



EUROPEAN CENTRAL BANK

EUROSYSTEM

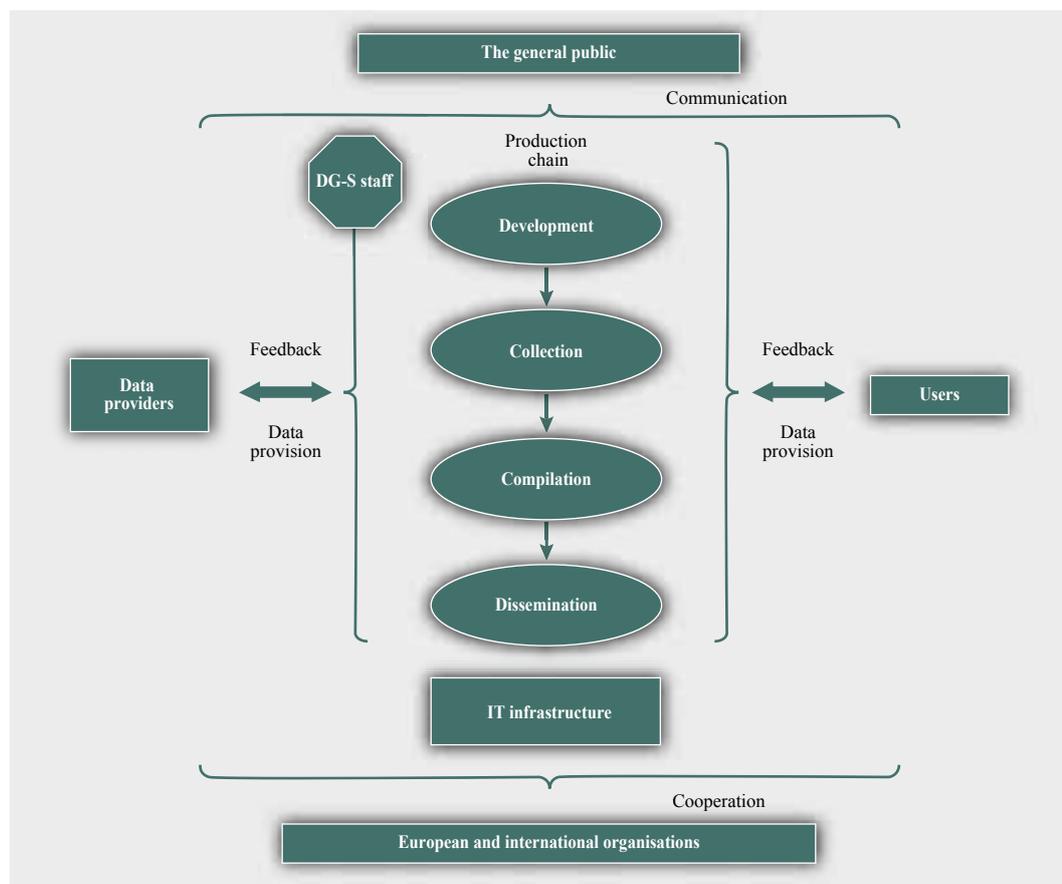
QUALITY ASSURANCE PROCEDURES WITHIN THE ECB STATISTICAL FUNCTION

INTRODUCTION

Adherence to the quality principles stated in the ECB Statistics Quality Framework (SQF) is ensured by the application of well-defined quality assurance procedures. The quality assurance procedures described below are already in place or will be established in the near future. They are addressed to all the key stakeholders of the statistical function of the European Central Bank (ECB) and cover the

whole statistical production chain as well as the supporting IT infrastructure (see Figure 1).

This quality assurance procedures document is a “living” document. This means that it is updated regularly to include new quality assurance procedures implemented by the ECB statistical function and to remove those that are deemed obsolete.



CONTENTS

INTRODUCTION	
1	GOVERNANCE ISSUES 4
2	STRATEGY, WORK PROGRAMME AND PROCEDURES TO IDENTIFY NEW USER REQUIREMENTS AND DEVELOP NEW STATISTICS 6
3	PROCEDURES TO PROTECT STATISTICAL CONFIDENTIALITY 8
4	QUALITY ASSURANCE PROCEDURES RELATED TO THE COLLECTION OF DATA 9
5	QUALITY ASSURANCE PROCEDURES RELATED TO COMPILATION AND STATISTICAL ANALYSIS 10
6	QUALITY ASSURANCE PROCEDURES RELATED TO THE DATA ACCESSIBILITY AND DISSEMINATION POLICY 11
7	MONITORING AND REPORTING 12
8	ASSESSING AND ENHANCING STAKEHOLDER SATISFACTION 14

I GOVERNANCE ISSUES

I.1 ECB GOVERNANCE¹

I.1.1 THE ECB LEGAL FRAMEWORK

The institutional set-up in which statistics are produced has a significant impact on their quality. In this regard, it is important to note that the provisions of the Treaty on European Union² concerning the independence and accountability of the ECB also apply to its statistical function. Moreover, Article 5 of the Protocol on the Statute of the European System of Central Banks (ESCB) and of the ECB,³ together with Council Regulation (EC) No 2533/98,⁴ set out the ECB's responsibilities and regulatory powers concerning the collection of statistics.

I.1.2 THE ECB CODE OF CONDUCT⁵ AND THE GUIDANCE OF THE ETHICS ADVISER

The ECB Code of Conduct gives guidance in matters of professional ethics to all persons employed by the ECB and serves as a reference for the public with regard to the standards of conduct that third parties are entitled to expect in their dealings with the ECB.

The Ethics Adviser provides guidance to ECB staff on all aspects of professional conduct and professional secrecy.

I.1.3 THE ESCB'S GOVERNANCE STRUCTURE AS APPLIED TO ESCB STATISTICS

On 13 November 2006 the ECB published a document entitled "The ESCB's governance structure as applied to ESCB statistics".⁶ This document sets out the legal framework for the collection and provision of statistics by the ESCB, its relations with users, audit and control functions, confidentiality regime and some operational aspects.

I.1.4 PUBLIC COMMITMENT WITH RESPECT TO THE ESCB'S STATISTICAL FUNCTION

In May 2007 the ESCB publicly committed to a number of core principles for its statistics. This public commitment can be considered to be an explicit application of the goals, values and

principles of the Eurosystem mission statement to the ESCB's statistical function. It also refers to the ESCB legal framework and spells out the fact that the ESCB adheres to the IMF Special Data Dissemination Standards (SDDS) and Data Quality Assessment Framework, and to the statistical principles set forth in Article 285 of the Treaty on European Union. It is also in line with the European Statistics Code of Practice.

I.2 INTERNATIONAL COOPERATION AND COORDINATION

I.2.1 THE STATISTICS COMMITTEE AND ITS SUB-STRUCTURES

In accordance with Article 5 of its Statute, the ECB develops, collects, compiles and provides statistics necessary for the tasks of the ESCB, with the assistance of the national central banks (NCBs). In this context, the Statistics Committee (STC), which is composed of representatives of all EU NCBs as well as representatives of acceding countries and other European and international organisations as observers and is currently chaired by the ECB's Director General Statistics, was created to discuss all ESCB statistical issues. According to its mandate, the STC contributes to (1) the analysis, design and cost-effective implementation of changes in the collected statistical information that are necessary in order to carry out the tasks of the ESCB; (2) the harmonisation, where necessary, of the rules and practices governing the collection, compilation and dissemination of statistics within the ESCB's fields of competence; (3) the assessment of the quality of the statistical information used within the ESCB; and (4) the development and maintenance of ESCB-wide statistical systems.

1 See: <http://www.ecb.int/ecb/orga/governance/html/index.en.html>.

2 See: http://www.ecb.int/ecb/legal/pdf/maastricht_en.pdf

3 See: http://www.ecb.int/ecb/legal/pdf/en_statute.pdf.

4 OJ L 318, 27.11.1998, P.8.

5 See: http://www.ecb.int/ecb/pdf/orga/c_07620010308en0012-0015.pdf.

6 See: <http://www.ecb.int/pub/pdf/other/escbsgovernancestructureappliedtostatistics200611en.pdf>

In the fulfilment of its mandate, the STC is assisted by six working groups, each of which specialises in a specific statistical area. They are the Working Group on External Statistics, the Working Group on General Economic Statistics, the Working Group on Government Finance Statistics, the Working Group on Monetary and Financial Statistics, the Working Group on Euro Area Accounts and the Working Group on Statistical Information Management. Both the STC and the working groups may delegate the clarification of various issues to ad hoc task forces, which do not necessarily comprise an expert from each EU Member State.

1.2.2 MEMORANDUM OF UNDERSTANDING⁷ WITH EUROSTAT

Both the ECB and the European Commission need statistical information to perform their tasks as stated in the Treaty. However, in order (1) to avoid duplication of statistical work at the Community level, (2) to prevent double or conflicting requests for data being issued to economic agents by the ECB and the Commission, and (3) to promote high quality (in all its aspects) and consistent statistics at the Community level for the use of policy-makers and the general public, the ECB (Directorate General Statistics (DG-S)) and the Commission (Eurostat) concluded a Memorandum of Understanding (MoU).

The purpose of the MoU is (1) to set out their respective areas of responsibility in economic and financial statistics at the Community level; (2) to provide a framework for the exchange and reproduction of data; (3) to note the forms which cooperation between DG-S and Eurostat will take; and (4) to set down a procedure for resolving disagreements.

1.2.3 PARTICIPATION IN THE ECONOMIC AND FINANCIAL COMMITTEE'S SUB-COMMITTEE ON STATISTICS

This Sub-Committee is composed of representatives of all EU Member States, the Commission, the Chairman of the Committee on Monetary, Financial and Balance of Payments Statistics (CMFB) and DG-S. Its main task is to

provide advice to the Economic and Financial Committee on specific statistical matters.

1.2.4 PARTICIPATION IN THE MEETINGS OF THE STATISTICAL PROGRAMME COMMITTEE AND ITS SUB-STRUCTURES

The ECB participates as an observer in the meetings of the Statistical Programme Committee (SPC),⁸ which was created by the Council of the European Union and the European Parliament. The main task of the SPC is to deliver opinions on draft implementing measures regarding various statistical issues that the Commission submits to it. The SPC is composed of representatives of the statistical institutes of the EU Member States and of Iceland, Norway, Lichtenstein and Switzerland, and is chaired by a representative of the Commission (the Director General of Eurostat). In addition, the ECB regularly participates in meetings of sector groups and working parties of Eurostat.

1.2.5 THE COMMITTEE ON MONETARY, FINANCIAL AND BALANCE OF PAYMENTS STATISTICS AND JOINT ECB (DG-S) AND COMMISSION (EUROSTAT) TASK FORCES

The CMFB gives advice on statistical matters to both the Commission (Eurostat) and the ECB (DG-S), taking due account of the MoU (see Section 1.3.2) signed by both institutions, and maintaining close links with each, in cooperation with the SPC and the STC. The CMFB issues opinions on questions relating to statistics that are of common concern to the Commission and the national statistical authorities on the one hand, and the ECB and NCBs on the other. The Committee may be consulted by the Commission (Eurostat) or the ECB (DG-S) or may issue opinions on its own initiative. It is composed of representatives of the EU Member States, who are drawn from the institutions principally concerned with compiling financial, monetary and balance of

7 See: http://www.ecb.int/ecb/legal/pdf/en_mou_with_eurostat1.pdf.

8 Council Decision 89/382/EEC, Euratom of 19 June 1989, establishing a Committee on the Statistical Programmes of the European Communities (Article 1), OJ L 181, 28.6.1989, p. 47.

payments statistics, and representatives of the Commission (Eurostat) and the ECB (DG-S).

The CMFB may assign the clarification of various issues to task forces, which are commonly jointly coordinated by the ECB (DG-S) and the Commission (Eurostat).

1.2.6 PARTICIPATION IN WORK ON INTERNATIONAL STATISTICAL STANDARDS

The ECB (DG-S) cooperates closely with the Commission (Eurostat) and other international organisations in the updating of global statistical standards. It also sponsors and implements a number of worldwide technical standards for the exchange of data such as the Statistical Data and Metadata Exchange (SDMX).⁹

1.2.7 PARTICIPATION IN THE COMMITTEE FOR THE COORDINATION OF STATISTICAL ACTIVITIES

The ECB (DG-S) participates in the Committee for the Coordination of Statistical Activities (CCSA) which was established in 2002 to, among other tasks, “promote coordination, integration and complementarity among the statistical programmes of the international organizations, including the avoidance of duplication and reduction in reporting burdens on Member States and to promote coordination and consistency in statistical practices and development”.¹⁰ In 2005 the CCSA endorsed the Principles Governing International Statistical Activities¹¹ in order to enhance the functioning of the international statistical system. The ECB publicly expressed its commitment to adhering to these principles.

2 STRATEGY, WORK PROGRAMME AND PROCEDURES TO IDENTIFY NEW USER REQUIREMENTS AND DEVELOP NEW STATISTICS

The identification of new statistical requirements and the development of new statistics and enhancement of existing statistics takes due account of the medium-term strategy for ECB statistics and of the related merits and

costs. Regular contact between statisticians and various user groups at all levels, as well as regular coordination meetings between statisticians and users, facilitate an ongoing dialogue and help to identify future needs at an early stage. In addition, there is a more formalised procedure in place: the preparation and evaluation of the annual work programme (see Section 2.2).

New requirements can be grouped into three main categories, which are treated differently: (1) simple fine-tuning measures (e.g. seasonal adjustment of time series), which are included in the internal ECB work programmes (see Sections 2.1 and 2.2); (2) interim data collections based on existing data sources, (so-called “short-term approaches”), which are dealt with in coordination with NCBs via the relevant working groups and require the approval of the STC (see Sections 2.1 and 2.2); and (3) the production of new or substantially enhanced statistics with an impact on reporting agents. These require the approval of the Governing Council of the ECB and are subject to an extensive merits and costs procedure (see Section 2.3).

2.1 THE MEDIUM-TERM STRATEGY

The development, collection and compilation of official economic and financial statistics need many years of preparatory work before data of sufficient quality become available. DG-S has therefore established medium-term priorities for statistics. They not only apply to areas of statistics for which the ECB takes responsibility at EU level, but also to statistics produced by other parties – mainly Eurostat – which are used extensively by the ECB and the financial markets. Currently, the most important items on the agenda of the ECB’s medium-term priorities

⁹ SDMX is an initiative sponsored by the BIS, the ECB, Eurostat, the IMF, the OECD, the UN and the World Bank to foster global standards for the exchange of statistical information.

¹⁰ For more details see: http://unstats.un.org/unsd/acccsub/ccsa_training/ccsa_terms_of_reference.pdf.

¹¹ See: http://unstats.un.org/unsd/methods/statorg/Principles_stat_activities/principles_stat_activities.htm.

for statistics are: (1) further enhancement of the system of quarterly sector accounts for the euro area (timeliness, completeness and consistency) (2) preparation for future euro area and EU enlargements, (3) enhancement of harmonised statistics on insurance corporations and pension funds, (4) the availability of high-frequency financial market statistics, (5) the continued incorporation of financial innovation, (6) statistics for financial stability, (7) harmonised payment and securities settlement systems statistics, (8) the Principal European Economic Indicators and (9) enhanced dissemination of statistics.

2.2 THE ANNUAL WORK PROGRAMME

The ECB statistical function prepares an annual work programme, which is established and carried out in close cooperation with ECB in-house users. It contains medium-term objectives that are part of the medium-term strategy for ECB statistics. Steps are taken to ensure that the ESCB statistical experts are well-aware of user requirements. This process is aided to a great extent by the fact that the users of central bank statistics are principally in-house users, namely analysts and, in particular, the decision-making bodies.

The ECB statistical function performs a mid-year review of the work programme in order to reassess its priorities, if need be, and prepares an overall assessment at the end of the reference year. The work programme is also submitted to internal users for their comments.

The main activities of the ECB statistical function are published and are included in the Database of International Statistical Activities (DISA) of the United Nations Economic Commission for Europe.¹²

2.3 THE MERITS AND COSTS PROCEDURE

The merits and costs procedure is launched when the production of new or substantially enhanced statistics is expected to have a significant impact on reporting agents. The procedure aims to

ensure that the reporting burden is kept to a minimum and that statistics are collected and compiled in a cost-effective way.

The procedure currently comprises the following steps (parts of which may be conducted simultaneously):

- a. A new statistical requirement emerges.
- b. Users explain their priority that this requirement is met.
- c. The STC makes an initial assessment by
 - (i) investigating whether existing statistics could be used to meet the new requirement;
 - (ii) ascertaining whether any new data would need to be collected;
 - (iii) looking at the availability of such data and their collection methods outside the EU.
- d. The STC, assisted by its sub-structures, formulates options for meeting the new requirement. If the request concerns an area wherein responsibility for statistics is shared at the European level, the Commission (Eurostat) and, if appropriate, the CMFB are informed and consulted. In consultation with users, it may be possible to eliminate some existing (euro area or national) statistics in the field concerned.
- e. NCBs make a rough calculation of the costs that would be incurred both by compilers and reporting agents. DG-S checks these cost estimates and combines them to form a euro area and/or EU-wide estimate. Consideration is given to whether data collection approaches such as sampling or cutting off the tail are possible.
- f. DG-S and the STC consider how best to proceed. Users are made aware of the estimated costs at this stage to give them a chance to weigh them against the merits and to re-consider, reformulate or reprioritise their request if appropriate. DG-S and the

¹² See <http://unece.unog.ch/disa>.

STC encourage their ESCB users to pay careful attention to this aspect.

- g. Following consideration by the Executive Board of the ECB, the final decision is taken by the Governing Council, with the benefit of comments from the General Council.

This procedure helps to establish priorities and facilitates discussions with users and reporting agents, although, given its length and the costs entailed, it is generally only launched when the impact of meeting new statistical requirements would be substantial.

3 PROCEDURES TO PROTECT STATISTICAL CONFIDENTIALITY

The protection of statistical confidentiality is of paramount importance to the ECB statistical function and the NCBs in the collection, treatment, exchange and dissemination of data. There are two types of confidential data: 1) data falling under Article 8 of Council Regulation (EC) No 2533/98, and 2) data under embargo prior to its release to ensure that all users have equal access to euro area statistics.

3.1 LEGAL REQUIREMENTS

Article 8 of Council Regulation (EC) No 2533/98 lays down the confidentiality regime applicable to statistical information transmitted to the ECB.¹³ In 1998, acting in compliance with Article 8(9) of that Regulation, the ECB adopted Guideline ECB/1998/NP28 which details the common rules and minimum standards to protect the confidentiality of the individual statistical information collected by the ECB with the assistance of the NCBs.¹⁴

Article 8(8) of Council Regulation (EC) No 2533/98 covers the receipt of confidential statistical information from national statistical institutes (NSIs) and the Commission (Eurostat) which shall take place in compliance with Council Regulation (EC) No 322/97 of

17 February 1997 on Community statistics. On 15 April 2005 the Governing Council of the ECB decided that confidential statistical data which the ESCB receives from NSIs or Eurostat will only be used for statistical purposes. In doing so, the Governing Council acknowledged that the exchange of such confidential information can be of great importance to European and national statistical authorities, enabling them to compile reliable, cost-effective European statistics with a minimal reporting burden. The legal framework also meets the expectations of reporting agents concerning the strict protection of confidential data on individual entities against any undue disclosure.

3.2 IT INFRASTRUCTURE

With regard to the data confidentiality procedures implemented by the ECB statistical function, it is worth mentioning that all statistical data exchanged between reporting authorities and the ECB statistical function, whether confidential or not, are transmitted over a secure network. Hence, all data files are routinely encrypted.

Regarding data reception, the data exchange system (GESMES/TS) uses a specific “flag” to indicate confidential statistical information (CSI). The reporting authorities take all necessary steps to ensure that CSI sent to the ECB statistical function is duly flagged. The flags are stored in the ECB statistical function’s production databases and are used to alert ECB statisticians to the existence of CSI.

With regard to the dissemination of data, even though CSI is protected, it might still be

¹³ Article 8(1) provides that “statistical information shall be confidential when it allows reporting agents [...] to be identified”. At the ECB, the yardsticks for assessing confidentiality are a) “small counts” (where there are fewer than three reporting entities for one cell) and b) the “predominance case” (where one reporting agent represents 85% or more of the total).

¹⁴ Other instruments cover the compliance of ECB staff with their obligations to protect confidential and sensitive information (e.g. the ECB’s Conditions of Employment, Staff Rules and Code of Conduct, together with specific ECB administrative circulars).

possible to extrapolate confidential information by calculating the difference between the euro area aggregate and the sum of the remaining country contributions. To prevent this, the ECB statistical function uses manual and semi-automatic procedures to hide additional country contributions (this is known as “secondary confidentiality”) when disseminating country contributions and euro area aggregates.

3.3 RULES AND MONITORING

Each year ECB statisticians declare in writing their adherence to the confidentiality rules of the ECB. In addition, the ECB statistical function reports annually to the Governing Council on the adherence of the Eurosystem statistical production and dissemination processes to the ECB Guideline on confidentiality.

4 QUALITY ASSURANCE PROCEDURES RELATED TO THE COLLECTION OF DATA

The ECB statistical function collects statistical data (and metadata) primarily from NCBs, but also from some NSIs, Eurostat and various other sources (e.g. the BIS, the IMF, the OECD, commercial data providers and regulated exchanges), according to a predefined timetable (see Sections 4.1 and 4.2). To a large extent, data collection is based on highly automated systems and procedures.

4.1 TRANSMISSION CALENDAR

Data subject to further processing by the ECB statistical function are collected from NCBs according to a predetermined and agreed timetable, which reporting agents are required to adhere to.

4.2 COMPLIANCE MONITORING

The ECB statistical function carefully monitors the compliance of NCBs, NSIs and reporting agents¹⁵ with the transmission calendars and conceptual framework and reports all cases of

non-compliance to the Governing Council of the ECB on a regular basis.

4.3 DATA COLLECTION STANDARDS, METHODS AND TOOLS

For exchanges of data with NCBs, Eurostat and the BIS, the ECB statistical function typically uses highly automated methods (i.e. application-to-application software). The optimal automation of the system contributes to an effective and efficient use of resources and supports the punctuality of data delivery.

The use of the GESMES/TS (SDMX-EDI)¹⁶ message plays a central role in the automation of these procedures. This standardised message incorporates a data model that is used not only for exchanging data between institutions, but also for locally storing, retrieving and using statistical data and metadata. Moreover, the use of the GESMES/TS message reduces the time spent on problem solving. This is accomplished through acknowledgement messages and the implementation of automated mechanisms for reporting syntactic and semantic errors found in messages and the receipt of series that were not due to be sent in the transmission concerned.

In addition, the IT infrastructure for data collection is fully standardised for all ECB statistics.

4.4 METADATA MANAGEMENT

An essential factor in efficient data management procedures is the use of “structural metadata”. They provide the definitions of statistical concepts (used to identify “dimensions”/ variables or as reference metadata identifiers), the underlying code lists and the data structures

¹⁵ Depending on the type of data required, the reporting obligations may apply to NCBs, NSIs or directly to reporting agents.

¹⁶ GESMES/TS (SDMX-EDI) is maintained under the aegis of the SDMX international initiative (<http://www.sdmx.org>). The ECB makes extensive use of the SDMX-ML message syntax, especially in disseminating information on its website.

(“key families”). All of these features facilitate the description of the data and metadata to be exchanged or shared in an automated manner.

Within the ECB statistical function, structural metadata management is centralised. Necessary amendments to structural metadata, for example owing to changing requirements or the introduction of a new data flow, are thoroughly discussed and cross-checked for consistency with other data flows and statistical domains. A special effort is made to maximise the use of standardised concepts, data structures that are already in existence and international code lists, or at least code lists agreed with other international statistical institutions. This lowers the costs, including the costs to partner institutions, and promotes European and international interoperability, as well as greater accessibility of the statistics.

Partner institutions are notified when changes are introduced and the changes are carefully documented and explained. The structural metadata are used throughout all layers of the ECB statistical function’s statistical processing system, including those serving end-users (e.g. search engines and interfaces).

5 QUALITY ASSURANCE PROCEDURES RELATED TO COMPILATION AND STATISTICAL ANALYSIS

The compilation process follows the same steps for each type of statistic compiled and disseminated by the ECB statistical function.

The ECB statistical function’s compilation procedures include several quality checks on the national contributions received and the euro area aggregates compiled. The aim of these checks is to detect problems in the national data which may affect the quality of the euro area aggregates. Additionally, they ensure that the ECB statistical function’s internal processes function in a way that guarantees the accurate compilation and dissemination of euro area aggregates.

These quality checks can be grouped into seven main categories:

5.1 COMPLETENESS CHECKS

Completeness checks are carried out to detect missing information. In the event of gaps, representatives of the country involved are contacted and asked to transmit the missing data as quickly as possible.

5.2 INTERNAL CONSISTENCY

DG-S verifies that all linear constraints are correctly fulfilled in the data received, for instance whether balance sheets balance and sub-totals add up to the totals.

5.3 CONSISTENCY ACROSS FREQUENCIES OF THE SAME DATASET

The ECB statistical function ensures that there is consistency across frequencies of the same dataset, checking, for instance, whether the sum of monthly transaction values equals the quarterly values, or whether the end-year stocks are equal to the end-December stocks.

5.4 EXTERNAL CONSISTENCY

The ECB statistical function carries out various checks to assess the consistency of the data received with other datasets.

For instance, monetary financial institution (MFI) balance sheet statistics received by the ECB statistical function on the cross-border positions of euro area banks are compared with similar data collected by the BIS. In the case of balance of payments statistics, the gross flows of the goods account are compared with statistics on external trade in goods as published by Eurostat. Although these two data sets differ in terms of their time of recording and some of the concepts used, their patterns are expected to be similar. Similarly, portfolio investment and other investment data for the banking sector are compared with the data derived from MFI balance sheet statistics as reported to the

ECB statistical function for the calculation of monetary aggregates.

5.5 REVISION STUDIES

Revision studies are carried out for all types of statistics, although the revision policy is not the same for all datasets. For instance, while MFI statistics (balance sheet and interest rates statistics) may be revised with each new data transmission, balance of payments statistics and financial accounts data are revised according to a predetermined schedule.

All significant revisions are automatically detected by the system and lead to further investigations in cooperation with the representatives of the country concerned.

The ECB statistical function also performs a regular in-depth revision analysis for certain euro area aggregates (see Section G.2.). For instance, it closely monitors the magnitude of data revisions affecting monetary aggregates and their counterparts. In the same vein, the stability of the balance of payments data is assessed annually by analysing the extent to which the first assessments of these data differ from to the final assessments. The results of this analysis are published.¹⁷

5.6 PLAUSIBILITY CHECKS

Plausibility checks aim to detect outliers in the reported data. This is accomplished by reviewing the time series of the variable concerned; for instance, for statistics with a pronounced seasonal pattern, the most recent figure is compared with the data reported for the same period in previous years. Values which markedly deviate from the usual pattern of the series are isolated and analysed further. In the case of MFI balance sheet statistics, data compilers use ARIMA models to assess the plausibility of new national data received. This approach is also applied to euro area aggregates. Balance of payments data compilers apply some statistical tests to all series (e.g. the identification of outliers through the standardisation of the data), but also use tailor-made tests for specific series

(e.g. the comparison of portfolio investment flows with leading market indicators).

5.7 REGULAR QUALITY REPORTING

Whenever data are received and compiled, quality assessment reports that summarise the results of all the above-mentioned quality checks are circulated to ECB internal users and to the NCBs.

6 QUALITY ASSURANCE PROCEDURES RELATED TO THE DATA ACCESSIBILITY AND DISSEMINATION POLICY

The main objective of the ECB statistical function when disseminating statistics is to provide the best possible service to internal users, NCBs, market participants and the general public.

6.1 ADHERENCE TO THE IMF SPECIAL DATA DISSEMINATION STANDARD

The ECB subscribes to the SDDS. It complies with the standard and provides information to the IMF about its practices in disseminating economic and financial data. This is made available on the euro area page of the IMF Dissemination Standards Bulletin Board.¹⁸

6.2 RELEASE CALENDAR

ECB statistics are released according to a predetermined timetable. Apart from the publication date, the release calendar also provides information on the type of statistic and the reference period.¹⁹

¹⁷ See “Euro area balance of payments and international investment position statistics – Annual quality report” at: http://www.ecb.int/pub/pdf/other/bop_intinvpos-2006en.pdf.

¹⁸ See: <http://dsbb.imf.org/Applications/web/euronote/>.

¹⁹ See: <http://www.ecb.int/events/calendar/statscal/mfm/html/stprmp.en.html>.



6.3 PRESS RELEASES

A wide range of statistics is published in monthly and quarterly statistical press releases in accordance with the pre-announced release calendar (see Section 6.2).²⁰

6.4 REGULAR ECB PUBLICATIONS

A wide range of statistics is published in the “Euro area statistics” section of the ECB’s Monthly Bulletin. Statistics on recent economic developments in the euro area and the EU Member States are summarised in the ECB’s Statistics Pocket Book. The Pocket Book also contains various statistics for the euro area, the EU, the United States and Japan.

6.5 ONLINE ACCESS VIA THE ECB WEBSITE

All statistics can be found on the ECB website,²¹ including detailed documentation on the definitions and concepts used and all relevant legal acts. All statistics that are not published by means of a press release are announced on the statistics homepage of the ECB website.

6.5.1 JOINT TABLES OF EURO AREA STATISTICS AND THEIR NATIONAL BREAKDOWNS ON THE WEBSITES OF THE ECB AND THE EURO AREA NCBS

The ECB and the euro area NCBS release joint tables of euro area statistics and their national breakdowns on their websites. This gives users easier access to these statistics and breakdowns. The euro area aggregates and all national contributions are presented in a single set of consistent tables published simultaneously on the ECB’s website and on the websites of participating NCBS.²² Moreover, the NCBS present the data and related information in their own layouts and languages, thus increasing the user-friendliness of the presentation of these statistics.

6.5.2 THE STATISTICAL DATA WAREHOUSE

The ECB’s statistical data warehouse (SDW), provides an integrated picture of the data and metadata, which makes it easier for users to locate,

retrieve, use, understand and interpret statistics provided by the ECB. Moreover, hyperlinks have been created to all methodological documentation published on the ECB website. Additionally, the SDW reduces the need for specialised knowledge and complex tools for data extraction, conversion and formatting.

6.5.3 STATISTICS HOTLINE

A statistics hotline is available to users of statistics in order to provide assistance on matters such as data location, methodological issues, metadata information and available publications.

6.5.4 REAL TIME DATABASE

The ECB statistical function contributes to the euro area Real Time Database, which is available online on the Euro Area Business Cycle Network.²³ This database contains data vintages for the time series of several macroeconomic variables and is based on series reported in the ECB’s Monthly Bulletin.

7 MONITORING AND REPORTING

The ECB statistical function monitors the quality and availability of its statistics in various reports (see Section 7.2). It has also developed a number of indicators for the assessment of output quality (see Section 7.3). Moreover, internal and external auditing is undertaken in order to scrutinise the efficiency and effectiveness of all statistical activities (see Section 7.1).

20 See: <http://www.ecb.int/press/pr/stats/md/html/index.en.html>.

21 See ECB statistics at: <http://www.ecb.int/stats/intro/html/index.en.html>.

22 Luxembourg and Ireland do not participate in this framework, but they do provide links to the ECB website.

23 See: <http://www.eabcn.org>.

7.1 STATISTICAL PROCESS

7.1.1 PROCESS MANAGEMENT

The ECB statistical function has introduced a formal process management framework with the following main objectives:

- to assess and improve the overall efficiency of statistical processes within the ECB statistical function;
- to document all statistical processes used within the ECB statistical function in a consistent manner;
- to implement appropriate risk management and change management procedures.

7.1.2 AUDITING

The systems used in the exchange, production and dissemination of statistics are subject to internal audits on an ECB and ESCB-wide basis by the ECB's Directorate Internal Audit and the Internal Auditors Committee respectively.

In addition, the European Court of Auditors reviews the operational efficiency of the management of the ECB in accordance with Article 27.2 of the Statute of the ESCB and of the ECB.

7.2 STATISTICAL OUTPUT

7.2.1 ECB ANNUAL REPORT

To retain legitimacy, an independent central bank must be accountable to democratic institutions and the general public for its actions in the pursuit of its mandate. The ECB is subject to precise reporting obligations. These are laid down in Article 15 of its Statute. According to the Statute, the ECB is required to publish quarterly reports on the activities of the Eurosystem as well as a consolidated Weekly Financial Statement. In addition, it must produce an Annual Report on the activities of the ESCB and on the monetary policy of both the previous and the current years. The Annual Report must be addressed to the European Parliament, the

Council of the European Union, the European Commission and the European Council.

Developments in statistics are currently included in Chapter 2 "Central bank operations and activities" of the Annual Report.

7.2.2 ANNUAL QUALITY REPORTS AND OUTPUT QUALITY INDICATORS

The ECB statistical function, assisted by the NCBs, conducts annual assessments of the availability and quality of all statistics covered by the ECB's legal framework. The results of these annual assessments are set out in four separate reports, one for each statistical field, namely: quarterly financial accounts; balance of payments and international investment position statistics; annual government finance statistics; and monetary and financial statistics. The annual data quality report on balance of payments and international investment position statistics is published on the ECB website (see Section 5.5). The ECB statistical function is also actively involved in monitoring and reporting on the quality of general economic statistics for which the European Commission is primarily responsible. The results feed into the annual EFC Status Report on Information Requirements in the EMU.²⁴ In addition, the ECB statistical function regularly publishes articles on the availability and quality of general economic statistics in the ECB Monthly Bulletin.²⁵

The annual assessments of the availability and quality of ECB statistics are required under the ECB's legal framework (with the exception of MFI and market statistics). These quality reports have four main objectives. First, they provide a good overview of the availability of all euro area statistics compiled and disseminated by the ECB. Second, they assess the quality of euro area statistics in terms of punctuality, timeliness,

²⁴ See: <http://www.ecb.int/stats/pdf/statusreportEMU.pdf>.

²⁵ See, for example, the article entitled "The Harmonised Index of Consumer Prices: concept, properties and experience to date" in the July 2005 issue of the ECB's Monthly Bulletin.

methodological soundness, reliability and stability. Third, they report on the state of affairs concerning the implementation of enhanced or new statistical requirements in the Member States. Finally, they provide information on possible further improvements to data collection and compilation methods and the level of detail and/or frequency of input data.

The need for an operational assessment of the various aspects of quality can be satisfied by using quantitative indicators. Such indicators help users to assess whether ECB statistics are suitable for their intended uses (e.g. what revisions of initial estimates they can expect).

In the annual quality report on euro area balance of payments and international investment position statistics published on the ECB website, quantitative quality indicators cover, in particular, the frequency, number, direction, magnitude and patterns of revisions.²⁶

Moreover, a number of indicators have been developed to assess the internal and external consistency of balance of payment data. Monitoring internal consistency means ensuring that net errors and omissions are small and stable. Monitoring external consistency involves comparisons with foreign trade statistics, national accounts, monetary and financial statistics, external debt statistics and/or international investment position statistics. The indicators developed for the analysis of both types of consistency resemble the aforementioned revision indicators.

However, the existence of trade-offs between the various aspects of quality, such as timeliness versus accuracy and the level of detail versus reliability, implies that quantitative quality indicators should not be looked at in isolation, but should form part of a comprehensive regular assessment of the quality of statistics.

8 ASSESSING AND ENHANCING STAKEHOLDER SATISFACTION

The production and dissemination of high quality statistics must balance the diverging and evolving interests of the ECB statistical function's stakeholders. The procedures described below can be used to monitor and reinforce stakeholder satisfaction.

8.1 USERS

8.1.1 USER SATISFACTION MONITORING

The ECB statistical function attaches great importance to user satisfaction. Therefore, users' needs in terms of data and metadata availability and accessibility are regularly assessed by means of regular meetings with users, the annual work programme and the merits and costs procedure (cf. Section B).

8.1.2 SEMINAR ON STATISTICS FOR ESCB USERS

This seminar aims to raise awareness of ESCB statistics and enable users to extract the maximum benefit from statistics for policy analysis. It covers both statistics that are already available and statistics under development. During the seminar, users are also encouraged to spell out their requirements.

8.2 DATA PROVIDERS

8.2.1 INFORMATION FLOW AND COOPERATION WITH DATA PROVIDERS

The ECB statistical function ensures that the NCBs are involved in the production and dissemination of statistics and are consulted when new statistics are developed or existing statistics are reviewed. This is mainly done through the STC and its sub-structures. Furthermore, the ECB statistical function maintains regular contact with European associations that represent the main reporting agents.

²⁶ In January 2002 the Committee on Monetary, Financial and Balance of Payments Statistics launched a joint ECB (DG-S) and Commission (Eurostat) task force on output quality which deals with balance of payments (http://www.cmfb.org/pdf/TF-QAreport_final_CMFB_jul04.pdf) and quarterly national accounts statistics (<http://www.cmfb.org/pdf/CMFB%2004-06-A.7.1%20FinalCMFBreport%20TF%20QNA.pdf>).

8.2.2 ESCB TRAINING COURSES

The ECB statistical function organises a training programme for ESCB statisticians. The main target audience is statistics compilers who, in their field of expertise, need in-depth knowledge of the ECB's requirements and procedures (including IT procedures), and the way data are used. The current training programme provides courses in external statistics; monetary and financial statistics; euro area financial and non-financial accounts (including government finance statistics); and statistical infrastructure.

8.3 THE ECB STATISTICAL FUNCTION'S STAFF

In order to maintain and further improve the quality of the the ECB statistical function's services, the skills and motivation of its staff play a vital role.

8.3.1 INFORMATION FLOW AND KNOWLEDGE SHARING

In order to enhance information flows within DG-S, a dedicated intranet is in place and internal seminars are regularly organised.

8.3.2 ASSESSMENT OF STAFF SATISFACTION

A regular monitoring of staff satisfaction occurs.

8.3.3 TRAINING

Staff are encouraged to take part in relevant training events in statistics, economics and information systems in order to keep their know-how up to date and to further develop their capabilities. The perceived effectiveness of these courses is assessed ex post.

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