0.05	0.55	-0.14	0.18	-0.09	0.21	-0.46
Y(tlt+8) - Y(tlt+24)	-0.01	0.54	-0.14	0.22	-0.12	0.21	-0.46
Y(tlt+12) - Y(tlt+24)	0.00	1.20	0.07	0.17	-0.06	0.04	-0.35
Y(tlt+16) - Y(tlt+24)	-0.02	1.02	0.05	0.05	-0.03	0.03	-0.23
			Sta	ndard deviation	of the series		
	0.93	5.85	2.17	1.08	1.33	0.91	0.84
			Sta	ndard deviation	of revisions		
Y(tlt+4) - Y(tlt+24)	0.30	4.79	1.02	1.29	0.78	0.51	0.68
Y(tlt+6) - Y(tlt+24)	0.37	3.37	0.71	1.17	0.68	0.97	0.49
Y(tlt+8) - Y(tlt+24)	0.33	3.07	0.75	1.14	0.60	0.82	0.51
Y(tlt+12) - Y(tlt+24)	0.20	2.92	0.64	1.01	0.45	0.75	0.50
Y(tlt+16) - Y(tlt+24)	0.15	2.19	0.53	1.05	0.43	0.74	0.57
			F	Publication lag (r	months)		
	3	3	3	3	3	3	3

#### 5. Gross domestic product deflators

	Total		Domest	ic demand		Exports	Imports
		Total	Private consumption	Government consumption	Gross fixed capital formation		
	1	2	3	4	5	6	7
		ŀ	Mean	of the series		L.	
	2.16	2.31	2.22	2.40	2.12	1.31	1.59
			Mean	of revisions			
Y(tlt+4) - Y(tlt+24)	-0.08	-0.07	-0.12	-0.45	0.12	0.03	0.07
Y(tlt+6) - Y(tlt+24)	-0.12	-0.11	-0.10	-0.49	0.11	0.11	0.17
Y(tlt+8) - Y(tlt+24)	-0.11	-0.06	-0.12	-0.47	0.14	0.05	0.19
Y(tlt+12) - Y(tlt+24)	-0.11	-0.10	-0.01	-0.38	0.04	0.09	0.10
Y(tlt+16) - Y(tlt+24)	-0.08	-0.07	0.02	-0.26	0.01	0.02	0.04
			Standard d	eviation of the series			
	0.32	0.41	0.53	0.68	0.76	1.87	3.24
			Standard d	eviation of revisions			
Y(tlt+4) - Y(tlt+24)	0.22	0.17	0.16	0.63	0.29	0.57	0.55
Y(tlt+6) - Y(tlt+24)	0.14	0.21	0.16	0.44	0.40	0.38	0.41
Y(tlt+8) - Y(tlt+24)	0.14	0.16	0.16	0.41	0.26	0.30	0.29
Y(tlt+12) - Y(tlt+24)	0.12	0.20	0.15	0.45	0.32	0.42	0.23
Y(tlt+16) - Y(tlt+24)	0.13	0.16	0.17	0.29	0.24	0.29	0.21
			Publicat	ion lag (months)			
	2	2	2	2	2	2	2

Sources: ECB calculations based on Eurostat data.



# **1. GDP and expenditure components** (seasonally adjusted)

(seasonally adjusted)						
1			GDP			
	Total		Domestic demand		External balance	1)
		Private consumption	Government consumption	Gross fixed capital formation	Exports	Imports
	1	2	3	4	5	6
`			Current prices	· ·	· · ·	
		М	ean of the series			
	3.85	3.70	4.39	3.97	5.72	5.94
		М	ean of revisions			
Y(tlt+4) - Y(tlt+24)	-0.27	-0.30	-0.43	-0.75	-0.09	-0.18
Y(tlt+6) - Y(tlt+24)	-0.27	-0.21	-0.56	-0.47	-0.14	-0.21
Y(tlt+8) - Y(tlt+24)	-0.23	-0.18	-0.48	-0.39	-0.10	-0.11
Y(tlt+12) - Y(tlt+24)	-0.21	-0.08	-0.43	-0.36	-0.18	-0.22
Y(tlt+16) - Y(tlt+24)	-0.15	-0.04	-0.29	-0.35	-0.23	-0.21
		Standar	rd deviation of the series			
	1.56	1.11	0.78	4.05	6.75	7.54
		Standar	rd deviation of revisions			
Y(tlt+4) - Y(tlt+24)	0.25	0.27	0.57	0.90	0.80	0.86
Y(tlt+6) - Y(tlt+24)	0.21	0.24	0.46	0.72	0.72	0.61
Y(tlt+8) - Y(tlt+24)	0.20	0.22	0.45	0.64	0.55	0.49
Y(tlt+12) - Y(tlt+24)	0.18	0.20	0.43	0.52	0.54	0.37
Y(tlt+16) - Y(tlt+24)	0.15	0.16	0.33	0.42	0.33	0.39
		Constan	t prices quarter on quarte	er		
		М	ean of the series			
	0.28	0.30	0.47	0.23	0.62	0.67
		М	ean of revisions			
Y(tlt+4) - Y(tlt+24)	-0.04	-0.06	-0.14	-0.16	0.24	0.11
Y(tlt+6) - Y(tlt+24)	-0.03	-0.02	-0.10	-0.07	0.18	0.11
Y(tlt+8) - Y(tlt+24)	-0.02	0.00	-0.03	-0.09	0.07	0.02
Y(tlt+12) - Y(tlt+24)	-0.02	0.00	0.00	-0.05	-0.01	0.00
Y(tlt+16) - Y(tlt+24)	-0.01	0.01	-0.02	-0.06	0.07	0.04
		Standar	rd deviation of the series			
	0.69	0.35	0.28	1.42	2.42	2.11
		Standar	rd deviation of revisions			
Y(tlt+4) - Y(tlt+24)	0.11	0.24	0.32	0.52	0.67	0.66
Y(tlt+6) - Y(tlt+24)	0.10	0.17	0.30	0.39	0.69	0.63
Y(tlt+8) - Y(tlt+24)	0.08	0.19	0.27	0.37	0.53	0.52
Y(tlt+12) - Y(tlt+24)	0.06	0.14	0.30	0.29	0.50	0.49
Y(tlt+16) - Y(tlt+24)	0.04	0.15	0.26	0.27	0.43	0.44



# **1. GDP and expenditure components (cont'd)** (seasonally adjusted)

(seasonally adjusted)			GDP			
_	Total		Domestic demand		External balanc	e
	1	Private consumption 2	Government consumption 3	Gross fixed capital formation 4	Exports 5	Imports 6
I	· · · ·	Consta	nt prices year on year		I	
		Ν	lean of the series			
	1.65	1.44	1.94	1.79	4.26	4.16
		Ν	lean of revisions			
Y(tlt+4) - Y(tlt+24)	-0.15	-0.13	-0.16	-0.67	-0.04	-0.27
Y(tlt+6) - Y(tlt+24)	-0.14	-0.10	-0.06	-0.57	-0.25	-0.38
Y(tlt+8) - Y(tlt+24)	-0.12	-0.06	0.00	-0.52	-0.15	-0.30
Y(tlt+12) - Y(tlt+24)	-0.10	-0.06	-0.05	-0.39	-0.26	-0.31
Y(tlt+16) - Y(tlt+24)	-0.07	-0.06	-0.02	-0.34	-0.23	-0.24
		Standa	rd deviation of the series			
	1.57	0.84	0.38	3.44	5.21	4.70
		Standa	rd deviation of revisions			
Y(tlt+4) - Y(tlt+24)	0.19	0.28	0.66	0.90	0.73	0.78
Y(tlt+6) - Y(tlt+24)	0.17	0.23	0.56	0.74	0.72	0.64
Y(tlt+8) - Y(tlt+24)	0.14	0.24	0.56	0.68	0.51	0.50
Y(tlt+12) - Y(tlt+24)	0.12	0.23	0.56	0.51	0.42	0.41
Y(tlt+16) - Y(tlt+24)	0.09	0.25	0.45	0.41	0.39	0.36
		Pui	blication lag (months)			
	2	2	2	2	2	2



## 2. Value added by economic activity

			Gross	value added (basic p	rices)		1	Taxes less
_	Total	Agriculture, hunting, forestry and fishing activities	Mining, manufacturing and energy	Construction	Trade, repairs, hotels and restaurants, transport and communication	Financial, real estate, renting and business activities	Public administration, education, health and other services	subsidies on products
	1	2	3	4	5	6	7	8
				Current price				
				Mean of the serie				
	3.90	-0.28	2.41	5.47	3.73	4.97	4.18	3.46
				Mean of revisior				
Y(tlt+4) - Y(tlt+24)	-0.25	2.68	0.04	-0.39	-0.33	-0.22	-0.70	-0.64
Y(tlt+6) - Y(tlt+24)	-0.24	2.00	-0.11 -0.08	-0.37 -0.35	-0.20 -0.18	-0.25 -0.24	-0.54 -0.49	-0.82
Y(tlt+8) - Y(tlt+24)	-0.21 -0.16	1.81 1.37	-0.08	-0.35	-0.18 -0.08	-0.24 -0.15	-0.49	-0.59 -0.67
Y(tlt+12) - Y(tlt+24) Y(tlt+16) - Y(tlt+24)	-0.10	0.64	-0.13	-0.39	-0.08	-0.07	-0.34	-0.42
				Standard deviation of				
	1.52	5.12	3.86	2.40	1.65	1.12	0.67	3.18
			:	Standard deviation of	revisions			
Y(tlt+4) - Y(tlt+24)	0.27	3.44	0.74	1.16	0.53	0.79	0.73	1.44
Y(tlt+6) - Y(tlt+24)	0.21	3.05	0.62	1.01	0.54	0.70	0.50	1.42
Y(tlt+8) - Y(tlt+24)	0.21	2.89	0.51	1.01	0.48	0.69	0.50	1.05
Y(tlt+12) - Y(tlt+24)	0.17 0.14	1.85 1.44	0.39 0.41	0.99 0.92	0.41 0.31	0.60 0.52	0.52 0.51	1.37 1.03
Y(tlt+16) - Y(tlt+24)	0.14	1.44		onstant prices quart		0.32	0.51	1.05
				Mean of the serie	-			
	0.30	-0.04	-0.03	0.19	0.35	0.53	0.34	0.10
				Mean of revisior				
Y(tlt+4) - Y(tlt+24)	-0.05	0.29	-0.07	-0.33	-0.03	-0.04	-0.01	-0.02
Y(t t+6) - Y(t t+24)	-0.05	0.42	-0.06	-0.23	0.04	-0.08	-0.06	0.10
Y(tlt+8) - Y(tlt+24)	-0.03	0.36	-0.02	-0.16	0.04	-0.08	-0.03	0.04
Y(tlt+12) - Y(tlt+24)	-0.01	0.19	-0.01	-0.10	0.03	-0.04	-0.03	-0.01
Y(tlt+16) - Y(tlt+24)	-0.01	-0.21	-0.03	-0.06	0.09	-0.02	-0.03	0.04
			:	Standard deviation of	the series			
	0.69	2.41	1.97	1.12	0.80	0.49	0.15	1.05
			:	Standard deviation of	revisions			
Y(tlt+4) - Y(tlt+24)	0.11	1.52	0.39	0.75	0.41	0.33	0.27	0.79
Y(tlt+6) - Y(tlt+24)	0.10	1.42	0.35	0.48	0.35	0.25	0.25	0.51
Y(tlt+8) - Y(tlt+24)	0.09	1.37	0.34	0.46	0.30	0.25	0.23	0.57
Y(tlt+12) - Y(tlt+24)	0.09	1.44	0.25	0.44	0.28	0.23	0.22	0.51
Y(tlt+16) - Y(tlt+24)	0.06	1.05	0.17	0.35	0.26	0.22	0.23	0.44

## **2. Value added by economic activity (cont'd)** (seasonally adjusted)

			Gross va	lue added (basic pi	rices)			Taxes less subsidies on
	Total	Agriculture, hunting, forestry and fishing activities	Mining, manufacturing and energy	Construction	Trade, repairs, hotels and restaurants, transport and communication	Financial, real estate, renting and business activities	Public administration, education, health and other services	products
	1	2	3	4	5	6	7	8
			Con	stant prices year o	n year			
				Mean of the serie	s			
	1.74	-0.22	1.33	0.99	1.99	2.46	1.41	0.89
				Mean of revision	s			
Y(tlt+4) - Y(tlt+24)	-0.14	0.58	-0.12	-0.89	0.04	-0.24	-0.09	-0.27
Y(tlt+6) - Y(tlt+24)	-0.12	0.24	-0.10	-0.64	0.11	-0.24	-0.13	-0.22
Y(tlt+8) - Y(tlt+24)	-0.09	0.02	-0.05	-0.56	0.17	-0.27	-0.05	-0.27
Y(tlt+12) - Y(tlt+24)	-0.07	-0.32	-0.08	-0.31	0.08	-0.15	-0.04	-0.15
Y(tlt+16) - Y(tlt+24)	-0.06	-0.61	-0.05	-0.17	0.04	-0.11	-0.03	-0.03
			Sta	andard deviation of	the series			
	1.59	5.49	3.84	2.17	1.82	1.23	0.26	1.87
			Sta	andard deviation of	revisions			
Y(tlt+4) - Y(tlt+24)	0.18	3.42	0.51	1.04	0.38	0.72	0.41	0.98
Y(tlt+6) - Y(tlt+24)	0.19	2.98	0.42	0.94	0.52	0.60	0.41	0.92
Y(tlt+8) - Y(tlt+24)	0.18	2.73	0.43	0.99	0.49	0.64	0.40	0.92
Y(tlt+12) - Y(tlt+24)	0.16	1.91	0.47	0.95	0.32	0.60	0.41	0.98
Y(tlt+16) - Y(tlt+24)	0.11	1.69	0.46	0.89	0.31	0.53	0.47	0.89
				Publication lag (mo	nths)			
	2	2	2	2	2	2	2	2



### T2 Output and demand (annual percentage changes, unless otherwise indicated)

### 3. Industrial production

	Total				Industry excl	iding constru	uction				Construction
	_	Tota	1		Industry ex	cluding cons	truction and	energy		Energy	
			Manu- facturing	Total	Intermediate goods	Capital goods	C	Consumer goo	ds		
			Tacturnig		goods	goods	Total	Durable	Non-durable		
	1	2	3	4	5	6	7	8	9	10	11
I	I				Mean of the s	eries		I		I	
	0.64	0.73	0.73	0.57	0.20	1.51	0.36	-1.92	0.75	1.04	0.70
					Mean of revis	ions					
Y(tlt+4) - Y(tlt+24)	-0.48	-0.23	-0.22	-0.23	-0.14	-0.51	-0.22	-0.08	-0.24	-0.05	-1.34
Y(tlt+6) - Y(tlt+24)	-0.26	-0.16	-0.14	-0.16	-0.14	-0.37	-0.10	0.01	-0.12	-0.06	-0.61
Y(tlt+8) - Y(tlt+24)	-0.23	-0.12	-0.10	-0.12	-0.09	-0.31	-0.10	0.03	-0.11	-0.05	-0.42
Y(tlt+12) - Y(tlt+24)	-0.14	-0.08	-0.07	-0.10	-0.09	-0.29	-0.09	0.01	-0.09	0.01	-0.22
Y(tlt+16) - Y(tlt+24)	-0.10	-0.07	-0.07	-0.06	-0.08	-0.20	-0.06	0.00	-0.06	0.06	-0.11
				:	Standard deviation	of the series					
	4.15	4.39	4.48	5.03	6.04	6.12	2.84	5.58	2.51	3.41	3.46
				:	Standard deviation	of revisions					
Y(tlt+4) - Y(tlt+24)	0.70	0.41	0.36	0.48	0.60	0.79	0.62	0.88	0.72	0.93	2.86
Y(tlt+6) - Y(tlt+24)	0.62	0.40	0.36	0.47	0.54	0.74	0.59	0.85	0.65	0.69	1.67
Y(tlt+8) - Y(tlt+24)	0.49	0.37	0.32	0.38	0.49	0.61	0.44	0.74	0.49	0.66	1.14
Y(tlt+12) - Y(tlt+24)	0.40	0.29	0.22	0.34	0.39	0.52	0.34	0.61	0.39	0.55	0.72
Y(tlt+16) - Y(tlt+24)	0.35	0.20	0.20	0.29	0.29	0.41	0.29	0.49	0.32	0.36	0.42
					Publication lag	(months)					
	2	2	2	2	2	2	2	2	2	2	2

# **4. Retail sales and new passenger car registrations** (seasonally adjusted, unless otherwise indicated)

			Retail sales				New passenger car registrations	
	Current prices		Co	nstant prices			0	
	Total	Total	Food,		Non-food		Total	Total (n.s.a)
			beverages, tobacco		Textiles, clothing, footwear	Household equipment	7	
	1	2	3	4	5	6	7	8
			Mea	in of the series				
	2.61	0.99	0.58	1.17	1.05	1.09	-1.50	-1.49
			Mea	n of revisions				
Y(tlt+4) - Y(tlt+24)	-0.34	-0.25	-0.25	-0.29	-0.20	-0.35	-0.46	-0.57
Y(tlt+6) - Y(tlt+24)	-0.29	-0.19	-0.24	-0.24	-0.23	-0.33	-0.40	-0.56
Y(tlt+8) - Y(tlt+24)	-0.23	-0.14	-0.20	-0.17	-0.19	-0.26	-0.34	-0.57
Y(tlt+12) - Y(tlt+24)	-0.11	-0.09	-0.10	-0.10	-0.10	-0.16	-0.21	-0.51
Y(tlt+16) - Y(tlt+24)	0.02	0.01	-0.01	-0.03	0.02	-0.01	0.02	-0.24
			Standard	deviation of the	series			
	1.07	1.20	1.39	1.46	3.04	2.49	5.54	5.80
			Standard	deviation of rev	isions			
Y(tlt+4) - Y(tlt+24)	0.68	0.78	0.78	0.82	1.49	0.93	1.18	1.13
Y(tlt+6) - Y(tlt+24)	0.61	0.74	0.75	0.79	1.40	0.85	1.09	1.13
Y(tlt+8) - Y(tlt+24)	0.62	0.69	0.74	0.70	1.29	0.75	1.05	1.16
Y(tlt+12) - Y(tlt+24)	0.55	0.62	0.69	0.67	1.12	0.68	1.08	1.20
Y(tlt+16) - Y(tlt+24)	0.41	0.43	0.46	0.47	0.85	0.50	0.81	1.15
			Public	cation lag (montl	ns)			
	1	1	1	1	2	2	1	1



### T2 Output and demand (percentage balances,<sup>1)</sup> unless otherwise indicated; seasonally adjusted)

### 5. Business and Consumer Surveys

	Economic sentiment	Manufacturing industry					Consumer confidence indicator					
	indicator (long-term	Industrial confidence indicator				Capacity utilisation	Total	Financial situation	Economic situation	Unemployment situation	Savings over next	
	average = 100)	Total 2	Order books 3	Stocks of finished products 4	Production expectations	(percentages)	7	over next 12 months	over next 12 months 9	12 months	12 months	
	1	2	5	7	5	-	1	0	,	10	11	
					Mean of	the series						
	97.88	-6.71	-15.09	9.74	4.72	81.68	-12.46	-3.71	-14.60	23.50	-8.05	
					Mean of	revisions						
Y(tlt+4) - Y(tlt+24)	1.74	0.19	0.23	0.09	0.25	-0.08	-0.05	0.15	0.18	-0.11	0.18	
Y(tlt+6) - Y(tlt+24)	1.65	0.14	0.22	0.05	0.14	-0.06	0.02	0.14	0.17	-0.13	0.15	
Y(tlt+8) - Y(tlt+24)	1.56	0.17	0.19	0.00	0.18	-0.04	0.07	0.12	0.17	-0.10	0.09	
Y(tlt+12) - Y(tlt+24)	1.18	0.15	0.16	0.00	0.13	0.00	0.05	0.10	0.08	-0.02	0.04	
Y(tlt+16) - Y(tlt+24)	0.70	0.12	0.12	-0.01	0.13	0.02	0.02	0.08	0.02	0.04	0.02	
					Standard devi	ation of the series						
	10.47	9.54	15.28	4.04	10.51	2.67	7.29	3.75	9.28	15.15	4.52	
					Standard devi	ation of revisions						
Y(tlt+4) - Y(tlt+24)	2.46	0.74	0.83	0.44	1.31	0.22	0.77	0.31	0.45	0.51	0.86	
Y(tlt+6) - Y(tlt+24)	2.23	0.70	0.84	0.50	1.23	0.21	0.68	0.30	0.45	0.51	0.80	
Y(tlt+8) - Y(tlt+24)	1.98	0.67	0.81	0.43	1.17	0.18	0.45	0.28	0.45	0.47	0.78	
Y(tlt+12) - Y(tlt+24)	1.61	0.64	0.76	0.41	1.00	0.14	0.23	0.24	0.32	0.38	0.72	
Y(tlt+16) - Y(tlt+24)	1.27	0.49	0.58	0.28	0.76	0.16	0.19	0.21	0.22	0.27	0.62	
					Publicatio	n lag (months)						
	0	0	0	0	0	0	0	0	0	0	0	

	Constructio	n confidenc	e indicator	Reta	il trade confi	dence indicato	r	Services confidence indicator			
-	Total	Order books	Employment expectations	Total	Present business situation	Volume of stocks	Expected business situation	Total	Business climate	Demand in recent months	Demand in the months ahead
	12	13	14	15	16	17	18	19	20	21	22
I	I				Mean of the	series				1	
	-9.78	-16.42	-3.14	-6.80	-7.40	14.87	1.85	9.22	4.37	7.21	16.06
					Mean of rev	visions					
Y(tlt+4) - Y(tlt+24)	-0.20	-1.11	-0.79	-0.01	-0.46	-0.08	-0.21	0.18	0.09	0.23	0.14
Y(tlt+6) - Y(tlt+24)	-0.27	-0.97	-0.68	0.01	-0.43	-0.05	-0.06	0.14	0.07	0.20	0.12
Y(tlt+8) - Y(tlt+24)	-0.25	-0.74	-0.48	0.00	-0.31	0.05	0.10	0.09	-0.01	0.15	0.14
Y(tlt+12) - Y(tlt+24)	-0.17	-0.29	-0.17	0.09	0.00	-0.01	0.30	0.06	0.18	0.12	-0.01
Y(tlt+16) - Y(tlt+24)	-0.13	-0.15	-0.10	0.13	0.17	0.04	0.34	0.07	0.11	0.14	0.00
				Sta	ndard deviatio	on of the series					
	8.31	8.86	8.08	5.97	8.99	2.21	9.56	11.60	14.11	11.13	11.12
				Sta	ndard deviatio	on of revisions					
Y(tlt+4) - Y(tlt+24)	3.38	3.10	2.33	1.59	3.04	1.03	2.44	0.84	1.20	0.91	1.06
Y(tlt+6) - Y(tlt+24)	3.13	2.95	2.18	1.47	2.94	0.92	2.20	0.74	1.12	0.86	0.87
Y(tlt+8) - Y(tlt+24)	2.89	2.84	2.13	1.42	2.79	0.82	2.07	0.69	1.03	0.89	0.88
Y(tlt+12) - Y(tlt+24)	2.41	2.54	2.05	1.17	2.46	0.72	1.77	0.58	0.78	0.94	0.76
Y(tlt+16) - Y(tlt+24)	1.89	1.98	1.67	0.87	1.96	0.58	1.51	0.54	0.68	0.86	0.67
					Publication la	g (months)					
	0	0	0	0	0	0	0	0	0	0	0

Source: European Commission (Economic and Financial Affairs DG) and ECB calculations.