

Committee for the Coordination of Statistical Activities
Tenth Session
Madrid, 10-11 September 2007
Item 6 of the Agenda

SA/2007/14/Add.5
5 September 2007

**ECB statistical function's quality
assurance procedures: an overview**

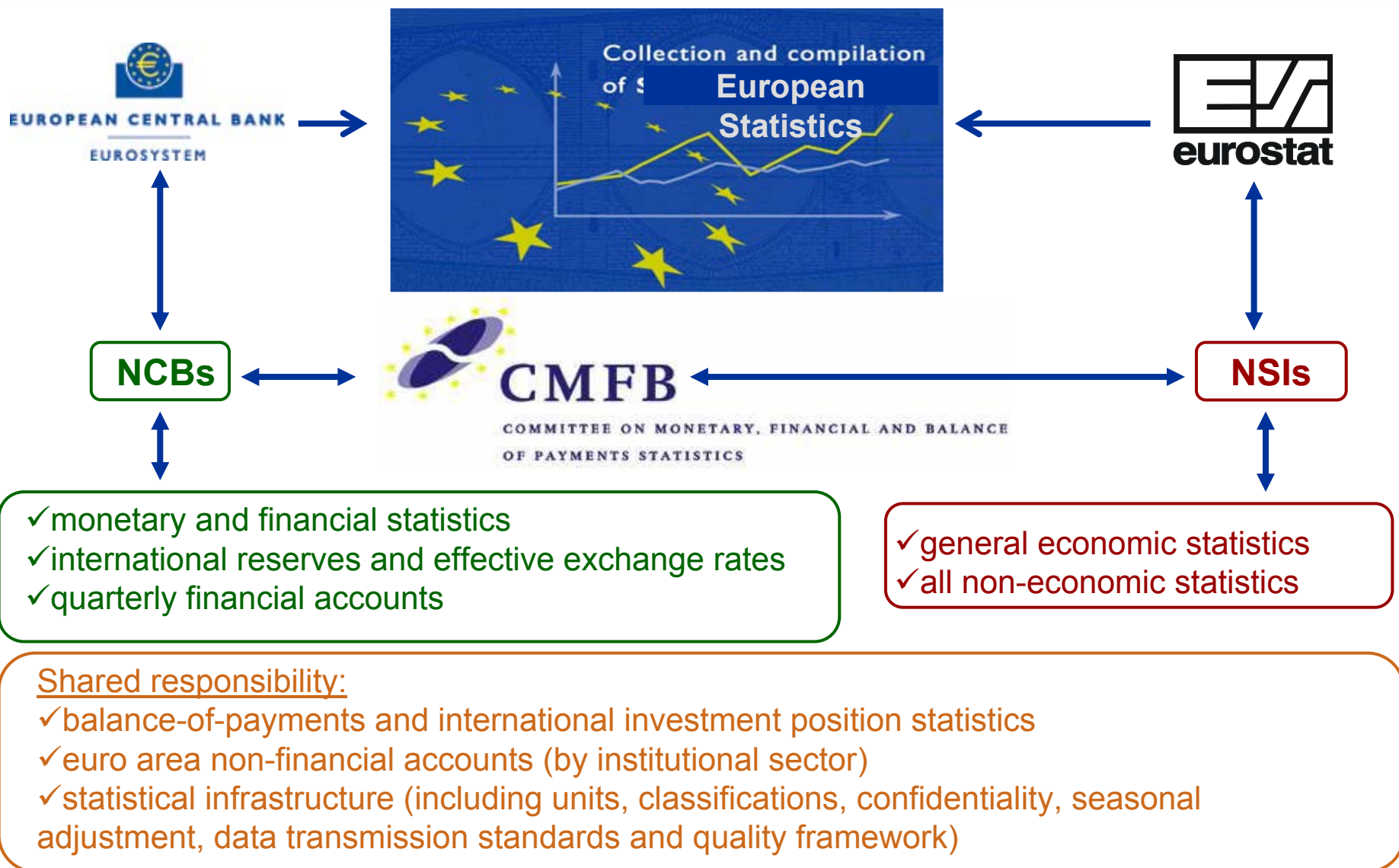
ECB statistical function's quality assurance procedures: an overview

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CCSA, 10 September 2007**

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1 – Organisation of European statistics production

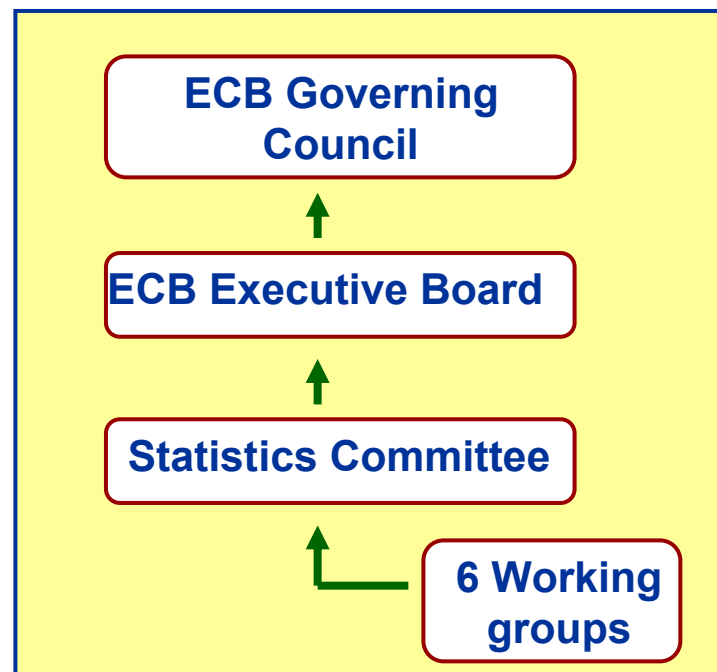


2 – ECB governance structure

ECB legal framework

- Treaty provisions on ECB independence and accountability
- ECB Protocol on the Statute of the ESCB and the ECB
- ECB is a supranational institution:
 - Eurosystem = ECB + euro area NCBs
 - ESCB = ECB + all EU NCBs
- Council of Ministers framework legal act on ECB statistics
- ECB legal acts
 - Regulations addressed to reporting agents
 - Guidelines addressed to NCBs
- Fine; audit function

Preparation of ECB legal acts



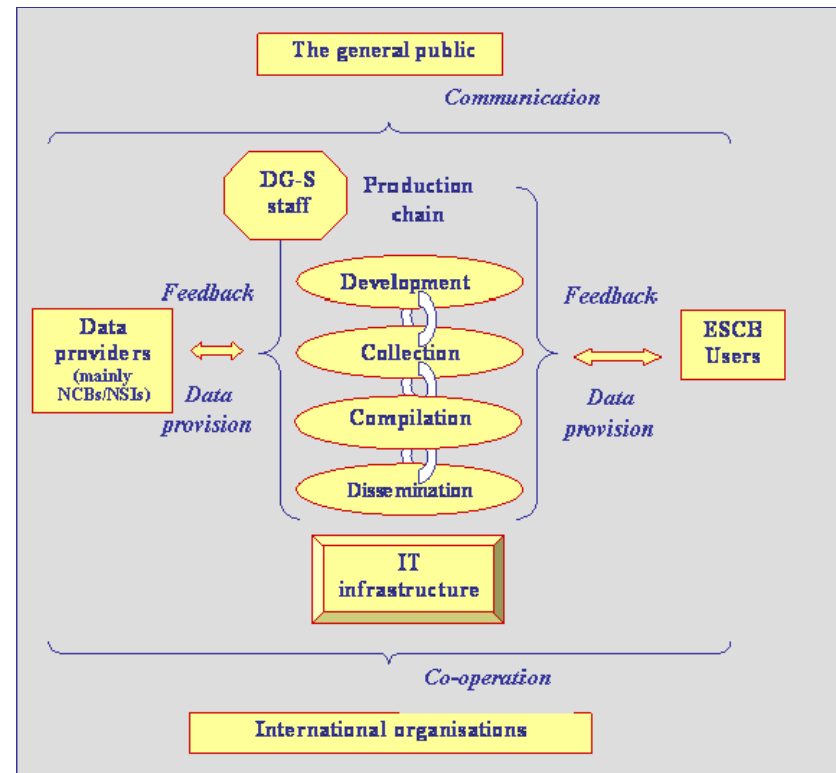
3 – The ECB SQF

A. Institutional environment		B. Statistical processes	
Principle 1	Independence & accountability	Principle 7	Sound methodology & appropriate statistical procedures
Principle 2	Mandate for data collection	Principle 8	Cost-effectiveness & non-excessive burden on respondents
Principle 3	Impartiality & objectivity	C. Statistical output	
Principle 4	Statistical confidentiality	Principle 9	Relevance
Principle 5	Coordination & cooperation among the ESCB & with European & international organisations	Principle 10	Accuracy & reliability (incl. stability)
Principle 6	Adequacy of resources	Principle 11	Consistency (incl. coherence) & comparability
		Principle 12	Timeliness (incl. punctuality)
		Principle 13	Accessibility & clarity

4 – QAPs: General overview - I

Implementation of the ECB SQF via a set of QAPs

- addressed to all stakeholders
- related to the whole production chain and supporting IT-infrastructure



5 – QAPs: General overview - 2

Broad categories of QAPs

- 1) Strategy, programming & development/enhancement of statistics**
- 2) Confidentiality protection**
- 3) Data collection**
- 4) Data compilation & statistical analysis**
- 5) Data accessibility and dissemination policy**
- 6) Monitoring & reporting**
- 7) Monitoring & reinforcing key stakeholders' satisfaction**

5.1 – Strategy, programming & development/enhancement of statistics - 1

Objectives

- Help identifying future needs at an early stage
- Allow an ongoing dialogue between statisticians and ESCB internal users & European Commission

- **ECB statistical function's medium-term strategy**
 - Definition of medium-term priorities for the development, collection and compilation of statistics

- **Annual work programme (WP)**
 - Preparation of the annual WP in close cooperation with ECB user areas
 - Mid-year review of the WP to reassess priorities
 - Yearly ex post assessment of the implementation WP

5.1 – Strategy, programming & development/enhancement of statistics - 2

- **Merits and costs procedure**
 - Launched for substantial new requirements
 - Useful tool to establish priorities and facilitate dialogue with users and respondents via:
 - ❖ Cost assessment provided by respondents & NCBs
 - ❖ Merits assessment performed by users

QAPs related to following SQF principles

P1 Independence & accountability; P 8 Cost-effectiveness and non-excessive burden on respondents; P 9 Relevance

5.2 – Confidentiality protection - I

Objectives

- Ensure the protection of confidential statistical information
- **Legal requirements**
 - Council of Ministers legal act
 - Implementing ECB Guideline
 - Interim measures for the exchange of confidential statistical information 1) within the ESCB and 2) between the ESS and the ECB for statistical purposes only
- **IT infrastructure**
 - prevent any further dissemination of information reported as “confidential statistical information” (CSI)
 - prevent indirect deduction of CSI

5.2 – Confidentiality protection - 2

- **Rules & monitoring**

- Adherence to ECB confidentiality rules signed by ECB statisticians every year
- Annual reporting to the ECB Governing Council on the Eurosystem's compliance to ECB implementing guideline

QAPs related to following SQF principles

P4 Statistical confidentiality

5.3 – Data collection

Objectives

- Ensure timely reception of data by full automation of systems and procedures
- Maximise use of standardised concepts
- **Transmission calendar & compliance monitoring**
- **Data collection standards, methods & tools**
 - **Use of GESMES/TS (SDMX/EDI) for all data exchanges among the ESCB**
 - ❖ common nomenclatures
 - ❖ standardised IT infrastructure for all statistics
 - **Quality controls on data reception**
 - ❖ syntax, semantics (e.g. code values), verify expected (or not) series
- **Centralisation of the metadata management**

QAPs related to following SQF principles

P3 Impartiality & objectivity; P 4 Statistical confidentiality; P 7 Sound methodology and appropriate statistical procedures; P 12 Timeliness (incl. punctuality) of the statistical output

Objectives

- **Minimize number of separate compilation & statistical analysis processes for all euro area aggregates**
- **Automate all checks to the extent possible**

- **Quality reporting after each production round**
 - **For information: internal users**
 - **For action: NCBs**

5.4 – Data compilation & statistical analysis - 2

- **Checking procedures applied on**
 - ❖ **Completeness**
 - ❖ **Internal consistency**
 - ❖ **Consistency over time**
 - ❖ **External consistency (e.g. b.o.p. goods versus trade statistics)**
 - ❖ **Revision analysis of the national contributions**
 - ❖ **Plausability (i.e. outliers)**

QAPs related to following SQF principles

P3 Impartiality & objectivity; P 9 Relevance; P 10 Accuracy & reliability (incl. stability); P 11 Consistency (incl. coherence) and comparability;

Objective

- Provide the best possible service to ECB internal users, NCBs, other international organisations, market participants and the general public

- **Statistical releases**
 - All press releases published on the ECB website according to the pre-announced release calendar
 - All other data releases announced on „What’s new in Statistics“ on statistics home page of ECB website

- **Public release calendar**
 - Predetermined timetable for all regular data releases published on the ECB website; elaborated in cooperation with NCBs

5.5 – Data accessibility and dissemination policy - 2

- **Regular ECB publications**
 - **ECB Monthly Bulletin, ECB's Statistics Pocket Book**
- **Online access on the ECB website**
 - **Joint dissemination framework**
 - ❖ **Simultaneous, identical publication of euro area statistics with national breakdowns on the ECB and euro area NCBs' websites, in national languages**

5.5 – Data accessibility and dissemination policy - 3

➤ **Statistical data warehouse**

- ❖ **Integration of data and metadata enables to easily locate, retrieve, use, understand and interpret statistics**
- ❖ **No need for specialised knowledge, extraction tools, conversion and formatting**
- ❖ **Hyperlinks to relevant methodological documentation published on the ECB website**

➤ **Statistics hotline**

- ❖ **Provides assistance to users on data location, methodological issues, metadata information and available publications**

5.5 – Data accessibility and dissemination policy - 4

➤ Real Time Data Base (RTDB)

- ❖ Available online on the Euro Area Business Cycle Network (EABCN)
- ❖ Contains data vintages for several macroeconomic variables based on the ECB's Monthly Bulletins

• IMF SDDS

- Since November 2006: ECB and Eurostat maintain the euro area statistical page on SDDS
- Offers a comprehensive description of data and compilation methods for ECB economic and financial data

QAPs related to following SQF principles

P 3 Impartiality & objectivity; P 12 Timeliness (incl. punctuality); P 13 Accessibility and clarity

5.6 – Monitoring & reporting - I

Objectives

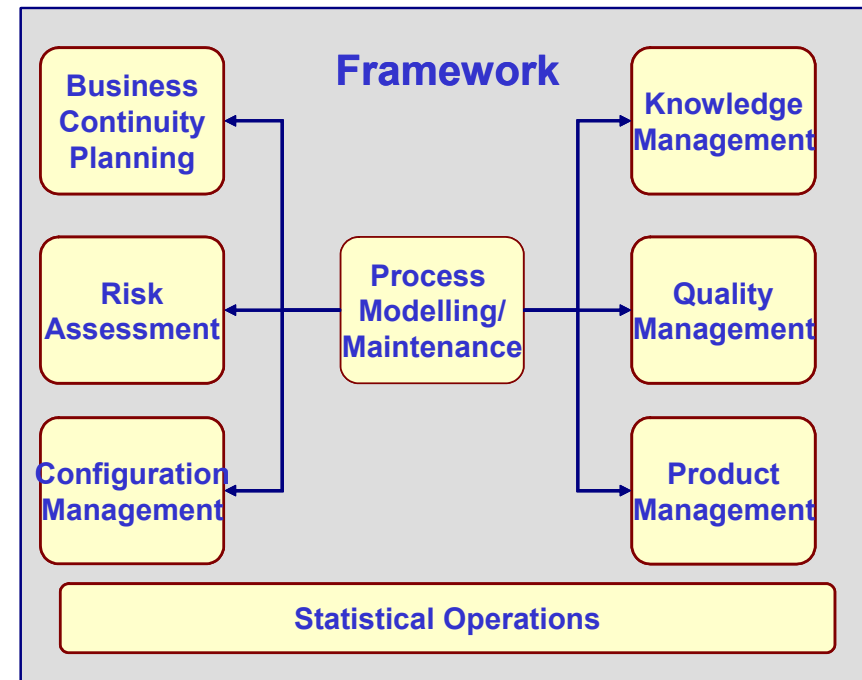
- Scrutinize the efficiency & effectiveness of the whole statistical process
- Monitor the availability and quality of the statistical output

• Statistical process

➤ Process management framework

- ❖ assessment and improvement of overall efficiency of statistical processes
- ❖ documentation of all statistical processes in a consistent manner
- ❖ implementation of risk management and change management procedures

➤ ECB and ESCB-wide audits



5.6 – Monitoring & reporting - 2

- **Statistical output**

- **Annual availability and quality reports**

- ❖ **Required by ECB's legal framework (for b.o.p./i.i.p., financial accounts, GFS)**
- ❖ **Assessment of availability, punctuality, timeliness, methodological soundness, reliability and stability of euro area aggregates**
- ❖ **Provide information on possible further improvements (data collection & compilation methods)**
- ❖ **Provide quantitative output quality indicators (at present only for balance of payments & international investment position statistics and annual government finance statistics (ESCB internal report))**

5.6 – Monitoring & reporting - 3

QAPs related to following SQF principles

P1 Independence & accountability; P 3 Impartiality & objectivity; P 5 Coordination & cooperation among the ESCB & with European & international organisations; P 6 Adequacy of resources; P 7 Sound methodology and appropriate statistical procedures; P 8 Cost-effectiveness and non-excessive burden on respondents; P 10 Accuracy & reliability (incl. stability); P 11 Consistency (incl. coherence) and comparability; P 13 Accessibility and clarity

5.7 – Monitoring and reinforcing the satisfaction of key stakeholders - I

Objectives

- Balance diverging and evolving interests of the different stakeholders (users, data providers and statisticians)
- Monitor and reinforce satisfaction of all stakeholders

• Users

➤ *Monitor users' satisfaction*

- ❖ *Regular coordination meetings between ECB users and statisticians*
- ❖ *ECB users' consultation on work programme*
- ❖ *Involvement of ESCB and EC users in the development of new statistics via the merits & costs procedure*

➤ *Open Seminar on Statistics for ESCB users*

• Data providers

➤ *Ensure information flow & cooperation with NCBs and European associations representing data providers*

- ❖ *ESCB data warehouse*
- ❖ *Important role given to the Statistics Committee & its working groups*

➤ *ESCB training courses for NCBs statisticians on statistics and statistical tools*

5.7 – Monitoring and reinforcing the satisfaction of key stakeholders - 2

- **ECB's statisticians**
 - **Promote information flow & knowledge sharing**
 - ❖ **Organisation of internal seminars**
 - ❖ **Use of the intranet as communication tool**
 - **Training in statistics, economics and information systems**
 - ❖ **Organisation of in-house trainings when needed**
 - ❖ **Strong encouragement from Management to attend external trainings that provide a significant contribution to professional development**

QAPs related to following SQF principles

P 3 Impartiality & objectivity; P 5 Coordination & cooperation among the ESCB & with European & international organisations; P 6 Adequacy of resources; P 7 Sound methodology and appropriate statistical procedures; P 8 Cost-effectiveness and non-excessive burden on respondents; P 9 Relevance

6 - Conclusions

- **QAPs are essential for the ECB statistical function**
 - **Implementation of new QAPs on statistical process is a priority task in the work programme**
- **ECB SQF is already well-implemented via existing QAPs**
 - **All SQF quality principles almost fully implemented**
 - **Ongoing enhancement of certain QAPs to better adhere to SQF (e.g. development of output quality indicators for all euro area statistics)**
- **QAPs needs to be regularly assessed to remove the obsolete ones**