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**QUARTERLY NON-FINANCIAL SECTOR ACCOUNTS  
- EUROPEAN INVENTORY OF SOURCES AND METHODS -**

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**Editors:**

Denis Leythienne (Eurostat)

Tatjana Smõkova (Eurostat)

Beatrice Thiry (Eurostat)

Onno Hoffmeister (Eurostat)

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The document will be updated taking into account important methodological changes in compilation procedures of Euroarea/ European union quarterly sector accounts, updates of national methodological inventories and/or readership' feedback received.

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**COMPILATION OF THE QUARTERLY EUROPEAN CENTRAL BANK (ECB)**

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## PREFACE

This *European inventory of quarterly non-financial sector accounts (QSA)* summarises data sources and procedures underlying QSA compilation in Member States. It also presents the methodology of aggregated Euro area and European Union quarterly sector accounts developed as a result of the co-operation between Eurostat, the Statistics Directorate of ECB and Member States in the framework of the joint technical forum (Task Force - QSA).

The *Inventory* is aimed particularly at QSA compilers to facilitate further methodological discussions and improvement of quarterly sector accounts compilation systems. It is also of interest for advanced QSA users.

Interest in national and European QSA has been constantly growing since the first release of European QSA in June 2007. QSA, as a further extension of quarterly national accounts, is an important tool for the analysis of short-term economy developments providing additional information on the economic behaviour and interactions among different groups of economic agents (institutional sectors). Important economic indicators may be derived from this set of data such as the household saving rate, the profit share of corporations and the investment rates of households and corporate sectors. Moreover, the QSA of the euro area are an important input for monetary policy decisions.

Eurostat is grateful for all the inputs provided by Member States and for the valuable comments received from the members of Task Force QSA that all contributed to the preparation of the present *Inventory*.

Maria-Helena FIGUEIRA

Eurostat

Director (acting) of Directorate C: "National and European Accounts"

## **LIST OF ABBREVIATIONS AND ACRONYMS**

<b>ASA</b>	Annual sector accounts
<b>BoP</b>	Balance of payments
<b>ECB</b>	European central bank
<b>ESA</b>	European System of Accounts
<b>MUFA</b>	Monetary union financial accounts (quarterly financial accounts of Euro area countries)
<b>NCB</b>	National Central Bank
<b>NSI</b>	National statistical institute
<b>QFA</b>	Quarterly financial accounts
<b>QNA</b>	Quarterly National accounts
<b>QSA</b>	Quarterly Sector Accounts
<b>QGGA</b>	Quarterly general government accounts
<b>RoW</b>	Rest of the world (sector)
<b>STPFS</b>	Short-term public finance statistics

## **I. INTRODUCTION**

### **1.1 Historical background**

The creation of the European Monetary Union (EMU), with a single and independent monetary policy and decentralised but coordinated fiscal policies, has increased the need for economic statistics, to be compiled with improved and harmonized methodologies within the European Union (EU).

In particular, a comprehensive and timely picture of the behaviour of economic agents and interactions among them would be an essential contribution to the better understanding of economic developments. However, at the time only a limited set of infra-annual National Accounts data existed in most Member States. It focused mainly on the performance of the total economy with no breakdown by institutional sector except for government.

In response to these needs, an action plan on EMU statistical requirements (the "EMU Action Plan") was set-up by the European Commission (Eurostat) in close collaboration with the European Central Bank (ECB) and national statistical authorities. It was endorsed by the Ecofin Council in September 2000. The priorities listed in the EMU action plan included the compilation of non-financial quarterly sector accounts (QSA) within 90 days after the reference period.

Regulation (EC) No 1161/2005 of the European Parliament and of the Council (thereafter the "QSA Regulation")<sup>1</sup> provided the legal basis for the regular production of quarterly non-financial accounts by institutional sector in the European Union.

The first release of non-financial quarterly sector accounts aggregates for the euro area and European Union, together with the euro area quarterly financial transactions and balance sheets, took place on the 1<sup>st</sup> of June 2007. This integrated product (called "EAA" in the euro area case) is a major achievement even at worldwide level.

### **1.2 The QSA Regulation**

The QSA regulation provides a common framework for the contributions of the Member States to the compilation of quarterly European non-financial accounts by institutional sector.

In the recital of the Regulation it is mentioned that European accounts must reflect the economy of the European area as a whole and may differ from the simple aggregation of Member States' accounts. In particular, European accounts include the transactions of the resident European institutions and bodies. Moreover, flows between Member States are withdrawn from the national Rest of the World accounts as well as estimate the European rest of the world which differs from the aggregation of the Member States' rest of the worlds.

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<sup>1</sup> Regulation (EC) No 1161/2005 of the European Parliament and of the Council of 6 July 2005 on the compilation of quarterly non-financial accounts by institutional sector, OJ L 191, 22.7.2005, p. 22–28.



The QSA regulation stipulates that the standards, definitions, classifications, and accounting rules for data transmitted for the purposes of QSA compilation shall be those laid down in Regulation (EC) No 2223/96 (thereafter the "ESA Regulation")<sup>2</sup>.

### ***Reporting obligations***

The QSA regulation makes a distinction between Member States for which gross domestic product at current prices normally represents more than 1 % of the corresponding Community total (estimated on the basis of the arithmetic mean of the latest three years annual figures) and those for which it accounts less.

In the first case, Member States shall transmit data for all sectors of the economy, namely:

- Non-financial corporations (S.11)
- Financial corporations (S.12)
- General government (S.13)
- Households and non-profit institutions serving households (S.1M)
- Rest of the world (S.2)

For Member States below the 1% threshold, reporting obligations are limited to the General Government sector and the Rest of the world.

The QSA data shall be delivered to the Commission at the latest 90 calendar days after the end of the quarter to which the data relate and cover all periods starting from the first quarter of 1999. Any revision of the data for previous quarters shall be transmitted at the same time.

Transmission of several transactions is optional. For the time being, it specifically concerns data on output (P.1) and intermediate consumption (P.2); property income transactions, as interest before FISIM adjustment (D.41G), distributed income of corporations (D.42), reinvested earnings on direct foreign investment (D.43), property income attributed to insurance policy holders (D.44), rents (D.45), including the respective balancing item, entrepreneurial income (B.4G); details on other current transfers (current international cooperation, D.74, miscellaneous current transfers, D.75) and capital transfers (investment grants, D.92, other capital transfers D.99). The split of property income transactions other than interest into D.42, D.43, D.44 and D.45 is not mandatory. It is sufficient if the countries deliver their sum (designated as D.4N).

### ***Data sources and consistency requirements***

Member States shall compile quarterly sector accounts using all sources they consider relevant, giving priority to direct information such as administrative sources or surveys of enter-

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<sup>2</sup> Council Regulation (EC) No 2223/96 of 25 June 1996 on the European system of national and regional accounts in the Community, OJ L 310, 30.11.1996, p. 1–469.

prises and households. When such direct information cannot be collected, in particular for back series, best estimates may be transmitted.

The regulation requires Member States to ensure the consistency of QSA data with the quarterly non-financial accounts of the general government, the quarterly main aggregates of the total economy and annual sector accounts (ASA), transmitted to the Commission under the transmission programme of the ESA Regulation.

### ***Quality standards and reports***

All necessary measures should be taken by Member States to improve the quality of the data transmitted over time.

Member States had to supply the Commission with an up-to-date description of the sources, methods and statistical treatments used within a year of their first transmission of data and inform the Commission of major methodological or other changes that would affect the data transmitted not later than three months after such change takes effect.

Within five years of the entry into force of this Regulation, the Commission shall submit a report to the European Parliament and the Council on its implementation assessing the quality of the statistics produced, its relevance for the users, and laying down proposals for possible improvements and amendments.

## **1.3 Objectives and coverage of the document**

As mentioned in the previous section, the QSA Regulation provides for the collection of methodological information from Member States on data sources used and procedures followed to compile national QSA data.

For this purpose, a standard framework for these inventories has been developed by Eurostat and sent to Member-States for completion. QSA sources and methods descriptions have been received from the following countries:

- the countries with full QSA reporting obligation: Belgium (BE), the Czech Republic (CZ), Denmark (DK), Germany (DE), Greece (EL), Ireland (IE), France (FR), Italy (IT), the Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Spain (ES), Finland (FI), Sweden (SE), the United Kingdom (UK) and Norway (NO) (only for the households sector)
- Partial QSA reporting: Bulgaria (BG), Cyprus (CY), Estonia (EE), Hungary (HU), Latvia (LV), Lithuania (LT), Luxemburg (LU), Romania (RO), Slovenia (SI), Slovakia (SK) and Malta (MT).

The present draft document is aimed at summarizing the information received with a view to promote exchange of methodological knowledge across Member States, to identify best practices and to assess the overall quality of the QSA data. Problematic compilation issues that require further guidance should be possibly identified. The document is expected to provide a

basis for further methodological work, as well as for the forthcoming reporting on the implementation of the QSA regulation to the European Parliament and the Council.

Several methodological manuals related to particular sectors have already been issued by Eurostat. It concerns, first of all, the Handbook on Quarterly National Accounts<sup>3</sup> and the Manual on Quarterly Non-financial Accounts for General Government<sup>4</sup>. Besides, data for some institutional sectors and the corresponding compilation practices are closely monitored by the statistical domains concerned such as quarterly main National Accounts aggregates for total economy (QNA), balance of payments (BoP) and short-term public finance statistics (STPFS). In most cases mentioned, data sets enter the QSA compilation process as external inputs that are beyond the direct control of QSA compilers and for this reason they were not covered in detail in QSA methodological inventories.

Hence, the focus of the present document will be, first of all, on the quarterly estimates for the institutional sectors of non-financial/financial corporations and households (including NPISH), distributive transactions and any specific issues particularly relevant in the context of sector accounts that have not been considered in detail in other methodological documents. Sectors S.13 and S.2 will be covered to the extent they provide counterpart information that underlies estimates of the corporate or households sectors and as far as consistency issues with other statistical domains are concerned. Consequently, the present document is mainly based on the reports provided by Member States with full reporting obligations.

The exercise is somewhat limited by the partial coverage of sources and methods information for annual sector accounts and quarterly main aggregates as they provide a benchmark for the estimation of quarterly data by sectors and thus have essential impact on the quality of dependent quarterly information.

Concerning annual accounts, sources and methods are documented in GNI inventories, for total economy mainly, with a focus on production and primary distribution of income accounts. To complement this information, it could be envisaged in the future to collect information on the sources and methods used by Member States to delineate sectors and compile annual sector accounts.

Concerning quarterly national accounts (QNA), inventories are being collected by Eurostat.

#### **1.4 Structure and future revisions of the inventory**

The document consists of four parts: (I) Introduction, (II) Compliance with quality requirements, (III) National sources and methods and (IV) European sources and methods.

In the introduction, the general background of the QSA project is presented together with the legal requirements set by the QSA regulation, the objectives of the document and its structure.

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<sup>3</sup> Handbook on quarterly national accounts, 1999 edition, ISBN 92-828-7259-9

<sup>4</sup> Manual on quarterly non-financial accounts for general government, 2006 edition, ISSN 1725-0048

The second part presents a broad overview of main quality aspects of European QSA data on the basis of the criteria adopted for quality reporting in European statistical system in line with European Statistics Code of Practice<sup>5</sup>.

Part III provides, for each transaction of the QSA dataset, a summary of ESA95 provisions followed by a detailed description and analysis of the sources and methods used by the different Member States. It allows identifying in one glance the full range of possible methodological solutions adopted for particular transactions and to comment on their respective merits / drawbacks. It may be used as a basis for future guidance / recommendations for a set of selected sensitive issues.

The last part describes additional inputs and procedures used for the compilation of euro area and European Union aggregates.

The present inventory will be updated to take into account possible changes in the compilation of national or European QSA. These updates will be based on the documentation of revisions which the Member States shall provide not later than three months after a major methodological or other change has been introduced that would affect the transmitted data (QSA Regulation, Art. 6 3).

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<sup>5</sup> The Code of Practice for European statistics was adopted by the Statistical Programme Committee on 24 February 2005 and published as Commission Recommendation (COM(2005)217 final) of 25 May 2005 on the independence, integrity and accountability of the national and Community statistical authorities

## II. COMPLIANCE WITH QUALITY REQUIREMENTS

### 2.1 Relevance: main uses of QSA

Relevance is a quality aspect that characterises how well a statistical product meets users' needs. It implies the identification of users and knowledge of their needs and expectations.

The recitals of the QSA Regulation specify the main objectives of QSA production as follows:

"The analysis of cyclical movements in the European Union economy and the conduct of monetary policy within the EMU require macroeconomic statistics on the economic behaviour and the interrelationship of individual institutional sectors which are impossible to identify in data compiled at the level of the economy as a whole. There is, therefore, a need to produce quarterly accounts by institutional sector, for the European Union as a whole and for the euro area."

Thus, QSA data are of main interest, first of all, for the institutional users as ECB and DG ECFIN for the purposes of economic governance.

#### *European accounts*

Eurostat and the ECB publish a full set of quarterly sector accounts for the euro area that includes non-financial accounts as well as financial accounts and balance sheets. Eurostat also publishes quarterly non-financial sector accounts for the European Union.

Eurostat issues a quarterly news release with a focus on a set of seasonally adjusted key indicators, for the euro area and the EU. These non-financial indicators, which are meant to illustrate the behaviour of non-financial corporations and households, are the following:

- *Profit share of non-financial corporations* defined as gross operating surplus divided by gross value added. This profitability-type indicator shows the share of the value added created during the production process remunerating capital.
- *Gross investment rate of non-financial corporations* defined as gross fixed capital formation divided by gross value added. This ratio relates the investment of non-financial businesses in fixed assets (buildings, machinery, software, major improvements to fixed assets etc.) to the value added created during the production process.
- *Gross household saving rate* calculated as gross saving divided by gross disposable income<sup>6</sup>. This ratio provides information on the proportion of disposable income of households saved after allowing for individual private consumption.
- *Gross household investment rate* calculated by dividing gross fixed capital formation of households by gross disposable income<sup>6</sup>. This ratio relates the investment of households in fixed assets (mainly dwellings) to their disposable income.

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<sup>6</sup> After adjustment for the change in the net equity of households in pension funds reserves.

The ECB publishes a press release that covers both the quarterly financial and non-financial sector accounts of the euro area. ECB's press release analyses the annual percentage changes of main transactions that underpin the decisions of the various sectors in the economy.

### ***Country breakdown***

The feedback from users (bank analysts, consultants, journalists etc.) confirms their great interest in short-term data by institutional sectors. However, in addition to European aggregates, users would expect more information on individual countries, which is one of QSA development priorities for the near future.

For the time being however, only few countries with full reporting obligations publish complete or almost complete and balanced set of QSA data. This is the case for FR, UK (only seasonally adjusted data series) and CZ, DK, NL, IT and ES (no seasonally adjusted data series).

PL regularly disseminates only balancing items for each institutional sector.

Apart from quarterly information on General government and Rest of the world sectors available either in QSA or in STPFS and BoP format, some countries also disclose selected indicators on the households sector (AT, DE, NO).

The rest of the countries have not yet defined their QSA data dissemination policies.

At European level, Eurostat has started disseminating country data for each of the above mentioned key indicators and their underlying components. As most Member-States do not compile seasonally adjusted QSA yet, these indicators are published as four quarters cumulated sums.

## **2.2 Accuracy and reliability**

As stated by principle 12 of European Statistics Code of Practice, European statistics must accurately and reliably portray reality. The accuracy and reliability of statistics depend on many variables. One important factor in this respect is the extent to which direct data sources are used compared to indirect methods based on past trends and model assumptions.

In general, QSA production relies to a great extent on three main statistical pillars as input: quarterly national accounts main aggregates for total economy, quarterly general government accounts and quarterly balance of payments.

Besides, administrative data sources (e.g. tax records, other information from industry supervisory authorities) normally contain direct data that could be used as indicators of the short-term developments of particular transactions by sectors.

Consequently, development of the cooperation with the compilers of general government and balance of payments statistics as well as with administrative authorities in order to exploit the full potential of these quarterly data sources is considered as a good practice to be followed.

Fairly good infra-annual statistical information exists with respect to the activities of financial corporations (profit and loss accounts, detailed balance sheets information with breakdown by counterparts, interest rates statistics, quarterly financial accounts), which is used by many countries in the QSA compilation process. It primarily concerns monetary financial institutions and, to a lesser extent, insurance corporations/pension funds. In many cases data of official supervisory agencies, industry business associations and stock exchanges can be also used.

However, only few countries reporting full QSA data can use direct data sources to support the compilation of individual estimates for sectors S.11 and S.1M (e.g. CZ and UK), for the production and generation of income accounts in particular.

The majority of the outstanding countries make extensive use of indirect methods employing annual data as the benchmark and quarterly indicators to capture short term movements including the seasonality.

In some cases, countries use pure model based estimates which are not supported by direct or indirect quarterly information. It is important that the latter method is used only for transactions that play a minor role in the accounts.

### **2.3 Timeliness**

European statistics must be disseminated in a timely manner, in particular when they are used for economic policy purposes. This is the case for European QSA that include relevant information for the conduct of the monetary policy within the euro area and for the coordination of budgetary policies within the EU. Since mid-2007, European QSA have been regularly published within 120 days after the reference quarter.

Timeliness of European statistics should take into account user requirements as much as possible. There is a strong demand from the institutional users to speed up the compilation and dissemination of QSA data to enable its usage as an input into the decision-making process as soon as possible. Early estimates for the euro area are under development with a view to compile euro area accounts (financial plus non-financial) within 90 days. However, the successful outcome of this project depends on the earlier availability of the main data inputs in the compilation of European QSA namely: the quarterly accounts of government and BoP statistics.

As an intermediate step, the reduction of the validation and compilation time to 10 (calendar) days after the transmission of national QSA allows the internal availability of euro area estimates for the non-financial accounts within 100 days after the reference quarter.

Improving the timeliness of QSA information, *i.a.* by compiling reliable preliminary estimates for European QSA aggregates, is another priority in QSA development work.

## **2.4 Accessibility and clarity**

European statistics must be disseminated in a convenient manner and presented in a clear and understandable form. It should be available and accessible on impartial basis with supporting metadata and guidance.

### ***European accounts***

Eurostat release covers full QSA data series starting from 1999Q1 (non-seasonally adjusted) for the euro area and the EU as well as key indicators focusing on the behaviour of the non-financial corporations and households sectors (both raw and seasonally adjusted) as described in the section 2.1 above.

Data are disseminated via different channels: press release, statistical database and Eurostat website section dedicated to sector accounts<sup>7</sup>. This dedicated section presents integrated quarterly non-financial and financial sector accounts for the euro area and non-financial QSA for EU in a form of sequence of accounts as defined in ESA95. This format allows users understanding and observing relationships between different sectors and transactions.

Data are accompanied with methodological information on European QSA compilation and the ESA95 sequence of accounts.

Moreover, the collection of QSA news releases issued by Eurostat is provided together with an Excel file that includes the underlying data.

Finally, a set of about 30 analytical charts and tables is updated every quarter so that users can easily relate changes in total economy with developments in each institutional sector.

### ***Country breakdown***

Annual sector accounts are published for each country, next to and in the same ESA95 format as the QSA of the euro area and of the EU.

In addition, the quarterly key indicators listed in section 2.1 above are published for most Member States that report full QSA.

## **2.5 Coherence and comparability**

Apart from internal consistency criteria (respect of arithmetic and accounting identities, comparability over time), which are generally ensured by the national and European compilation practices, the coherence between statistics is oriented towards the comparison of different statistics, which are generally compiled following different practices, within different timetables and for different primary purposes.

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<sup>7</sup> URL: <http://ec.europa.eu/eurostat/sectoraccounts> and <http://www.ecb.europa.eu/stats/acc/html/index.en.html>.



Consistency between different domains of macroeconomic statistics is required by the QSA Regulation. As it is stated in the recitals of the QSA Regulation:

"Production of these [QSA] accounts is part of the overall aim to compile a system of annual and quarterly accounts for the European Union and for the euro area. The system includes the main macroeconomic aggregates and the financial and non-financial accounts by institutional sector. The aim is to achieve consistency across all these accounts and, with regard to the rest of the world accounts, between the balance of payments and the national accounts data."

Besides, article 5 of the QSA regulation requires that data transmitted by the Member States for the purposes of this regulation are consistent with the quarterly non-financial accounts of the general government, quarterly main aggregates of the total economy and corresponding annual data transmitted to the Commission under the data transmission programme of the ESA regulation.

National data consistency across relevant statistical domains is regularly monitored by the institutions. However, practical experience demonstrates that discrepancies between different data sets are often caused by differences in statistical production processes. These inconsistencies are hardly avoidable in the short-run as in most cases they are beyond the direct control of national QSA compilers. Main causes of discrepancies of this type are the following:

- Conceptual differences
- Vintage differences
- Data requirements differences

Conceptual differences are particularly relevant for BoP/RoW consistency. In general, BoP and the RoW should be conceptually almost identical; there are only a very limited number of conceptual differences that stem directly from the respective manuals (BPM5 and ESA95). These concern FISIM adjustment for imports, exports and interest flows in National Accounts RoW estimates, different treatment of construction and government services and incomes from mutual funds. These conceptual differences are expected to vanish when the new versions of the Manuals (BPM6 and ESA2008) will come into force.

Vintage differences may occur occasionally at some periods in the year due to different annual data revision policies. In particular, ANA are generally updated on the basis of QNA and become available at t+3 months whereas ASA are revised between t+6 and t+9 months. QSA, which are generally benchmarked on ASA, may then diverge from QNA in the meantime. Moreover, the annual public finance statistics (APFS) must be consistent with Excessive Deficit Procedure (EDP) notifications made at t+3 and t+9 months. If ASA data are not compiled / revised at these precise moments in time, this may create discrepancy between the QSA that are benchmarked on ASA and the STPFS/APFS data, in March and September especially.

Vintage differences may also recur every quarter because of different timeliness requirements and/or revision policies across statistical domains. For example, QNA are available at t+70 days whereas STPFS and QSA are transmitted at t+90, making use of the additional informa-

tion available between t+70 and t+90 days. As higher priority is attributed to QSA alignment with STPFS, this may trigger vintage differences with QNA indicators produced earlier.

Data requirement differences refer particularly to the adjustment for statistical discrepancies. Unlike QNA where statistical discrepancy can be separately stated, QSA need to be balanced across uses and resources. Consequently, in QSA data, the statistical discrepancy on the output side is typically allocated to gross value added (B.1G) whereas changes in inventories/valuables (P.5N) may absorb the expenditure side discrepancy.

Another type of inconsistencies is related to different institutional arrangements across countries and often results in differentiating data sources and methodological approaches, as well as in revision policies between statistical domains. These factors are under direct control of national compilers and should be tackled as a first priority. This concerns, first of all, discrepancies between BoP and RoW data and non-financial and financial sector accounts. In most countries, non-financial accounts including RoW are estimated by National Statistical Institutes (NSI), whereas BoP and financial accounts belong to the competencies of the National Central Banks (NCB).

Lack of effective communication and coordination between these institutions often translates into inconsistencies in the statistics produced, which theoretically should be closely related.

Reconciliation of data sources used by the institutions, mutual agreements on required level of detail required in the input data, regular communication on methodological issues between statistical authorities and NCBs are of utmost importance from the point of view of statistical coherence.

Lack of coordination between producer units inside the NSIs may also result in inconsistent statistical data sets, mainly due to different revision policies for back data. Development of coordinated revision policies in NSIs is thus strongly encouraged.

At European aggregates level, apart from the sum of the discrepancies in national inputs, inconsistencies also exist between Member States' recording of mutual transactions, which is typically reflected in the asymmetries in the cross-border flows between EU/EA Member States. Theoretically, intra-flows should be equal on uses and resources sides (e.g. goods exported by Member States within the Community should be equal to the intra-EU/EA flows recorded by the importing Member States); however it is hardly ever the case in practice. Adjustment of these asymmetries requires additional balancing procedures in the EU/EA QSA compilation process that eventually lead to some differences with other national accounts publications, in which cross border flows within the area concerned have not been removed yet.

### III. NATIONAL SOURCES AND METHODS

#### 3.1 Institutional arrangements

The organisation of QSA production and institutional links between QSA compilers and the providers of input data have an impact on the timeliness, coherence and comparability of quarterly statistics. This section aims to give an overview of different variants of institutional arrangements adopted by Member States for the compilation of quarterly macroeconomic statistics.

Most commonly, NSIs are responsible for the production of non-financial macroeconomic aggregates and sector accounts, whereas NCBs are in charge of balance of payments statistics and financial sector accounts except for general government. .

There are a few exceptions to this general organisational setting:

- In **BE**, the NCB is entirely responsible for all the macroeconomic statistics (non-financial accounts, financial accounts, BoP); whereas the NSI is a provider of input data to the macroeconomic aggregates;
- In **IE, NL, NO** and **UK**, NSIs are totally responsible for both non-financial and financial accounts. In **DK, IE, NO** and **UK**, the compilation of balance of payments statistics is the responsibility of the NSI;
- In **AT**, the compilation of quarterly main aggregates is outsourced to an external research institute. The NCB has the ultimate responsibility for the BoP, but NSI contributes significantly to the production of BoP current account;
- In **ES**, the quarterly and annual accounts of general government sector are drawn up by the General Auditing Board of the Central Government, except the estimates of consumption of fixed capital which are produced by the NSI.

As for the internal organisation of quarterly macroeconomic statistics production, a variety of combinations can be observed throughout the countries. In general, the production can be organised according to the following main criteria:

- Temporal approach: different timing requirements and data sources trigger an administrative separation of units dealing with annual versus quarterly statistics. This split is observed in **CZ, EL** and **FR**.
- Functional approach: production units are organized by statistical domains or certain group of economic agents (e.g. national accounts, government statistics, financial statistics, regional statistics etc), covering both infra-annual and annual indicators (**BE, DE, IE, IT, NL, AT, PL, FI, SE, UK**).

Several countries follow a rather mixed approach, where the compilation of main aggregates is divided by quarterly and annual periodicity, while a separate functional unit is in charge of sector accounts both at annual and quarterly frequencies (**DK, ES, NO**).

Government statistics generally follow a functional approach covering both annual and quarterly statistics and government financial accounts.

In some cases, the compilation of sector accounts is coordinated by separate administrative units, in other cases it is a part of the general process of compiling macroeconomic aggregates.

*Table 1 - Institutional arrangements in Member States with full QSA reporting obligations*

	Quarterly non-financial macroeconomic statistics			MUFA/ Quarterly Financial accounts
	Responsible institution / Organisation approach	QSA synthesis	BoP	
<b>BE</b>	NCB / functional	-	NCB	NCB; some vertical integration
<b>CZ</b>	NSI / temporal	-	NCB	NCB, except S.13; no vertical integration
<b>DK</b>	NSI / mixed	Separate unit	NSI	NCB; no vertical integration
<b>DE</b>	NSI / functional	Separate unit	NCB	NCB; some vertical integration for S.12, S.13, S.1M (residual estimation of D.42 )
<b>IE</b>	NSI / functional	Separate unit	NSI	NSI
<b>EL</b>	NSI / temporal	-	NCB	NCB; no vertical integration
<b>ES</b>	NSI / mixed	Separate unit	NCB	NCB; vertically integrated for sectors S.12 and S.2
<b>FR</b>	NSI / temporal	-	NCB	NCB; some vertical integration (especially for S.13)
<b>IT</b>	NSI / functional	-	NCB	NCB; no vertical integration
<b>NL</b>	NSI / functional	-	NCB	NSI; regular vertical reconciliation
<b>AT</b>	NSI / functional	-	NCB	NCB; integrated by residual estimation of D.42 (except S.12, S.2)
<b>PL</b>	NSI / functional	-	NCB	NCB; no vertical integration
<b>PT</b>	NSI / functional	Separate unit	NCB	NCB; regular vertical reconciliation; S.13 integrated
<b>FI</b>	NSI / functional	-	NCB	NCB, except S.13; no vertical integration
<b>SE</b>	NSI / functional	-	Since 2007 NSI on behalf of NCB	NSI; no vertical integration
<b>UK</b>	NSI/ functional	-	NSI	NSI; regular vertical reconciliation
<b>NO</b>	NSI/ mixed	Separate unit	NSI	NSI; no vertical integration yet

### 3.2 National QSA consistency with related statistics

Consistency between related statistical domains is defined as one of the essential quality aspects of statistical output (see section 2.5 of the document). In the case of QSA, this concerns annual sector accounts (ASA), main aggregates (QNA), quarterly non-financial accounts of government (STPFS), quarterly financial accounts (MUFA) and BoP statistics.

Main types and reasons of inconsistencies observed in the countries' data are described in detail in section 2.5 of the document and in the sections for related transactions, where applicable. They can be summarised as follows:

- Inconsistencies due to conceptual differences (e.g. FISIM in BoP and RoW);
- Inconsistencies due to different data requirements (e.g. allocation of statistical discrepancy in QSA);
- Inconsistencies due to different timeliness and/or revision policies of related statistics (so called vintage differences);
- Inconsistencies due to institutional arrangements (different data sources used by the producer-units; particularly relevant for BoP and financial accounts).

Table 2 provides a general overview of the situation by country with respect to consistency with ASA, QNA, STPFS, BoP and quarterly financial accounts on the basis of the results of July, 2010 consistency monitoring covering period 1999Q1-2010Q1. The comparison against MUFA (vertical imbalances) is limited to 9 euro area countries providing complete QSA data since 1999Q1.

The consistency between QSA and related quarterly datasets is regularly monitored and, as a result, existing discrepancies are expected to decrease to "minor" levels in future transmissions, wherever possible. Further improvements are expected with the revision of the ESA transmission programme that should harmonize the release and revision calendars across National Accounts tables and possibly BoP data."

*Table 2 - Inconsistencies with related statistics by Member States*

	<b>ASA</b>	<b>QNA</b>	<b>STPFS</b>	<b>BoP</b>	<b>MUFA</b>
<b>BE</b>	-	Minor, in latest quarters only	-	Major	Minor
<b>CZ</b>	Minor	Negligible	Some transactions	Some transactions	N.A.
<b>DK</b>	Minor	Some transactions	Some transactions	Minor	N.A.
<b>DE</b>	-	-	-	Some transactions	Minor
<b>IE</b>	-	Major	Major	Minor	N.A.
<b>EL</b>	Minor	Negligible	Some transactions	Major	N.A.
<b>ES</b>	-	Negligible	-	Some transactions	Minor
<b>FR</b>	Minor	-	-	Major	Major
<b>IT</b>	-	Negligible	-	Major	Major
<b>NL</b>	-	-	-	Major	Some transactions
<b>AT</b>	-	Some transactions + Adjustment for stat. discrepancy.	Some transactions	Some transactions	Major
<b>PL</b>	Minor	-	Minor	Some transactions	N.A.
<b>PT</b>	-	Adjustment for stat. discrepancy	-	Minor	Minor
<b>FI</b>	-	Some transactions + Adjustment for stat. discrepancy	Minor	Some transactions	Major
<b>SE</b>	-	Some transactions	-	Some transactions	N.A.
<b>UK</b>	For latest year	Adjustment for stat. discrepancy	Major	Some transactions	N.A.
<b>NO</b>	N.A.	N.A.	N.A.	N.A.	N.A.

### 3.3 National QSA data release policy

As it has been outlined in the section 2.1 of the document, QSA data users regularly express their interest in national QSA data availability. Consequently, publication of possibly harmonised set of national data, including seasonally adjusted figures, is one of the QSA development priorities for the near future.

Table 3 gives an overview on current state of national QSA publication policies.

*Table 3 - QSA release policies of Member States*

	<b>Timeliness</b>	<b>Coverage</b>	<b>Seasonal adjustment</b>
<b>BE</b>	- No public release of QSA data -		
<b>CZ</b>	T + 93 days <sup>1</sup>	Full matrix (without sub-transactions for D.4, D.6, D.7 and D.9); separate information on S.14 and S.15	No
<b>DK</b>	T+90	Full matrix (with limited detail by sub-transactions)	No
<b>DE</b>	T+55/80 days	<u>S.1M</u> : B.6n, P.3 and B.8n for quarters of current year since 1991; <u>All sectors</u> : Main aggregates (without D.9 and B.9) for completed years only since 1999;	No
<b>IE</b>	- No public release of QSA data -		
<b>EL</b>	- No public release of QSA data -		
<b>ES</b>	T+ 90-100 days	Full matrix	No
<b>FR</b>	T+90	Main transactions and balancing items	Yes; only seasonally adjusted data published
<b>IT</b>	T+98	A set of key indicators and components	No
<b>NL</b>	T+97	Full matrix (since April 2008) with additional detail by S.12 and S.13 sub-sectors, jointly with QFA and balance sheets (series from 2005Q1 onwards)	No
<b>AT</b>	1 <sup>st</sup> release in October 2009	Sector S.1M only from B.2g/B.3g to B.8 (without sub-transactions)	Four quarter cumulated sums
<b>PL</b>	T+90	Only balancing items by sectors (except gross balance of primary income)	No
<b>PT</b>	T+90	Full matrix (without sub-transactions);	No
<b>FI</b>	- No public release of QSA data -		
<b>SE</b>	T+70, T+90	T+70: only sector S.1M T+90: full matrix	No
<b>UK</b>	T+90 days	Full matrix from B.2g	Yes

<sup>1)</sup> Latest publication date. Exact date is laid down for each vintage in the National Accounts Output Plan.

### 3.4 National compilation of goods and services transactions

In most countries that deliver full QSA data, the quarterly production system is focused on quarterly main aggregates at the level of total economy often compiled in the supply and use framework integrating all available quarterly information and making use of econometric modelling.

Quarterly main aggregates provide data for goods and services for the total economy broken down by industries (or asset categories as for gross fixed capital formation), but not by institutional sectors.

The allocation of total economy figures by sectors is in most cases made by indirect procedures such as industry/sector bridging matrixes based on industry/sector structures of last available year. Level of detail of quarterly QSA calculations ranges from 17 industries in **EL** to 132 industries in **FI**. Full/more complete information by institutional sectors generally exists only at annual frequency.

At quarterly level, the compilation of production and income transactions by sectors is generally based on three main pre-existing inputs:

- Quarterly national accounts (QNA);
- Quarterly general government statistics (STPFS, QGGA<sup>8</sup>);
- Balance of payments as a basis for RoW estimates (BoP).

For the financial corporations sector, in general, direct correspondence between NACE industries 65-67 and the sector can be made as rather legal persons, than individual entrepreneurs are operating in these activities. Only a small part of the financial services is produced by the sector of households in some countries. Consequently, production and generation of income account figures for sector S.12 can, with minor exceptions, be considered as external QNA input to QSA production and thus S.12 compilation is not described in detail in this chapter.

The major challenge of QSA process is the allocation of the residual transactions in goods and services between the non-financial corporations and households/NPISH sectors.

There are a few exceptions from this general scheme (**CZ, FI, UK**), where quarterly data for total economy are (totally or partially) estimated as a sum of sectors in QNA.

**NO** currently compiles the accounts of sector S.1M only.

More detailed information on countries methodological approaches for sectors data production is provided below for each transaction in goods and services.

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<sup>8</sup> Hereinafter, STPFS means information from the quarterly STPFS questionnaire (Table 25) in its strict sense; under QGGA is meant the whole set of quarterly data on S.13 available for use by NSI from the administrative data sources, including additional detail on counterpart sectors in transactions with S.13 or detailed breakdown of particular transactions (not available in STPFS e.g. D.4, D.7., D.9N).



### 3.4.1 P.1 – Output

#### Definition and coverage

Output consists of the products created during the accounting period.

Three types of output are distinguished in ESA95:

- a. *Market output (P.11 - products sold at economically significant prices, products bartered or used for payments in kind, products purchased/sold within an institutional unit, additions to inventories of work-in progress and finished goods intended for disposal on the market)*
- b. *Output produced for own final use (P.12 - products retained for own final consumption or gross capital formation by the same unit, as agricultural products, construction of dwellings, housing services produced by owner-occupiers)*
- c. *Other non-market output (P.13 – output that is provided to other units free or at prices that are not economically significant )*

All such productive activities should be included even if they are illegal or not-registered at tax, social security, statistical and other public authorities.

#### Time of recording

Output is to be recorded and valued when it is generated by the production process.

(ESA95 §3.18-3.23; §3.08, §3.46)

P.1 is an optional transaction according to the QSA regulation, and only half of the countries that report full QSA compile P.1 by sector. This is the case for **CZ, DE, DK, EL, FI, FR, NL, NO**.

For other countries (**BE, ES, IE, IT, AT, PL, PT, SE, UK**) production account variables by sector are not available, except for gross value added as a balancing item.

In **CZ**, quarterly statistical surveys on business units and entrepreneurs, housing construction data and household budget survey supply most of the necessary information for S.11 and S.1M output estimates, whereas sector estimates are integral part of QNA compilation, and total economy indicators are estimated as sum of institutional sectors. Estimates based on indirect data sources have to be made for the units with less than 10 employees (less than 20 employees in NACE A-B), deliberate misreporting/illegal activities and other conceptual adjustments. Estimates for the small units are based on the output figures compiled for the same quarter of the preceding year, Q/(Q-4) index of number of employees, Q/(Q-4) index of producer price indices and Q/(Q-4) index of output per employee. For S.15, mostly non-market output is estimated by cost method.

In **FI**, P.1 for total economy in the QNA system is also estimated as a sum of sectors. QNA estimates for S.11 and S.1M are based on quarterly VAT data and turnover indices. They can be taken over directly to QSA compilation.

In **NO**, a direct correspondence can be established between QNA industries and the NPISH sector (S.15), thus QNA data on S.15 are used as direct input to quarterly S.1M estimates.

In other countries (**DE, DK, EL NL**), the general approach is to distribute QNA S.1 values by industries, after allocation of S.12 and S.13 data, between S.11 and S.1M using the sector structure by industries of the last available annual accounts.

*Table 4 - National sources and methods for P.1 estimation*

	No. of QNA industries	S.1	S.12	S.13	S.11 and S.1M
<b>BE</b>	-	-	-	-	-
<b>CZ</b>	60	QNA	QNA	STPFS	QNA data by sectors, based on quarterly statistical surveys
<b>DK</b>	67	QNA	QNA	STPFS	S.1 – S.12 – S.13 allocated by industry/sector matrix combining ASA and quarterly VAT-data sector structures
<b>DE</b>	32-	QNA	QNA	STPFS	S.1 – S.12 – S.13 allocated using annual sector structure by industries
<b>IE</b>	-	-	-	-	-
<b>EL</b>	17	QNA	Same as S.11/S.1M	STPFS	S.1 allocated by ASA sector structure; any discrepancies with actual S.13 data are adjusted in S.11
<b>ES</b>	-	-	-	-	-
<b>FR</b>	40	B.1G +P.2	B.1G +P.2	B.1G +P.2	B.1G + P.2
<b>IT</b>	-	-	-	-	-
<b>NL</b>	119	QNA	QNA	STPFS	S.1 – S.12 – S.13 allocated using annual sector structure by industries
<b>AT</b>	-	-	-	-	-
<b>PL</b>	-	-	-	-	-
<b>PT</b>		-	-	-	-
<b>FI</b>	132	QNA	QNA	STPFS	QNA by sector based on quarterly VAT data
<b>SE</b>	-	-	-	-	-
<b>UK</b>	-	-	-	-	-
<b>NO</b>	44	QNA	-	-	<u>S.1M only</u> : sector share from a benchmark year applied to QNA for market output + quarterly estimate for owner-occupied housing services+S.15 directly from QNA

In **DK** annual distribution keys are adjusted by means of quarterly VAT turnover data by sector and industry wherever available. The quarterly VAT statistics are used to calculate quarterly sector allocation keys by industry. Benchmark sectors' shares from the annual sector/industry-matrix are then adjusted according to the difference between S.11 and S.1M share of the VAT-turnover in the actual quarter and their share in the sum of the four quarters. As for trade industries (wholesale and retail trade), turnover minus purchases is used for adjust-

ing. For the very few industries for which the turnover is not liable to VAT, annual shares are used.

### 3.4.2 P.2 – Intermediate consumption

#### Definition and coverage

*Intermediate consumption consists of the value of goods and services consumed as input in the process of production, excluding fixed assets whose consumption is recorded as a consumption of fixed capital. It includes as well the use of financial intermediation services indirectly measured by resident producers.*

#### Time of recording

*Products used for intermediate consumption should be recorded and valued at the time they enter the process of production. (ESA95 3.69-3.72)*

*Table 5 - National sources and methods for P.2 estimation*

	No. of QNA industries	S.1	S.12	S.13	S.11 and S.1M
<b>BE</b>	-	-	-	-	-
<b>CZ</b>	60	QNA	QNA	STPFS	QNA data by sectors, based on quarterly statistical surveys
<b>DK</b>	67	QNA	QNA	STPFS	S.1–S.12–S.13 allocated by industry/sector matrix based on ASA and quarterly VAT-data
<b>DE</b>	32-	QNA	QNA	STPFS	S.1–S.12–S.13 allocated using annual sector structure by industries
<b>IE</b>	-	-	-	-	-
<b>EL</b>	17	QNA	Same as S.11/S.1M	STPFS	S.1 allocated by ASA sector structure; any discrepancies with actual S.13 data are adjusted in S.11
<b>ES</b>	-	-	-	-	-
<b>FR</b>	40	QNA	QNA	STPFS	S.1M: ASA disaggregation with a linear combination of P2 by industries as indicator S11 : residual
<b>IT</b>	-	-	-	-	-
<b>NL</b>	119	QNA	QNA	STPFS	S.1–S.12–S.13 allocated using annual sector structure by industries
<b>AT</b>	-	-	-	-	-
<b>PL</b>	-	-	-	-	-
<b>PT</b>	-	-	-	-	-
<b>FI</b>	132	QNA	QNA	STPFS	QNA P.1–B.1G by sectors
<b>SE</b>	-	-	-	-	-
<b>UK</b>	-	-	-	-	-
<b>NO</b>	44	QNA	-	-	<u>S.1M only</u> : sector share from a benchmark year applied to QNA for market output + quarterly estimate for owner-occupied housing services + S.15 directly from QNA

As well as P.1, P.2 is an optional transaction in QSA questionnaire and only some countries compile P.2 by institutional sectors (see section 3.4.1 for countries details).

Similar data sources situations and similar general principles for P.1 estimation by sectors apply in a similar way to P.2, as can be observed in table 4.

### 3.4.3 B.1g – Gross value added

#### Definition and coverage

*Gross value added or the value generated by any unit engaged in a production activity is a balancing item of production account. Given that output is valued at basic prices and intermediate consumption at purchaser's prices, value added does not include taxes less subsidies on products.*

(ESA95 8.11-8.12)

For the countries that estimate optional transactions P.1 and P.2 by institutional sectors, B.1g is obtained as a difference. The other countries (**BE, ES, IE, IT, AT, PL, PT, SE, UK**) allocate value added by sector mostly combining quarterly information provided by QNA and QGGA and indirect estimates as described below.

In **BE, ES, FR, AT, PL, PT** indirect approaches based on annual sector structure by industries of the last available year are used to break down the residual amounts (total economy after allocation of S.13 and S.12 inputs) by sectors S.11 and S.1M..

**IT** applies an indirect estimation approach of value added for S.11 and S.14 which is based on quarterly labour input by sectors and industries expressed in full-time equivalent units (FTEU), i.e. number of full-time equivalent jobs. This approach is consistent with the one underlying ASA estimates: QSA models for S.11 and S.14 are mainly based on quarterly per capita values by economic activity as defined in QNA, applied to quarterly labour input by sector. In some service activities (wholesale, retail, sea transportation, air transportation, postal services, etc.), differentiation by size of the enterprise is taken into accounts in QSA models. Quarterly labour input by industries and sectors is estimated using a variety of data sources: labour force surveys, administrative surveys, social security data linked with business register, supervisory data for banks and information from relevant ministries. IT approach is grounded on the hypothesis that many of the non-observed productive activities (for statistical and economic reasons, in particular taking into account large share of self-employed workers in IT economy) may be correctly measured through an exhaustive estimate of the volume of labour that participates in the production of income.

**IE, SE** and **UK** estimate gross value added of institutional sectors by income approach. **SE** calculates B.1g of the sector S.1M by summing up estimates for gross operating surplus (from owner-occupied housing activity) and mixed income, compensation of employees and taxes less subsidies on production. Available annual figures of mixed income are extrapolated using

data on evolution of hours worked by entrepreneurs and changes of hourly wages (the salary trend of employees in non-financial corporations sector is used as indicator). B.1g estimates for sector S.11 are derived as a residual. **IE** sums up compensation of employees, gross operating surplus and mixed income and taxes less subsidies on products or production in the individual sectors. The amounts are obtained from surveys and administrative data or, in the case of S.13, from STPFS. While compensation of employees can be directly measured, the sum of gross operating surplus and mixed income is obtained as the difference between national B.1g, adjusted for taxes less subsidies on products, and compensation of employees at the total-economy level, allocated to the sectors S.11, S.12 and S.1M using annual sector structure observed over the previous three years. The **UK** does not produce sectorised B.1g as a national statistic. However, it does apply roughly similar procedures as IE to meet EU commitments. Total B.2g/B.3g estimate is generally adjusted for the income side statistical discrepancy in QSA dataset.

In **IE** and **PT** B.1g in QSA is adjusted for the output side statistical discrepancy.

*Table 6 - National sources and methods for B.1g estimation*

MS	No. of QNA industries	S.1	S.12	S.13	S.11 and S.1M
<b>BE</b>	approx. 30	QNA	QNA	STPFS	S.1 – S.12 – S.13 allocated using annual sector structure by industries
<b>CZ</b>	60	QNA	QNA	STPFS	P.1 – P.2 by sectors
<b>DK</b>	67	QNA	QNA	STPFS	P.1 – P.2 by sectors
<b>DE</b>	32	QNA	QNA	STPFS	P.1 – P.2 by sectors
<b>IE</b>	Total	QNA	Same as S.11/S.1M	STPFS	B.2/B.3g allocated by annual sector structure + D.1 + D.29 - D.31
<b>EL</b>	17	QNA	P.1 – P.2	STPFS	P.1 – P.2 by sectors
<b>ES</b>	13	QNA	Direct source	STPFS	S.1 – S.12 – S.13 allocated using annual sector structure by industries
<b>FR</b>	40	QNA	QNA	STPFS	S1M: ASA disaggregation with a linear combination of B.1g by industries as indicator; <u>S.11</u> : residual
<b>IT</b>	32	QNA	QNA	STPFS	QNA values per labour unit applied to quarterly labour input by sector and industry
<b>NL</b>	119	QNA	QNA	STPFS	P.1 – P.2 by sectors
<b>AT</b>	26	QNA	QNA	STPFS	S.1 – S.12 – S.13 allocated using annual sector structure by industries; S.11 adjusted for S.13 STPFS-alignment
<b>PL</b>	17	QNA	QNA	STPFS	S.1 – S.12 – S.13 allocated using annual sector structure by industries
<b>PT</b>	11	QNA	QNA	STPFS	S.1-S.12-S.13 allocated using annual sector structure by industries
<b>FI</b>	132	QNA	QNA	STPFS	QNA by sector based on quarterly VAT data
<b>SE</b>	71	QNA	QNA	STPFS	<u>S.1M</u> : sum of the B.1g components; <u>S.11</u> : residual
<b>UK</b>	Total	QNA	Same as S.11/S.1M	STPFS	Sum of the B.1g components by sectors
<b>NO</b>	44	QNA	-	-	<u>S.1M only</u> : P.1 – P.2 by sectors

In **PL**, fairly good infra-annual source data on non-financial corporations are supplied by quarterly or semi-annual statistical surveys that are extensively used for QNA production. However, due to some limitation with respect to sector breakdown and conceptual adjustments done only at the level of total economy, B.1g by S.11 and S.1M sectors is estimated using simplified method based on annual sector shares by industries.

As to FISIM, a detailed calculation and its allocation to the user sectors as intermediate or final consumptions is performed separately at a quarterly level.

Thus, on many cases, recourse has to be made to more complete and reliable annual data, using annual sector structure to delineate households' production from non-financial corporations. This method is based on the assumption that both growth rates and seasonality do not differ significantly between these two sectors. Apparently, this approach could provide a good approximation of reality in stable economic conditions and for countries/industries with minor importance of productive activities in households sector. If these conditions not fulfilled, it could lead to biased estimates.

In the **IT** approach, bias is introduced by the use of the same average indicator of value added both for small and big units (respectively for S.11 and S.14), thereby assuming similar productivity in units of different size. This effect is somewhat mitigated in those economic activities where units of similar size prevail. It can be assumed that in the industries like construction and services characterized by a high concentration of small enterprises, average per capita values provide an appropriate representation of the performance both of S.11 and S.14.

### **3.4.4 P.3 – Final consumption**

#### Definition and coverage

*Final consumption expenditure consists of expenditure incurred by resident institutional units on goods and services that are used for the direct satisfaction of individual needs or wants or the collective needs or members of the community. Final consumption expenditure may take place on the domestic territory or abroad.*

*The following final consumption expenditure types can be distinguished:*

- General government individual final consumption (P.31/S.13) – goods and services produced by general government for individual consumption (e.g. education, health, social security, sport and recreation, culture) as well as purchases by general government of goods and services produced by market producers that are supplied without any transformation to households for their consumptions as social transfers in kind;
- General government collective final consumption (P.32/S13) – the value of goods and services produced by general government (other than own-account capital formation and sales) that are provided simultaneously to all members of the community (e.g. manage-

*ment and regulation of society, security and defence, maintenance of law, protection of the environment);*

- *Household final consumption (P.31/S.1M) – includes, among other expenditures, services of owner-occupied dwellings, income in kind, goods and services produced for own final use, consumer durables not treated as capital formation, consumption of financial services directly charged as well as FISIM;*
- *NPISH final consumption (P.31/S.1M) – (1) the value of goods and services produced by NPISH other than own-account capital formation as well as (2) expenditures by NPISH on goods and services produced by market producers that are supplied without any transformation to households for their consumptions as social transfers in kind.*
- *Corporations do not make final consumption expenditures – Their purchases of the same kind of goods and services are either used for intermediate consumption or provided to employees as compensation of employees in kind.*

#### Time of recording

*Goods and services should be recorded when the payables are created, when purchaser incurs a liability to the seller. It implies that expenditure on a good is to be recorded at the time when ownership changes; expenditure on a service – when the delivery of the service is completed.*

*(ESA95 3.75-3.89)*

Estimates of final consumption are external inputs to the QSA compilation process provided by QNA and STPFS. For this reason, very limited information on its estimation was provided by QSA inventories. The sources and methods used for the calculation of P.3 of the sectors S.13, S.14 and S.15, are documented in the QNA inventories, available from the Eurostat website for most full-reporting ASA countries<sup>9</sup>.

### **3.4.5 P.51 – Gross fixed capital formation**

#### Definition and coverage

*Gross fixed capital formation consists of resident producers' acquisitions, less disposals, of fixed assets during a given period plus certain additions to the value of non-produced assets realised by the productive activity of producer or institutional units. Fixed assets are tangible or intangible assets produced as outputs from processes of production that are themselves used repeatedly, or continuously, in processes of production for more than one year.*

*The following types of gross fixed capital formation may be distinguished:*

- *Acquisitions, less disposals, of tangible fixed assets (dwellings, other buildings and structures, machinery and equipment, cultivated assets, e.g. trees and livestock);*

- *Acquisitions, less disposals, of intangible fixed assets (mineral exploration, computer software, entertainment, literary or artistic originals etc.);*
- *Major improvements to tangible non-produced assets, in particular those pertaining to land (e.g. irrigation, prevention of erosion), though the acquisition of non-produced assets is not included;*
- *Costs associated with the transfers of ownership of produced and non-produced assets (e.g. transport and installation charges, relevant fees and taxes payable by the new owner), though the acquisition of non-produced assets is not included.*

#### Time of recording

*Gross fixed capital formation is recorded when the ownership of the fixed assets is transferred to the institutional unit that intends to use them in production.*

*Modification to this general rule is needed in case of:*

- *financial leasing (a change of ownership is then imputed; assets are recorded as if the user becomes the owner when he takes possession of the goods);*
- *own-account fixed capital formation (recorded when produced)*

*(ESA95 3.102-3.111)*

Similarly to the transactions described above, in most countries data on total economy and S.13 are directly available from QNA and STPFS statistics. However, in most cases, QNA data are not always available by industries, but rather by types of assets. So, estimates have to be made not only for S.11 and S.1M sectors, but for S.12 as well in this case, unless direct data from other sources are available.

So far only in **CZ, FR, PL** and **UK** estimation of P.51 is supported by direct data sources. The common approach again is based on the sector structure of last available year by industries/types of assets/types of investments (**BE, DE, DK, IE, EL, ES, IT, NL, AT, PT, FI, SE**) and respective QNA information. In some cases direct quarterly data on housing construction are separately available (**BE, IE, EL, NO**), which are allocated directly to the sector of households. Other private investments are allocated to relevant sectors by means of annual sector structure.

In **IT**, on the basis of annual information, weights of each kind of fixed asset in GFCF, and thus a predominant asset, are defined for each institutional sector. The quarterly pattern of the predominant asset (issued from QNA) is applied to ASA to derive the total quarterly GFCF. To respect the internal consistency of QSA and to comply with QNA constraints, quarterly discrepancies are attributed partly to S.11 and partly to S.14 on the basis of the relative reliability degree.

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<sup>9</sup> URL: [http://epp.eurostat.ec.europa.eu/portal/page/portal/national\\_accounts/methodology/quarterly\\_accounts](http://epp.eurostat.ec.europa.eu/portal/page/portal/national_accounts/methodology/quarterly_accounts)



In **FI**, ASA P.51 estimates for S.11 and S.1M are allocated to quarters using QNA quarterly pattern estimated for total economy. For the recent quarters, when annual data are not yet available, estimates for last available year are extrapolated by the  $Q/(Q-4)$  QNA change.

In **CZ**, QNA P.51 for total economy is compiled as a sum of sectors by 6 types of assets (Pi6 classification of ESA95) on the basis of quarterly business statistics. This direct data source covers units with more than 9 employees, and information on individual housing construction by households. Estimates have to be added for non-surveyed units and conceptual adjustments as major improvements and costs of ownership transfer. P.51 for non-surveyed smaller units are performed by extrapolating annual accounts figures by changes in appropriate indicators for medium sized enterprises, by changes in the number of employees for small enterprises and by changes in investment price indices. Estimates for S.15 are performed by extrapolating annual accounts figures by changes in the number of employees in the sector.

In **PL**, direct data on P.51 is supplied by quarterly surveys on the enterprises with more than 49 employees, quarterly housing construction data and semi-annual surveys for units with 10-49 employees. Estimates have to be made for smaller units or other not covered units using short-term sales information of capital goods and data on medium sized units combined with annual information, as well as for non-observed investment activities.

In **UK**, direct data for P.51 compilation are supplied by quarterly statistical surveys that cover production, construction, distribution and service industries, as well as by banking statistics and administrative information. The direct quarterly data is supplemented by estimates from the commodity flow approach which results in an improved quarterly profile.

In **FR**, sector values for P.51 are as well provided by QNA and employed in QSA compilation without any adjustments.

Thus, many countries produce their P.51 estimates for each sector but general government using an indirect approach based mostly on the annual sector structure. This method can be considered sufficient taking into account minor importance of investments in private sectors other than S.11, as long as housing investments of households are treated separately on a quarterly basis. Good practice in terms of accuracy consists in using annual sector structure differentiated by types of relevant assets and/or industries.

*Table 7 - Summary of national sources and methods for P.51 estimation*

	<b>Level of detail</b>	<b>S.1</b>	<b>S.12</b>	<b>S.13</b>	<b>S.11 and S.1M</b>
<b>BE</b>	Private, public and housing investments	QNA	As S.11	STPFS	Private investments excl. housing allocated using annual sector structure
<b>CZ</b>	Pi6	QNA	QNA	STPFS	QNA data by sectors based on quarterly statistical surveys)
<b>DK</b>	AN_F6 classification	QNA	QNA	STPFS	S.1 – S.12 – S.13 allocated by industry/sector matrix based on ASA and Q VAT-data
<b>DE</b>	Buildings, machinery and equipment, other assets	QNA	QNA	STPFS	S.1 – S.13 allocated using annual sector structure
<b>IE</b>	AN_F6 classification	QNA	Annual structure	STPFS	<u>S.11</u> : residual. <u>S.1M</u> : investment in dwellings /agriculture from administrative and survey data.
<b>EL</b>	Pi6	QNA	As S.11 and S.1M	STPFS	S.1 allocated by ASA sector structure, excl. housing (directly to S.1M)
<b>ES</b>	Pi6	QNA	Direct data	STPFS	S.1 – S.12 – S.13 allocated by annual sector structure
<b>FR</b>	AN_F6 classification	QNA	QNA	STPFS	QNA by sectors
<b>IT</b>	11 types of assets	QNA	Same as S.11/S.1M	STPFS	ASA allocated by quarterly pattern of predominant asset by sectors; discrepancies adjusted to S.11 and S.14
<b>NL</b>	119 industries	QNA	QNA	STPFS	S.1 – S.12 – S.13 allocated using annual sector structure by industries except S.15; S.15 extrapolated using NACE 91-92 totals as indicator
<b>AT</b>	Rough breakdown by asset types	QNA	As for S.11 and S.1M	STPFS	S.1 – S.13 allocated using annual sector structure by types of assets
<b>PL</b>	AN_F6 classification	QNA	As for S.11 and S.1M	STPFS	Estimates by sectors mostly based on direct data
<b>PT</b>	Pi6	QNA	As for S.11 and S.1M	STPFS	S.1 – S.13 allocated using annual sector structure by products
<b>FI</b>	5 types of assets	QNA	As for S.11 and S.1M	STPFS	ASA allocated by total QNA quarterly pattern
<b>SE</b>	22 industries, 23 product groups	QNA	QNA	STPFS	S.1 – S.12 – S.13 allocated by ASA sector structure
<b>UK</b>	6 types of assets and 20 industries for the corporate sectors	QNA	QNA	STPFS	Direct data sources backed by commodity flow method
<b>NO</b>	44 industries	QNA	-	-	<u>For S.1M only</u> : Direct data on individual construction + share of other investments from QNA by annual key based on output + QNA estimate for S.15
<b>UK</b>	20 industries, 6 types of assets	QNA	QNA	STPFS	Direct data sources backed by commodity flow method
<b>NO</b>	44 industries	QNA	-	-	<u>For S.1M only</u> : Direct data on individual construction + share of other investments from QNA by annual key based on output + QNA estimate for S.15

### 3.4.6 P.5N – Changes in inventories (P.52) and acquisitions less disposals of valuables (P.53)

#### Definition and coverage

*Changes in inventories are measured by the value of the entries into inventories less the value of withdrawals and the value of any recurrent losses of goods held in inventories.*

*Inventories consist of the following categories: materials and supplies, work-in-progress, finished goods, finished goods and goods for resale.*

*Valuables are non-financial goods that are not used primarily for production or consumption, do not deteriorate (physically) over time under normal conditions and that are acquired and held primarily as stores of value. Valuables encompass the following types of goods:*

- *Precious stones and metals, such as diamonds, non-monetary gold, platinum, silver, etc.;*
- *Antiques and other art objects, such as paintings, sculptures, etc.;*
- *Other valuables, such as jewellery fashioned out of precious stones and metals and collectors items.*

#### Time of recording

*Changes in inventories should be valued at the time of entering the inventories (for goods entering) or at the time of withdrawal (for goods withdrawn).*

*(ESA95 3.117-3.119; 3.125-3.126)*

For the sector breakdown of P.5N, alongside the other transactions described above, the main quarterly inputs are QNA data for total economy and STPFS, whereas quarterly figures for the other sectors are generally estimated using annual information, mostly allocating ASA figures to quarters by econometric techniques (**BE, DE, EL, IT, EL**) or applying sector structure of last available year to QNA data (**DE, CZ** (for P.53), **DK, EL, NL, AT, NO**).

Only in **CZ** and **UK** quarterly P.52 data by sectors are available from QNA. In **CZ** the basis for the estimation of changes in inventories (P.52) are statistical surveys of big enterprises providing information by types of inventories, estimates for smaller units and administrative data on S.13. For acquisitions less disposals of valuables (P.53), no quarterly information is available. Therefore annual S.1 figures are temporally disaggregated using the Boot-Feibes-Lisman method and allocated to sectors by annual structure.

In **IE**, P.5N of the household sector is obtained from quarterly administrative data on changes in agricultural trading stocks and stocks in intervention storage. P.5N of non-financial corporations is obtained as residual item by subtracting the amount of S.1M from that of S.1 recorded in QNA.

In **BE**, annual figures for S.12 and S.1M are smoothed out over the four quarters of the year, by applying a linear trend. The residual is allocated to non-financial corporations.

In **IT**, no systematic source on a quarterly basis for the representation of the different dynamics of the institutional sectors is available, so the quarterly estimation of changes in inventories by institutional sector is based on QNA data which, after withdrawing STPFS, provide an estimate for the whole private sector.

In **FI**, ASA estimates for sectors other than S.13 are evenly distributed to quarters by dividing them by four. For the quarters of the current year, when annual data are not yet available, QNA data for total economy are used to calculate the  $Q/(Q-4)$  change of a transaction and applied at sectoral level.

*Table 8 - Summary of national sources and methods for P.5N estimation*

	Level of detail	S.1	S.12	S.13	S.11 and S.1M
<b>BE</b>	Total	QNA	Same as S.1M	STPFS	ASA data for S.1M smoothed over the quarters; <u>S.11</u> = S.1 – S.12 – S.13 – S.1M (absorbs also STPFS adjustments)
<b>CZ</b>	4 types of inventories	QNA	QNA	STPFS	<u>P.52</u> : by sectors from QNA (partly direct sources) <u>P.53</u> : estimated by ASA structure
<b>DK</b>	Total	QNA	QNA	STPFS	As P.51
<b>DE</b>	ASA, 60 industries	QNA	QNA	STPFS	ASA smoothing
<b>IE</b>	Total	QNA	-	-	<u>S.11</u> = S.1 – S.1M. <u>S.1M</u> : quart. admin. data on agricult. trading stocks and intervention storage
<b>EL</b>	Total	QNA	As S.11 and S.1M	STPFS	<u>P.52</u> : S.1 allocated by ASA sector structure; any discrepancies with actual S.13 data adjusted in S.11; <u>P.53</u> : not estimated
<b>ES</b>	Total	QNA	Direct Source	STPFS	As P.51
<b>FR</b>	40 industries	QNA	QNA	STPFS	No information provided separately on P.5N
<b>IT</b>	Total	QNA	As S.11, S.1M	STPFS	QNA is used as indicator
<b>NL</b>	119 industries	QNA	QNA	STPFS	No info provided separately on P.5N; P.5 treated as total
<b>AT</b>	Total	QNA	As S.11, S.1M	STPFS	S.1 – S.13 allocated using annual sector distribution keys; S.11 adjusted for statistical discrepancy
<b>PL</b>	3 size groups	QNA	Statistical Business Register	STPFS	<u>P.52</u> : S.1 – S.13 allocated by ASA structure taking into account size groups of units; <u>P.53</u> : sector allocation according to size groups.
<b>PT</b>	Total	QNA	-	-	<u>P.52</u> : allocated by ASA structure. <u>P.53</u> : quart. data on import of valuables allocated by ASA structure
<b>FI</b>	Total	QNA	QNA	STPFS	ASA data divided by 4 or estimated by $Q/(Q-4)$ change of QNA data; S.11 adjusted for statistical discrepancy
<b>SE</b>	10 industry-product combinations	QNA	-	STPFS	<u>P.52</u> : according to the industry-product combinations; <u>P.53</u> : all attributed to S.1M
<b>UK</b>	8 industries, 3 inventory types	QNA	QNA	STPFS	<u>P.52</u> : Direct data sources backed by commodity flow method; <u>P.53</u> : not clear
<b>NO</b>	44 industries	QNA	-	-	No information provided separately on P.5N; as P.51

In **PL**, available information on changes of inventories from statistical surveys is used for the compilation of estimates at the level of total economy. At a later stage, distribution between sectors S.11 and S.1M is performed on the basis of data for different size groups of units, supported by the long-term observations and analysis of the share of each institutional sector in total economy in annual periods.

Besides, this transaction is also used for internal balancing, be it to absorb the statistical discrepancy on the expenditure side (**AT, IE, FI**) or vintage differences with STPFS data (for S.13/P.3, S.13/P.51 and S.1/(D.21-D.31) in order to maintain consistency with GDP figure published earlier (**BE**). In some cases, these adjustments are bigger than the initial value and alter the sign of the initial P.5N estimate. Mentioned adjustments also cause discrepancies with QNA data on this indicator for individual countries.

### **3.4.7 P.6 and P.7 – Exports and imports of goods and services**

*Exports and imports of goods and services consist of transaction in goods and services (sales, barter, gifts or grants) from residents to non-residents / from non-residents to residents.*

(ESA95 3.128-3.129)

Only total values of exports and imports are required by the QSA regulation, the breakdown into goods and services (P.61, P.62, P.71, P.72) being optional.

The estimation of values for exports and imports of goods and services is generally based on the information provided by the Balance of Payments. Consistency between QSA and BoP data is an essential aspect of European QSA compilation, as these two sources are combined to consolidate the RoW accounts in European QSA by removing intra-EA/EU flows. The quarterly geographical breakdown of imports and exports is provided only in BoP statistics.

However, inconsistencies between QSA and BoP estimates for P.6 and P.7 persist to different extent in national inputs. This is partly due to conceptual differences:

- In some countries quasi-transit trade is included in BoP but not in RoW;
- Exports and imports of FISIM are recorded in the RoW account of QSA, but not in BoP;
- Cross-border construction projects lasting less than one year and whose output contributes to gross fixed capital formation are treated as services in BoP, but as property income according to ESA95;
- Repairs are always recorded net and as services in BoP; in RoW only ordinary maintenance and repairs are recorded net as services, major repairs are instead recorded gross under goods.

Other discrepancies are caused by vintage differences and other adjustments introduced in the balancing process by QNA or QSA compilers, for example in **BE**. **NL** reports that substantial discrepancies, other than the ones caused by conceptual reasons, may be observed between P.6 and P.7 of RoW and BoP in their countries.

### 3.5 Compilation of generation of income/allocation of primary income transactions

#### 3.5.1 D.1 – Compensation of employees

##### Definition and coverage

*Compensation of employees is defined as the total remuneration, in cash or in kind, payable by an employer to an employee in return for work done by the latter during the accounting period. Compensation of employees is broken down into:*

- *wages and salaries (D.11)*
- *employers' social contributions (D.12):*
  - o *employers' actual social contributions (D.121)*
  - o *employers' imputed social contributions (D.122)*

##### Time of recording

*Wages and salaries, employers' actual social contributions and employers' imputed social contributions that represent the counterpart of compulsory social benefits are recorded in the period during which the work is done. Employers' imputed social contributions representing the counterpart of voluntary social benefits are recorded at the time these benefits are provided.*

*(ESA 95 §§ 4.02, 4.12)*

Similarly to the transactions in goods and services, three major inputs to the estimation process of D.1 by sectors are data from QNA, STPFS and, in most cases, BoP.

For the domestic sectors other than general government, many countries (**DE, DK, EL, ES, NL** partly **AT** and **NO**) apply the same scheme as for goods and services transactions (estimation of missing sectors using annual sector structure) for D.1 estimates.

In **AT**, D.1 differentiated into 6 groups of industries is provided by QNA. D.1/PAY for sectors S.12 and S.15 is estimated using respectively QNA D.1 data of “financial, real estate, renting and business activities” and “other service activities” as indicators. The breakdown of the remaining sum into non-financial corporations and private households is based on the ASA sector structure.

In **NO**, the share of D.1 paid by households is estimated indirectly on the basis of QNA information and annual sector shares calculated from annual data on output.

In other countries (**BE, FR, FI**) additional quarterly indicators can be used that vary from country to country.

- In **BE**, split between private sectors is made using quarterly information from National Social Security Office (NSSO) as indicator. The results are adjusted for consistency with corresponding annual figures. When annual data are not yet available, extrapolation of

the corresponding quarter of previous year by the  $Q/(Q-4)$  evolution of quarterly NSSO indicator is performed. For the very last quarter, when detailed NSSO data are not yet available, the indicator is prolonged on the basis of the development of the D.1 paid by total economy and the respective developments by institutional sector observed in the recent quarters. A similar procedure is used in **FR**.

- In **FI**, by contrast, S.1 is not taken from QNA, but compiled as sum of the sector estimates, for which quarterly VAT data by sector are used as an indicator to split respective ASA estimates to quarters or for the recent quarters to calculate the  $Q/(Q-4)$  change of a transaction from the previous year.

**IT, PT** and **UK** make use of quarterly employment and average earnings information.

- In **IT**, the estimate of quarterly D.1 paid by institutional sectors is elaborated by disaggregating each component by applying an indirect approach, based on a (Chow-Lin) regression model which involves annual information and quarterly indicators. The model specifies on per capita earnings by institutional sector and by industry, for each component of D.1 (D.11, D.12). Annual per capita values by sector and by industry are disaggregated on the basis of the infra-annual survey on changes in wages and other labour costs. Average earnings per capita estimated this way are applied to quarterly labour input in FTEU estimated by industries and institutional sectors.
- In **UK**, to estimate quarterly D.11 by sectors, interpolations and extrapolations of annual data, based on employment numbers and average earnings by industry and complemented by survey data whenever available, are carried out. Aggregate D.12 figures, estimated on the basis of administrative records, are allocated to sectors by estimated wage bill.

**CZ, IE** and **PL** base their estimates on infra-annual statistical surveys providing some information on wages and salaries.

- In **CZ**, direct information is available from quarterly statistical surveys to which conceptual adjustments (wages in kind, envelope salaries) derived from annual estimates are added. Employers' social contributions are estimated as a percentage of surveyed wages being cross-checked with the time-adjusted information from the side of recipients of social contributions. Quarterly imputed social contributions are derived on the basis of annual ratios of these contributions to wages and salaries.
- In **IE**, labour costs per hour worked, obtained from the quarterly Earnings, Hours and Employment Costs Survey, are extrapolated by employment figures obtained from the Quarterly National Housing Survey, the data source of official measures of employment and unemployment. The by that way calculated compensation of employees is broken down to sectors using an allocation key distinguishing 14 industries. Any discrepancy with STPFS data concerning S.13 is adjusted in S.1M.

*Table 9 - Summary of national sources and methods for D.1 estimation*

	No. of industries	USE				RES	USE & RES
		S.1	S.12	S.13	S.11 and S.1M	S.1M (= S.1)	S2
<b>BE</b>	Total	QNA	As S.11, S.1M	STPFS	S.1 – S.13 allocated by quarterly indicator based on social security data; extrapolation for recent quarters	D.1/PAY/S.1 + D.1/PAY/S.2 – D.1/REC/S.2	QNA
<b>CZ</b>	60	QNA	As S.11, S.1M	STPFS	QNA data by sector based on quarterly surveys; conceptual adjustments based on ASA		QNA estimates from BoP
<b>DK</b>	67	QNA	QNA	STPFS	S.1 – S.12 – S.13 allocated by industry-sector matrix based on ASA		BoP
<b>DE</b>	60	QNA	QNA	STPFS	S.1 – S.12 – S.13 allocated using ASA sector structure		BoP
<b>IE</b>	14	Sum of sectors	As S.11, S.1M	STPFS	Industry-level survey data; discrepancy with actual S.13 adjusted in S.1M		BoP
<b>EL</b>	17	QNA	As S.11, S.1M	STPFS	S.1 allocated by ASA sector structure; discrepancies with actual S.13 adjusted in S.11		BoP
<b>ES</b>	Total	QNA	Direct source	STPFS	S.1 – S.12 – S.13 allocated using annual sector structure		BoP
<b>FR</b>	16	QNA	As S.11	STPFS	<u>S.11</u> estimates based on social security information by industries; <u>S.1M</u> smoothed over quarters		BoP
<b>IT</b>	32	QNA	As S.11, S.1M	STPFS	Estimated on the basis of quarterly labour input by sectors and industries and D.11 / D.12 per-capita estimates based on annual industry-sector profile		BoP
<b>NL</b>	119	QNA	QNA	STPFS	S.1 – S.12 – S.13 allocated using annual sector structure		Estimates
<b>AT</b>	6	QNA	As S.15	STPFS	S.15 ASA disaggregated on the basis of D.1 development in respective industry; residual split between S.11 and S.14 estimated on the basis of ASA structure		BoP
<b>PL</b>	6	QNA	As S.11	STPFS	<u>S.11</u> estimates for medium sized units based on infra-annual surveys; <u>S.11</u> estimates for small units obtained from ASA divided by 4; <u>S.1M</u> derived from quarterly indices of total economy wages and salaries		BoP
<b>PT</b>	Total	QNA	QNA	STPFS	Estimated using employment by sectors and average wages; discrepancies with QNA allocated by ASA structure		BoP
<b>FI</b>	132	Sum of sectors	As S.11, S.1M	STPFS	ASA data distributed to quarters or estimated by Q/(Q-4) change of quarterly VAT data by sectors		BoP
<b>SE</b>	52	QNA	QNA	STPFS	ASA disaggregated or extrapolated by monthly survey data on wages and salaries payable by sectors		BoP
<b>UK</b>	21	QNA	QNA	STPFS	ASA data distributed to quarters on the basis of employment and average earnings information		ONS quarterly survey data
<b>NO</b>	44	QNA	-	-	<u>S.14</u> : QNA figures allocated by annual structure of output; <u>S.15</u> : QNA figures for respective industries		BoP



- In **PL**, data for large and medium-sized corporations are estimated on the basis of monthly, quarterly and semi-annual statistical surveys. D.1 paid by small units with less than 10 employees is estimated by dividing annual data by four. D.1 paid by sector S.1M is estimated on the basis of quarterly indices of wages and salaries in national economy.

Not all countries rely on BoP data on compensation of employees paid to and received from the RoW. The following countries make separate estimates using alternative data sources:

- In **CZ**, administrative information (e.g. registration, work permits) on active non-resident population is used for QNA estimates, which are taken over by BoP compilers;
- **BE** uses QNA figures where adjustment may be introduced as compared to BoP data;
- **NL** makes estimates on the basis of survey data on number of cross-border workers, average wages and social security costs, as well as annual income panel survey.

### **3.5.2 D.2 – Taxes on production and imports**

#### Definition and coverage

*Taxes on production and imports consist of compulsory, unrequited payments, in cash or in kind, which are levied by general government or by the Institutions of the European Union in respect of the production and importation of goods and services, the employment of labour, the ownership or use of land, buildings or other assets used in production. These taxes are payable whether or not profits are made.*

*Taxes on production and imports are divided into:*

- *taxes on products (D.21)*
- *other taxes on production (D.29).*

#### Time of recording

*Taxes recorded in the accounts may be derived from two sources: amounts evidenced by assessments and declarations or cash receipts.*

*(a) If assessments and declarations are used, the amounts shall be adjusted by a coefficient reflecting assessed and declared amounts never collected. As an alternative treatment, a capital transfer, to the relevant sectors could be recorded equal to the same adjustment. The coefficients shall be estimated on the basis of past experience and current expectations in respect of assessed and declared amounts never collected. They shall be specific to different types of taxes.*

*(b) If cash receipts are used, they shall be time-adjusted so that the cash is attributed when the activity took place to generate the tax liability. This adjustment may be based on the average time difference between the activity and cash tax receipt.*

*(ESA 95 §§ 4.14- 4.15, 4.27)*

## ***D.21 – Taxes on products***

### ***Definition and coverage***

*Taxes on products are taxes that are payable per unit of some good or service produced or transacted. The tax may be a specific amount of money per unit of quantity of a good or service, or it may be calculated ad valorem as a specified percentage of the price per unit or value of the goods and services produced or transacted.*

*Taxes on products include value-added type taxes, taxes and duties on imports and other taxes as excise duties and consumption taxes, turnover taxes, export duties etc.*

*The taxes on production and imports paid to the Institutions of the European Union include taxes collected by national governments on behalf of the Institutions of the European Union, namely:*

- receipts from the Common Agricultural Policy;*
- receipts from trade with third countries: customs duties levied on the basis of the Integrated Tariff of the European Union (TARIC);*
- receipts from VAT in each Member State.*

*Taxes on products are recorded as resources in the goods and services account of the total economy.*

*(ESA 95 §§ 4.15- 4.20, 4.25, 4.29).*

As taxes on products are recorded for total economy only, respective data from general government accounts can be used directly if split between D.21 and D.29, not provided by STPFS, is available. In most cases detailed information on tax receipts in cash is provided by Ministry of Finance both for general government and EU, which is adjusted to accrual basis where necessary.

The value of taxes on products paid to EU as recorded in sector accounts might differ from the respective BoP figure due to different recording rules. As it has been mentioned in section 3.5.7, according to GNI committee guidance on the treatment of EU own resource flows, value of taxes on products paid to EU institutions should include of the reimbursements of collection costs (25 % of custom duties and sugar levies), since these are accounted as export of services to EU. In BoP however, taxes paid on behalf of EU may be recorded as current transfers on cash basis, i.e. net of collection costs.

Taxes on products reported in QSA may be different from QNA figures due to alignments to STPFS data which are more up to date.

## ***D.29 – Other taxes on production***

### ***Definition and coverage***

*Other taxes on production consist of all taxes that enterprises incur as a result of engaging in production, independently of the quantity or value of the goods and services produced or sold.*

*They may be payable on the land, fixed assets or labour employed in the production process or on certain activities or transactions. Other taxes on production include in particular:*

- *taxes on the ownership or use of land, buildings, or other structures utilised by enterprises in production (including owner-occupiers of dwellings);*
- *taxes on the use of fixed assets (vehicles, machinery, equipment) for purposes of production;*
- *taxes on the total wage bill and payroll taxes;*
- *taxes on international transactions (travel abroad, foreign remittances, or similar transactions with non-residents) for purposes of production;*
- *taxes paid by enterprises in order to obtain business and professional licences if those licences are being granted automatically on payment of the amounts due;*
- *taxes on pollution (emission or discharge into the environment of harmful substances) resulting from production activities;*
- *under-compensation of VAT resulting from the flat-rate system, frequently found in agriculture.*

*(ESA 95 §§ 4.22- 4.23)*

General government is the only domestic sector collecting other taxes on production. Thus, data on uses and resources for total economy can be obtained from QGGA or STPFS, based on administrative information.

Several countries use detailed information by type of taxes, which enables partially direct allocation of tax data to single paying sector (**CZ, IT, AT, SE, ES**).

In cases where such detailed information is not accessible, not used, or where several sectors are covered by particular tax obligation, the following approaches are followed by countries to estimate the amount of other taxes on production paid by institutional sectors other than S.13 (and S.12 wherever available):

- QNA allocation by sector structure of the last available year (**CZ, IE, EL, NL, AT, DK**);
- Disaggregation or extrapolation by the estimated quarterly structure of related transactions/indicators (**DE, IT, FR, PL, SE, UK, NO**);
- ASA smoothing by linear trend or equal distribution of ASA estimates over quarters (**BE, FI, PT**).

*Table 10 - Summary of national sources and methods for D.29/PAY estimation*

	No. of industries	S.1	S.12	S.13	S.11 and S.1M
<b>BE</b>	Total	QGGA	As S.1M	-	<u>S.1M</u> : ASA data smoothed over the quarters. <u>S.11</u> : residual
<b>CZ</b>	Total	Accrual data from Ministry of Finance	As S.1M	STPFS	S.1 – S.13 allocated using ASA sector structure or directly depending on type of tax
<b>DK</b>	67	QNA	QNA	QNA	S.1 – S.12 – S.13 allocated using industry-sector matrix based on ASA and quarterly VAT data
<b>DE</b>	60	QNA	QNA	STPFS	Allocated pro rata to quarterly output by sectors
<b>IE</b>	31	STPFS	As S.11, S.1M	STPFS	Allocated to sectors using outturn of previous year as weights
<b>EL</b>	17	QNA	As S.11, S.1M	STPFS	S.1 allocated by ASA sector structure; discrepancies with actual S.13 data adjusted in S.11
<b>ES</b>	Total	QGGA	Direct source	STPFS	S.1 – S.12 – S.13 allocated by annual structure
<b>FR</b>	6 sectors	QGGA	As S.11, S.1M	STPFS	Econometric estimation based on total receipts according to S.13
<b>IT</b>	32	QNA	As S.11, S.1M	STPFS	QNA data allocated to sectors using estimated quarterly structure of B1g, D1 or labour input, depending on type of relevant taxes
<b>NL</b>	119	QNA	QNA	STPFS	S.1 – S.12 – S.13 allocated using ASA sector structure
<b>AT</b>	23 types of taxes	QGGA	As S.15	STPFS	<u>S.15</u> : ASA disaggregated with D.29/S.13/REC as indicator. <u>S.11 + S.14</u> : taxes of different type allocated directly or using D.1/PAY as indicator
<b>PL</b>	Total	QGGA	Mostly direct data	STPFS	Derived from changes in output
<b>PT</b>	By type of tax	ASA smoothing	As S.11, S.1M	STPFS	S.13 counterpart data
<b>FI</b>	Total	QGGA	-	STPFS	<u>S.1M</u> : ASA data divided by 4. <u>S.11</u> : residual
<b>SE</b>	By type of tax	QGGA	QGGA	STPFS	<u>S.1M</u> : payroll tax allocated using estimated wages by sector and legal tax rates; direct data on property tax. <u>S.11</u> : residual
<b>UK</b>	By type of tax	QGGA	QGGA	STPFS	ASA extrapolation
<b>NO</b>	44	QNA	-	-	<u>S.14</u> : estimated using annual output structure (S.141) or extrapolated by QNA development in NACE 70 (imputed dwelling services). <u>S.15</u> : QNA data for respective industries

### 3.5.3 D.3 – Subsidies

#### Definition and coverage

*Subsidies are current unrequited payments which general government or the Institutions of the European Union make to resident producers with the objective of influencing their levels of production, their prices or the remuneration of the factors of production.*

*Other non-market producers can receive other subsidies on production only if those payments depend on general regulations applicable to market and non-market producers as well. By convention, subsidies on products are not recorded on other non-market output (P.13).*

*Subsidies granted by the Institutions of the European Union cover only current transfers made directly by them to resident producer units.*

*Subsidies are classified into:*

- *subsidies on products (D.31);*
- *other subsidies on production (D.39).*

#### Time of recording

*Subsidies are recorded when the transaction or the event (production, sale, import, etc.) which gives rise to the subsidy occurs.*

*(ESA95 §§ 4.30-4.32, §4.39)*

According to Eurostat decision on the treatment of transfers from the EU budget to the Member States<sup>10</sup> in national accounts, in the case where the final beneficiary of a transfer from the EU budget is not a government unit (for example a farmer receiving agricultural subsidies), and the government advances payments to the final beneficiary, the government must be considered as acting “on behalf” of the EU. The transfer between government and the final beneficiary must be recorded as an expenditure of the EU budget and as revenue of final beneficiary to avoid any impact on the government deficit or surplus.

As a counterpart of the advanced cash transferred, a temporary financial transaction will be recorded as a liability of the EU to the general government, which will be cancelled once the payment of the EU to government will be done.

In the case where the final beneficiary is a government unit, the time of recording of the transfer by the EU to government shall be the time when the government unit makes the expenditure, as government will be reimbursed by the EU only after having made the expenditure and sent the relevant documents for reimbursement. Therefore there is no temporary impact on government deficit.

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<sup>10</sup> Eurostat decision on deficit and debt 22/2005 of 15 February 2005: "The treatment of transfers from the EU budget to the Member States"  
[http://epp.eurostat.ec.europa.eu/portal/page/portal/government\\_finance\\_statistics/methodology/decisions\\_for\\_GFS](http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics/methodology/decisions_for_GFS)

However in BoP, EU transfers may be recorded as current transfers on cash basis when the EU payment is actually made, thus creating a discrepancy between QSA and BoP.

### ***D.31 – Subsidies on products***

#### ***Definition and coverage***

*Subsidies on products are subsidies payable per unit of a good or service produced or imported. The subsidy may be a specific amount of money per unit of quantity of a good or service, or it may be calculated ad valorem as a specified percentage of the price per unit. A subsidy may also be calculated as the difference between a specified target price and the market price actually paid by a buyer. A subsidy on a product usually becomes payable when the good is produced, sold or imported.*

*Subsidies on products are recorded as negative resources in the goods and services account of the total economy. This enables the resources of goods and services to be balanced with the uses.*

*(ESA95 §§ 4.33, 4.40).*

As subsidies on products received are recorded only at the level of total economy, their estimation relies on the data on the paying sectors: S.13 and S.2. Direct data on subsidies payable by the government are normally available from the government statistics.

For the estimation of subsidies payable from the EU budget, most countries make use of information provided by general government or of additional quarterly administrative data broken down by type of subsidy, as provided by the Ministry of Finance and organisations managing EU funds. Only two countries use a simplified procedure at quarterly level: In **FI**, ASA estimates are simply divided by four; in **FR**, annual forecast data provided by Ministry of Economic Affairs are smoothed over quarters.

### ***D.39 – Other subsidies on production***

#### ***Definition and coverage***

*Other subsidies on production consist of subsidies except subsidies on products which resident producer units may receive as a consequence of engaging in production. This heading includes in particular:*

- subsidies on payroll or work force (e.g. on the employment of particular types of persons such as physically handicapped or long-term unemployed);*
- subsidies to reduce pollution;*
- grants for interest relief made to resident, producer units, even when they are intended to encourage capital formation;*
- over-compensation of VAT resulting from the flat-rate system, frequently found in agriculture.*

(ESA95 §§ 4.36-4.37)

Two institutional sectors are involved into allocating subsidies to domestic sectors: general government and RoW (EU institutions).

In **CZ, DE, PL, PT, SE** and **UK** direct quarterly administrative information by type of subsidies and by counterpart sectors is obtained from the Ministry of Finance or other relevant public authorities (e.g. National Financial Management Authority in **SE**), which also provides the distribution between government and EU payments. The level of detail in source data allows allocation by recipient sectors either directly or using certain assumptions.

Other countries use simplified procedures to estimate subsidies received by sectors S.11, S.1M and in some cases also S.12:

- QNA allocation by ASA structure of the transaction (**DK, IE, EL, AT, NL**);
- Disaggregation or extrapolation by the structure of related transactions (**IT** and **NO**);
- **BE, FR** smoothes ASA figures over quarters or projects data for quarters of the current year using linear trend; in **FI** annual estimates are divided by four. (Figure from the previous year is used to estimate values for the quarters of the current year.)

In STPFS table 25, only total subsidies (D.3) paid by government should be reported. Details on breakdown of this total amount to subsidies on products and subsidies on production are not always available to QSA compilers. In this case weighted share of respective ASA information may be used to achieve this split (**FI**) or residual calculation using available data on D.3, D.21, D.31, and D.39 paid and received by EU (**AT**). In most cases general government accounts provide information on subsidies breakdown between subsidies on products and subsidies on production both for general government and EU.

*Table 11 - Summary of national sources and methods for D.39 estimation*

	Level of detail	USE		RES			
		S.13(=S.1)	S.2	S.1	S.12	S.13	S.11 and S.1M
<b>BE</b>	Total	QGGA	QGGA	S.1 + S.2, uses side	As S.1M	0	<u>S.1M</u> : ASA data smoothed over quarters. <u>S.11</u> : residual
<b>CZ</b>	Budgetary classification	QGGA	QGGA	S.1 + S.2, uses side	As S.11, S.1M	STPFS	Allocated to recipient sectors using detailed data by types of subsidies available from quart. admin. sources
<b>DK</b>	67 industries	QNA	BoP	QNA	QNA	QNA	S.1 – S.12 – S.13 allocated using industry-sector matrix based on ASA and quart. VAT data
<b>DE</b>	Budgetary classification	Quarterly administrative data	Quarterly administrative data	S.1 + S.2, uses side	As S.11, S.1M	STPFS	Allocated to recipient sectors using detailed quart. admin. data by type of subsidy
<b>IE</b>	31	STPFS	BoP, D.3 split up acc. to shares in prev. year	STPFS	As S.11, S.1M	STPFS	Allocated to sectors using previous year sector structure
<b>EL</b>	17	QGGA	S.1/REC – S.13/PAY	QNA	As S.11, S.1M	STPFS	S.1 allocated by ASA sector structure; discrepancies with actual S.13 adjusted in S.11
<b>ES</b>	Total	QGGA	Span. Agricult. Guarantee Fund	S.1 + S.2, uses side	N/A	-	Allocated to sectors using annual structure
<b>FR</b>	16	Smoothed annual forecast	Smoothed annual forecast	Sum of sectors	Smoothed annual forecast	STPFS	Annual forecast of Econ. Ministry smoothed over quarters
<b>IT</b>	32	STPFS	QNA	S.1 + S.2, uses side	As S.11, S.1M	STPFS	Allocated to sectors pro rata to estimated quarterly structure of B.1g by industries
<b>NL</b>	119	QGGA	Quarterly admin. data	QNA	QNA	STPFS	S.1 – S.12 – S.13 allocated using ASA sector structure
<b>AT</b>	Total	S.1/REC – S.2/PAY	BoP	D.3/PAY/S.13 + D.3/PAY/S.2 – D.31/REC/S.1	As S.11, S.1M	STPFS	S.1 – S.13 allocated using ASA sector structure
<b>PL</b>	Budgetary classification	QGGA	QGGA	S.1 + S.2, uses side	Direct data	STPFS	Allocated to recipient sectors using detailed quart. admin. data by type of subsidy
<b>PT</b>	Budgetary classification	QGGA	QGGA by subsidy type	S.1 + S.2, uses side	As S.11, S.1M	STPFS	QGGA counterpart info by sectors; allocation to recipient sectors by type of subsidies acc. to budgetary class.
<b>FI</b>	Total	ASA share of D.3 in STPFS	Same as S.1M	S.1 + S.2 uses side	As S.1M	STPFS	<u>S.1M</u> : ASA data divided by 4. <u>S.11</u> : residual



<b>SE</b>	Total economy	QGGA	QGGA	S.1 + S.2, uses side	QGGA data	STPFS	<u>S.1M</u> : direct info from ad-min. sources. <u>S.11</u> : residual
<b>UK</b>	Type of subsidy	QGGA	QGGA	S.1 + S.2, uses side	0	STPFS	Direct information from administrative sources
<b>NO</b>	44 industries	QNA, QGGA	BoP	S.1 + S.2, uses side	-	-	<u>S.14</u> : estimated using annual output structure (S.141) or extrapol. by QNA development in housing subsidies. <u>S.15</u> : QNA data for respective industries

### 3.6 Compilation of property income transactions

#### 3.6.1 D.41 - Interests

##### Definition and coverage

*Under the terms of the financial instrument agreed between them, interest is the amount that the debtor becomes liable to pay to the creditor over a given period of time without reducing the amount of principal outstanding.*

*This form of property income is receivable by the owners of certain kinds of financial assets:*

- *deposits (AF.2);*
- *securities other than shares (AF.3);*
- *loans (AF.4);*
- *other accounts receivable (AF.7).*

*The interest receivable and payable on deposits, loans and accounts receivable and payable (assets and liabilities) is determined by applying the relevant rate of interest to the principal outstanding at each point of time throughout the accounting period.*

##### Time of recording

*Interest is recorded on an accrual basis: that is, as accruing continuously over time to the creditor on the amount of principal outstanding. The interest accruing in each accounting period must be recorded whether or not it is actually paid or added to the principal outstanding. When it is not actually paid, the increase in the principal must also be recorded in the Financial Account as a further acquisition of that kind of financial asset by the creditor and an equal acquisition of a liability by the debtor.*

*Interest is to be recorded before the deduction of any taxes levied on it. Interest received and paid is always recorded inclusive of grants for interest relief, even if those grants are directly paid to financial institutions and not to the beneficiaries.*

*The actual payments or receipts of interest to or from financial intermediaries need to be adjusted for the value of the services provided by financial intermediaries (FISIM) being allocated among different customers. The amounts of interest paid by borrowers to financial intermediaries must be reduced by the estimated values of the charges payable, while the amounts of interest receivable by depositors must be similarly increased. The values of the charges are treated as payments for services rendered by financial intermediaries to their customers and not as payments of interest.*

(ESA95 §§ 4.42-4.51)

Most of the countries compile quarterly gross interest flows using detailed information on stocks of assets and liabilities of interest-bearing instruments by institutional sectors (quarterly financial accounts – QFA) multiplied with respective detailed data on interest rates available from QFA, EMU interest rates statistics and other short-term statistical information on financial markets. Available information is organised and balanced by means of a matrix. Resulting estimates of interest flows are aligned with data on actual interest payments and receipts, whenever available. Actual data on interest flows at quarterly level can be obtained from QGGA, BoP interest data and quarterly accounting statements or surveys of financial institutions (mainly banks). **AT** has also at its disposal quarterly information on securities interest flows by sectors provided by NCB securities database. The aforementioned data sources, however, may contain only partial information on transactions partners who are then defined using the procedure referred above. This method is broadly followed by **BE** (starting from year 2003), **DE, DK, IT, ES, AT, UK, NO** (for the latter only sector S.1M).

For the latest quarters in many cases simplified estimation procedures may be applied due to the limited availability of necessary detailed data underlying estimation of interest. In **BE** for all cells of the interest matrix the amount of the 4<sup>th</sup> quarter of the last definitive year is extrapolated with an indicator based on the evolution of relevant outstanding amounts and interest rates. In **ES** interest figures for the latest quarter are based on QFA of previous quarter, which are subsequently revised when relevant QFA data becomes available at later stage. **IT** uses for last quarter estimates provisional QFA database on loans and deposits of banks used for quarterly estimates of FISIM, NCB monthly securities statistics and counterpart structures based on previous quarter QSA.

**EL** has at its disposal quarterly data only on stocks of loans and deposits of credit institutions and on respective interest rates. Resulting estimates of loans and deposits interest flows are used as an indicator to disaggregate annual figures to quarters or to produce estimates for the quarters of current year by the extrapolation. This approach relies on the assumption that flows related to other interest-bearing instruments and other financial corporations follow the same quarterly development. Quarterly interest data of S.13 and S.2 are allocated to counterpart sectors by annual sector structure.

A similar approach is used by **PT, FI** and **SE** for interest flow estimates by sectors, using estimated or actual data on interest flows on S.122 loans and deposits. **SE** as well disposes of data on quarterly interest flows of other financial institutions (except S.124) from Financial

Supervisory Authority and some counterpart details on S.13 flows from National Debt Office (on bonds issued) and National Board of Student Aid.

**CZ, IE** and **PL** can mostly use direct information on quarterly interest flows coming from NSI surveys (for S.11 in PL), data from NCB surveys of financial institutions or financial supervisory authorities (e.g. annual information on financial leasing interests provided by the Association of Leasing Corporations in CZ).

**FR** is the only country that does not use any quarterly interest-related information (except for interests paid by S.13) and disaggregates ASA estimates to quarters by smoothing techniques.

*Table 12 - Summary of national sources and methods for D.41<sup>1</sup> estimation*

	USE / RES				
	S.11	S.12	S.13	S.1M	S.2
<b>BE</b>	<u>Before 2003</u> : ASA smoothing by linear trend; <u>After 2003</u> : ASA based on sum of quarterly estimates; interest matrixes built up allocating quarterly or annual interest flows from S.12 subsectors by counterparts using data on stocks of assets / liabilities by instruments and respective interest rates; <u>Latest quarters</u> : extrapolation based on evolution of stocks and interest rates		QGGA	<u>Before 2003</u> : Residual (S.1 estimated by ASA smoothing); <u>After 2003</u> : as S.11, S.12; <u>Latest quarters</u> : as S.11	as S.11, S.12
<b>CZ</b>	Quarterly survey of NCB on interest flows on loans, deposits, securities, accounts receivable by sectors. Interests on financial leasing paid available from quarterly NSI surveys of S.11 and S.12 units. Interests received on financial leasing estimated on the basis of annual data of Association of Leasing Corporations.		QGGA	Quarterly survey of NCB on interest flows on loans, deposits by sectors + indirect estimates of fin. leasing interests paid + adjustments on interest relief grants for young couples	BoP
<b>DK</b>	Mainly annual data on D.41 from statistical surveys, corrected for non-coverage; FISIM-adjusted ASA allocated to quarters using D.41/REC/S.122 as indicator	FISIM-adjusted ASA data disaggregated by indicators; for S.121, S.123, S.125 indicator is based on QFA stocks data of interest bearing instruments and respective interest rates, FISIM adjusted; for S.122 and S.124 indicator is interest data from financial supervisory authority, FISIM adjusted.	QGGA	ASA adjusted data (based on tax-deductible interest from tax authorities) disaggregated or extrapolated by indicator (QFA data on S.1M); stocks of interest bearing instruments multiplied by respective interest rates, FISIM adjusted). D.41/REC estimated from stocks of deposits and bonds held by S.1M and respective interest rates	BoP

	USE / RES				
	S.11	S.12	S.13	S.1M	S.2
<b>DE</b>	D.41 estimated using stocks matrices of interest bearing instruments by sectors from QFA and other NCB data and respective interest rates, aligned with actual data on interest flows whenever available	As S.11, except for S.121 (estimated from annual profit-loss account and disaggregated to quarters) and S.125 (actual quarterly accounting data on interests paid / received by transaction partners).	QGGA; counterparts defined by calculation of other sectors	As S.11	BoP with some counterpart detail
<b>IE</b>	Sum of interest reported in BoP surveys or administrative data	Sum of interest reported in BoP and NCB surveys or administrative data	STPFS	Administrative data, <i>i.a.</i> from NCB and NSI (agricultural division)	BoP
<b>EL</b>	Matrix balancing based on counterparts information	Extrapolation by evolution of quarterly interests on loans and deposits (based on stocks and interest rates data by counterpart sectors)	QGGA, annual structure by counterpart sectors	Matrix balancing based on counterparts information	BoP, annual structure by counterpart sectors
<b>ES</b>	D.41 by sector compiled on the basis of sector matrixes on average stocks of assets / liabilities by financial instruments (from QFA) and quarterly data on interest rates; for the latest quarter asset / liabilities matrixes of previous quarter used	Same as S.11, aligned with S.12 quarterly data on actual total payments / receipts of interests; mainly direct sources	QGGA	As S.11	BoP
<b>FR</b>	ASA smoothing; S.12/REC estimated as a residual		<u>PAY side:</u> partly QGGA <u>REC side:</u> ASA smoothing	Sum of smoothed series of S.14 and S.15	ASA smoothing
<b>IT</b>	D.41 estimated from QFA data on stocks of assets / liabilities by instrument and counterpart sector, monthly statistics on financial stocks and interest rates. Provisional calculations for the latest quarter when QFA not yet available		QGGA	As S.11, S.12	QNA
<b>NL</b>	Quarterly survey data	Quarterly statements / surveys on interests flows for S.121, S.122, investment funds (S.123) and S.125; estimates based on stocks and interests rates data for rest of S.123 and for S.124	QGGA	<u>S.14:</u> D.41/PAY/REC extrapolated by developments in interest rates by type of interest bearing instrument; <u>S.15:</u> ASA extrapolation and disaggregation by Denton techniques. Estimates adjusted by counterpart data	BoP; adjusted by balancing
<b>AT</b>	Interest on loans / deposits estimated from QFA stocks data by sector and MFI interest rates statistics; direct data on securities interests by sectors, interbank and S.121 flows; S.12/REC adjusted by balancing		QGGA	As S.11, S.12	BoP
<b>PL</b>	Quarterly or semi-annual survey data on S.11 units	Quarterly reports of NCB and commercial banks	QGGA	Quarterly reports of NCB and commercial banks	BoP

	USE / RES				
	S.11	S.12	S.13	S.1M	S.2
<b>PT</b>	ASA disaggregation by estimated interests on loans / deposits (based on S.11 stock data and interest rates); S.11 and S.1M/REC adjusted by balancing	ASA disaggregation / extrapolation aligned with S.122 quarterly data on actual total payments / receipts of interests	QGGA	ASA disaggregation by estimated interests on loans / deposits (based on S.1M stock data and interest rates); S.11 and S.1M/REC adjusted by balancing	BoP
<b>FI</b>	S.11/PAY: ASA disaggregation / extrapolation by total S.122 interest receipts on loans as quarterly indicator. S.11/REC: residual	ASA disaggregation / extrapolation by total S.122 interest flows on loans / deposits as quarterly indicator	STPFS for D.41/PAY; estimate for D.41/REC based on S.122 data	NCB data on S.1M interest payments; ASA disaggregation / extrapolation by S.1M interest receipts on deposits from S.122 as quarterly indicator	BoP
<b>SE</b>	S.11/PAY: residual. S.11/REC: quarterly indicator compiled using MFI data on S.11 interest-bearing stocks and average interest rates	Direct data for S.122, S.123, S.125; ASA divided by 4 for S.124	QGGA	Quarterly indicator compiled using MFI statistics on S.1M loans / deposits stocks (by sector), relevant interest rates, QGGA data on student loans and bonds holdings interests.	BoP
<b>UK</b>	Estimated from stock of interest-bearing instruments by sectors and respective interest rates; aligned with actual quarterly D.41 flows wherever available	As S.11	As S.11; aligned with D.41 from QGGA	Same as S.11	As S.11
<b>NO</b>	-	-	-	Estimates based on QFA stocks and monthly interest rate data	-

<sup>1)</sup> gross, if not mentioned otherwise.

### 3.6.2 D.42 - Distributed income of corporations

#### D.421 – Dividends

##### Definition and coverage

*Dividends are a form of property income received by owners of shares to which they become entitled as a result of placing funds at the disposal of corporations. The heading also includes:*

- *Shares issued to shareholders in payment of the dividend for the financial year. However, issues of bonus shares which represent the capitalisation of own funds in the form of reserves and undistributed profits and give rise to new shares to shareholders in proportion for their holdings are not included;*

- *Dividends received by mutual funds, which are assigned to shareholders from the investments they have made, and which are assigned to shareholders, even if they are capitalised. It excludes holding gains or losses on financial instruments belonging to unit trusts, which are not recorded as property income;*
- *The income paid to general government by public enterprises which are recognised as independent legal entities though not formally constituted as corporate enterprises.*

### Time of recording

*Dividends should be recorded at the time they are due to be paid as determined by the corporation.*

*(ESA 95, §§ 4.53-55).*

A variety of data sources and methodological approaches dependent on data availability are applied by the Member States to estimate intrinsic quarterly pattern of distributed income of corporations, which is largely determined by dividends (D.421). Pre-existing inputs from other statistical domains to the dividends estimation process are limited to dividend receipts by sector S.13 based on QGGA (often with information on counterparts) and flows from and to RoW according to BoP. All inputs are subsequently balanced by means of who-to-whom matrix.

In **BE**, the quarterly pattern of dividends is determined on the basis of the date of the annual general meeting of shareholders and data on dividends payable, both available in companies' annual accounting reports. For the latest quarters, an ad hoc methodology has been developed, according to which projection of annual dividends is made on the basis of relation, observed over several accounting periods for 6 industry groups, between operating surplus of year t-1 and dividends declared in year t. Then this annual estimate is allocated to quarters on the basis of the quarterly pattern of the latest available annual data. D.421 received by the total economy are allocated to the domestic sectors pro rata to the amounts received on annual basis, excl. S.13 and "black" dividends (i.e. withdrawals from non-observed incomes), for which separate quarterly estimates are available.

Only **BE** and **CZ** reported that they estimate withdrawals from non-observed activities of non-financial corporations. In **BE** this type of withdrawals is recorded as "black dividends", which are entirely imputed to the benefit of households (S.14). "Black dividends" are the part of the non-observed value added that is not paid out in the form of "envelope" salaries to households. Since the value added out of which "black dividends" are paid is realised entirely by non-financial corporations, the quarterly pattern of dividends paid by S.11 is applied by BE in order to determine the quarterly pattern of black dividends received by households. In **CZ** quarterly estimate of B.2G from deliberate misreporting is assumed to be withdrawn by the households sector.

In **DE**, dividends paid by corporations are not directly recorded either on the payments side or (with the exception of general government) on the receipts side. An indirect calculation is made, by dividing the time-adjusted revenue from capital gains tax by the current tax rate of

20%, and this figure is used to determine the assessment basis for this tax. To this are added: the value of dividends paid to the rest of the world (as shown in the balance of payments); profits transferred by subsidiary companies; the income of the *Bundesbank*, which is paid into the Federal treasury, and dividends paid by investment funds. A breakdown of distributed dividends by sectors S.11 and S.12 is based on annual information and estimations. The receipts side contains private households and investment funds. Dividends received by private households from German-based companies are derived from income tax statistics. Since the results are available after a considerable time delay, estimates for the intervening years can only be extrapolated by reference to the general trend as reflected in the rate of growth of revenue from capital-gains tax. Dividends from RoW are added to the total value of distributed income. Since BoP does not provide any information on the distribution of income by sector, DE relies on information on the monetary wealth formation from stocks of foreign shares and investments. In a matrix balancing process, discrepancies are adjusted to sector S.11.

In **IT**, dividends paid by sectors S.11 and S.125 are estimated by applying a *dividend yield index* to the stocks of listed and non-listed shares of these sectors as registered in QFA. The yield index is calculated by dividing the total return index of the shares of industrial and service corporations listed on the Mercato Telematico Azionario (MTA) by a price index of the same listed shares. At annual level a separate estimation is made for dividends paid by non-listed non-financial corporations: the inverse of the Gordon formula, with utilization cost, is applied to the stocks of shares. Annual estimates for dividends paid by the rest of financial corporations (S.121-S.124) and dividends received by S.12 are disaggregated by means of an indicator based on the quarterly figures for dividends paid and received by banks. Dividends received, not yet assigned to the other sectors, are allocated to sectors S.11 and S.1M based on the relative percentage of the stocks of shares owned (QFA).

**EL** and **FI** as well use information on dividends distributions by listed companies (obtained from Stock Exchange or Central Securities Depository) as indicator to determine the quarterly profile the transaction. In **EL** quarterly dividends payable and receivable by the economy are distributed to sectors using annual structure. **FI** disposes of direct data broken down by paying sectors.

**NL** estimates quarterly dividends on the basis of corresponding information on payments and receipts from sample statistical reports of non-financial corporations and accounting as well as statistical statements of financial institutions (for S.121, S.122, partly S.123 (investment funds) and S.125), BoP (in particular, for special purpose entities (SPE))) supplemented by the QGGA on profits distribution by public corporations and estimates based on annual information. Estimates for S.12 are made using detailed subsectors breakdown, whereas subsector S.123 is in turn subdivided to investment companies, SPE and other intermediaries. For subsectors that are not well covered by quarterly data sources, different methods mostly based on annual data are applied (e.g. using estimated rate of returns on balance sheet amounts (AF.5) or using data for last available year). Dividends receivable by households are estimated by extrapolation using data on development of dividends on Dutch shares quoted on

the stock exchange Euronext. In the matrix balancing process, discrepancies are adjusted to sector S.11.

In **AT**, the quarterly as well as annual distributed income of corporations is largely determined by net lending / borrowing as shown in the financial accounts. Total D.42 is estimated residually except for S.13 (QGGA) and S.2 (BoP, augmented by a small estimate for retained earnings of mutual funds). This implies that all flows that are not explained by other transactions are assumed to result from D.42.

In **PL**, dividends payable by enterprises are calculated on the basis of information on net profit of enterprises, available from the statistical survey on income, costs, financial results and investments outlays (quarterly, semi-annual, annual). Special indicators, such as the percentage of quarterly net profit which is transformed into dividends, are used to calculate the transaction. Dividends from financial corporations are mostly taken from direct sources. Dividends received by the households sector are calculated on annual basis using reports of NCB of Poland and commercial banks. Quarterly breakdown is done using the compensation of employees in the national economy as indicator. All information available is analysed and balanced by means of matrix.

**IE** primarily relies on direct data taken from BoP and NCB surveys for the calculation of D.42. The BoP surveys provide information not only for transactions with between domestic units with RoW, but also for transactions between residents. These survey data are combined with different administrative data sources, particularly the statistics of revenues from the dividend withholding tax.

In **UK**, the same integrated framework is used for estimation of dividend flows as described in previous section 3.6.4 on interest. Data on quarterly dividends payable are in most cases available from statistical inquiries or reports of financial institutions for each related financial instrument. Amounts payable are distributed among recipient sectors in proportion to the shares held.

From the variety of methods used by Member States for the estimation of quarterly D.21, residual estimates based on net lending / net borrowing as reported in financial accounts should be considered as the least preferable option since the result inevitably absorbs all possible statistical discrepancies.

Smoothing of annual data over the quarters for indicators like D.42 that are expected to have a typical quarterly pattern is not considered acceptable either. This method could possibly represent a contributing factor to the increase of statistical discrepancy between quarterly non-financial and financial accounts.



*Table 13 - Summary of national sources and methods for D.421 estimation*

	USE	RES				RES & USE
	S.11, S.12	S.1	S.12	S.13	S.11, S.1M	S.2
<b>BE</b>	Direct data from companies' annual statements on D.421 and date of shareholders meeting; projection based on relation D.421/PAY in year t to B.2g in year t-1 plus interpolated ASA estimate of 'black' dividends paid by S.11	S.1/PAY + S.2/PAY – S.2/REC	As S.11/S.1M	QGGA	S.1 – S.13 allocated by ASA structure of observed dividend receipts; 'black' dividends totally imputed to S.1M	BoP
<b>CZ*</b>	<u>S.11</u> : estimated on the basis of ASA structure + B.2g estimation; residual item. <u>S.12</u> : based on information from most important units (press releases) combined with ASA estimation	Sum of sectors	Quarterly estimate based on ASA structure	QGGA	<u>S.11</u> : estimated on the basis of ASA structure. <u>S.1M</u> : B.2g estimation combined with estimation from ASA; residual item	BoP
<b>DK**</b>	N/A		N/A	N/A	N/A	N/A
<b>DE</b>	Quarterly estimate based on capital gains tax data + NCB and investment funds payments; allocated to sectors by annual structure	S.1/PAY + S.2/PAY – S.2/REC	ASA disaggregation	QGGA	<u>S.11</u> : residual. <u>S.1M</u> : income tax data extrapol. by growth rate of capital gains tax revenue + estimates based on BoP	BoP allocated to sectors using data on stocks
<b>IE*</b>	Sum of dividends from to BoP and NCB surveys and dividend withholding tax statistics	Sum of sectors	Monthly NCB table; BoP surveys	STPFS	<u>S.1M</u> : admin. data, i.a. dividend withhold. tax statistics. <u>S.11</u> : BoP surveys	BoP
<b>EL</b>	ASA allocated to quarters by quarterly distribution of total dividends paid by all listed companies	S.1/PAY + S.2/PAY – S.2/REC	Same as S.11/S.1M	QGGA	S.1 – S.13 allocated by annual sector structure	BoP
<b>ES</b>	<u>S.11</u> : information from Spanish stock exchanges; annual criteria. <u>S.12</u> : direct sources.	S.1/PAY + S.2/PAY – S.2/REC	Direct source	QGGA	Allocated with the structure of stocks of shares owned from QFA	BoP
<b>FR</b>	<u>S.11</u> : Arbitrary quarterly profile applied to ASA. <u>S.12</u> : admin. data + arbitrary quarterly profile	S.1/PAY + S.2/PAY – S.2/REC	Arbitrary quarterly profile applied to ASA	Admin. data + arbitrary quart. profile	<u>S.11</u> : Arbitrary quarterly profile applied to ASA. <u>S.1M</u> : residual	Arbitrary quarterly profile applied to ASA
<b>IT</b>	<u>S.11, S.125</u> : dividend yield index of quoted shares applied to quarterly AF.5 stocks. <u>S.121</u> + <u>S.122</u> + <u>S.123</u> + <u>S.124</u> : disaggr. using quart. dividends paid by banks as indicator	S.1/PAY + S.2/PAY – S.2/REC	ASA disaggr. with banks' quarterly D.421/REC as indicator	QGGA	S.1 – S.12 – S.13 allocated pro rata to stocks of shares owned from QFA	BoP

	USE	RES				RES & USE
	S.11, S.12	S.1	S.12	S.13	S.11, S.1M	S.2
<b>NL</b>	<u>S.11</u> : quarterly survey data. <u>S.12</u> : quarterly statements (S.121, S.122, investment funds, S.125), BoP (for SPE), estimates based on ASA for rest of S.12	Sum of balanced sectors	Same as for S.12/uses	QGGA	<u>S.11</u> : quarterly survey data. <u>S.1M</u> : extrapolation by stock exchange Euronext data on dividends	BoP, adjusted by balancing
<b>AT*</b>	Residual on the basis B.9f	Sum of sectors	ASA smoothing	QGGA	<u>S.11</u> : ASA smoothing. <u>S.1M</u> : residual on the basis B.9f	BoP, adjusted for retained earnings of mutual funds
<b>PL</b>	<u>S.11</u> : survey data on net profits + dividends pay-out ratio <u>S.12</u> : direct quarterly information	Sum of balanced sectors	Direct data	QGGA	<u>S.11</u> : Direct data from BoP. <u>S.1M</u> : annual data from NCB and commercial bank reports allocated to quarters by index of comp. of empl.	BoP by counterpart sectors
<b>PT</b>	ASA allocated to quarters by quarterly distribution of total dividends paid by all listed companies and quarterly statements of most important banks	N/A	ASA disaggregation	QGGA	ASA disaggr. / extrapol. by quart. data on dividends paid and BoP data balancing betw. S.11 and S.1M	BoP
<b>FI*</b>	ASA disaggregation/extrapolation by quarterly data on dividends of listed companies by sectors and BoP data	S.1/PAY + S.2/PAY – S.2/REC	Residual	QGGA	<u>S.11</u> : ASA share applied to S.1/uses <u>S.1M</u> : ASA disaggr. / extrapol. by quart. data on dividends by all listed companies and BoP data	BoP
<b>SE</b>	<u>S.11</u> : Total distributed income of listed companies – S.12 estimates. <u>S.12</u> : Direct data for S.122, S.123; ASA divided by 4 for S.125	S.1/PAY + S.2/PAY – S.2/REC	Direct data for S.122, S.123; ASA divided by 4 for S.125	QGGA	<u>S.1M</u> : based on owned shares in listed corporations. <u>S.11</u> : residual.	BoP
<b>UK</b>	Mostly direct data from quarterly statistical surveys and NCB reports	S.1/PAY + S.2/PAY – S.2/REC	Same as S.11/S.1M	QGGA	Allocated pro rata to stocks of shares owned from QFA	Allocated pro rata to stocks of shares owned from QFA
<b>NO</b>	-	-	-	-	<u>S.1M</u> only: no direct data available, simple projection used for quarters of the current year	-

\* D.42 is estimated as a whole without breakdown between D.421 and D.422.

\*\* D.4N (Property income other than interests) is estimated as a whole without breakdown by sub-transactions.

#### ***D.422 – Withdrawals from the income of quasi-corporations***

##### ***Definition and coverage***

*Withdrawals from the income of quasi-corporations consist of the amounts which entrepreneurs actually withdraw for their own use from the profits earned by the quasi-corporations which belong to them. These amounts are to be recorded before the deduction of any current taxes on income, wealth, etc. which are deemed always to be paid by the owners of the businesses.*

*When profits are earned in the rest of the world by the branch-offices, agencies, etc. of resident enterprises, in so far as these branch-offices etc. are treated as non-resident units, retained earnings appear as reinvested earnings on direct foreign investment (D.43). Only the income actually transferred to the parent enterprise is treated in the accounts as withdrawals from the income of quasi-corporations received from the rest of the world. The same principles are applied to deal with the relations between branch-offices, agencies, etc. operating on the economic territory and the non-resident parent enterprise to which they belong.*

*This heading includes the net operating surplus received by residents as owners of land and buildings in the rest of the world, or by non-residents as owners of land or buildings on the economic territory.*

*The heading "withdrawals from the income of quasi-corporations" does not include amounts which their owners receive from the sale of existing fixed capital goods, from the sale of land and intangible assets and from withdrawals of capital. These amounts are treated as withdrawals from equity in the financial account.*

##### ***Time of recording***

*Withdrawals from the income of quasi-corporations are recorded when they are made by the owners.*

*(ESA 95, §§ 4.56-4.62)*

In **BE** and **EL**, quarterly amounts of withdrawals from the income of quasi-corporations are directly taken from the quarterly general government accounts (S.13/REC) with expenditure for resident non-financial corporations (S.11/PAY) as full and single counterpart.

In **DE**, withdrawals by households and NPISH from the income of quasi-corporations are estimated as a residual between net lending/net borrowing estimated in the financial accounts compiled by *Bundesbank* and all recorded distributive transactions for this sector. On the expenditure uses-side estimated balance is allocated to the enterprises in question.

In **IT**, separate estimates for corporations and quasi-corporations are carried out at annual level only. Thus, a relative weight of the two components of S.11 can be derived for each item defining B.6N, which is used as an indicator for quarterly D.422/PAY. These weights are applied to the relevant quarterly series of total S.11 in order to obtain an indicator of disposable income limited to quasi-corporations: it is used to disaggregate annual D.422 paid.

Withdrawals from the income of quasi-corporations receivable by S.1M are estimated using as an indicator quarterly data on total withdrawals distributed by domestic and foreign quasi-corporations; D.422 receivable by S.11 are defined as a residual.

In **NL**, series and the Denton method are used to estimate quarterly withdrawals from income of quasi-corporations. On the basis of the time series an estimate/forecast is made automatically for the next year. The estimated annual value is disaggregated to quarters by means of Denton method. The withdrawals from income of non-resident quasi-corporations are based on counterpart information of S.2.

In **PL**, annual data of withdrawals from income of quasi-corporations is estimated on the basis of number of owners of the units belonging to natural persons that are classified to the corporations sector and average monthly wages and salaries in national economy, multiplied by 10. Quarterly data is estimated using nominal index of wages and salaries related to the previous quarter.

Several countries do not make separate estimates for this item making sector allocations of D.42 as a whole (**CZ, IE, AT, FI, NO**).

In many cases the coverage of the information provided by countries on the estimates for this transaction is not so clear. This particularly concerns the flows from/to RoW (flows from foreign branch-offices and land/buildings located on foreign territory).

According to §§ 2.15 and 2.25 of ESA.95, all notional resident units are by convention treated as if they were quasi-corporations belonging to sector S.11. Notional units include:

- those parts of non-resident units that have a centre of economic interest on the country's territory (e.g. branch-offices of foreign companies or similar offices of the domestic companies abroad);
- non-resident units in their capacity as owners of land or buildings on the economic territory of a country with respect of transactions affecting such land or buildings only.

*Table 14 - Summary of national sources and methods for D.422 estimation*

	USE	RES				RES & USE
	S.11*	S.1	S.12	S.13	S.11, S.1M	S2
<b>BE</b>	Counterpart of S.13/REC	= S.13	-	QGGA	-	-
<b>CZ</b>	Not separately estimated					
<b>DK</b>	Not separately estimated					
<b>DE</b>	Counterpart of S.1M/REC	= S.1M	-	- <sup>1</sup>	<u>S.1M</u> ; residual estimation from B.9f of the sector	BoP <sup>1</sup>
<b>IE</b>	Not separately estimated					
<b>EL</b>	Calculated as percentage of B.2G/S.11 (concerning quasi-corporations), as in ASA	= S.13	ASA disaggregation	QGGA	<u>S.1M</u> ; residual	-
<b>ES</b>	= D.422/S.2/REC	= S.11	-	-	<u>S.11</u> ; D.422/S.2/PAY	BoP
<b>FR</b>	ASA smoothing	S.11 + S.1M	-	-	<u>S.11</u> ; ASA smoothing. <u>S.1M</u> ; residual	ASA smoothing
<b>IT</b>	ASA allocated by quart. B.6N of quasi-corporations (estimated using annual weights of quasi-corporations in S.11)	S.1PAY + S.2/PAY - S.2/REC	-	-	<u>S.1M</u> ; estimated using D.422/ S.11/PAY + D.422/S.2/PAY as indicator. <u>S.11</u> ; residual	BoP
<b>NL</b>	Counterpart of S.1M REC	= S.1M	Estimates based on quarterly statements	ASA divided by 4	<u>S.1M</u> ; annual time series quartered by Denton method	BoP, adjusted by balancing
<b>AT</b>	Not separately estimated; residual estimation of total D.42					
<b>PL</b>	ASA estimated using number of owners of quasi-corporations and average wages; QSA estimated by nominal index of wages	= S.1M	-	-	Counterpart data of S.11/PAY	-
<b>PT</b>	Not separately estimated; residual estimation of total D.42	Not separately estimated; residual estimation of total D.42	-	STPFS	Not separately estimated	Not separately estimated
<b>FI</b>	Not separately estimated					
<b>SE</b>	Swedish National Financial Management Authority (ESV)	= S.13	-	QGGA	N/A	N/A
<b>UK</b>	Counterpart of S.1M	Sum of sectors	-	QGGA	<u>S.1M</u> ; counterpart information	Zero, no data
<b>NO</b>	-	-	-	-	Not separately estimated	-

\*) S.12 not relevant.

### 3.6.3 D.43 - Reinvested earnings on direct foreign investment

#### Definition and coverage

*Reinvested earnings on direct foreign investment (D.43) are equal to:*

*the operating surplus of the direct foreign investment enterprise*

*plus*

*any property incomes or current transfers receivable*

*minus*

*any property incomes or current transfers payable, including actual remittances to foreign direct investors (dividends or withdrawals from quasi-corporations) and any current taxes payable on the income, wealth, etc., of the direct foreign investment enterprise.*

*A direct foreign investment enterprise is an incorporated or unincorporated enterprise in which an investor resident in another economy owns 10 per cent or more of the ordinary shares or voting power (for an incorporated enterprise) or the equivalent (for an unincorporated enterprise). Direct foreign investment enterprises comprise those entities that are identified as subsidiaries (investor owns more than 50 per cent), associates (investor owns 50 per cent or less) and branches (wholly or jointly owned unincorporated enterprises), either directly or indirectly owned by the investor.*

*Retained earnings are treated as if they were distributed and remitted to foreign direct investors in proportion to their ownership of the equity of the enterprise and then reinvested by them.*

#### Time of recording

*Reinvested earnings on direct foreign investment are recorded when they are earned.*

*(ESA §§ 4.64-.4.67)*

As this transaction has the RoW as the sole counterpart of the domestic sectors, BoP data are generally used as a principal data source. However, several countries may introduce substantial adjustments to BoP estimates or use alternative data sources.

In most countries necessary quarterly information on D.43 flows paid and received by the domestic sectors is provided by BoP fully (**CZ, IE, ES, PT, AT, FI, UK, IT and DE**) or partially (**BE**: quarterly data on inward flows; **NL**: quarterly flows for sectors S.11, S.122 and inward flows to SPEs).

In other cases, BoP does not provide information on counterpart sectors. Consequently, a major challenge is the allocation of BoP (D.43) data between non-financial and financial corporations, taking into account that reinvested earnings on direct foreign investment can be either positive or negative. The following main approaches are used by the Member States for this purpose:

- Sector S.11 is assumed to be the sole counterpart of flows to/from Row (DE until 2004, EL and SE);
- Annual figures are smoothed over quarters, BoP estimates are not used (FR).

BE and NL elaborated some additional quarterly estimation procedures for missing information.

In BE, estimates of RoW resources are derived as the sum of payments made by domestic sectors. Quarterly D.43 payable by S.11 and S.12 rely on respective annual estimates that are based on detailed annual accounting statements information on direct investment enterprises' net operating profit and dividends paid adjusted by control percentages by NACE 2-digit level. These annual estimates for net operating result and dividends are allocated to quarters by quarterly profile of value added and dividends (see section 3.6.5) respectively. Per NACE 2-digit heading, this gives per quarter: D.43 = net result – dividends. This methodology implies that net operating surplus defined from the data on all enterprises is representative for direct investment companies. For the latest quarters of current year, for which annual estimates are not yet available, the quarterly figures of latest available year are replicated.

In NL, separate calculations are performed to estimate quarterly reinvested earnings paid by Dutch SPEs. The profit or loss after taxes of the SPE is calculated by adding up value added and property income received, and subtracting compensation of employees, interest paid, taxes on income, and estimated dividends paid by these units. It is assumed that all flows calculated this way are attributed to the foreign parent company.

Only two countries, NL and AT, derive estimates for reinvested earnings received by households. However, these flows are of minor importance.

*Table 15 - Summary of national sources and methods for D.43 estimation*

	USES	RES		USE & RES
	S.11, S.12	S.11, S.12	S.1M	S.2
<b>BE</b>	Annual estimates by sectors and NACE 2-digit of B.2G and dividends of enterprises with direct investment allocated to quarters by quarterly profiles of B.1G and D.421 of all companies	BoP direct investment survey data by sectors as a key to allocate ASA figures	-	$\frac{S.2}{REC} = \frac{S.11}{PAY} + \frac{S.12}{PAY}$ . $\frac{S.2}{PAY} = BoP$
<b>CZ</b>	BoP data by sectors	BoP data by sectors	-	BoP by counterparts
<b>DK</b>	Data from NCB	Data from NCB	Data from NCB	Data from NCB
<b>DE</b>	Until 2003: no breakdown by domestic sectors in BoP; all D.43 flows attributed to S.11; since 2004: BoP data by counterparts	Until 2003: no breakdown by domestic sectors in BoP; all D.43 flows attributed to S.11; since 2004: BoP data by counterparts	-	BoP by counterparts since 2004
<b>IE</b>	BoP data by sectors	BoP data by sectors	-	BoP by counterparts
<b>EL</b>	All D.43 flows attributed to S.11	All D.43 flows attributed to S.11	-	Annual forecast smoothed over quarters
<b>ES</b>	BoP data by sectors	BoP data by sectors	-	BoP by counterparts
<b>FR</b>	ASA smoothing	ASA smoothing	-	S.11 + S.12
<b>IT</b>	S.11: extrapolated using quarterly BoP flows, differentiated by sector, as indicator. S.12: residual	S.11: extrapolated using quart. BoP flows, differentiated by sector, as indicator. S.12: residual	-	Annual QNA; quarterly BoP as indicator.
<b>NL</b>	S.11: quarterly survey data, BoP. S.122, S.125, investment funds: BoP. SPEs: quarterly calculation of net profits less dividends	S.11: quarterly survey data, BoP. S.122, S.123: BoP. S.124: extrapolation with P.1 estimate as indicator	-	BoP partly by counterparts; adjusted by balancing
<b>AT</b>	BoP data by sectors	BoP counterpart data	Same as S.11, S.12	BoP by counterpart sectors
<b>PL</b>	BoP data by sectors	BoP data by sectors	-	BoP by counterparts
<b>PT</b>	BoP data by sectors	BoP data by sectors	-	BoP by counterparts
<b>FI</b>	BoP data by sectors	BoP data by sectors	-	BoP by counterparts
<b>SE</b>	All D.43 flows attributed to S.11	All D.43 flows attributed to S.11	-	BoP
<b>UK</b>	Quarterly data from the ONS and NCB surveys of overseas direct investment	Quarterly data from the ONS and NCB surveys of overseas direct investment	-	ONS Foreign Direct Investment quarterly surveys
<b>NO</b>	-	-	-	-



### 3.6.4 D.44 – Property income attributed to insurance policy holders

#### Definition and coverage

*Property income attributed to insurance policy holders corresponds to total primary incomes received from the investment of insurance technical reserves. Insurance technical reserves are invested by insurance enterprises and pension funds in financial assets or land (from which net property income, i.e. after deducting any interest paid, is received) or in buildings (which generate net operating surpluses). Any net income received that results from the investment of insurance enterprises' own funds is to be excluded in proportion to the ratio between own funds and a sum of own funds and insurance technical reserves.*

*Since technical reserves are assets of insurance policy holders, the receipts from investing them are shown in the accounts as being paid by insurance enterprises and pension funds to the policy holders in the form of property income attributed to insurance policy holders.*

*As this income is retained by insurance enterprises and pension funds in practice, it is therefore treated as being paid back to the insurance enterprises and pension funds in the form of premium and contribution supplements that are additional to actual premiums and contributions payable.*

#### Time of recording

*Property income attributed to insurance policy holders is recorded when it accrues.*

*(ESA §§ 4.68-4.70)*

Estimation of quarterly property income attributed to insurance policy holders in most cases relies on indirect estimation methods based on ASA figures, both on uses and resources side. Only **CZ, IE, PL, NL** and **UK** seem to have direct quarterly data (from statistical surveys and/or publications of insurance market supervisory authorities) for estimation of property income to be attributed by sector of financial corporations to insurance policy holders (uses side flow). Other countries commonly smooth ASA estimates over quarters.

BoP manual requirements of recording of property income attributed to insurance policy holders are consistent with ESA95. Apparently, detailed breakdown of BoP current transfers is not always accessible to QSA compilers. So far, only **IT** and **FI** reported the availability of necessary BoP information.

The same situation prevails with regard to data on general government, since STPFS table 25 does not provide details on property income flows, so estimations have to be used.

*Table 16 - Summary of national sources and methods for D.44 estimation*

	USE	RES		USE & RES
	S.12=S.1	S.13	S.11, S.12, S.1M	S.2
<b>BE</b>	ASA smoothing by linear trend	QGGA	<u>S.11, S.12</u> : ASA smoothing by linear trend. <u>S.1M</u> : residual	ASA smoothing by linear trend
<b>CZ</b>	Data from quarterly statistical survey by types of insurance	As S.11, S.12	<u>Non-life insurance</u> (all sectors): allocated by annual structure of gross premiums. <u>Life and pension insurance</u> (S.14): S.12 counterpart data	As S.11, S.12
<b>DK</b>	Biannual data; net insurance premiums (D.71) used as quarterly indicator	S.13 assumed to be self-insured	<u>S.11, S.12</u> : residual allocated according to output (P.1)	BoP
<b>DE</b>	ASA disaggregation	-	S.1/PAY allocated to recipient sectors by ASA structure	BoP
<b>IE</b>	= S.1M/REC + S.2/REC	-	<u>S.11, S.12</u> : not applicable. <u>S.1M</u> : BoP quarterly survey	BoP
<b>EL</b>	ASA smoothing by linear trend	-	Amount payable is allocated by ASA structure	-
<b>ES</b>	Direct source	-	Direct information from Directorate General for Insurance and Pension Funds	Estimated from BoP data
<b>FR</b>	ASA smoothing	ASA smoothing	ASA smoothing, S.14 derived as residual	ASA smoothing
<b>IT</b>	ASA smoothing	QGGA	ASA smoothing	BoP
<b>NL</b>	Derived from quarterly statistical survey data on property income aggregate	-	<u>S.11, S.12</u> : not applicable. <u>S.1M</u> : counterpart data	Ratio of investment return applied to estimate of technical reserves
<b>AT</b>	= S.1/REC + S.2/REC	QGGA	ASA disaggregation using as indicator QNA estimate of premium supplements as part of S.125 output	-
<b>PL</b>	Calculated from direct data of quarterly bulletin of insurance supervisory authority	Same as S.11-, S.12-, S.1M/REC	S.1/PAY allocated to recipient sectors by structure of gross premiums (quarterly data)	No data
<b>PT</b>	ASA disaggregation / extrapolation using GDP as quarterly indicator	S.1/PAY allocated to S.13 by structure of quarterly gross premiums	S.1/PAY allocated to recipient sectors by ASA structure	BoP data on gross premiums multiplied by annual ratio of D.44/PAY to gross premiums earned by S.125
<b>FI</b>	ASA divided by 4	Derived from STPFS	ASA divided by 4	BoP
<b>SE</b>	S.12 quarterly admin. data; household share as in latest annual data	-	S.1M = S.1	-
<b>UK</b>	Quarterly ONS survey data	-	Allocation by sectors	<u>Uses</u> : no data. <u>Resources</u> : allocated by sector
<b>NO</b>	-	-	The indicator is based on a simple projection procedure based on quarterly figures from the base year.	-

The following estimation approaches to sector allocation of income received can be distinguished:

- ASA smoothing (**BE, FR, IT, NO**) or even distribution (**FI**);
- Allocation by ASA structure (**DE, EL, AT**);
- Allocation by annual structure of gross premiums (**CZ, PL**);
- Allocation by quarterly sector estimates of other indicators (**PT**).

### **3.6.5 D.45 – Rents**

#### Definition and coverage

*This heading includes:*

- *the rent received by a landowner from a tenant excluding rentals of buildings and of dwellings situated on it, which are treated as the payment for a market service provided by the owner to the tenant (If there is no objective basis on which to split the payment between rent on land and rental on the buildings situated on it, the whole amount is treated as rent when the value of the land is believed to exceed the value of the buildings on it and as rental otherwise);*
- *the rents payable to the owners of inland waters and rivers for the right to exploit such waters for recreational or other purposes, including fishing;*
- *the royalties that accrue to owners of deposits of minerals or fossil fuels (coal, oil or natural gas) who grant leases to other institutional units permitting them to explore or to extract such deposits over a specified period of time.*

*A landowner may be liable to pay land taxes or incur certain maintenance expenses solely as a consequence of owning the land. By convention, such taxes and expenses are treated as payable by the person entitled to use the land, who is deemed to deduct them from the rent that he would otherwise be obliged to pay to the landowner.*

#### Time of recording

*Rents are recorded in the period when payable.*

*(ESA §§ 4.72-.4.75)*

Taking into account the rather minor overall importance of this transaction, quarterly estimation of D.45 relies heavily on indirect estimation method. As the only source of direct quarterly information, QGGA in some cases also provide counterpart sector information.

*Table 17 - Summary of national sources and methods for D.45 estimation*

	USES		RESOURCES	
	S.11, S.12, S.1M	S.13	S.11, S.12, S.1M	S.13
<b>BE</b>	ASA smoothing by linear trend	Not separately estimated; covered as part of P.2	<u>S.11, S.12</u> : ASA smoothing by linear trend. <u>S.1M</u> : residual	QGGA
<b>CZ</b>	ASA allocated to quarters by S.13 quarterly profile	QGGA	ASA allocated to quarters by S.13 quarterly profile	QGGA
<b>DK</b>	Assumed that rents received by S.13 are totally paid by <u>S.11</u> ; <u>S.1M</u> : product of number of agricultural holdings and rents per tenancy	-	<u>S.11, S.12</u> : not applicable. <u>S.1M</u> : assumed that renting of farm land takes place only between households	QGGA
<b>DE</b>	ASA structure; quarterly extrapolation	QGGA	ASA structure; quarterly extrapolation	QGGA
<b>IE</b>	ASA divided by four	-	ASA divided by four	-
<b>EL</b>	<u>S.11</u> : not applicable. <u>S.1M</u> : ASA smoothing	QGGA	<u>S.11</u> : not applicable. <u>S.1M</u> : residual	QGGA
<b>ES</b>	Most S.13 counterpart data allocated to <u>S.11</u> ; ASA structure matrix estimation	QGGA	<u>S.11, S.1M</u> : ASA structure, matrix estimation	QGGA
<b>FR</b>	<u>S.11, S.1M</u> : ASA smoothing. <u>S.12</u> : not applicable	ASA smoothing	<u>S.11</u> : ASA smoothing. <u>S.1M</u> : residual	ASA smoothing
<b>IT</b>	ASA smoothing	QGGA	ASA smoothing	QGGA
<b>NL</b>	<u>S.11, S.12</u> : mostly S.13 counterpart data. <u>S.1M</u> : counterpart data	QGGA	<u>S.11</u> : same quarter of previous year; <u>S.1M</u> : counterpart data of S.13	QGGA
<b>AT</b>	-	QGGA	transaction assumed to take place between S.11 and S.13 only	-
<b>PL</b>	S.13 counterpart data allocated to S.11 and S.1M using fixed ratios based on long-term analysis	-	-	QGGA
<b>PT</b>	<u>S.11</u> : ASA structure, quarterly extrapolation. <u>S.1M</u> : residual. <u>S.12</u> : not applicable	QGGA	<u>S.11, S.1M</u> : ASA structure; quarterly extrapolation. <u>S.12</u> : not applicable	QGGA
<b>FI</b>	ASA divided by 4	STPFS	ASA divided by 4	Derived from STPFS
<b>SE</b>	S.11, S.12 and S.1M counterpart data	QGGA	S.11, S.12 and S.1M counterpart data	QGGA
<b>UK</b>	S.13 counterpart data	QGGA	QGGA	QGGA
<b>NO</b>	-	-	Simple projection based on quarterly figures from the base year	-

### 3.7 Compilation of secondary distribution of income transactions

Secondary distribution of income transactions are largely related to income redistribution by means of taxes on income and wealth and social security taxes collected and administered by General Government. Common rules of recording of all General Government tax receipts have been introduced in ESA95 following the Commission Regulation (EC) No 2516/2000 primarily for the purpose of the excessive deficit procedure. They ensure in particular that the net lending/net borrowing of general government does not include the amounts of taxes and social contributions unlikely to be collected. Accordingly, the impact on general government net lending/borrowing of taxes and social contributions recorded in the system on an accrual basis shall be equivalent over a reasonable amount of time to the corresponding amounts actually received.

In line with article 3 of the abovementioned regulation, taxes and social contributions recorded in the accounts may be derived from two sources: amounts evidenced by assessments and declarations, as well as cash receipts.

- If assessments and declarations are used, the amounts shall be adjusted by a coefficient reflecting assessed and declared amounts never collected. As an alternative treatment, a capital transfer to the relevant sectors could be recorded equal to the same adjustment. The coefficients shall be estimated on the basis of past experience and current expectations in respect of assessed and declared amounts never collected. They shall be specific to different types of taxes and social contributions. The determination of these coefficients shall be country-specific.
- If cash receipts are used, they shall be time-adjusted so that the cash is attributed when the activity took place to generate the tax liability (or when the amount of tax was determined, in the case of some income taxes). This adjustment may be based on the average time difference between the activity (or the determination of the amount of tax) and cash tax receipt.

Consequently, overall comparability of tax information across countries can be affected to some extent by the method chosen for the recording of taxes: direct adjustment for the amounts never collected (by a coefficient or recording based on time-adjusted cash-receipts) and indirect adjustment (via capital transfers). Different methods can be applied as well to different types of taxes.

According to Eurostat annual government finance statistics data, for D.5 recording indirect method is employed by **DK, ES** and **PL**. D.61 is indirectly adjusted in **AT** and **PL**.

#### 3.7.1 D.5 – Current taxes on income, wealth, etc.

##### Definition and coverage

*Current taxes on income, wealth, etc. (D.5) cover all compulsory, unrequited payments, in cash or in kind, levied periodically by general government and by the rest of the world on the*

*income and wealth of institutional units, and some periodic taxes which are assessed neither on the income nor the wealth. Current taxes on income, wealth, etc. are divided into:*

- *taxes on income (D.51) - taxes on incomes, profits and capital gains. They are assessed on the actual or presumed incomes of individuals, households (income from employment, property, entrepreneurship, pensions, holding gains, winnings from lottery or gambling), corporations or NPIs.*
- *other current taxes (D.59) - current taxes on capital, net wealth and other assets (taxes that are payable periodically on the ownership or use of land or buildings by owners, jewellery, other external signs of wealth, except taxes paid by enterprises as a result of engaging in production (D.29)); poll taxes; expenditure taxes; payments by households for licences to own or use vehicles, boats or aircraft (not used for business purposes), or for licences to hunt, etc.(excluding those treated as purchase of government services) etc.*

#### *Rules of recording*

*The total value of the taxes which should be recorded includes any interest charged on arrears of taxes due and any fines imposed by taxation authorities if it is impossible to record such interest and fines separately; it also includes any charges which may be imposed in connection with the recovery and assessment of taxes outstanding. Correspondingly, it is reduced by the amount of any rebates made by general government as a matter of economic policy and any refunds made as a result of over-payments.*

*Only taxes evidenced by tax assessments are recorded.*

*When retained at source by the employer, current taxes on income, wealth, etc. should be included in wages and salaries even if the employer did not in fact pass them on to the general government. The households sector is then shown as paying the full amount on to the general government sector. The amounts actually unpaid have to be neutralised under D.995 as a capital transfer from general government to the employers' sectors.*

#### *Time of recording*

*Current taxes on income, wealth, etc. are recorded at the time when activities, transactions or other events occur which create the liabilities to pay.*

*Income taxes deducted at source may be recorded in the period in which they are paid and any final tax liability on income can be recorded in the period in which the liability is determined.*

*In some cases, the liability to pay income taxes can only be determined in a later accounting period than that in which the income accrues. Some flexibility is therefore needed in the time at which such taxes are recorded. Moreover, the 2006 Edition of the Manual on quarterly non-financial accounts for general government mentions (page 31) the possibility to record D.5 on a due for payment basis, "subject to any decisions by the annual accounts compilers to refine the treatments followed in the annual accounts".*

*(ESA §§ 4.77-4.82)*

The principal source of quarterly information for the estimation of current taxes on income and wealth is data from QGGA on both General Government payments and receipts of relevant taxes.

In all countries, with the exception of **EL** and **FI** (FI uses STPFS data, reporting only the total amount of D.5 payments and receipts), detailed information is available by type of taxes that facilitates the estimation on the uses side of the transaction by institutional sectors. Several types of taxes by their nature can be attributed either to corporations or to households (e.g. corporate versus personal income taxes). According to Eurostat annual government finance statistics, such taxes account for more than 85% of the overall amount of taxes on income and wealth received by the government.

Still, the breakdown of income taxes paid by financial and non-financial corporations, as well as the breakdown of other taxes that can be paid by different sectors, have to be estimated indirectly using respective ASA information in most cases (**BE, CZ, IE, AT, DE, FR, FI**). An adjustment for the income tax payable by self-employed persons classified as quasi-corporations may also be necessary.

However, **PL** and **UK** have at their disposal direct quarterly information on taxes paid by financial and non-financial corporations either from quarterly and semi-annual statistical surveys and accounting statements (**PL**) or from administrative sources (**UK**).

**IT** uses semi-annual information on total income taxes paid by the financial corporations, which is disaggregated according to the quarterly pattern of the relevant taxes received by general government.

In **DK, NL** and **SE**, sector S.12 is to some extent covered by direct quarterly data sources. In **DK**, for sub-sector S.122, quarterly data on income taxes paid provided by the Financial Supervision Authority are used. For the rest of S.12, ASA data are disaggregated or extrapolated using the estimated quarterly gross entrepreneurial income as indicator. **NL** makes detailed estimates by sub-sectors for taxes on income paid by financial corporations partly based on quarterly surveys (direct data on 4 biggest Dutch banks, data derived from quarterly operating profit for smaller monetary institutions, aggregated quarterly tax data for investment companies or surveys on insurance companies and pension funds). Estimates for the rest of financial sector are based on latest available annual data.

As regards the taxes paid and received by RoW, some countries, such as **FR**, do not make any estimates for D.5 received. **PL** and **FI** rely on the assumption that all income tax flows related to RoW are zero. Other countries use quarterly BoP information, administrative records on non-residents taxation or make estimates in relation to wages paid and received by non-residents.

*Table 18 - Summary of national sources and methods for D.5 estimation*

	USES				RESOURCES	
	S.11, S.12	S.13	S.1M	S.2	S.13	S.2
<b>BE</b>	Corporate taxes allocated to S.11 and S.12 by ASA structure	QGGA	QGGA data on taxes paid by individuals	QGGA data on taxes paid by non-residents	QGGA by type of tax	Community tax paid by Europ. civilians (annual data smoothed with linear trend)
<b>CZ</b>	Corporate taxes allocated to S.11 and S.12 by ASA structure	QGGA	Individual taxes; total D.59; ASA share of other income taxes paid by S.15	D.51 estimated as valid tax rate applied to wages paid by RoW	QGGA by type of tax	D.51 estimated by applying valid tax rate to wages paid by RoW
<b>DK</b>	<u>S.11</u> : residual of corporate tax. <u>S.12</u> : S.122 minus direct quart. data; rest of S.12 minus ASA disaggregated / extrapolated by quart. B.4G as indicator	-	Residual, S.13/REC – S.11/PAY – S.12/PAY – S.2/PAY + S.2/REC	BoP	QGGA by type of tax	BoP
<b>DE</b>	Corporate and other taxes allocated to S.11 and S.12 by ASA structure	-	Taxes paid by individuals	BoP	QGGA by type of tax	BoP
<b>IE</b>	Corporate taxes allocated to S.11 and S.12 by annual structure in tax files	-	STPFS: income tax, capital gains tax, youth unemployment levy, vehicle tax	BoP	STPFS	BoP
<b>EL</b>	Total taxes paid allocated by ASA sector structure (excl. S.13)	QGGA	Total taxes paid allocated by ASA sector structure (excl. S.13)	-	QGGA aggregate	-
<b>ES</b>	<u>S.12</u> : direct sources. <u>S.11</u> : residual	-	Taxes paid by individuals	BoP	QGGA by type of tax	BoP
<b>FR</b>	ASA disaggregation with corp. and other taxes allocated to S.11 and S.12 as indicators	QGGA	ASA disaggregation with individual and other taxes allocated to S.1M as indicator	ASA disaggregation with relevant types of taxes as indicator	QGGA by type of tax	-
<b>IT</b>	Annual and semi-annual data on corporate sectors allocated by quarterly pattern of relevant S.13 receipts	QGGA	Individual taxes; annual / semi-annual data on other taxes allocated by quart. pattern of relevant S.13 receipts	BoP	Detailed QGGA data by 16 types of taxes	BoP data allocated to paying domestic sectors by structure of S.13 receipts
<b>NL</b>	<u>S.11</u> : residual of corp. taxes. <u>S.122</u> , <u>inv. funds</u> , <u>S.125</u> : estimates based on quart. surveys. <u>Rest of S.12</u> : ASA disaggregation (mostly ASA / 4)	-	ASA share of taxes paid by individuals; adjusted by balancing; total D.59	BoP adjusted by balancing	QGGA by type of tax	BoP, adjusted by balancing
<b>AT</b>	Corporate taxes, mixed taxes allocated to S.11 and S.12 by ASA shares	QGGA	Individual taxes; other taxes allocated to S.1M by ASA share	BoP	Detailed QGGA data by 25 tax types	BoP



	USES				RESOURCES	
	S.11, S.12	S.13	S.1M	S.2	S.13	S.2
<b>PL</b>	Corporate taxes allocated according to quarterly and semi-annual surveys	QGGA	Individual income taxes; total D.59	-	QGGA by type of tax	-
<b>PT</b>	S.13 counterpart data	-	S.13 counterpart data	BoP	QGGA	BoP
<b>FI</b>	ASA shares of total S.13 receipts	STPFS	Residual, S.13/REC – S.11/PAY – S.12/PAY	-	STPFS	-
<b>SE</b>	S.11; residual. S.12: direct data of financial supervisory body and NCB	QGGA	Direct QGGA data	BoP	QGGA by type of tax	BoP
<b>UK</b>	S.13 data on corporate taxes by sectors	QGGA	Individual income taxes; total D.59	ONS quarterly survey data	QGGA by type of tax	ONS quarterly survey data
<b>NO</b>	-	-	Year t-1 data on S.13 D.5 receipts extrapolated by development of D.1/S.1M/REC	-	-	-

### 3.7.2 D.61 – Social contributions

#### Definition and coverage

*Social contributions include:*

- *Employers' actual social contributions (D.6111 that corresponds to flow D.121) – compulsory and voluntary contributions paid by employers to social security funds, insurance enterprises or autonomous as well as non autonomous pension funds administering social insurance schemes to secure social benefits for their employees. As employers' actual social contributions are made for the benefit of their employees, their value is recorded as a part of compensation of employees together with wages and salaries. They are then recorded as being paid by the employees as current transfers to the social security funds, insurance enterprises or autonomous as well as non autonomous pension funds;*
- *Employees' social contributions (D.6112) – compulsory and voluntary contributions payable by employees to social security, private funded and unfunded schemes. Employees' social contributions consist of the actual contributions payable plus, in the case of private funded schemes, the contribution supplements payable out of the property income attributed to insurance policy holders received by employees participating in the schemes, minus the service charges.*
- *Social contributions by self-employed and non-employed persons (D.6113) – compulsory and voluntary contributions payable for their own benefit by persons who are not employees – namely, self-employed or non-employed persons. They also include the value of the contribution supplements payable out of the property income attributed to insurance*

*policy holders received by participating individuals and being recorded as paying back to the insurance enterprises in addition to their other contributions.*

- *Imputed social contributions (D.612 that corresponds to flow D.122) – the counterpart to social benefits (less eventual employees' social contributions) paid directly by employers to their employees or former employees and other eligible persons. Their value should, in principle, be based on actuarial considerations. As a practical alternative, the unfunded social benefits payable by the enterprise during the same accounting period (after deducting actual contributions made by employees themselves) may be used as an estimate of the imputed remuneration that would be needed to cover the imputed contributions.*

#### *Rules of recording*

*When retained at source by the employer, social contributions payable to the general government sector should be included in wages and salaries even if the employer did not in fact pass them on to the general government. The households sector is then shown as paying the full amount on to the general government sector. The amounts actually unpaid have to be neutralised under D.995 as a capital transfer from general government to the employers' sectors.'*

*Actual social contributions to social security funds or other government agencies are recorded gross as distributive transactions.*

*Social contributions paid under private funded schemes to insurance enterprises to friendly societies and autonomous pension funds included in the same sector are recorded net, i.e. after deducting the value of the insurance service provided to (resident and non-resident) households. Under the conventions adopted, this part of the contribution represents the payment for a market service as part of the final consumption of households or part of exports of services. Thus, all the service charges are treated as charges against the employees' contributions and not the employers'.*

*In the case of non-autonomous private funded social insurance schemes, where employers maintain their own segregated reserves, no service charge is deducted from contributions paid by the employees. As such schemes do not constitute separate institutional units from the employers, the costs of managing and administering the funds are assimilated with the employers' general production costs.*

#### *Time of recording*

*Employers' actual social contributions (D.6111) and employees' social contributions (D.6112) are recorded at the time when the work that gives rise to the liability to pay the contributions is carried out. Social contributions by self-employed and non-employed persons (D.6113) are recorded when the liabilities to pay are created.*

*Imputed social contributions (D.612) which represent the counterpart of compulsory direct social benefits are recorded at the time the obligation to pay the benefits arises. Imputed social contributions which represent the counterpart of voluntary direct social benefits are recorded at the time the benefits are provided.*

(ESA 95, §§ 4.92-4.101)

The availability of information and choice of methods for the recording of payments and receipts of social contributions is largely dependent on the different organisation of social security systems in Member States. In some countries social security schemes are mostly administered by the General Government, which in most cases is well covered by direct data sources (QGGA). In other countries, private funded and unfunded schemes play an important role in the system aside from general government. The following table provides a quantified overview on involvement of different institutional sectors to social insurance by countries considered on the basis of latest available ASA information.

*Table 19 – Social contributions received by institutional sectors (ASA 2007), %*

	Social contributions received (D.61) by institutional sectors (in %)						Imputed social contributions (D.612, unfunded schemes) as % of D.61 sector total			
	S.1+S.2	S.11	S.12	S.13	S.1M	S.2	S.11	S.12	S.13	S.1M
<b>BE</b>	100.0	4.7	12.4	80.1	0.2	2.5	95.6	1.6	13.5	100.0
<b>CZ</b>	100.0	0.3	6.2	92.4	-	1.1	100.0	0.1	0.1	-
<b>DK</b>	100.0	-	81.5	17.7	-	0.8	-	0.0	44.6	-
<b>DE</b>	100.0	3.5	9.9	86.2	0.1	0.3	13.3	0.6	6.1	100.0
<b>ES</b>	100.0	4.3	4.3	90.8	0.2	0.3	100.0	20.7	6.3	100.0
<b>FR</b>	100.0	3.3	7.0	88.7	-	0.9	96.5	3.3	9.8	-
<b>IT</b>	100.0	8.0	4.6	86.2	1.0	0.3	32.7	17.0	1.9	19.9
<b>NL</b>	100.0	3.6	37.7	58.2	0.3	0.2	100.0	0.6	5.4	100.0
<b>AT</b>	100.0	3.0	4.7	91.5	0.3	0.6	100.0	19.4	9.2	100.0
<b>PL</b>	100.0	-	10.7	89.3	-	-	-	-	-	-
<b>PT</b>	100.0	7.5	10.7	81.3	0.3	0.2	-	-	-	-
<b>FI</b>	100.0	-	6.8	92.8	-	0.3	-	1.4	0.0	-
<b>SE</b>	100.0	1.9	29.0	69.1	-	-	-	-	5.1	-
<b>UK</b>	100.0	1.7	42.2	55.8	0.2	-	100.0	0.6	6.7	100.0
<b>NO</b>	100.0	2.3	17.3	80.3	0.1	0.1	-	-	-	-

Only **CZ**, **NL** (starting from 2007) and **UK** can use direct quarterly data on actual social contributions to private funded schemes maintained by the sector S.12 on the basis of quarterly statistical surveys. In **FI** direct monthly information on premium income of individual pension insurance provided by Federation of Finnish Insurance Companies is used as an indicator to estimate all private D.61 flows received by sector S.12.

In **IE**, **AT** and **SE**, D.61 received by sectors other than S.13 is estimated using indicator-based techniques. For financial corporations – mostly pension funds – the compensation of employees of the total economy is used as an indicator. In **IE**, this indicator is combined with information on pension cover, obtained from the Quarterly National Household Survey, and contribution rates as percentage of the wage, obtained from the Irish Association of Pension Funds. Estimates for non-financial corporations and private households including NPISH – which mainly reflect unfunded employer's schemes in these sectors – are in **AT** and **SE** based on these sectors' compensation of employees. **IE** derives the social contributions received by NPISHs on the basis of compensation of employees in health and education (NACE M and

N), combined with information on pension cover, taken from the Quarterly National Household Survey, and estimated contribution rates according to the Association of Pension Funds. Estimates for social contribution to and from the rest of the world are based on the related cross border flows from BoP.

In **BE**, no information is at present available for private schemes on a quarterly basis and a simple smoothing method of annual data is used.

In **IT**, quarterly actual social contributions (D.611) receivable by households, financial intermediaries excluding pension funds and non-financial corporations are end-of-period allowances (a part of workers' pay which is put aside and paid in a lump sum at the end of the employment relationship) received back in the secondary distribution of income account. Their quarterly pattern comes directly from D.121. Quarterly estimation of D.611 receivable by pension funds is based on a trend. Quarterly imputed social contributions receivable by households, financial and non financial corporations are derived from quarterly employer's imputed social contributions (D.122).

In the **UK**, social contributions consist of contributions made to the national insurance scheme, the National Health Service, the Redundancy Fund and the Maternity Pay Fund and premiums associated with the minimum state pension scheme. Data on private social insurance and pension contributions received by respective financial institutions are based on quarterly statistical surveys. Receipts of sectors S.11 and S.1M correspond to imputed social contributions.

In **CZ**, statutory social security covers pensions, sickness benefits, unemployment, health insurance and insurance against the risk of job-related injuries or vocational diseases. Voluntary social contributions contain contributions to supplementary pension insurance, voluntary contributions to health and life insurance.

*Table 20 - Summary of national sources and methods for D.61 estimation*

	USE		RES				
	S.1M	S.2	S.11	S.12	S.13	S.1M	S.2
<b>BE</b>	Residual, S.1/REC + S.2/REC - S.2/PAY	ASA smoothing	ASA smoothing	ASA smoothing	QGGA	ASA smoothing	ASA smoothing
<b>CZ</b>	Residual, S.1/REC + S.2/REC - S.2/PAY	Estimated from D.1/S.2/REC and compulsory soc. sec. contributions	ASA smoothing	Quarterly NSI survey on pension funds	QGGA	-	Estimated using no. of workers, av. wages and soc. contr. shares by countries
<b>DK</b>	Residual, S.1/REC + S.2/REC - S.2/PAY	BoP	-	Biannual data, P.1 as quarterly indicator	STPFS	-	BoP

	USE		RES				
	S.1M	S.2	S.11	S.12	S.13	S.1M	S.2
<b>DE</b>	Residual, S.1/REC + S.2/REC – S.2/PAY	BoP and employment agency	ASA disaggregation / extrapolation with D.1/S.11/PAY as indicator	ASA disaggregation / extrapolation with D.1/S.1/PAY as indicator	QGGA	D.612 estimated as percentage of D.1/S.15/PAY	BoP and employment agency
<b>IE</b>	= S.12/REC + S.13/REC + S.1M/REC	BoP	-	D.1 combined with info on pension cover from quart. survey and contribution. rates from admin. source	STPFS	D.1 combined with info. on pension cover in NACE M+N from quart. survey and contrib. rates from admin. source	BoP
<b>EL</b>	Residual	-	ASA smoothing	ASA smoothing	QGGA	ASA smoothing	-
<b>ES</b>	Residual, S.1/REC + S.2/REC – S.2/PAY	BoP	Quarterly D.122 paid by S.11	Direct source	QGGA	Quarterly D.122 paid by S.14	BoP
<b>FR</b>	Residual, S.1/REC + S.2/REC – S.2/PAY	ASA disaggregation with BoP D.11/REC data as indicator	ASA disaggregation with D.1/S.1/PAY as indicator	ASA smoothing	QGGA	-	ASA disaggregation with BoP D.11/PAY data as indicator
<b>IT</b>	Residual, S.1/REC + S.2/REC – S.2/PAY	BoP	Quarterly D.122 paid by S.11	<u>Pension funds:</u> ASA smoothing. <u>Other receipts:</u> Quarterly D.121 and D.122	STPFS	Quarterly D.122 paid by S.1M	BoP
<b>NL</b>	Residual, S.1/REC + S.2/REC – S.2/PAY	Estimated from D.1/S.2/REC with av. social costs and pension contributions	Quarterly D.122 paid by S.11	<u>Pensions, other private receipts:</u> estimates from S.125 quarterly survey data; <u>D.612:</u> quarterly D.122/S.12/PAY	QGGA	Quarterly D.122 paid by S.14	Estimated from D.1/S.2/PAY with average social costs
<b>AT</b>	Residual, S.1/REC + S.2/REC – S.2/PAY	BoP	ASA disaggregation with D.1/S.11/PAY as indicator	ASA disaggregation with D.1/S.1/PAY as indicator	QGGA	ASA disaggregation with D.1/S.1M/PAY as indicator	BoP
<b>PL</b>	Residual, S.1/REC + S.2/REC – S.2/PAY	-	-	Direct data from Social Insurance Institution	QGGA	-	-
<b>PT</b>	Residual, S.1/REC + S.2/REC – S.2/PAY	BoP	Quarterly D.122 paid by S.11	ASA disaggregation / extrapolation with quart. pension funds information	QGGA	Quarterly D.122 paid by S.1M	BoP
<b>FI</b>	Residual, S.1/REC + S.2/REC – S.2/PAY	ASA divided by 4	-	ASA disaggregation / extrapolation with pension ins. premiums as indicator	STPFS	-	ASA divided by 4

	USE		RES				
	S.1M	S.2	S.11	S.12	S.13	S.1M	S.2
<b>SE</b>	Residual, S.1/REC	-	-	Annual admin. data disaggre- gated by quart. D.1/PAY	QGGA	-	-
<b>UK</b>	Residual, S.1/REC – S.2/PAY	ONS quar- terly survey	Quarterly D.122 paid by S.11	ONS quarterly survey	QGGA	Quarterly D.122/S.1M/PAY	-
<b>NO</b>	ASA allocated by QNA D.12/S.1/PAY	-	-	-	-	-	-

### 3.7.3 D.62 – Social benefits (other than social transfers in kind)

#### Definition and coverage

*Social benefits other than social transfers in kind are transfers to households, in cash or in kind, intended to relieve them from the financial burden of a number of risks or needs, made through collectively organised schemes, or outside such schemes by government units and NPISHs; they include payments from general government to producers which individually benefit households and which are made in the context of social risks or needs (e.g. sickness, disability, old age, maternity, unemployment, family, housing, education, general neediness).*

*The heading covers the following sub-types of social benefits:*

- *Social security benefits in cash (D.621) – payable to households by social security funds (excluding reimbursements of households expenditure that fall under social transfers in kind (D.63)). These benefits are provided under social security schemes which receive contributions, cover the entire community or large sections of the community and are imposed and controlled by government units (social security schemes) (e.g. sickness and invalidity benefits, maternity allowances, children or family allowances, unemployment benefits, retirement and survivors' pensions etc.).*
- *Private funded social benefits (D.622) – payable to households (in cash or in kind) by insurance enterprises or other institutional units administering private funded social insurance schemes.*
- *Unfunded employee social benefits (D.623) – payable (in cash or in kind) to the employees, their dependants or survivors by employers administering unfunded social insurance schemes. They can typically include the continued payment of normal, or reduced, wages during periods of absence from work as a result of ill health, accident, maternity, etc.; the payment of family, education or other allowances in respect of dependants; the payment of retirement or survivors' pensions to ex-employees or their survivors; general medical services not related to the employee's work etc.*

- *Social assistance benefits in cash (D.624) – payable to households by government units or NPISHs to meet the same needs as social insurance benefits but which are not made under a social insurance scheme incorporating social contributions and social insurance benefits. Such benefits do not include current transfers paid in response to events or circumstances that are not normally covered by social insurance schemes (i.e. transfers made in response to natural disasters, recorded under other current transfers or under other capital transfers).*

Time of recording

*Social benefits in cash are recorded when the claims on the benefits are established.*

(ESA 95, §§ 4.83, 4.103-4.107)

The compilation of this transaction, as closely related to D.61 described in previous section, relies on similar data sources and methods. The main inputs are QGGA data and estimates for imputed social contributions received by the other institutional sectors, which are respectively mirrored in D.623 flows on the uses side. Estimates have to be made mainly for benefits paid by private funded social security schemes, social assistance benefits in cash paid by NPISH (if any) and benefits received/paid from/to RoW in case a detailed breakdown of current transfers is not provided by BoP compilers.

Table 21 - Summary of national sources and methods for D.62 estimation

	USE					RES	
	S.11	S.12	S.13	S.1M	S.2	S.1M	S.2
<b>BE</b>	ASA smoothing by linear trend	ASA smoothing by linear trend	QGGA	Equal to D.612/S.1M/REC	Residual: QNA total D.5 + D.6 – QSA D.5 – QSA D.61	= S.1/PAY + S.2/PAY – S.2/REC	Residual: QNA total D.5 + D.6 – QSA D.5 – QSA D.61
<b>CZ</b>	Equal to D.612/S.11/REC	D.622 from quart. NSI survey on pension funds; D.623 equal to D.612/S.12/REC	QGGA	-	Admin. survey	= S.1/PAY + S.2/PAY – S.2/REC	ASA smoothing
<b>DK</b>	-	Biannual data, P.1 as quarterly indicator	STPFS	-	BoP	= S.1/PAY + S.2/PAY – S.2/REC	BoP
<b>DE</b>	D.622: ASA smoothing by linear trend. D.623: equal to D.612/S.11/REC	D.622: ASA divided by 4. D.623: equal to D.612/S.11/REC	QGGA	Equal to D.612/S.1M/REC	BoP and statutory pension insurance	= S.1/PAY + S.2/PAY – S.2/REC	BoP
<b>IE</b>	-	Annual data from EU SILC divided by 4	STPFS	Annual data from EU SILC divided by 4	BoP	= S.1/PAY + S.2/PAY – S.2/REC	BoP
<b>EL</b>	Equal to D.612/S.11/REC	Equal to D.612/S.12/REC	QGGA	Equal to D.612/S.1M/REC	-	Residual	-
<b>ES</b>	Equal to D.612/S.11/REC	Direct source	QGGA	Structure of previous year	BoP	= S.1/PAY + S.2/PAY – S.2/REC	BoP

	USE					RES	
	S.11	S.12	S.13	S.1M	S.2	S.1M	S.2
<b>FR</b>	Equal to D.612/S.11/REC	ASA allocated by quart. pattern of priv. med. insurance reimbursements	QGGA	<u>D.624</u> : residual	ASA disaggregation with BoP data as indicator	= S.1/PAY + S.2/PAY – S.2/REC	ASA smoothing
<b>IT</b>	ASA smoothing by linear trend	ASA smoothing by linear trend	STPFS	ASA smoothing by linear trend	BoP	= S.1/PAY + S.2/PAY – S.2/REC	BoP
<b>NL</b>	Equal to D.612/S.11/REC	<u>D.622</u> : S.125 quarterly survey data (since 2007). <u>D.623</u> : equal to D.612/S.11/REC	QGGA	Equal to D.612/S.1M/REC	Estimate based on annual income panel among residents	= S.1/PAY + S.2/PAY – S.2/REC	Estimates based on annual soc. security reports
<b>AT</b>	Equal to D.612/S.11/REC	ASA disaggregation with D.1/S.1/PAY as indicator	QGGA	Equal to D.612/S.1M/REC	BoP	= S.1/PAY + S.2/PAY – S.2/REC	BoP
<b>PL</b>	-	Not yet available	QGGA	-	-	-	-
<b>PT</b>	Equal to D.612/S.11/REC	ASA disaggregation with combined indicator based on quart. data of pensions paid and GDP	QGGA	Equal to D.612/S.14/REC	BoP	= S.1/PAY + S.2/PAY – S.2/REC	BoP
<b>FI</b>	-	ASA divided by 4	STPFS	-	ASA divided by 4	= S.1/PAY + S.2/PAY – S.2/REC	ASA divided by 4
<b>SE</b>	ASA disaggregation	Quart. data from Swedish Financial Supervisory Authority (FI)	QGGA	-	-	= S.1/PAY	-
<b>UK</b>	Equal to D.612/S.11/REC	<u>D.622</u> : quart. stat. survey. <u>D.623</u> : equal to D.612/S.11/REC	QGGA	<u>D.623</u> : equal to D.612/S.1M/REC	-	= S.1/PAY + S.2/PAY – S.2/REC	ONS quarterly survey
<b>NO</b>	-	-	-	<u>D.624</u> : ASA smoothing / extrapolation by linear trend	-	<u>D.621</u> : QGGA. <u>D.622</u> , <u>D.624</u> : ASA smoothing / extrapolation by linear trend	-

### 3.7.4 D.71 – Net non-life insurance premiums

#### Definition and coverage

*Net non-life insurance premiums are premiums payable under policies taken out by institutional units to provide cover against various events or accidents resulting in damage to goods or property, or harm to persons as a result of natural or human causes (fires, floods, crashes, theft, violence, accidents, sickness, etc.) or against financial losses resulting from such events.*



*The policies taken out by individual households are those taken out on their own initiative and for their own benefit, independently of their employers or government and outside any social insurance scheme.*

*Net non-life insurance premiums comprise both the actual premiums payable by policy holders to obtain insurance cover during the accounting period (premiums earned) and the premium supplements payable out of the property income attributed to insurance policy holders, after deducting the service charges of insurance enterprises arranging the insurance.*

*Time of recording*

*Net non-life insurance premiums are recorded when they are earned.*

*Premiums earned in the current period are those that cover risks outstanding in the current period. They must be distinguished from the premiums due for payment during the current period, which are likely to cover risks in future periods as well as the current period.*

*(ESA 95, §§ 4.109-4.110)*

Almost half of the countries considered (**CZ, DK, EL, IT, NL, PT, AT, FI, SE, UK**) have access to infra-annual information related to non-life insurance activities, which is collected either by NSI quarterly statistical surveys (**CZ, NL** (starting from 2007) and **UK**), provided at quarterly basis by administrative authorities supervising insurance market (**DK** (semi-annual data), **IT, SE**) or by business organisations representing the industry (such as Associations of Insurance Companies in **EL, PT** and **FI**). These infra-annual data sources provide information only on premiums receivable and/or claims payable, normally by type of insurance product, without breakdown to counterpart sectors. The amounts of net-premiums paid by institutional sectors are often determined on the basis of estimated annual structure unless direct identification of the counterpart sectors is possible on the basis of detailed data by type of insurance.

In other countries, only annual information is available to QSA compilers both on payments and receipts of non-life insurance premiums (**BE, DE, FR, IE, NO**). ASA estimates are most commonly temporarily disaggregated into quarters by assuming a linear trend.

The availability of the necessary detail in BoP data that enables the estimation of premiums and claims flows from and to the RoW is reported by **DK, DE, IE, IT, PT** and **FI**.

*Table 22 - Summary of national sources and methods for D.71 estimation*

	USE					RES	
	S.11	S.12	S.13	S.1M	S.2	S.12	S.2
<b>BE</b>	ASA smoothing by linear trend		QGGA	Residual	ASA smoothing by linear trend	ASA smoothing by linear trend	
<b>CZ</b>	Total D.71/S.12/REC allocated to paying sectors by annual structure of gross premiums available from annual NSI survey on insurance companies (year t-2)					Data of quart. NSI survey on insurance companies	-
<b>DK</b>	Residual	Biannual data; suppl. info from 8 insurance companies used for allocation to quarters	S.13 assumed to be self-insured	N/A	BoP	Biannual data; suppl. info from 8 insurance companies used for allocation to quarters	BoP
<b>DE</b>	ASA smoothing by linear trend; annual data allocated to paying sectors using Insurance Supervisory Body information by type of insurance				BoP	ASA smoothing by linear trend	BoP
<b>IE</b>	Annual data from Irish Financial Regulator evenly divided over quarters; broken down to sectors using Household Budget Survey and administrative sources				BoP	= S.1/PAY + S.2/PAY	BoP
<b>EL</b>	Total D.71/S.12/REC allocated to paying sectors by ASA structure	-	-	Total D.71/S.12/REC allocated to paying sectors by ASA structure	-	Extrapolated / disaggr. using quart. data of Ass. of Insurance Companies on gross premiums received	-
<b>ES</b>	Applying annual ratio of S.11 to (S.11 + S.1M) to total RES – S.12/PAY – S.13/PAY – S.2/PAY	Direct source	QGGA	Applying annual ratio of S.11 to (S.11 + S.1M) to total RES – S.12/PAY – S.13/PAY – S.2/PAY	BoP	Direct source	BoP
<b>FR</b>	ASA smoothing by linear trend					Residual	ASA smoothing by linear trend
<b>IT</b>	Annual data allocated to S.11 and S.12 using as an indicator the pattern of total D.71/REC by S.12 net of D.71/PAY by S.1M		QGGA	<u>Households:</u> ASA disaggr. by indicator from quart. HBS. <u>Rest of S.1M:</u> as S.11, S.12	BoP	ASA disaggr. by quarterly gross insurance premiums as indicator	BoP
<b>NL</b>	= D.72/S.11/REC that is based on relationship of claims to production observed over 15 years	Partly ASA divided by 4	QGGA	ASA disaggregation by Denton method	S.125 counterpart data	S.125 quarterly survey	S.125 counterpart data

	USE					RES	
	S.11	S.12	S.13	S.1M	S.2	S.12	S.2
<b>AT</b>	Premiums earned by S.12 and S.2 allocated to paying sectors using ASA structure with rough breakdown by type of insurance				BoP	ASA disaggr. using quart. net premiums from insurance statistics (by type of insurance) as indicator	BoP
<b>PL</b>	Allocation to sectors using annual structure and quarterly data by different type of non-life insurance (from Polish Financial Supervision Authority)				-	Quart. data by dif-f. type of non-life insurance from Polish Fin. Supervision Authority	-
<b>PT</b>	ASA disaggregation by D.71/S.12/REC series as quarterly indicator	ASA disaggr. / extrapolation with quart. data on non-life insurance premiums	QGGA	Residual	Gross premiums from BoP multiplied with annual ratio of D.71 to BoP premiums	ASA disaggr. / extrapolation with quart. data on non-life insurance premiums	Gross premiums from BoP multiplied with annual ratio of D.71 to BoP premiums
<b>FI</b>	ASA share weighted by type of insurance	ASA divided by 4	ASA divided by 4	Residual	BoP	= D.72/S.12/PAY estimated using monthly data on non-life insurance claims paid as indicator	BoP
<b>SE</b>	Annual shares by kind of insurance applied on quarter totals		QGGA	Annual shares by kind of insurance applied on quarter totals	BoP	ASA disaggr. by quart. gross premiums and premium supplements received	BoP
<b>UK</b>	D71/S.12/REC broken down by counterpart sectors by quarterly data from financial services authority, Association of British Insurance and NSI survey of insurance companies				Quart. NSI survey on overseas trade in services	Data by type of insurance from quart. NSI survey	Quart. NSI survey on overseas trade in services
<b>NO</b>	-	-	-	ASA divided by 4	-	-	-

### 3.7.5 D.72 – Non-life insurance claims

#### Definition and coverage

*Non-life insurance claims represent the claims due under contracts in respect of non-life insurance; that is, the amounts which insurance enterprises are obliged to pay in settlement of injuries or damage suffered by persons or goods. Non-life insurance claims do not include payments which constitute social benefits.*

*The total claims due must equal the net non-life premiums receivable by an insurance enterprise during the same accounting period, as the service charges on non-life insurance are calculated by subtracting claims due from the combined value of the premiums earned and premium supplements.*

*Some claims arise because of damage or injuries that the policy holders cause to the property or persons of third parties. In these cases, valid claims are recorded as being payable directly by the insurance enterprise to the injured parties and not indirectly via the policy holder.*

#### Time of recording:

*Non-life insurance claims are recorded at the time the accident or other event insured against occurs.*

*(ESA 95, §§ 4.112-4.115 )*

Non-life insurance claims are estimated in parallel with net non-life insurance premiums generally relying on the same data sources and methodological approaches and respecting the equality  $D.72/S.12/PAY = D.71/S.12/REC$ .

The assumption on the equality of premiums paid and claims received by the other institutional sectors is applied in the compilation process of either D.71 or D.72 by **DK, IE, NL** and **UK**.

### 3.7.6 D.74 – Current international co-operation

#### Definition and coverage

*Current international co-operation includes all transfers in cash or in kind between general government and governments or international organisations in the rest of the world, except investment grants and other capital transfers. Specifically, it covers:*

- *The non-tax contributions of the government to the Institutions of the European Union, except the 'GNI' based fourth own resource;*
- *The contributions of the government to international organisations (excluding taxes payable by member governments to supra-national organisations);*

- Any current transfers which general government may receive from the institutions or organisations referred to under a) and b);
- Current transfers between governments, either in cash (e.g. payments intended to finance the budget deficits of foreign countries or overseas territories) or in kind (e.g. counterpart of gifts of food, military equipment, emergency aid after natural disasters in the form of food, clothing, medicines, etc.);
- Wages and salaries paid by a government, an Institution of the European Union or an international organisation, to advisers or technical assistance experts made available to developing countries.

#### Time of recording

*The time the regulations in force stipulate the transfers are to be made (obligatory transfers), or the time the transfers are made (voluntary transfers).*

(ESA 95, §§ 4.121-4.123)

As only two institutional sectors are involved in this transaction (General Government and Rest of the world), whose accounts are normally compiled beside the QSA compilation process (as QGGA and BoP), estimation of this transaction is not currently considered in detail in this document.

The main issue related to this transaction is the consistency between the respective flows as estimated in QGGA accounts versus BoP. In most countries, QSA estimates for both S.13 and S.2 are totally based on QGGA information.

Only in **DE** is the total value of international cooperation transactions determined by BoP, since the same classification system is used for balance of payments and national accounts.

**FR** is the only country which does not use any quarterly information, neither from BoP nor from QGGA, to estimate D.74 flows. Instead, the annual flows are smoothed over quarters.

### **3.7.7 D.75 – Miscellaneous current transfers**

#### Definition and coverage

*This heading includes:*

- Current transfers to NPISHs - all voluntary contributions (other than legacies) including transfers in kind to charities (e.g. gifts of food, clothing, medicines etc.), membership subscriptions and financial assistance which NPISHs receive from households (including non-resident households) and, to a lesser extent, from other sectors (excluding transfers made for the specific purpose of financing capital expenditure). Excluded are the payments of membership dues or subscriptions to market NPIs serving businesses, such as chambers of commerce or trade associations, which are treated as payments for services rendered.

- *Current transfer between households* - all current transfers in cash or in kind made, or received, by resident households to, or from, other resident or non-resident households. In particular, these comprise remittances by emigrants or workers permanently settled abroad (or working abroad for a period of a year or longer) to members of their family living in their country of origin.
- *Fines and penalties* - imposed on institutional units by courts of law or quasi-judicial bodies are treated as compulsory current transfers. Fines and penalties imposed by tax authorities for the evasion or late payment of taxes, which cannot usually be distinguished from the taxes themselves, are excluded.
- *Lotteries and gambling* - The amounts paid for lottery tickets or placed in bets consist of two elements: the payment of a service charge to the unit organising the lottery or gambling and a residual current transfer that is paid out to the winners. The transfers are regarded in the system as taking place directly between those participating in the lottery or gambling, that is, between households.
- *Payments of compensation* - current transfers paid by institutional units to other institutional units in compensation for injury to persons or damage to property caused by the former, excluding payments of non-life insurance claims. Payments of compensation could be either compulsory payments awarded by a court of law, or ex gratia payments agreed out of court. This heading covers ex gratia payments made by government units or NPISHs in compensation for injuries or damage caused by natural disasters other than those classified as capital transfers.
- *GNI based fourth own resource* - created by the Council Decision of 24 June 1988 on the system of Communities' own resources is a current transfer paid by the general government of each Member State to the Institutions of the European Union. It is a residual contribution to the budget of those Institutions, which is assessed on the levels of GNI of each of the countries.
- *Others* (e.g. travelling fellowships and awards paid to resident or non-resident households by general government or NPISHs; current transfers from NPISHs to the rest of the world; sponsoring by corporations if those payments cannot be regarded as purchases of advertising or other services (transfers for scholarships) etc.).

#### Time of recording

*Voluntary current transfers (as transfers to NPISHs, between households, ex gratia payments for compensation) are recorded at the time they are made.*

*Compulsory payments (as fines and penalties, GNP based fourth own resource, government transfers) are recorded at the time the liabilities arise.*

(ESA 95, §§ 4.125-4.140)

This transaction can be subdivided to three broad groups of flows:

- Flows between General Government and other institutional sectors;

- Flows between Rest of the World and domestic institutional sectors;
- Flows between Households and NPISH.

Flows related to general government are normally well backed by quarterly data from QGGA, often with sufficient level of detail that allows direct identification of the counterpart sectors or use of certain simplifying assumptions. For example, in **IT**, QGGA supply information on D.75 payments and receipts by type of units (state, other units of central government; regions; provinces and municipalities, health institutions; social security funds). Detailed ASA figures by sectors are disaggregated using the quarterly pattern of the relevant type of government units flows.

In cases where the counterpart details are not available, imposition of the annual sector structure, smoothing, even allocation to quarters or residual estimation via matrix balancing are used to derive quarterly estimates for related institutional sectors (partly **BE, EL, AT, FI**).

Estimates of the flows between the RoW and domestic institutional sectors are based on quarterly BoP data (or QNA estimates in the cases of **IT** and **AT**) and counterpart information from QGGA for the flows between general government and EU institutions. In several cases, additional information is available on the breakdown of private current transfers with RoW that can be used to produce estimates by domestic sectors (**DE, IT, PL**). In **DK**, private transfers are evenly allocated between S.11 and S.1M assuming that there is no transaction with financial corporations. In all other cases indirect estimation is used.

In most cases there is no quarterly data available on flows between Households and NPISH, so most countries use indirect estimations or consolidate these flows for practical reasons (**DE, AT**). Only **IE, FI** and **DK** reported availability of some relevant quarterly information that is used to estimate these flows either directly or as ASA disaggregation by indicator. This concerns information on voluntary contributions, membership subscriptions and charitable donations obtained from the Household Budget Survey in **IE**, information from tax authorities on church taxes and payments to trade unions in **FI** and data on lottery prizes in **DK**.

**EL** did not provide any information on how the estimates for this sub-category of D.75 flows are made.

**FR** is the only country which does not use any quarterly information neither from BoP nor from QGGA to estimate D.75 flows fully relying on smoothing techniques in order to allocate ASA estimates to quarters.

*Table 23 - Summary of national sources and methods for D.75 estimation*

	USE					RES				
	S.11	S.12	S.13	S.1M	S.2	S.11	S.12	S.13	S.1M	S.2
<b>BE</b>	Flows to S.1M and S.2 smoothed or divided by 4; to S.13 – residual	Flows to S.13 and S.1M smoothed or divided by 4	QGGA by counterpart sector	Smoothing or residual	Smoothing or residual	S.13 data + S.2 ASA smoothed	S.13 data + S.2 ASA smoothed	STPFS D.7 – QSA D.71, D.74	Sum of counterpart estimates	QNA D.7 – QSA estimate for D.71, D.72, D.74
<b>CZ</b>	Estimation based on ASA structure (lottery winnings); residual item	Estimation based on ASA structure	QGGA by counterpart sector	Flows to S.13 + model estimate of remittances to S.2 + ASA disaggr. for the rest	Residual from BoP item "current transfers"	Estimation based on ASA structure (lottery winnings); residual item	Estimation based on ASA structure	QGGA by counterpart sector	Flows from S.13 + ASA disaggr.	Residual from BoP item "current transfers"
<b>DK*</b>	Residual	-	STPFS	Data on lottery prices + flows to S.13 + ½ of private flows to S.2	BoP	Flows from S.13+ ½ of private flows from S.2	-	STPFS	Data on lottery prices + flows from S.13 + ½ of private flows from S.2	BoP
<b>DE</b>	Counterpart data of S.13 and S.2	-	QGGA by counterpart sector	Counterpart data of S.13 and S2	BoP by counterpart sector	Counterpart data of S.13 and S2	Counterpart data of S.13 and S.2	QGGA by counterpart sector	Counterpart data of S.13 and S2	BoP by counterpart sector
<b>IE</b>	-	-	STPFS	RoW flows from BoP data; NPISH flows from household survey	Residual item from BoP	-	-	-	BoP; STPFS; household survey data	BoP
<b>EL</b>	Flows to S.12, S.13 and S.2 allocated pro rata to S.11 share in GVA	ASA smoothing	QGGA	Flows to S.12, S.13 and S.2 allocated pro rata to S.1M share in GVA	BoP	Flows from S.12, S.13 and S.2 allocated pro rata to S.11 share in GVA	ASA smoothing	QGGA	Flows from S.12, S.13 and S.2 allocated pro rata to S.1M share in GVA	BoP
<b>ES</b>	Matrix estimation with info of other sectors	Direct source	QGGA	Matrix estimation with info of other sectors	BoP	-	Direct sources	QGGA	Matrix estimation with info of other sectors	BoP
<b>FR</b>	ASA smoothing by linear trend except S.13 (residual)						ASA smoothing by linear trend			



	USE					RES				
	S.11	S.12	S.13	S.1M	S.2	S.11	S.12	S.13	S.1M	S.2
<b>IT</b>	ASA disaggregated by quarterly pattern of relevant S.13 sub-group flow + part of private transfers to S.2		QGGA by groups of S.13 units involved	As S.11/S.12 + ASA smoothed flows to S.1M	QNA; BoP for priv. transfers and workers remittances	ASA disaggr. by quarterly pattern of relevant S.13 sub-group flow + part of private transfers to S.2		QGGA by type of S.13 units involved	Same as S.11/S.12 + ASA smoothed flows to S.1M	QNA; BoP by type of flow (priv. transfers, workers remittances)
<b>NL</b>	Quarterlised annual estimate adjusted by S.13 counterpart info	-	QGGA by counterpart detail	As S.11/S.12 + ASA disaggr. of flows to S.1M	BoP by counterpart detail	Annual estimate quarterlized by Denton method	-	QGGA by counterpart detail	Same as S.11, S.12 + ASA disaggregation of flows to S.1M	BoP, S.13 data by counterpart detail
<b>AT</b>	S.13 and S.2 counterpart data		QGGA by counterparts	As S.11, S.12	BoP by counterparts	S.13 and S.2 counterpart data		QGGA by counterparts	Same as S.11/S.12	BoP by counterparts
<b>PL</b>	Counterpart data from S.13		QGGA by counterpart data	As S.11, S.12 + ASA disaggr. on flows to S.1M	BoP with breakdown of current transfers	Counterpart data from S.13		QGGA by counterpart data	As S.11, S.12 + ASA disaggr. of flows from S.1M	BoP with breakdown of current transfers
<b>PT</b>	Residual	ASA disaggregation using GDP as indicator	QGGA	ASA disaggr. / extrapol. by quart. data on priv. transfers from BoP (REC)	QGGA; private transfers from BoP	Counterpart data from S.13	ASA disaggregation by GDP as indicator	QGGA	ASA disaggr. / extrapol. by quart. data on priv. transfers from BoP (PAY)	QGGA; private transfers from BoP
<b>FI*</b>	ASA divided by 4	ASA divided by 4	N/A	ASA disaggr. by quart. data on church taxes and trade union fees	ASA divided by 4	ASA divided by 4	-	N/A	N/A	ASA divided by 4
<b>SE</b>	-	N/A	QGGA by counterpart	QGGA data	QGGA; priv. transfers from BoP	N/A	Quart. admin. data on extra-ordin. income	QGGA by counterpart	QGGA data	QGGA; private transfers from BoP
<b>UK</b>	QGGA	QGGA	QGGA	QGGA	QGGA	QGGA	QGGA	QGGA	QGGA	QGGA
<b>NO</b>	-	-	-	<u>To S.13, other priv. flows:</u> ASA divided by 4; <u>to S.2:</u> BoP; <u>to NPISH:</u> consumption as indicator	-	-	-	-	<u>To S.13 and other priv. flows:</u> ASA divided by 4; <u>to S.2:</u> BoP; <u>to NPISH:</u> consumption as indicator	-

\*) D.7N estimated as total without breakdown to sub-components (D.74 and D.75)

### 3.7.8 D.8 – Adjustment for the change in the net equity of households in pension funds reserves

#### Definition

*The adjustment for the change in the net equity of households in pension funds reserves (D.8) represents the adjustment needed to make appear in the saving of households the change in the actuarial reserves on which households have a definite claim as owners of the reserves of private funded schemes, both autonomous and non-autonomous, (a claim which re-appears at the financial level as an asset under heading F.61) and which are fed by premiums and contributions recorded in the secondary distribution of income account as social contributions.*

*The adjustment is equal to:*

*the total value of the actual social contributions in respect of pensions payable into private funded pension schemes, including the total value of contribution supplements payable out of the property income attributed to insurance policy holders and excluding the value of the associated service charges*

**MINUS**

*the total value of the pensions paid out as social insurance benefits by private funded pension schemes.*

*It is payable by the insurance enterprises or autonomous pension funds or employers maintaining non autonomous pension funds and added to the disposable income, or adjusted disposable income, of households in the use of income accounts before arriving at saving..*

#### Time of recording

*The adjustment is recorded according to the flows which compose it.*

*(ESA 95, §§ 4.141-4.143)*

As follows from the definition, D.8 is the difference between social contributions received and pension benefits paid by private funded pension funds. Thus, its estimation is straightforward for the countries having detailed quarterly estimates of underlying flows or where private funded social security flows are related only to pensions (**BE, CZ, DK, IE, ES, NL, UK**).

**IT, DE** and **FI** use indirect allocation of the annual figures to quarters. **AT** takes the respective estimate as recorded in the QFA compiled by the NCB (F.612).

**EL** and **FR** do not record any D.8 flow in their sector accounts.

Only two countries, **NL** and **UK**, record D.8 flows in the RoW account. For all other countries, private funded pension flows are limited to the domestic economy.

For this transaction, consistency should be monitored with the related flows D.61 and D.62 and its counterpart in financial accounts (F.612).

*Table 24 - Summary of national sources and methods for D.8 estimation*

	USES					RESOURCES	
	S.11	S.12	S.13	S.1M	S.2	S.1M	S.2
<b>BE</b>	ASA divided by 4	D.611/S.12/REC – D.622/S.12/PAY	QGGA	-	-	= S.1/PAY	-
<b>CZ</b>	-	Quarterly NSI survey on balance of pension insurance	-	-	-	= S.1/PAY	-
<b>DK</b>	-	D.61/S.12/REC – D.62/S.12/PAY	-	-	-	= S.1/PAY	-
<b>DE</b>	D.61- and D.612/S.11/REC – D.622- and D.623/S.11/PAY related to pensions flows	D.611/S.12/REC – D.622/S.12/PAY related to pensions flows	-	-	-	= S.1/PAY	-
<b>IE</b>	-	D.61/S.12/REC – D.62/S.12/PAY	-	-	NA	= S.1/PAY	NA
<b>EL</b>	-	-	-	-	-	-	-
<b>ES</b>	-	D.611/S.12/REC – S.622/S.12/PAY	-	-	-	= S.1/PAY	-
<b>FR</b>	No private pension insurance in FR						
<b>IT</b>	QNA data (ASA smoothing by linear trend)	QNA data (ASA smoothing by linear trend)	-	QNA data (ASA smoothing by linear trend)	-	= S.1/PAY	-
<b>NL</b>	-	D.611/S.12/REC – D.622/S.12/PAY related to pensions	-	-	-	Residual	D.611/S.2/PAY – D.622/S.2/REC
<b>AT</b>	-	QFA F.612 estimate	-	-	-	= S.1/PAY	-
<b>PL</b>	-	Data from Polish Financial Authority adjusted to own estimations of holding gains (losses)	-	-	-	= S.1/PAY	-
<b>PT</b>	-	D.611/S.12/REC – D.622/S.12/PAY	-	-	-	= S.1/PAY	-
<b>FI</b>	-	ASA divided by 4	-	-	-	= S.1/PAY	-
<b>SE</b>	Data on pension flows, net of premiums, incl. premium supplements, minus benefits paid		QGGA	-	-	= S.1/PAY	-
<b>UK</b>	-	D.611/S.12/REC – D.622/S.12/PAY	-	-	-	S.1M share of S.1/PAY defined by quarterly indicator	S.2 share of S.1/PAY defined by quarterly indicator
<b>NO</b>	-	-	-	Derived from D.61 and D.62; harmonisation of quart. data	-	Derived from D.61 and D.62; harmonisation of quart. data	-

### 3.8 Compilation of capital transfers and other capital account flows

#### 3.8.1 D.91 - Capital taxes

##### Definition and coverage

*Capital taxes consist of taxes levied at irregular and very infrequent intervals on the values of the assets or net worth owned by institutional units (e.g. betterment levies, that is taxes on the increase in the value of agricultural land due to planning permission to develop the land for commercial or residential purposes) or on the values of assets transferred between institutional units as a result of legacies, gifts inter vivos or other transfers (inheritance taxes, death duties and taxes on gifts inter vivos).*

##### Time of recording

*Capital taxes are recorded at the time when the tax liabilities arise.*

*(ESA 95, §§ 4.148-4.150)*

As can be seen from the table below, in most countries only two institutional sectors are involved in this transaction: Households and NPISH as taxpayers for the benefit of general government. Thus, quarterly flows can be directly estimated on the basis of QGGA records.

Only in **IT** and **ES** are non-financial corporations liable to pay capital taxes. Flows from/to RoW are recorded only by **CZ**.

*Table 25 - Summary of national sources and methods for D.91 estimation*

	USE				RES	USE & RES
	S.11	S.12	S.13	S.1M	S.13	S.2
<b>BE</b>	-	-	-	= S.13/REC	QGGA	-
<b>CZ</b>	-	-	-	Residual	QGGA	Estimate based on BoP
<b>DK</b>	-	-	-	= S.13/REC	QGGA	-
<b>DE</b>	-	-	-	= S.13/REC	QGGA	-
<b>IE</b>	-	-	-	= S.13/REC	STPFS	-
<b>EL</b>	-	-	-	= S.13/REC	QGGA	-
<b>ES</b>	ASA share	-	-	ASA share	QGGA	-
<b>FR</b>	-	-	-	= S.13/REC	QGGA	-
<b>IT</b>	direct data on extraordinary transfers if any; in other cases ASA share of S.13/REC	-	-	direct data on extraordinary transfers if any; in other cases ASA share of S.13/REC	STPFS, some detail on extraordinary transfers	-
<b>NL</b>	-	-	-	= S.13 REC	QGGA	-
<b>AT</b>	-	-	-	= S.13 REC	QGGA	-
<b>PL</b>	-	-	-	= S.13 REC	QGGA	-
<b>PT</b>	-	-	-	= S.13 REC	QGGA	-
<b>FI</b>	-	-	-	= S.13 REC	STPFS	-
<b>SE</b>	-	-	-	= S.13 REC	QGGA	-
<b>UK</b>	-	-	-	= S.13 REC	QGGA	-
<b>NO</b>	-	-	-	No direct quarterly data. Simple projection based on quarterly figures from the base year, combined with the assumption that it is equally distributed to quarters.	-	-

### 3.8.2 D.92 - Investment grants

#### Definition and coverage

*Investment grants consist of capital transfers in cash or in kind (e.g. transfers of transport equipment, machinery etc.) made by governments or by the rest of the world to other resident or non-resident institutional units to finance all or part of the costs of their acquiring fixed assets.*

*Investment grants do not include transfers of military equipment in the form of weapons or equipment whose sole function is to fire such weapons, as they are not classified as fixed assets.*

*The value of capital formation carried out by general government for the benefit of other sectors of the economy is also to be shown under investment grants whenever the beneficiary is identifiable and becomes the owner of the capital.*

*Heading D.92 includes not only single non-recurrent payments designed to finance capital formation during the same period, but also instalment payments in respect of capital formation carried out during an earlier period. Thus, those parts of the annual payments by general government which represent the amortisation of debts, contracted by enterprises for the purpose of capital formation projects for whose amortisation the government has assumed total or partial responsibility, are also treated as investment grants.*

*Grants for interest relief made by general government are, however, excluded, even when the object of the relief is to encourage capital formation. In practice, the assumption by public authorities of part of the interest charges constitutes, like the flow of interest itself, a current distributive transaction. Nevertheless, when a grant serves the dual purpose of financing the amortisation of the debt contracted and the payment of the interest on the capital borrowed, and when it is not possible to separate these two elements, the whole of the grant is treated in the accounts as an investment grant.*

#### Time of recording

*Investment grants in cash are recorded when the payment is due to be made. Investment grants in kind are recorded when the ownership of the asset is transferred.*

*(ESA 95, §§ 4.152-4.162)*

Seven countries (**BE, DK, IE, ES, IT, FI, NO**) do not compile separate estimates for this transaction. Investment grants are estimated as a group together with other capital transfers.

The estimation of investment grants and other capital transfers and the quality of such estimates depends to a great extent on the availability of relevant quarterly information from QGGA and BoP, as well as on sufficient level of detail of these data sources.

**FR** is the only country that does not make use of quarterly information from S.13 and S.2 and relies entirely on ASA data and smoothing techniques for the estimation of investment grants.

*Table 26 - Summary of national sources and methods for D.92 estimation*

	USE		RES				
	S.13	S.2	S.11	S.12	S.13	S.1M	S.2
BE	D.92 is compiled jointly with D.99 as D.9N (see next section)						
CZ	QGGA by counterparts	QGGA by counterparts	QGGA data	QGGA data	QGGA data	QGGA data	-
DK	D.92 is compiled jointly with D.99 as D.9N (see next section)						
DE	QGGA with some detail on counterparts	BoP and QGGA	Counterparts data	-	QGGA	Counterparts data	BoP and QGGA
IE	D.92 is compiled jointly with D.99 as D.9N (see next section)						
EL	QGGA total	BoP	Estimation by ASA share	-	QGGA total	Estimation by ASA share	BoP
ES	D.92 is compiled jointly with D.99 as D.9N (see next section)						
FR	Residual	ASA smoothing by linear trend					
IT	D.92 is compiled jointly with D.99 as D.9N (see next section)						
NL	QGGA	QGGA	Counterpart data; balancing	-	QGGA	Time series; Denton method; balancing	QGGA
AT	QGGA by counterparts	BoP by counterparts	S.13, S.2 counterpart data	S.13, S.2 counterpart data	-	S.13, S.2 counterpart data	BoP
PL	QGGA counterparts	Other admin. data sources on beneficiaries of EU transfers	Counterpart information from S13 and other administrative data sources on beneficiaries of EU transfers				BoP
PT	D.92 is compiled jointly with D.99 as D.9N (see next section)						
FI	D.92 is compiled jointly with D.99 as D.9N (see next section)						
SE	QGGA	BoP	-	-	QGGA	-	BoP
UK	QGGA	QGGA	QGGA	-	QGGA	QGGA	QGGA
NO	-	-	-	-	-	D.92 compiled jointly with D.99 as D.9N	-

### 3.8.3 D.99 - Other capital transfers

#### *Definition and coverage*

*Other capital transfers cover transfers other than investment grants and capital taxes which do not themselves redistribute income but redistribute saving or wealth among the different sectors or sub-sectors of the economy or the rest of the world.*

*Other capital transfers include the following transactions:*

- *payments by general government or by the rest of the world to the owners of capital goods destroyed or damaged by acts of war, other political events or natural disasters (floods etc.);*
- *transfers from general government to non-financial corporate and quasi-corporate enterprises to cover losses accumulated over several financial years or exceptional losses from causes beyond the control of the enterprise;*
- *non-recurrent bonus payments on savings granted by general government to households to reward them for their savings carried out over a period of several years;*
- *legacies, large gifts inter vivos and donations between units belonging to different sectors, including legacies or large gifts to NPIs (for example, gifts to universities to cover the costs of building new residential colleges, libraries, laboratories, etc.);*
- *the counterpart transaction of cancellation of debts by agreement between institutional units belonging to different sectors or sub-sectors (for example, the cancellation by the government of a debt owed to it by a foreign country; payments in fulfilment of guarantees which free defaulting debtors from their obligations) - except the particular case of taxes and social contributions payable to the general government sector (see 4.165 (j)). Such cancellations by mutual agreement are treated as a capital transfer from the creditor to the debtor equal to the value of the outstanding debt at the time of cancellation. Likewise the counterpart transaction of debt assumption is another capital transfer. However, excluded are:*
  - *Cancellation of financial claims against and assumption of liabilities from quasi-corporations by the owner of the quasi-corporation. This case is treated as a transaction in shares and other equity (see paragraph 5.16);*
  - *Debt cancellation against and debt assumption from a public corporation by government which disappears as an institutional unit in the system. This case is recorded in the other changes in the volume of assets account (see paragraphs 5.16, 6.29 and 6.30);*
  - *Debt cancellation against and debt assumption from a public corporation by government as a part of an ongoing process of privatisation to be achieved in a short term perspective. This case is treated as a transaction in shares and other equity (see paragraph 5.16).*



*The writing-off of debt is not a transaction between institutional units and therefore does not appear in either the capital account or the financial account of the system. If the creditor decides such a write-off, it should be recorded in the other changes in the volume of assets accounts of the creditor and the debtor. Provisions for bad debt are treated as book-keeping entries that are internal to the institutional producer unit and do not appear anywhere in the system. The unilateral repudiation of debt by a debtor is also not a transaction and is not recognised in the system.*

- *that part of realised capital gains (or losses) which is redistributed to another sector, as, for example, capital gains redistributed by insurance companies to households. However, the counterpart transactions of transfers to general government of the proceeds of privatisation made indirectly (through a holding company for example) have to be recorded as financial transactions in shares and other equity (F.5) and have therefore no direct impact on the level of net lending/net borrowing of the general government;*
- *major payments in compensation for extensive damage or serious injuries not covered by insurance policies. The payments may be awarded by courts of law or settled out of court. They include payments of compensation for damage caused by major explosions, oil spillages, the side-effects of drugs, etc.*
- *extraordinary payments into social insurance funds made by employers (including government) or by government (as part of its social function), in so far as these payments are designed to increase the actuarial reserves of these funds.*
- *When taxes and social contributions payable to the general government sector are recorded on the basis of assessments and declarations, the part unlikely to be collected has to be neutralised in the same accounting period as an “Other capital transfer” inside the specific line D.995, between general government and the relevant sectors. This D.995 flow has to be subdivided according to the coding of the different taxes and social contributions concerned.*

#### *Time of recording*

*Other capital transfers in cash are recorded when the payment is due to be made.*

*Other capital transfers in kind are recorded when the ownership of the asset is transferred or the liability cancelled by the creditor.*

*(ESA 95, §§ 4.164-4.166)*

Similarly to secondary income distribution transactions, quarterly information on flows with S.13 and S.2, possibly with some counterpart details, is crucial for the estimation of this item. There are no data at quarterly frequency on other capital transfers between domestic private sectors. This gap is filled by applying temporal disaggregation techniques to more sound and complete ASA estimates. **FR** is the only country that does not make any use of the quarterly information from S.13 and S.2 and relies totally on ASA data and smoothing techniques for the estimation of other capital transfers.

*Table 27 - Summary of national sources and methods for D.99 estimation*

	USE					RES				
	S.11	S.12	S.13	S.1M	S.2	S.11	S.12	S.13	S.1M	S.2
<b>BE</b>	ASA smoothing or residual via matrix balancing		QGGA	Same as S.11/S.12	QNA	ASA smoothing or residual via matrix balancing		QGGA	Same as S.11/S.12	QNA
<b>CZ</b>	QGGA data by sectors + ASA smoothing for private transfers		QGGA with some counterpart detail	Same as S.11/S.12	QGGA data + estimate based on BoP	QGGA data by sectors + ASA smoothing for private transfers		QGGA with some counterpart detail	Same as S.11/S.12	QGGA data + estimate based on BoP
<b>DK</b>	S.13 counterpart data +1/2 of private flows to S.2 – S.12 estimates	N/A	QGGA with counterpart detail	S.13 counterpart data + 1/2 of private flows to S.2	BoP	Residual	N/A	QGGA with counterpart detail	S.13 counterpart data + 1/2 of private flows from S.2	BoP
<b>DE</b>	QGGA counterpart	ASA data on realised capital gains smoothed by a trend	QGGA by type of transfers	QGGA counterpart	BoP, QGGA	S.12 and QGGA counterpart	QGGA counterpart	QGGA by type of transfers	S.12 and QGGA counterpart	BoP, QGGA
<b>IE</b>	STPFS with counterpart detail	-	STPFS	STPFS with counterpart detail	BoP	STPFS with counterpart detail	-	STPFS	STPFS with counterpart detail	BoP
<b>EL</b>	Estimation by ASA share	-	QGGA	Estimation by ASA share	BoP	Estimation by ASA share	-	QGGA	Estimation by ASA share	BoP
<b>ES</b>	Matrix estimation with info of other sectors	Direct source	QGGA	Matrix estimation with info of other sectors	BoP	Matrix estimation with info of other sectors	Direct source	QGGA	Matrix estimation with info of other sectors	BoP
<b>FR</b>	ASA smoothing by linear trend		Residual	ASA smoothing by linear trend		ASA smoothing by linear trend				
<b>IT</b>	<u>To S.13:</u> ASA disaggr. by S.13/REC quarterly pattern. <u>To S.2:</u> bank debt cancellations assigned to S.12		QGGA	<u>To S.13:</u> as S.11, S.12. <u>To S.2:</u> transfers from repatriations	BoP by type of transfers; QGGA data on EU grants	<u>From S.13:</u> direct data on extraordinary transactions; for the rest, ASA disaggr. by S.13/REC quart. pattern. <u>From S.2:</u> direct data on EU grants		QGGA	<u>To S.13:</u> as S.11. <u>To S.2:</u> same as S.11, S.12 + transfers from repatriations	BoP by type of transfers

	USE					RES				
	S.11	S.12	S.13	S.1M	S.2	S.11	S.12	S.13	S.1M	S.2
<b>NL</b>	ASA / 4, counterpart data, adjusted by balancing	ASA smoothing, counterpart data, adjusted by balancing	QGGA	S.13 and S.2 counterpart data plus time series, Denton method	BoP; QGGA	ASA / 4, counterpart data, adjusted by balancing	Mainly ASA divided by 4, plus balancing adjustments	QGGA	S.13 and S.2 counterpart data plus extrapol. inheritance estimates by no. of deceased persons	BoP; QGGA
<b>AT</b>	S.13, S.2 counterparts data; S.2 counterparts defined by ASA structure		QGGA by counterpart sectors	As S.11 and S.12	BoP	S.13 and S.2 counterparts data; S.2 counterparts defined by ASA structure		QGGA by counterpart sectors	As S.11 and S.12	BoP
<b>PL</b>	Partly S.13 and S.2 counterpart data		QGGA by type of transfers	As S.11 and S.12	BoP counterparts	Partly S.13 and S.2 counterpart data		QGGA by type of transfers	As S.11 and S.12	BoP counterparts
<b>PT</b>	<u>To S.13:</u> ASA disaggr. by S.13/REC quart. pattern	Direct data	QGGA	ASA smoothing by linear trend	QGGA; private transfers from BoP	S.13 and S.2 counterparts data; S.2 counterparts defined by ASA structure	Direct data	QGGA	Residual	QGGA; private transfers from BoP
<b>FI</b>	ASA divided by 4		STPFS	ASA divided by 4	BoP	ASA divided by 4		STPFS	Residual	BoP
<b>SE</b>	N/A	N/A	QGGA	Counterpart data from QGGA and BoP	QGGA; priv. transfers from BoP	N/A	N/A	QGGA	Counterpart data from QGGA and BoP	QGGA; private transfers from BoP
<b>UK</b>	QGGA	QGGA	QGGA	QGGA	QGGA	QGGA	QGGA	QGGA	QGGA	QGGA
<b>NO</b>	-	-	-	Simple projection; equal distribution to quarters	-	-	-	-	Simple projection; equal distribution to quarters	-

### 3.8.4 K.1 - Consumption of fixed capital

#### Definition and coverage

*Consumption of fixed capital represents the amount of fixed assets used up, during the period under consideration, as a result of normal wear and tear and foreseeable obsolescence, including a provision for losses of fixed assets as a result of accidental damage which can be insured against.*

*Consumption of fixed capital must be calculated for all fixed assets (except animals), including both tangible fixed assets and intangible fixed assets such as mineral exploration costs and software, major improvements to non-produced assets and costs of ownership transfers associated with non-produced assets.*

*Consumption of fixed capital (which should be distinguished from the depreciation allowed for tax purposes or the depreciation shown in business accounts) should be estimated on the basis of the stock of fixed assets and the probable average economic life of the different categories of those goods. For the calculation of the stock of fixed assets, the perpetual inventory method (PIM) is recommended whenever direct information on the stock of fixed assets is missing. The stock of fixed assets should be valued at the purchasers' prices of the current period.*

*Consumption of fixed capital is calculated according to the 'straight line' method, by which the value of a fixed asset is written off at a constant rate over the whole lifetime of the good. However, depending on the pattern of decline in the efficiency of a fixed asset the calculation of consumption of fixed capital according to the geometric depreciation method may be required.*

*(ESA 95, §§ 6.02-6.05)*

Calculation of consumption of fixed capital by sectors applying a Perpetual Inventory Model (PIM) is commonly carried out at annual frequency. **PL** is the only country who has reported making such estimates at quarterly level.

Most commonly, ASA smoothing techniques adjusted by QNA constraint are used by countries to produce quarterly K.1 estimates by sectors.

*Table 28 - Summary of national sources and methods for K.1 estimation*

	<b>S.11</b>	<b>S.12</b>	<b>S.13</b>	<b>S.1M</b>	<b>S.1</b>
<b>BE</b>	Residual	ASA smoothing by linear trend	QGGA	ASA smoothing by linear trend	QNA
<b>CZ</b>	Quarterly estimation by sector and industry, broken down by 6 types of assets; $K.1(q) = K.1(q-1) \cdot \text{price index} \cdot \text{coefficient of retirement} + \text{increase in K.1 due to P.51}(q)$				
<b>DK</b>	S.1 – S.12 – S.13, allocated by industry-sector matrix based on ASA and quarterly VAT-data	QNA, NACE J	QGGA	As S.11	QNA
<b>DE</b>	ASA linear smoothing (ASA is based on PIM for all sectors)				
<b>IE</b>	S.1 allocated to sector using sector structure observed in 3 previous years		QGGA	-	QNA
<b>EL</b>	S.1 allocated by ASA structure; discrepancies with actual S.13 data adjusted in S.11		QGGA	As S.11 and S.12	QNA
<b>ES</b>	Quarterly estimate by sectors using PIM				
<b>FR</b>	ASA smoothing by linear trend				
<b>IT</b>	ASA disaggregation by QNA S.1 pattern		STPFS	As S.11 and S.12	QNA
<b>NL</b>	ASA disaggregation (ASA based on PIM for all sectors)				
<b>AT</b>	ASA (estimated by PIM) extrapolated / dissagr. by trend; changes in sector classification and other changes in volume explicitly taken into account				
<b>PL</b>	Quarterly estimate by sectors using PIM				Sum of sectors
<b>PT</b>	ASA linear smoothing (ASA is based on PIM)			Residual	QNA
<b>FI</b>	ASA disaggregated / extrapolated by $q/(q-4)$ change of S.1/K.1 from QNA				QNA
<b>SE</b>	Calculation based on sector-allocated investments (P.51) using quarterly PIM, assuming geometric depreciation functions				Sum of sectors
<b>UK</b>	Quarters interpolated from annual PIM				
<b>NO</b>	-	-	-	S.15, owner-occupied dwellings: directly from QNA data by industry; S.141: ASA P.1 share of benchmark year	QNA

### 3.8.5 K.2 - Acquisitions less disposals of non-financial non-produced assets

#### Definition and coverage

*Non-financial non-produced assets consist of land and other tangible non-produced assets that may be used in the production of goods and services, and intangible non-produced assets.*

*Land is defined as the ground itself, including soil covering and associated surface water. Buildings or other structures on the land or through it (roads, tunnels, etc.) vineyards, orchards, or other plantations of trees and any growing crops, etc, are not included in land, but recorded as produced fixed assets.*

*Subsoil assets; non-cultivated biological resources; water resources below the ground belong to tangible non-produced assets.*

*Intangible non-financial non-produced assets consist of patented entities, leases or other transferable contracts, purchased goodwill and other intangible non-produced assets. Such leases are on land, subsoil assets and residential and non-residential buildings. Further examples include transferable contracts with athletes and authors.*

*Acquisitions and disposals of non-financial non-produced assets are valued at current market prices prevailing at the time the acquisitions/disposals occur. The value of the acquisitions or disposals of leases or other transferable contracts consists of payments made to the original or subsequent tenants or lessees when the leases or concessions are sold or transferred to other institutional units. This value excludes the costs involved in the transfer of ownership of land, which are treated as gross fixed capital formation.*

*(ESA 95, §§ 6.06 - 6.13)*

The K.2 value for the total economy is defined by the counterpart information from RoW (based on BoP). QGGA provide quarterly information on S.13 transactions with some counterpart details, wherever available.

Data sources on transactions between domestic private sectors seem to be scarce even at annual frequency, consequently in some cases assumption is used that domestic sectors are involved in the transactions only with S.13 or S.2 or ASA smoothing techniques are extensively used for quarterly estimates.

**FR** is the only country that does not make any use of the quarterly information from S.13 and S.2 and relies totally on ASA data and smoothing techniques for the estimation of this transaction.

*Table 29 - Summary of national sources and methods for K.2 estimation*

	S.11	S.12	S.13	S.1M	S.1	S.2
<b>BE</b>	Residual, excl. transactions with S.13	ASA smoothing by linear trend	QGGA with counterpart data for specific transactions	ASA smoothing by linear trend	= -S.2	QNA
<b>CZ</b>	Residual (S.1 – S.13 – S.15) allocated to sectors using quarterly survey on priv. producers' net land acquisition		QGGA	S.14: as S.11 and S.12. S.15: ASA allocated to quarters by total data on net land acquisition	= -S.2	Estimate based on BoP; survey starting from 2009
<b>DK</b>	Residual	Annual figures divided by 4	QGGA	½ of S.13 + S.2	= -S.2	BoP
<b>DE</b>	For undeveloped land, QGGA data combined with ASA sector shares	-	QGGA	For undeveloped land, QGGA data combined with ASA sector shares	-	BoP
<b>IE</b>	Counterpart of quarterly BoP	-	QGGA	-	= -S.2	BoP
<b>EL</b>	Estimation by ASA structure	ASA smoothing	QGGA	Estimation by ASA structure	= -S.2	BoP
<b>ES</b>	Estimation by ASA structure	-	QGGA	Estimation by ASA structure	= 0	BoP
<b>FR</b>	ASA smoothing by linear trend					
<b>IT</b>	ASA disaggregation by quarterly S.2	ASA smoothing	QGGA	ASA disaggregation by quarterly S.2	= -S.2	BoP
<b>NL</b>	Value of q-1, adjusted by balancing	Mostly ASA divided by 4	QGGA	Time series; disaggregation by Denton method	= 0	-
<b>AT</b>	Residual, S.1 – S.13	-	QGGA	-	= -S.2	BoP
<b>PL</b>	Not available - ASA derogation until 2011					
<b>PT</b>	S.13 counterpart data	ASA smoothing	QGGA	Counterpart data	= -S.2	BoP
<b>FI</b>	ASA divided by 4					
<b>SE</b>	Residual	Quarterly accounting data	QGGA	Model-based estimation	= 0	-
<b>UK</b>	Administrative survey data on property transactions by sectors, quarterly; land not separable from structures on it, thus partly recorded as P.5; mainly agricultural land covered under this heading				Sum of sectors	Data on patents from NSI's quart. Overseas Trade in Services Inquiry
<b>NO</b>	-	-	-	Considered as not relevant for S.1M	-	-

## **IV. EUROPEAN QSA: SOURCES AND METHODS**

### **4.1 Organisational aspects**

European QSA are compiled jointly by Eurostat and the European Central Bank (ECB).

The sector accounts team of Eurostat unit C5 "Government and sector accounts; financial indicators" (Eurostat Directorate C - "National and European Accounts") is in charge of the overall coordination of non-financial sector accounts for the euro area and EU.

The division "Euro Area Accounts & Economic Data" of ECB Directorate General for statistics is responsible for the compilation of several input statistics for the QSA of the euro area, as well as for the compilation of the euro area quarterly financial accounts including their reconciliation with the non-financial part.

### **4.2 Release and revision policy**

Non-financial and financial quarterly sector accounts for the euro area are simultaneously released by Eurostat and ECB within 120 days after the reference quarter. Eurostat publishes as well non-financial sector accounts aggregates for the European Union.

Eurostat release covers full QSA data series (non-seasonally adjusted) for the euro area and EU as well as key indicators focusing on the performance of non-financial corporations and households (both raw and seasonally adjusted).

Regular QSA data revisions are driven by the revisions in input data that are fully taken into account in each compilation round. One priority for the future is to develop a revision policy, for both Member States and European aggregates, that would limit changes in the series to a given time span.

### **4.3 Coherence with related statistics**

It is considered important to reconcile European QSA data with STPFS aggregates, in particular, for the key items such as net lending/borrowing, despite the fact that some minor inconsistencies between QSA and STPFS exist in national QSA inputs. This consistency is ensured by replacing QSA European aggregates for the sector of General government (S.13) by the respective STPFS series. The inconsistencies created are then allocated to non-government sectors through the general balancing process. However, one should keep in mind that the STPFS aggregates may sometimes still have vintage differences with annual government aggregates (table 2) and EDP data.

Consistency between European annual and quarterly accounts is ensured by the fact that at EA and EU aggregated level annual accounts are estimated as a sum of quarterly data.

Vertical integration of European QSA is fully achieved for the government and financial corporations sectors and for RoW. There are still some discrepancies, equal in size but opposite in sign, for the households and non-financial corporations sectors.



As for quarterly main aggregates and balance of payments for euro area and EU, some discrepancies with European QSA aggregates always exist as a result of respective inconsistencies in national inputs (for more details see section 2.5 of the document) and consolidation of flows between Member States in QSA data.

#### **4.4 Compilation procedures of European non-financial aggregates**

##### **4.4.1 Data sources**

###### ***Non-financial QSA transmitted by MS to Eurostat***

The non-financial QSA data are collected and transmitted to Eurostat by the National Statistical Institutes of the EU Member States following the QSA regulation. These data are compiled on the basis of many sources, including administrative data from government, censuses, and surveys of businesses and households that vary from country to country. For further information about national sources and collection methods, please refer to part III of the present document.

Eurostat currently receives complete or almost complete QSA data sets from 16 MS above the 1% of European GDP threshold: Belgium, Czech Republic, Denmark, Germany, Greece, Ireland, Spain, France, Italy, the Netherlands, Austria, Poland, Portugal, Finland, Sweden and the United Kingdom<sup>11</sup>.

As regards MS under the 1% of European GDP threshold, most of them (with the exception of Luxembourg, Romania and Bulgaria) transmit more or less complete data for the general government (S.13) sector and the rest of the world (S.2).

The data covers a period starting from 1999Q1. They are transmitted 90 days after the end of the quarter to which the data refer.

###### ***Estimation of non-financial quarterly sector accounts for missing countries (European Union and Euro Area)***

For aggregation purpose, missing countries, transactions and sectors are estimated by Eurostat or ECB but are not published separately. These missing items are estimated on the basis of MS making use of the following data sets:

- Annual sector accounts (table 8 of the transmission programme);
- Quarterly and annual main aggregates (table 1);
- Quarterly and annual general government data (table 2 and table 25);

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<sup>11</sup> The Czech Republic has been so far slightly under the one percent of European GDP threshold, but transmits regularly full QSA data starting from 2004Q1.

- Quarterly balance of payments data.

### ***Sector accounts of the European institutions***

The non-financial sector accounts of European Union Institutions (EUI) are compiled by Eurostat on the basis of:

- Quarterly balance of payments data of the EUI;
- Annual financial report/budget of the EUI;
- Annual financial report of the European Investment Bank.

The financial and non-financial accounts of ECB are compiled by the ECB-DG Statistics on the basis of the profit and losses accounts and balance sheet of the institution.

### ***Estimation of the rest of the world***

The estimation of the European rest of the world accounts (consolidated for intra-European flows) is achieved on the basis of:

- Balances of payments data of the MS broken down by flows with EA/EU Member States(intra-flows) and all other countries (extra-flows);
- Additional specific data from MS as regards transaction D43 (result of survey data).

### ***Benchmarking / substitution***

European accounts are benchmarked on short-term public finance statistics (STPFS) for the European Union and the Euro Area (table 25).

### ***Balancing***

For the balancing process, the following data are used:

- Annual and (for the euro area) quarterly data on the sector allocation of intra-flows of re-invested earnings on FDI (D.43);
- Intrastat data for asymmetries in goods.

## **4.4.2 European QSA compilation procedures**

The euro area / European Union accounts are based on, but are not just a simple sum of the national accounts of the Member States. First, cross-border transactions between European countries are eliminated from the rest of the world accounts. Second, the European institutions and bodies are added. Third, inconsistencies in country data, such as the “asymmetries” are eliminated.

Several steps are necessary to convert the national accounts data by country into actual European accounts:

1. Validation of the national QSA data
2. Conversion to Euro (variable exchange rate)
3. Estimation of missing countries, sectors or transactions
4. Addition of the sector accounts of the European Union institutions
5. Estimation of the European rest of the world sector
6. Substitution on short-term public finance statistics (table 25)
7. Final balancing of the accounts

#### **4.4.2.1 Validation of national QSA data**

As a principle, only consistent and FISIM-adjusted data sets are used in the compilation of European aggregates. In the validation process, three types of validation checks can be distinguished:

- Validation of the internal consistency of the data set;
- Validation of the consistency with the annual data and other related data sets;
- Revision checks as compared to previous transmission.

Listed checks are fully performed on the complete data sets. Data from MS having a GDP below 1% of the European total GDP, which contain only S.13 and S.2 figures, are not checked in depth.

##### ***Internal consistency***

The first check is based on the "validation sheet" of the questionnaire that is designed to automatically control the equality between uses and resources, sub-transaction and totals and correctness of balancing items calculation. If the validation sheet reveals inconsistencies, the data is checked more in depth. The collaboration of the MS might be asked to correct the data.

##### ***Consistency with related data sets***

The consistency of the QSA data is tested vis-à-vis annual sector accounts, quarterly main aggregates and STPFS on a regularly basis by Eurostat. For different reasons some discrepancies may appear in MS data as explained in the section 2.5 of the document. Major discrepancies (over 1 EUR billion), particularly vis-à-vis STPFS, are investigated further to avoid unnecessary imbalances in the final balancing.

##### ***Revision checks as compared to previous transmission***

MS QSA data sets are systematically compared with the corresponding transmission related to the previous quarter. This step is important when the revisions in the European aggregates have to be analyzed and explained. As it has been agreed, data revisions or special events with

impact over 3 bn. EUR and 10% change should be accompanied with background information.

If either of the checks reveals inconsistencies, breaks in the series, outliers etc. that might have an impact on the European aggregates, therefore additional information is also requested from the MS.

As a result of all the checks, MS are provided with the regular transmission report and information on deficiencies in the data transmitted that were revealed by the checking procedures.

#### **4.4.2.2 Conversion to Euro**

For the Member States not participating in the Euro Area as well as for Greece in 1999-2000, Slovenia prior to 2007, Cyprus and Malta up to 2008 and Slovakia up to 2009 validated QSA data are converted into Euro using the average exchange rates for each quarter of the reference period.

The growth rates of transactions for the European Union are thus affected by movements in exchange rates and should be viewed with caution. There is almost no impact on ratios such as profit shares or saving rates. Exchange rate movements have very minor impact on the Euro Area accounts, due to the relatively small size of the latest acceding countries.

#### **4.4.2.3 Estimation for missing countries, sectors or transactions**

Only partial quarterly sector accounts series are available for several Member States. This is the case for: Cyprus, Ireland, Luxembourg, Malta, Slovenia and Slovakia (Euro Area) and Bulgaria, Estonia, Latvia, Lithuania, Hungary, and Romania (non Euro Area).

Ireland, a country with full reporting obligation, for the time being has provided QSA data starting from 2004Q1 only.

Rest of the listed countries, having 3-year average GDP lower than 1% of the European Union total, are subject to limited reporting obligations covering only the general government and rest of world sectors.

For incomplete or missing accounts, complementary estimations are carried out by Eurostat and the ECB that are not published separately and used for aggregation purposes only.

#### ***Estimation for Euro Area missing countries (ECB)***

Data for euro area missing or limited reporting MS are estimated by the ECB on an individual basis.

The ECB developed a methodology to complete QSA on the basis of existing country data, namely eventual limited QSA, ASA, quarterly macroeconomic aggregates, general government and rest of the world data, following the accounting constraints and economic relationships. Although with relatively minor overall importance, the missing countries may be relatively important for some sectors (e.g. financial corporations) or transactions (reinvested earn-

ings on direct foreign investment) and may show a distinct behaviour from the countries reporting QSA data. This method, thus, allows the highest level of fine-tuning. With the availability of automated procedures, the estimation of such data sets can be done systematically and homogeneously.

Quarterly macroeconomic indicators are available from table 1 of the ESA95 transmission programme. The main sources for the rest of the world (RoW) are quarterly balance of payments indicators (or reported QSA data). Here additional details are becoming available on a voluntary basis, which allow the compilation of the RoW account for countries that are not already doing so. Together, these data sources allow a meaningful estimate of the RoW account by country. However, specific problems exist, e.g. BoP back data are missing for some countries.

Most of quarterly government transactions are reported under the STPFS or Regulations. However, the level of detail provided is less than that required by the QSA Regulation, and additional estimates are necessary to achieve the required level of detail. Affected variables are changes in stocks, acquisitions less disposals of non-produced non-financial assets and the details of property income and current transfers.

The availability of annual sector accounts is certainly a major advantage. Most countries not having a full set of QSA are however compiling annual sector accounts, which in conjunction with macroeconomic aggregates are very helpful to compile quarterly sector accounts for missing countries.

The quarterly estimations of individual series are performed using the Chow-Lin or, alternatively, the enhanced Denton algorithm, and the use of definitional relationships. For minor series annual data may be smoothed. Once the complete QSA dataset is obtained, the data are made consistent within and between periods using the multivariate proportional Denton procedure.

### ***Estimation for non euro Area missing countries (Eurostat)***

All other non Euro Area MS are below the 1% of European GDP threshold. Consequently, they have to transmit S.13 and S.2 data only. Most of them do so, except for BG and RO.

At present, Eurostat estimates the non Euro Area missing countries as a group, on the basis of annual sector accounts. The method consists in grossing-up available QSA data to European Union totals on the basis of the structure obtained from the annual sector accounts. In other words, ASA proportions are used to gross-up available QSA data according to the following formula:

$$\text{TOTAL\_QSA}_{ijQ} = \text{AVAIL\_QSA}_{ijQy} \times (\text{TOTAL\_ASA}_{ijY} / \text{AVAIL\_ASA}_{ijY})$$

Where:

- TOTAL\_QSA<sub>ijQ</sub> is the estimate of the amount corresponding to transaction i, sector j and quarter Q for non euro area missing countries;

- $AVAIL\_QSA_{ijQ}$  is the amount corresponding to transaction  $i$ , sector  $j$  and quarter  $Q$ , for euro area countries that have transmitted QSA data;
- $AVAIL\_ASA_{ijY}$  is the amount corresponding to transaction  $i$ , sector  $j$  and year  $Y$  in the annual accounts, for euro area countries that have transmitted QSA data.  $Y$  denotes the year corresponding to quarter  $Q$ , or the last year for which annual data are available.
- $TOTAL\_ASA_{ijY}$  is the amount corresponding to transaction  $i$ , sector  $j$  and year  $Y$  in the annual accounts of non euro area missing countries.  $Y$  denotes the year corresponding to quarter  $Q$  or the last year for which annual data are available.

The approach is a cell-wise proportional grossing up.

For variables like "acquisitions less disposals of non-financial non-produced assets" (K.2) that may alternate in sign, an additive grossing-up method is used as follows

$$TOTAL\_QSA_{ijQ} = AVAIL\_QSA_{ijQ} + (TOTAL\_ASA_{ijY} - AVAIL\_ASA_{ijY})$$

This method allows handling the approximately 200 QSA variables in an automated and standardized way, while taking into account the specific coverage of each transaction. As the coverage is calculated for each transaction, sector and year, the method is flexible enough to take advantage of any improvement in the QSA reporting. No change needs to be introduced to deal with a moving set of reporting countries, in case of new data transmissions or countries joining the euro area. In addition, this method ensures, by definition, the consistency between quarterly and annual European Union aggregates before the final balancing exercise.

This grossing-up method relies on the assumption that the quarterly patterns are similar for reporting versus non-reporting countries. Such an assumption can be justified because of the high coverage reached through countries reporting QSA data.

Finally, some fine-tuning is introduced by data benchmarking the estimates for non euro area missing countries on quarterly main aggregates data (transactions B.1g, D1, P31\_S.1M, P.51). This corrects for a possible growth differential between these economies and euro area countries.

#### 4.4.2.4 Estimation of the sector accounts for the European Union institutions (EUI)

According to ESA95<sup>12</sup>, the EUI have to be considered as a Member State “sui-generis” of the European Union. It means EUI and other European bodies are not considered to be a part of the domestic economy in the national accounts compiled by the Member States. Consequently, the sector accounts provided by Member States do not record the activities of institutions and bodies set-up by European treaties as resident entities. But, the European institutions are part of the domestic sectors of the European Union economy. On the basis of a Task Force QSA proposal, it was agreed by CMFB to consider the EUI other than the ECB as resident of

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<sup>12</sup> According to ESA95 compilation standards, the European Union Institutions have to be considered as “State sui-generis” as they are institutions established by international treaty (cf. ESA95 §2.08-c). See also TF-QSA-0212-06 for broad conceptual considerations related to the treatment of the European Union Institutions.

the European Union but not of the Euro Area<sup>13</sup>. European institutions have not been included in the Euro Area accounts because their administrative competence goes beyond the boundaries of the monetary union. The ECB is included in both the Euro Area and the European Union accounts.

Two main conclusions may be drawn from this: first, when compiling the Euro Area aggregates, transactions between Euro Area Member States and the EUI have to be classified within the rest of the world sector. Second, in the case of the compilation of the EU27 aggregates, transactions between Member States and the EUI have to be re-allocated from the Rest of the World sector (S.2) to the domestic sectors they belong to. With the exception of the ECB and the European Investment Bank, which are classified in the financial corporations sector, all European institutions are classified in the government sector.

For the general government sector (S.13), the EUI are the following:

- The Council
- The Commission
- The European Parliament
- The Court of Justice
- The Court of Auditors
- The Social and Economic Committee
- The Committee of the Regions
- The European Development Fund
- European agencies and other technical bodies financed through the General Budget of the EU

The financial corporations sector (S.12) include the following bodies:

- ECB as part of the Euro area and EU accounts
- The European Investment Bank as part of the EU accounts

Important transactions, especially subsidies, current and capital transfers, take place between the above institutions and Member States. This is particularly the case for the Commission that is in charge of European policies.

### ***Compilation of the quarterly European Union institutions (EUI) sector accounts***

The main data source for quarterly sector accounts of the EUI is the quarterly Balance of Payments (BoP) of the EUI and of the EIB. At present, the quarterly BoP of the EUI is compiled by Eurostat about 85 days after the end of the reference quarter. Other sources are the annual financial report of the EU budget published yearly in JOCE on 30 November, the an-

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<sup>13</sup> Cf. TF-QSA-0210-06-rev1 and TF-QSA-0212-06.

nual financial report of the EIB published yearly in June, and the quarterly profit and loss accounts and balance sheet of the ECB published 1 month after the reference period. By construction, the quarterly sector accounts of the EUI are made consistent with the corresponding annual sector accounts.

A detailed description of the estimation of the sector accounts of the EUI and the ECB is presented in the Annex 1 and Annex 2 of this document.

#### **4.4.2.5 The European rest of the world sector**

The rest of the world accounts, as compiled by Member States, record transactions between the national economy and all non-resident units, including those in other European Member States. For instance, imports / exports recorded in Member States' national accounts include the goods and services bought from / sold to abroad, be it from/to a resident of the euro area / European Union or third countries.

To reflect appropriately the transactions between European areas and the third countries, it is therefore necessary to remove, from the summation of national RoW, the economic flows within the area considered ("intra-European flows").

In this respect, the European accounts draw on both the national and the European balance of payments. In other words, the "intra flows" are estimated using the geographical breakdown provided by Balance of Payments (BoP) data.

Note that because of different data vintages and conceptual differences, it is not possible to ensure full consistency between the European RoW sector and BoP statistics at this stage.

Moreover, for "intra flows", total resources should theoretically equal total uses. For instance, total imports from the Euro Area should equal total exports to the euro area. However, this is not the case in practice. The comparison of total intra-flows in resources and uses reveals imbalances called "asymmetries".

As a consequence, European accounts cannot be derived by simply removing the intra-flows of each transaction. The resulting discrepancies have to be allocated to the different sectors in order to re-balance the European accounts as described below.

#### ***Estimation for Euro Area rest of the world account (ECB)***

The rest of the world account (RoW) of the euro area is estimated by using keys "intra UE / extra UE" coming from the detailed euro area balance of payments (BoP). Extra-BoP data are not used as a direct estimate of the Extra-RoW account, except for reinvested earnings of foreign direct investment (D.43). BoP data are used only to derive geographical keys, which are applied to the total RoW.

As regards trade in goods and services for the EA, a correction is applied to capture the effect of asymmetrical recording between Intrastat and Extrastat of the value of 'quasi transit trade' on the EA aggregate according to the recommendations of TF-RoW.



The rest of the world account (RoW) of the euro area is estimated by summing up national extra euro area data estimated by using keys "intra euro area / extra euro area" coming from the detailed balance of payments (BoP). I.e. BoP data are used only to derive geographical keys, which are applied to the total RoW as reported in the QSA questionnaire or as estimated by the ECB. Extra-BoP data are used as a direct estimate of the extra-RoW account only for reinvested earnings on foreign direct investment (D.43) and acquisitions less disposals of non-produced non-financial assets (K.2) because of their changing sign.

#### Exports and imports of goods and services (P.6, P.7)

There is a direct correspondence between BoP item 100-credits/debits and transaction P.61/P.72 exports/imports of goods as well as between BoP item 200-credits/debits and transaction P.62/P.72 exports/imports of services. A geographical key is calculated on the basis of these BoP items and applied to the transactions in the RoW account.

The P.6-P.7 breakdown into goods and services is not compulsory in the QSA questionnaire. For those countries not reporting the detail, an estimate is previously obtained by using the BoP proportions (goods versus services) in the total (of exports or imports). In addition, a correction is introduced in the accounts of BE and NL to capture the effect of asymmetrical recording between Intrastat and Extrastat of the value of 'quasi transit trade' on the EA aggregate according to the recommendations of TF-ROW.

#### Compensation of employees (D.1)

There is a direct correspondence between BoP item 310 and transaction D.1. This BoP item is therefore used as a geographical key to split the total RoW into its intra and extra components.

#### Taxes and Subsidies (D.21, D.29, D.31, D.39)

In the euro area accounts, one should consider that all taxes paid by a euro area resident to the RoW sector are received by EU institutions and all subsidies granted by EU Institutions are received by a euro area resident. Consequently, all these transactions are vis-à-vis extra euro area (intra is set to zero).

#### Property income (D.4, D.41, D.42, D.43 and D.44)

The intra-extra split of property income (D.4) is achieved on the basis of the geographical breakdown of BoP item 320.

For the intra-extra breakdown of the sub-transaction interest (D.41), BoP items 334 + 349 + 370INT are used as a key.

Although the breakdown of other property income is not published, an estimate is made by transaction. "Reinvested earnings on foreign direct investment" (D.43) are estimated directly from the BoP data (item 333), because they can either be positive or negative. For the item "Property income attributed to policyholders" (D.44), the intra-extra split is made on the basis of the geographical breakdown of BoP item 370D44. Finally, the intra-extra breakdown of "Distributed income of corporations" (D.42) is compiled on the basis of BoP items 332 + 340.

### Current transfers (D.5, D.61, D.62, D.7 and D.8)

All national accounts current transfers are part of the BoP current transfers item 379. Euro area BoP report the so-called 6-digit detail that allows a breakdown of 379 into the various national accounts components, namely D.5, D.61, D.62, D.71, D.72, D.7N and D.8. Therefore, the intra-extra euro area split is done on the basis of keys compiled using this detailed BoP items.

### Capital transfers (D.9)

As for current transfers, the intra-extra euro area split of capital taxes (D.91) and other capital transfers (D.9N) is done on the basis of 6-digit BoP items 400D91 and 400D9N, respectively.

### Acquisitions less disposals of non-produced non-financial assets (K.2)

The “acquisitions less disposals of non-produced non-financial assets (K.2)” is estimated directly from the BoP data (item 480), because it has changing sign. Some adjustments are introduced in 2000 to correct for the asymmetric recording of the UMTS licences.

### ***Estimation for European Union rest of the world account (Eurostat)***

As for the euro area, the rest of the world account (RoW) of the European Union is estimated by using keys "intra UE/extra UE" coming from the balance of payments (BoP) of the Union. Extra-BoP data are not used as a direct estimate of the extra-RoW account, except for "exports and imports of goods (P.61/P.71)" and for "reinvested earnings of foreign direct investment (D.43)"<sup>14</sup>. BoP data are used only to derive geographical keys, which are applied to the total RoW.

### ***Exports and imports of goods and services (P.6, P.7)***

There is a direct correspondence between BoP item 100-credits (resp. -debits) + BoP item 200-credits (resp. -debits) and transaction P.6 (resp. P.7). A geographical key is calculated on the basis of these two BoP items and applied to the transaction in the RoW account.

The P.6-P.7 breakdown into goods and services is not compulsory in the QSA questionnaire. The coverage obtained with countries transmitting this voluntary breakdown is not sufficient. Consequently, as regards exports and imports of goods (P.61, P.71), the amounts recorded in the BoP are directly plugged in the RoW account. The imports and exports of services (P.62, P.72) are calculated as a residual.

### ***Compensation of employees (D.1)***

There is a direct correspondence between BoP item 310 and transaction D.1. BoP is therefore used as a geographical key to split the total RoW into its intra and extra components.

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<sup>14</sup> These items are currently not published because they are optional in the QSA questionnaire

### ***Taxes and Subsidies (D.21, D.29, D.31, D.39)***

In EU accounts, one should consider that all taxes paid by an EU resident to the RoW sector (from a national view-point) are received by EU institutions and all subsidies granted by EU Institutions are received by an EU resident. Consequently, the extra-EU variables are set to zero.

### ***Property income (D.4, D.41, D.42, D.43 and D.44)***

The intra-extra split of property income (D.4) is achieved on the basis of the geographical breakdown of BoP item 320.

For the intra-extra breakdown of sub-transaction interest (D.41), BoP items 334 + 349 + 370 are used as a key.

The sub-transaction D.4N (other property income) is calculated by difference.

Although the breakdown of the other property income is not published, an estimate is made. Reinvested earnings on direct foreign investment (D.43) are calculated directly from the BoP data (item 333). For the item “property income attributed to policyholders” (D.44), the intra-extra split is made on the basis of the geographical breakdown of BoP item 370. Distributed income of corporations is then calculated by difference.

### ***Current taxes on income and social contributions (D.5, D.61 and D.62)***

Taxes on income and social contributions are all part of the current transfers recorded in the BoP item 379. We use as an assumption that income taxes, social contributions and social benefits are related to compensation of employees so that the Intra-Extra key of D.1/RES are used for D.5/USE, D.61/USE and D.62/RES and vice versa (D.1/USE for D.5/RES, D.61/RES and D.62/USE).

### ***Other current transfers (D.7, D.71, D.72 and D.7N)***

The components of D.7, namely D.71 (non life insurance net premiums), D.72 (non life insurance claims) and D.7N (other current transfers), are derived from the intra-extra key of BoP item 379 minus D.5 and D.6. The total current transfers are calculated as the sum of their components.

### ***Adjustments for change in net equity of households in pension funds reserves (D.8)***

The very small amounts recorded under this transaction for the RoW sector have been entirely allocated to intra-EU as UK is assumed to be the main partner country involved.

### ***Capital transfers (D.9, D.9N) and acquisitions less disposals of non-produced non-financial assets (K.2)***

The intra-extra key found in BoP item 994 (capital account) is used to estimate the intra-extra breakdowns of D.9N (other capital transfers) and K.2. In year 2000, the amounts registered for K.2 in sectors total RoW and S.11 have been corrected for the asymmetrical recording of UMTS licenses. The extra EU transaction D.91 (capital taxes) is set to zero.

#### **4.4.2.6 Substitutions of STPFS at aggregate level**

It is considered important to reconcile European QSA data with STPFS aggregates, in particular, for the key items such as net lending/borrowing, despite the fact that some minor inconsistencies between QSA and STPFS exist in national QSA inputs. For this purpose QSA European aggregates for the sector of General government (S.13) are replaced by the respective STPFS series.

For some transactions, STPFS data are not detailed enough (for sub items of D.9, D.7, D.4 or P.5\_K.2). In these very specific cases, the QSA data (sum of data transmitted by the MS and of the estimations made for the missing countries) are used as a key to estimate the necessary breakdowns.

MS must transmit STPFS (table 25) data 90 days after the end of the reference quarter. The general government data being strictly monitored by Eurostat, there is hardly any missing or late data. Consequently, the European (EU and euro area) aggregated table 25 is available shortly after the 90 days transmission deadline.

It has to be noted that the STPFS aggregates may sometimes have vintage differences with annual government aggregates (table 2) and EDP.

As in most countries, the QSA General Government data are in line with the STPFS data, the imbalances brought in the European accounts by this S.13 benchmarking are negligible and are then allocated to private sectors through the general balancing process.

#### **4.4.2.7 Final balancing of the accounts**

##### ***Euro Area and European Union accounts - horizontal balancing***

All the adjustment steps have led to substantial changes in the QSA data. Consequently, the initial balances (uses equal to resources) of national data have been lost as a result of the substitution of S.13 transactions on STPFS data, but mainly because of BoP-RoW differences and BoP intra-flows asymmetries. Thus, the discrepancies have to be removed to obtain euro area and EU balanced accounts. This is the objective of this last step of the procedure: the balancing.

To ensure the "horizontal" consistency of the accounts, total uses must equal total resources for each transaction category when summed over all institutional sectors and the rest of the

world. For example, total interest revenue of all sectors and the rest of the world combined should be equal to total interest expenditure.

For transactions in goods and services, quarterly Intrastat data on the levels of asymmetries by Broad Economic Category (BEC) are used to allocate BoP asymmetries in goods. Intermediate consumption of sectors non-financial corporations (S.11) and households, including non-profit institutions serving households, (S.1M), households' final consumption expenditure and the capital formation of sector S.11 absorb asymmetries in goods. Asymmetries in services and BoP-RoW discrepancies are allocated to the intermediate consumption of the non-financial corporations and to the final consumption of households on a pro rata basis. This procedure may lead to some differences with other national accounts publications, in which cross border flows within the area concerned have not been removed yet.

For most distributive transactions, the method consists in identifying an item (i.e. a combination of transaction, sector and flow (uses, resources)) to which the discrepancy should be totally allocated. In this context, the following rules are applied:

- Sectors general government (S.13) and RoW (S.2) are not affected by the balancing procedure, except for transactions D.21 and D.31;
- S.1 is calculated as the sum of the domestic sectors;
- Higher-level transactions are derived as the sum of sub-transactions ( $D.2 = D.21 + D.29$ ,  $D.3 = D.31 + D.39$ ,  $D.4 = D.41 + D.4N$ ,  $D.6 = D.61 + D.62 + D.63$ ,  $D.7 = D.71 + D.72 + D.7N$ ,  $D.9 = D.91 + D.9N$ );
- All balancing items of the accounts (B.2, B.5, B.6, B.8 and B.9) are calculated on the basis of the reconciled transactions; the added value for the total economy is calculated as the sum of the added value of the domestic sectors.

For the transactions listed in the table below, one single absorbing item was chosen.

*Table 30 - Single items absorbing discrepancies by transaction*

D.1	D.1/REC by S.1M
D.21	D.21/REC by S.2
D.29	D.29/PAY by S.11
D.31	D.31/PAY by S.2
D.39	D.39/REC by S.11
D.61	D.61/PAY by S.1M
D.62	D.62/REC by S.1M
D.63	D.63/REC by S.1M
D.8	D.8/REC by S.1M
D.91	D.91/PAY by S.1M

For the transactions listed in table 30, several absorbing items are used.

*Table 31 - Multiple items absorbing discrepancies by transaction*

D.5	D.5/PAY by S.11, S.12 and S.1M
D.71	D.71/PAY by S.11, S.12 and S.1M
D.72	D.72/REC by S.11, S.12 and S.1M
D.9N	D.9N/REC by S.11 and S.1M
D.41	D.41/REC and -/PAY by S.11, S.12 and S.1M
D.4N	D.4N/REC and -/PAY by S.11, S.12 and S.1M
D.7N	D.7N/REC and -/PAY by S.11, S.12 and S.1M

The choice of the absorbing items is obvious for transactions D.21 and D.31: as far as S.13 can not be affected by the balancing method and as far as items for the unspecified sector (S.1N) come from the main aggregates (table 1), the only items left are the amount recorded in S.2.

For transaction D.1 (compensation of employees), the discrepancy is totally allocated to the compensation of employees received by the households (D1/S.1M/REC on one hand, this item is the highest amount of the transaction, and on the other hand, in many MS (including FR), the compensation of employees received by the households is calculated as the sum of what is paid by all sectors. The same sort of reasoning is applied to other transactions related to salaries: D.61, D.62 and D.8.

As regards transactions D.29 and D.39, the discrepancy is totally allocated to the largest item on the uses side for taxes and on the resources side for the subsidies.

As regards transaction D.91, as far as S.13 and S.2 are not changed by the balancing process, the most important tax payer, the household sector, was chosen to absorb the whole discrepancy.

For transactions D.71 and D.5, the discrepancy is proportionally allocated among the non-S.13 domestic sectors on the uses side. For transaction D.72, it is the opposite: the discrepancy is allocated among the non-S.13 domestic sectors on the resources side.

For transactions D.41, D.4N and D.7N, there is no obvious single absorbing item. Consequently, a proportional allocation of the imbalances between the non-S.13 domestic sectors was favoured on the uses side.

For transactions D.9N, the imbalance was allocated between D.9N received by S.11 and by S.1M. On the uses' side, the amounts are very low, except for sector S.13, which is not affected by the balancing.

The result of the balancing process gives the balanced European non-financial sector accounts that are published by Eurostat and the ECB.

## **ANNEX 1:**

### **COMPILATION OF THE QUARTERLY EUROPEAN UNION INSTITUTIONS (EUI) SECTOR ACCOUNTS**

#### **1. Introduction**

This annex presents the compilation process to build quarterly sector accounts for the European Union institutions (EUI). By construction, the quarterly sector accounts of the EUI are made consistent with the corresponding annual sector accounts.

Section 2 below recalls the theoretical background of the EUI in the context of the QSA project. Then, section 3 describes the process leading to the computation of the production account of the EUI. Finally, distributive transactions are addressed in section.

As far as the quarterly sector accounts of the EUI are concerned, the main data source used is the quarterly Balance of Payments (BoP) of the EUI and of the EIB. At present, the quarterly BoP of the EUI is compiled by Eurostat about 85 days after the end of the reference quarter. Other sources are the annual financial report of the EU budget published yearly in JOCE on 30 November, and the annual financial report of the EIB published yearly in June.

#### **2. Theoretical background**

According to ESA95<sup>15</sup>, the EUI have to be considered as a Member State “sui-generis” of the European Union. On the basis of a Task Force QSA proposal, it was agreed by CMFB to consider that the EUI other than the ECB are resident in the European Union but not in the Euro Area<sup>16</sup>. Two main conclusions may be drawn from this: first, when compiling the Euro Area aggregates, transactions between Euro Area Member States and the EUI have to be classified within the rest of the world sector. Second, in the case of the compilation of the EU aggregates, transactions between Member States and the EUI have to be re-allocated from the Rest of the World sector (S.2) to the domestic sectors they belong to. For these reasons, the sector accounts of the EUI are needed to compile the sector accounts of the European areas.

As regards classification by sector, all the EUI with the exception of the EIB should be classified as part of the General Government sector (S.13). The EIB should be classified as part of the Financial Corporations sector (S.12).

#### **3. Transactions in products and estimation of the production account**

The purpose of this section is to present the practical steps followed to build the quarterly production account of the EUI.

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<sup>15</sup> According to ESA95 compilation standards, the European Union Institutions have to be considered as “State sui-generis” as they are institutions established by international treaty (cf. ESA95 §2.08-c). See also TF-QSA-0212-06 for broad conceptual considerations related to the treatment of the European Union Institutions.

<sup>16</sup> Cf. TF-QSA-0210-06-rev1 and TF-QSA-0212-06

### **3.1 The output of the EUI (P.1)**

EUI are engaged in production in two institutional sectors: financial corporations (S.12) and general government (S.13).

#### **3.1.1 The Financial Corporations sector (EIB)**

The main activity of the EIB consists in borrowing money on international markets and lending it mainly to small and medium enterprises, within the EU and abroad. Therefore, the assumption is made that the output of the EIB is made up of financial intermediation services only (FISIM)<sup>17</sup>.

The EIB grants loans to corporations and banks. The EIB does not get deposits, but finances its activities by borrowing money on the international financial markets.

From a national accounts point of view, this has several consequences:

- FISIM has to be calculated on loans granted only (asset side) as EIB receives no deposit;
- EIB supplies financial services outside the EUI; all its customers are located "abroad", as they are non-resident of EUI; thus the production of services (FISIM) is totally exported.

FISIM Regulation (EC N° 448/98 and 1889/2002) states that FISIM on loans granted is equal to (interest receivable on loans) minus (loan stock multiplied by a reference rate). Moreover, FISIM on loans granted to non-residents (including financial intermediaries<sup>18</sup>) is equal to (interest receivable) minus (loan stock multiplied by an external reference rate).

In the Regulation, the external reference rate is defined as the average interbank rate weighted by the levels of stocks in the headings 'loans between S.122 and S.123 on the one hand, and non-resident FIs on the other hand', and 'deposits between S.122 and S.123 on the one hand and non resident FIs on the other hand', which are included in the balance sheet of the financial intermediaries.

As far as the EIB is concerned, there is no deposit. Consequently, the reference rate is equal to the interbank rate calculated on the loans granted by the EIB to the non-resident FIs.

The information necessary to estimate annual FISIM is partly available in the Annual Report of the EIB. In the balance sheet, the respective items are:

- loans and advances to credit institutions (item 3 of the assets);
- loans and advances to other customers (item 4 of the assets).

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<sup>17</sup> This amounts to assume that the exports of goods and services of the EIB excepting exports of FISIM are negligible compared with the interest flows of this institution (which is obvious).



In the profit and loss accounts, they comprise interests receivable and similar incomes (item 1 on the resources side).

In order to estimate FISIM, it would be necessary to have the breakdown of the interest receivable between the interests related to loans to credit institutions on the one hand, and interest related to loans to other customers on the other hand. This breakdown is not available in the financial report published by the EIB. To obtain this information, a request was sent to the General Accounting Department of the Bank. Unfortunately, they can not supply the requested breakdown, because their accounting system does not currently enable to break down the interest income in the categories mentioned by sector.

Consequently, a fall back solution was found to estimate the reference rate. For that purpose, it is assumed that the rate at which the EIB grants loans to banks is equal to the average rate at which it borrows on the financial markets plus a margin covering costs. This margin is estimated as the sum of some items of the profit and loss accounts (staff costs, administrative costs and depreciation) divided by the total of the granted loans.

On an annual basis, FISIM is then calculated as (interest receivable on loans) minus (loan stocks multiplied by a reference rate), or rather as (loan stocks) multiplied by (actual rate minus reference rate).

For checking purpose, the calculated reference rate has been compared to the market rate for loans on 10 years, rating AAA+ (source: Bloomberg). The comparison shows that the two rates are rather close to each other. This tends to prove that the estimation of the reference rate is not completely out of range.

As no basic information is available on quarterly basis, the quarterly output of the EIB is estimated as the annual value divided by four.

### **3.1.2 The General Government sector (all EUI except EIB)**

EUI output is “provided free, or at prices that are not economically relevant to other units”, conforming to ESA95 definition of “other non-market output”<sup>19</sup>. This kind of production has to be valued from the cost side<sup>20</sup>.

More precisely, the production costs will have to be estimated as the sum of the following components:

$$\begin{aligned} \text{output (P.1)} = & \text{compensation of employees (D.1) + intermediate consumption (P.2)} \\ & + \text{consumption of fixed capital (K.1) + other taxes on production (D.29)} \end{aligned}$$

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<sup>18</sup> A recent suggestion of the Task Force Fisim for the updated ESA is not to allocate Fisim between FIs (between resident FIs, nor between resident and non resident FIs). If this suggestion is followed, the calculation of Fisim for the EIB should be changed.

<sup>19</sup> Cf. ESA95 §3.23

<sup>20</sup> Cf. ESA95 §3.16

- The item “compensation of employees” (D.1) is obtained from the quarterly BoP statistics.
- No other taxes on production are paid by the EUI (D.29 = 0).
- As regards the annual data, K1 is directly derived from the measurement of the “depreciation and reduction in value/value adjustments”<sup>21</sup> of both intangible and tangible fixed assets, available in the consolidated balance sheet of the General Budget<sup>22</sup>. For the time being, no infra-annual information is available concerning K1. Given the amounts at stake (about 2% of the production recorded for the EUI as a whole), it has been decided to estimate quarterly K1 for the EUI as the most recent annual available data divided by four. This amounts to consider any seasonal effect as negligible.
- The estimation of P.2 can be derived from the imports flows as described below.

### 3.2 Intermediate consumption of the EUI excepting EIB (P.2)

It may be assumed that all the imports by the EUI are, on the one hand, goods and services consumed in the production process (so that they can be considered as intermediate consumption), and on the other hand produced assets. The following equation holds under this assumption:

$$\begin{aligned} \text{intermediate consumption (P.2)} &= \text{imports (P.7)} \\ &\quad - \text{acquisition of fixed assets} \\ &\quad - \text{change in inventories (P.52)} \end{aligned}$$

- Imports of goods and services are directly derived from the quarterly BoP statistics.
- As regards the annual accounts of the EUI, the acquisitions of fixed assets and changes in inventories are derived from the consolidated balance sheet of the General Budget<sup>12</sup>. For the time being, no infra-annual information is available concerning this aggregate. Given the amounts at stake (about 0.03% of the production recorded for the EUI as a whole), quarterly acquisitions of fixed assets and changes in inventories are taken as the most recent available yearly data divided by four.

### 3.3 Final consumption expenditure (P.3)

According to ESA95, the final consumption expenditure (P.3) of the government sector can be defined through the following equation:

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<sup>21</sup> Within the balance sheet of the EU, “reduction in value/value adjustments” denotes the changes in value affecting the calculation of the depreciation effects for the whole stock of tangible or intangible assets due to disposal or withdrawal of assets during the calculation period.

<sup>22</sup> See “Financial report of the EU Budget”, JOCE, 30 November.

$$\begin{aligned} \text{final consumption (P.3)} &= \text{output (P.1)} - \text{own account production of capital goods} \\ &\quad - \text{incidental sales} \end{aligned} \quad (1)$$

In the context of the EUI, “own account production of capital goods” has been considered as negligible so that final consumption can be derived from an estimation of the “incidental sales”. The latter variable has been measured on the basis of exports, by using the following equation:

$$\text{incidental sales} = \text{exports (P.6)} - \text{disposals of fixed assets} \quad (2)$$

- Exports of goods and services are directly derived from the quarterly BoP statistics.
- As regards the annual accounts of the EUI, disposal of capital goods are derived from the consolidated balance sheet of the General Budget<sup>12</sup>. For the time being, no infra-annual information is available concerning this aggregate. Given the amounts at stake (about 0.4% of the production recorded for the EUI as a whole), quarterly disposal of capital goods are taken as the most recent available yearly data divided by four.

### **3.4 Gross capital formation (P.5)**

#### **3.4.1 Gross fixed capital formation (P.51)**

$$\text{Gross fixed capital formation (P.51)} = \text{acquisition of fixed assets} - \text{disposals of fixed assets}$$

As no information regarding acquisitions and disposals of fixed assets (i.e. tangible and intangible assets) is available on a quarterly basis for the time being, and given the amounts at stake (P.51 amounts for about 2% of the production recorded for the EUI as a whole), quarterly gross fixed capital formation are taken as the most recent available yearly data divided by four.

#### **3.4.2 Changes in inventories (P.52)**

$$\text{Changes in inventories (P.52)} = \text{Level of stocks at end of year} - \text{level of stocks at end of preceding year}$$

As no information regarding level of stocks is available on a quarterly basis for the time being, and given the amounts at stake (P.52 in absolute terms amounts for less than 0.02% of the

production recorded for the EUI as a whole), quarterly changes in inventories for the EUI are taken as the most recent available yearly value divided by four.

### **3.5 Exports and imports (P.6, P.7)**

- Exports of goods and services are directly derived from the quarterly BoP statistics. Exports of FISIM are added and EIB output (P.1) is compiled.
- Imports of goods and services are directly derived from the quarterly BoP statistics.

## **4. Distributive transactions**

Distributive transactions of the EUI are fully covered by the flows registered in the quarterly BoP of the European Institutions (as regards the EUI as a whole). For sector S.12 (EIB), given the amounts at stake, only transactions D1, D4 and D6 are covered. Quarterly BoP data are available for the EIB separately. But as no infra-annual information is available for this institution, EIB quarterly BoP data are estimated on the basis of the data available for the most recent year divided by four, under the assumption of no seasonal pattern.

### **4.1 Compensation of employees (D.1)**

As regards the EUI and the EIB, compensation of employees is directly derived from the quarterly BoP statistics (item 310/debit).

### **4.2 Taxes on production and imports (D.2)**

This transaction is directly derived from the quarterly BoP statistics (item 380D2/credit).

### **4.3 Subsidies on production and products (D.3)**

Granting subsidies is, together with legislation, the main tool used by the EUI to implement European policies. However, in ESA95 the subsidies to be recorded under D.3 exclude investment grants that represent an important part of the activities carried out by European funds like the European Regional Development Funds (ERDF). Therefore, the main transactions to be registered under this heading are likely to be related to the guarantee section of the European Agricultural Guidance and Guarantee Fund (EAGGF). The amounts corresponding to transactions D.31 and D.39 are derived from the quarterly BoP (items 380D31/debit and 380D39/debit).

### **4.4 Property income, interest (D.41)**

Almost all of the interest is recorded in the S.12 account and derives from the activities of the EIB.

The amounts corresponding to transactions D.41 received or paid for the EUI as a whole and for the EIB are derived from the quarterly BoP (items 320int/debit and credit). The amounts for sector S.13 (EUI except EIB) are calculated by difference.

On the resources side, the interest recorded in the BoP is corrected for FISIM. FISIM (see above) is deducted from the interest (D.41) received by the EIB and paid by the rest of the world.

The “Property income other than interest” flows are neglected so that investment income (ESA95 D.4) is assumed to be equal to interest (D.41).

#### **4.5 Current taxes on income, wealth, etc (D.5)**

This transaction is directly derived from the quarterly BoP statistics (item 380D5/credit).

#### **4.6 Social contributions and benefits (D.6)**

As regards the EUI as a whole, transactions relating to social contributions (D.61) and social benefits other than social transfers in kind (D.62) are directly derived from the quarterly BoP statistics (items 380D61/credit and 380D62/debit respectively).

As far as social transfers in kind (D.63) are concerned, the problem amounts to identifying any individual final consumption expenditure (P.31) made by the EUI. It is unlikely that any significant amount should be recorded under P.31 / D.63, and it is therefore assumed to be zero.

#### **4.7 Other current transfers (D.7)**

This transaction is directly derived from the quarterly BoP statistics (items 380D7/credit and 380D7/debit).

#### **4.8 Adjustment for the change in the net equity of households in pension funds reserves (D.8)**

Not applicable.

#### **4.9 Capital transfers (D.9)**

This transaction is directly derived from the quarterly BoP statistics (item 401D92 and 401D99/debit).

## **ANNEX 2:**

### **COMPILATION OF THE QUARTERLY EUROPEAN CENTRAL BANK (ECB) SECTOR ACCOUNTS**

#### **1. Introduction**

The ECB is not resident in any of the Euro Area MS but it is resident in the Euro Area. Thus, transactions of the ECB are an integral part of Euro Area sector accounts. In order to complete the European sector accounts, it is necessary to prepare a full set of sector accounts for the ECB, as if the ECB was a country by itself (state “sui-generis”), including the transactions of the ECB with EA Member States. In the ECB accounts, there are two sectors: sector S.12, which includes only the ECB, and sector S.2 as counterpart sector.

The purpose of this annex is to present the ECB quarterly compilation methodology. The document is organised as follows; the first part of the annex explains the framework of the compilation method and the second part of the annex presents the calculations in details.

#### **2. Compilation method and data availability**

Whereas the data source for the annual accounts consists in the published profit and loss statements from the ECB annual reports, the data used in the quarterly exercise is received from the ECB internal accounting. Although this data is more detailed than the data used in the annual accounts, this exercise only uses the level of detail from the annual publication.

The data is available directly after the end of the reference quarter and, thus, compilation of the ECB sector accounts can easily be compiled in t+90 days.

With some exceptions, the transactions derived from the ECB accounts are small in relation to the Euro Area aggregates.

#### **3. Transactions in products and estimation of the production account**

The following transactions in products are calculated: output (P.1), intermediate consumption (P.2), gross fixed capital formation (P.51), exports (P.6) and imports (P.7).

As specified in the FISIM Regulation, (Regulation 1889/2002) the output of the ECB, as any other Central Bank, is to be valued at cost. It is calculated as the sum of the compensation of employees (D.1), the intermediate consumption (P.2), the consumption of fixed capital (K.1) and the other taxes on production (D.29).

- The item “compensation of employees” (D.1) is known through internal accounting.
- No other taxes on production are paid (D.29 = 0).
- K.1 is directly derived from the item "depreciation" reported in the internal accounting.

- P.2 is directly derived from the items "Administrative expenses", "Expenses relating to income from fees and commissions" and "Less other income" reported in the internal accounting.

The output is totally exported, and therefore P.1 is equal to P.6.

The net fixed capital formation (P.51) is available in the balance sheet on a quarterly basis. The consumption of fixed capital (depreciation) is added to obtain the gross fixed capital formation. The imports (P.7) are equal to the sum of the intermediate consumption (P.2) and investments (P.51)

#### **4. Distributive transactions**

Given the amounts at stake, only two distributive transactions are calculated: the compensation of employees (D.1) and property income (D.4). As already mentioned the item "compensation of employees" (D.1) is known from internal accounting.

As regards interest (D.41), the amounts come from internal accounting: "Interest income on foreign reserve assets" and "Other interest income" for the resources side, and "Remuneration of NCB'S claims in respect of foreign reserves transferred" and "Other interest expense" for the uses side.

On the uses side, the profits that are distributed to the shareholders of the ECB, namely the NCB's, are shown in transaction D.42 (distributed income of corporations). The profits consist of the income that is derived from the banknotes issues and of the distributable profits. Profits that are not distributed are as a rule allocated to the ECB general reserve fund. The amounts are known from internal accounting.