

Consolidated Quality Report on the ESSPROS module on pension beneficiaries

pursuant to Regulation (EC) No 1322/2007

of 12 November 2007

implementing Regulation (EC) No 458/2007 of the European Parliament and of the Council of the European system of integrated social protection statistics (ESSPROS) as regards the appropriate formats for transmission, results to be transmitted and criteria for measuring quality for the ESSPROS Core System and the module on pension beneficiaries

Introduction

This Quality Report concerns the 2009 data collection exercise on the module on pension beneficiaries in Europe for the reference year 2007. Accordingly, most of the information contained by this report refers to 2007 and only the chapters on 'Coherence' and 'Revisions' deal with information on both 2006 and 2007. The data collected by the countries consist of the total number of pension beneficiaries classified by categories and by the scheme providing the pension benefits.

As stipulated in the framework Regulation (EC) No 458/2007 of the European Parliament and of the Council, which entered into force on 25 April 2007, the year 2008 is the first year of collection of data on pension beneficiaries. The two legal acts concerning pension beneficiaries' data and implementing the framework Regulation are Commission Regulation (EC) No 1322/2007 of 12/11/2007 (on appropriate formats for transmission, results to be transmitted and criteria for measuring quality for the ESSPROS Core System and the module on pension beneficiaries) and Commission Regulation (EC) No 10/2008 of 08/01/2008 (on definitions, detailed classifications and updating of the rules for dissemination for the ESSPROS Core System and the module on pension beneficiaries).

According to Annex II of Regulation 458/2007 of the EP and of the Council, pension beneficiaries (PB) are defined as recipients of one or more of the periodic cash benefits of a social protection scheme falling within seven pension categories¹.

A social protection scheme is defined in the same Regulation as: "a distinct body of rules, supported by one or more institutional units, governing the provision of social protection benefits and their financing".

The aim of the module on pension beneficiaries is to provide the total number of beneficiaries:

1. for each of the seven categories of pensions;
2. for each of the four functions grouping these categories (i.e. disability, old-age, survivors and unemployment);
3. for the "old-age and survivors" function;
4. for the aggregation of the four functions, at 'Total' level.

In general, the number of pensions received by pensioners and the number of pensioners differ, as some pensioners might receive more than one pension. The total number of

¹ The seven categories are disability pension; early retirement benefit due to reduced capacity to work; old-age pension; anticipated old-age pension; partial pension; survivors' pension; early retirement benefit due to labour market reasons.

beneficiaries is therefore defined as the number of persons receiving at least one pension (i.e. a person who receives more than one pension should be counted only once).

The pension beneficiaries module is included in the European System of Integrated Social Protection Statistics (ESSPROS), which consists of a Core System and two modules. The second module, which is still at an experimental stage, collects data on net social protection benefits. The Core System consists of quantitative data (QD, social protection receipts and expenditures by schemes) and qualitative information (QI) in the form of metadata by scheme and detailed benefit. The qualitative information includes for every country a description of all the schemes involved in the pension beneficiaries module and of all the pensions supplied.

The data on pension beneficiaries are drawn up according to the ESSPROS manual (appendix 3). This manual is published on the Eurostat website at the following link:

<http://ec.europa.eu/eurostat/ramon/statmanuals/files/KS-RA-07-027-EN.pdf>

Regarding PB data collections, as some pensioners might receive more than one pension, one of the main requirements of the manual is that double counting must be avoided. Calculating the number of beneficiaries entails gradual aggregation in shifting from a unit (scheme) level to an overall (all schemes) level. This means that double counting must be detected and dealt with at all stages of this gradual process of aggregation.

The aim of this quality report is to bring together the multiple components of quality of the pension beneficiaries data collection by following the criteria commonly used in assessing the quality of statistics.

The European Statistical System (ESS) defined the following quality criteria (to be applied to *statistical data*): Relevance, Accessibility and Clarity, Timeliness and Punctuality, Coherence, Comparability, Accuracy.

Relevance refers to the extent to which the *statistical data* satisfy the needs of the users.

Accessibility refers to the physical condition under which users can obtain the *statistical data*.

Clarity refers to the availability of appropriate documentation linked to the *statistical data* and to additional assistance supplied by producers to users in relation to those data.

Timeliness of *statistical data* is the length of the time between their availability and the moment at which the phenomena they describe occurred. Punctuality refers to the time lag between the release and the target date by which the data should have been delivered, for instance in case of the module on pension beneficiaries, with references to the deadlines set by European Parliament and Council Regulation No 458/2007.

Coherence aims to measure the reliability of the *statistical data* if combined with other statistics in different ways and for other uses.

Comparability aims to measure the effect of the differences in applied statistical concepts and measurement procedures when the *statistical data* are compared between geographical areas, over time or between different domains.

Accuracy, in a statistical sense, refers to the closeness of the *statistical data* to the (generally) unknown true or exact value of the measured phenomena. Usually this closeness can be measured by using statistical indicators such as bias and variability of the *statistical data*.

As the data used for PB data collection are mainly based on administrative/register based data sources, the standard measures of accuracy are not applicable. Accuracy is therefore

assessed by reporting non-sampling errors in data sources, such as limitations in coverage and measurement problems, and by evaluating the method of estimation used and revisions.

As regards statistics on pension beneficiaries, their accuracy can also be evaluated by analysing the method used for the treatment of double counting at all the stages of data aggregations:

1. at cell level inside a scheme;
2. at pension category level between schemes;
3. at item level between Non Means-tested (NMT) and Means-tested (MT) subcategories;
4. at intra-function level;
5. at inter-function level (Old-age plus Survivors);
6. at total pension beneficiaries level (all schemes level).

In order to improve the quality of data disseminated, Eurostat carried out a validation process on PB data collection, covering aspects related to accuracy, comparability and coherence.

This process involved the use of a mathematical formula to evaluate the internal reliability of each questionnaire with respect to the treatment of double counting.

Another aspect which is evaluated during the validation process is the logical consistency between the pension beneficiaries module and the Core System².

In this report, all the criteria set by the ESS will be applied in order to measure the quality of the PB figures. The report summarises the practices used in compiling the ESSPROS Pensions Beneficiaries module data by the Member States of the EU³ plus Norway (NO), using the National Quality Reports (NQR) sent in by the countries. However, the information relating to Swedish and Irish data is not complete, because Sweden and Ireland did not send the National Quality Reports on Pension Beneficiaries in due time.

This report uses a number of abbreviations, which are listed at the end of the report (see p. 31).

1. Relevance

Relevance specifies the extent to which the statistical data satisfy the needs of the users. The pension beneficiaries data collection follows the ESSPROS standard which was jointly agreed by Eurostat, the Member States (MS) and EFTA countries. In this respect, it is very important that the data collection should supply comparable and harmonised information on the number of beneficiaries of cash periodic social protection benefits in Europe.

The information supplied for PB is extremely detailed. It is classified by benefit, by social protection scheme and, at the level of total scheme, also by gender.

² See chapter 4 for further details.

³ The EU countries participating to ESSPROS data collection are: Belgium (BE), Ireland (IE), Austria (AT), Bulgaria (BG), Italy (IT), Poland (PL), Czech Republic (CZ), Cyprus (CY), Portugal (PT), Denmark (DK), Latvia (LV), Romania (RO), Germany (DE), Lithuania (LT), Slovenia (SI), Estonia (EE), Luxembourg (LU), Slovakia (SK), Greece (EL), Hungary (HU), Finland (FI), Spain (ES), Malta (MT), Sweden (SE), France (FR), Netherland (NL), United Kingdom (UK).

Seven different pension benefits are analysed:

- disability pension;
- early retirement benefit due to reduced capacity to work;
- old-age pension;
- anticipated old-age pension;
- partial pension;
- survivor's pension;
- early retirement benefit due to labour market reasons.

The information on whether the granting of benefit is subject to a specific level of income or wealth of the collector is also supplied for each benefit, i.e. the beneficiaries for each category are split into two types: means-tested and non means-tested.

Data are supplemented by compulsory information on the legal/standard age of retirement and the reference date for the collection.

The main users of this collection are DG EMPL (the European Commission's Directorate-General for Employment, Social Affairs and Equal Opportunities) and the ILO (the International Labour Organization - a UN agency).

The PB provides a huge amount of information that can be used for social policy analysis across all participating countries.

2. Accessibility and Clarity

The accessibility and clarity of the statistical data refers to the actual availability of the data for the users, in terms of the figures themselves and in terms of appropriate documentation.

The results of the 2007 pension beneficiaries data collections are published on the Eurostat Circa web at the following address:

http://circa.europa.eu/Public/irc/dsis/esspros/info/data/esspros_public_data/PB07/pension_beneficiaries.htm

The ESSPROS data set is also accessible via the dedicated section on Living conditions and social protection, which can be found at the following address on the Eurostat website:

http://epp.eurostat.ec.europa.eu/portal/page/portal/living_conditions_and_social_protection/introduction

In this dedicated section, users can find the links to the legal basis (the ESSPROS Regulations), to the methodology (the ESSPROS Manual) and to data and information belonging to the Core System.

2.1. Eurostat dissemination policy

Regulation No 458/2007 of the European Parliament and of the Council (Annex 2, point 3) fixed the deadline for the Commission to disseminate the ESSPROS pension beneficiaries data for year N at "all schemes" level on 31 October of the year N+2.

Commission Regulation (EC) No 10/2008 lays down the rules for dissemination for the ESSPROS Pension Beneficiaries module (Annex 3, point 2), to allow the publication of data by scheme or group of schemes (for those countries not giving explicit approval of full dissemination for confidentiality reasons). In accordance with these rules, the delay for publishing figures "at all schemes level" is fixed at 22 months.

In the 2009 data collection, the following countries did not authorize full dissemination of their data by scheme:

- LU, PT and NO allowed publication of their data by groups;
- EL and ES allowed only the dissemination of data at "all schemes" level.

The PB data were publicly disseminated on the site referred to at the beginning of chapter 2. This website is very similar to a paper publication, in that it allows users to navigate between "fixed" tables.

2.2. Metadata

2.2.1. Qualitative Information

Under the terms of Regulation No 458/2007 of the European Parliament and of the Council (art. 3 and Annex 1, point 2.2), countries should annually update the qualitative information, which acts as a complete set of metadata (for the Core System and its modules), giving a general description of the schemes, a detailed description of the benefits supplied and information on recent changes and reforms concerning the social protection system of each country by the end of June of each year.

In November 2009, Eurostat disseminated qualitative information at scheme level on the CIRCA web "ESSPROS data" at the following address:

http://circa.europa.eu/Public/irc/dsis/esspros/info/data/esspros_public_data/Qualitative/bas_e_qualitative.htm

Qualitative information on the CIRCA website is available for all the countries except IE⁴.

2.2.2. Metadata other than Qualitative Information

There are metadata introducing Pension Beneficiaries data on the CIRCA website "ESSPROS data". In addition, each country, assisted by Eurostat, is responsible for introducing flags and footnotes directly in the tables published on CIRCA, to make the users aware of any specific events that may create a break in the series, or to give reasons for missing information or exceptions to the general rule.

3. Timeliness and punctuality

Timeliness of statistical data means the length of time between the availability of the data and the moment at which the phenomena they describe occurred. Punctuality refers to any time lag between the release and the target date when the data should have been delivered, for instance, in the case of the Pension Beneficiaries module, with reference to the deadlines laid down by the European Parliament and Council Regulation No 458/2007.

3.1. Timeliness

All member countries of the EU plus NO forwarded Pension Beneficiaries data for the year 2007, plus possible revisions for 2006, to Eurostat.

The deadline set by Regulation No 458/2007, i.e. end of May 2009 – which corresponds to a time lag of 17 months - was respected by most of the countries (with a tolerance of a few

⁴ See the Consolidated Quality Report on the ESSPROS Core System for further details.

days), except for EL, SE and IE, whose data were sent with a substantial delay (more than one month).

The earliest transmissions were made by MT (11 days before the deadline), IT (12 days), UK (16 days), PT(17 days), LU (20 days) and RO (38 days).

As stipulated by the Regulation, the PB data should be available to the general public with a time lag of not more than 22 months after the period referred to above.

3.2. Punctuality

As already stated, the target date for release for the PB module is fixed by Regulation No 458/2007 of the European Parliament and of the Council (Annex II, point 3). The Regulation stipulates that data at "all schemes level" for year N have to be disseminated by Eurostat by 31 October of the year N+2. Data by scheme (or by group of schemes) can be published as laid down in Commission Regulation 10/2008, without a fixed deadline.

PB data for the year 2007, conforming to the decision of each country about the grouping, were published by Eurostat in November 2009, almost one month after the target date fixed by the Regulation.

4. Coherence

The coherence of two or more statistical outputs refers to the suitability of the data to be reliably combined in different ways and for various purposes, i.e. the degree to which the underlying statistical processes use the same concepts (classification, definition and target population) and harmonised methods⁵.

4.1. Coherence between QD and PB data

In this section the coherence analysis carried out during the validation process of the questionnaires for both PB and QD is reported. Only the logical coherence is analysed, expressed in terms of coherencies/incoherencies between the contents of the two databases and not in terms of numerical indicators.

Coherence between the Core System and the module on Pension Beneficiaries for both the years 2006 and 2007 has to be ensured as far as possible; however, as the collection of Pension Beneficiaries data is at a preliminary stage, the production of indicators relating to the two collections is not recommended at present.

If there are benefits classified under a particular pension item for a scheme, the number of beneficiaries should be found in the corresponding item in the pension beneficiaries' module and vice versa. If benefits are reported without beneficiaries (Type I) or if there are beneficiaries and no benefits (Type II), both of these types of reports are incoherencies.

⁵ See Eurostat (2009, a).

a) Table 1 lists the type I incoherencies by country, scheme and item code.

Table 1. Incoherencies between PB and QD, type I (2007 data)

| Country | Scheme | Item code | Beneficiaries | Benefits (Mi of NAC) |
|---------|-----------|-----------|---------------|----------------------|
| BE | Scheme 18 | 1141111 | 0 | 1097.97 |
| | Scheme 23 | 1131111 | 0 | 188.32 |
| | Scheme 24 | 1131111 | 0 | 144.61 |
| | Scheme 31 | 1141111 | 0 | 4.95 |
| | Scheme 33 | 1121111 | 0 | 4.02 |
| | Scheme 48 | 1161113 | 0 | 10.93 |
| | Scheme 49 | 1121111 | 0 | 5 |
| | Scheme 49 | 1141111 | 0 | 271.58 |
| | Scheme 52 | 1131111 | 0 | 1.27 |
| CZ | Scheme 03 | 1121111 | 0 | 194.63 |
| FR | Scheme 16 | 1121111 | 0 | 93.55 |
| | Scheme 63 | 1131111 | 0 | 675 |
| DE | Scheme 01 | 1121112 | 0 | 12440.77 |
| | Scheme 09 | 1121112 | 0 | 88.34 |
| | Scheme 16 | 1121112 | 0 | 519.16 |
| | Scheme 18 | 1121112 | 0 | 196.4 |
| | Scheme 19 | 1131111 | 0 | 36.61 |
| | Scheme 20 | 1131112 | 0 | 7.68 |
| SI | Scheme 07 | 1131112 | 0 | 2.96 |
| SK | Scheme 05 | 1121111 | 0 | 3.39 |
| UK | Scheme 17 | 1121111 | 0 | 641.1 |
| | Scheme 17 | 1141111 | 0 | 373.5 |
| | Scheme 44 | 1141111 | 0 | 8780 |

In NL, for the sake of geographic comparability, it was considered preferable not to provide the number of beneficiaries for some schemes in which the benefits were classified in the Core system as non-means tested disability pensions (schemes 52, 54, 55 and 64) and means tested disability pensions (scheme 19): they were in fact benefits for disabled people who take on a part-time or full-time job in a protected shelter.

b) Table 2 lists the type II incoherencies between the Core System database and the Pension Beneficiaries database:

Table 2. Incoherencies between PB and QD, Type II (2007 data)

| Country | Scheme | Item code | Beneficiaries | Benefits |
|---------|-----------|-----------|---------------|----------|
| BE | Scheme 15 | 1141111 | 76632 | 0 |
| | Scheme 27 | 1141111 | 8350 | 0 |
| | Scheme 35 | 1131111 | 25446 | 0 |
| | Scheme 35 | 1141111 | 17414 | 0 |
| | Scheme 39 | 1131111 | 56026 | 0 |
| FR | Scheme 33 | 1131111 | 2680 | 0 |
| | Scheme 33 | 1141111 | 519 | 0 |
| IT | Scheme 03 | 1131112 | 836689 | 0 |
| | Scheme 04 | 1131112 | 483865 | 0 |
| | Scheme 05 | 1131112 | 137057 | 0 |
| | Scheme 06 | 1131112 | 6185 | 0 |

| Country | Scheme | Item code | Beneficiaries | Benefits |
|---------|-----------|-----------|---------------|----------|
| | Scheme 10 | 1131112 | 467693 | 0 |
| | Scheme 11 | 1131112 | 44336 | 0 |
| | Scheme 14 | 1131111 | 472957 | 0 |
| | Scheme 15 | 1121111 | 865 | 0 |
| | Scheme 15 | 1131111 | 1110 | 0 |
| | Scheme 16 | 1131111 | 1477 | 0 |
| | Scheme 19 | 1131112 | 10453 | 0 |
| | Scheme 20 | 1131112 | 7538 | 0 |
| | Scheme 21 | 1131112 | 2153 | 0 |
| | Scheme 22 | 1131112 | 19671 | 0 |
| | Scheme 23 | 1132111 | 74091 | 0 |
| | Scheme 24 | 1131111 | 99919 | 0 |
| | Scheme 25 | 1122111 | 8739 | 0 |
| | Scheme 25 | 1132111 | 1323 | 0 |
| UK | Scheme 08 | 1161113 | 128000 | 0 |
| | Scheme 18 | 1131111 | 12036000 | 0 |
| | Scheme 28 | 1122112 | 827070 | 0 |
| | Scheme 28 | 1142111 | 81990 | 0 |
| | Scheme 28 | 1162113 | 616151 | 0 |
| | Scheme 29 | 1122112 | 737780 | 0 |

In the case of IT there are beneficiaries recorded for items with zero expenditure in the quantitative data of the Core System. There are two reasons for this: anticipated old-age pensions (1131112) are recorded in quantitative data as old-age pensions (1131111), whilst a distinction is possible in terms of beneficiaries; for the remaining items in the table above, the incoherence was due to the procedure for rounding expenditures, i.e. any expenditure of less than 0.5 million Euros is rounded down to zero.

4.2. Coherence between QI and PB data

Coherence between pension beneficiaries' data and qualitative information must be achieved to the extent possible. Where there are pensions classified under a certain scheme, the description of these benefits should be found in the qualitative information and vice versa, unless the scheme described in the QI has not yet entered into force (no pensions are supplied in the reference year) or it has expired (i.e. the scheme is split into two different schemes, merged with another scheme or definitively abolished).

Since this Quality Report refers to the 2009 data collection, the coherence between the module on pension beneficiaries and the qualitative information is explored here only for data corresponding to the year 2007.

Among the countries that sent in their QI, almost all showed a good coherence for the year 2007, providing at least a short description of all the pension benefits in their pension beneficiaries' module.

However, in some cases there are beneficiaries without an appropriate qualitative description. Table 3 below lists the schemes and items that are not covered by qualitative information for some of the countries (2007 collection):

Table 3. Incoherencies between PB and QI (2007 data)

| Country | Scheme | Item code | Beneficiaries | Qualitative information |
|---------|-----------|-----------|---------------|-------------------------|
| BE | Scheme 15 | 1141111 | 76632 | No |
| | Scheme 27 | 1141111 | 8350 | No |
| | Scheme 39 | 1131111 | 56026 | No |
| | Scheme 45 | 1131111 | 23751 | No |
| | Scheme 45 | 1141111 | 11599 | No |
| | Scheme 49 | 1131111 | 7240 | No |
| DE | Scheme 53 | 1122111 | 135552 | No |
| | Scheme 10 | 1121112 | 7000 | No |
| | Scheme 11 | 1121112 | 149000 | No |
| | Scheme 11 | 1131112 | 152000 | No |
| | Scheme 15 | 1121112 | 518000 | No |
| | Scheme 18 | 1132111 | 8000 | No |
| EL | Scheme 18 | 1142111 | 17000 | No |
| | Scheme 02 | 1121111 | 4211 | No |
| IT | Scheme 02 | 1142111 | 4717 | No |
| | Scheme 03 | 1131112 | 836689 | No |
| | Scheme 04 | 1131112 | 483865 | No |
| | Scheme 05 | 1131112 | 137057 | No |
| | Scheme 06 | 1131112 | 6185 | No |
| | Scheme 10 | 1131112 | 467693 | No |
| | Scheme 11 | 1131112 | 44336 | No |
| | Scheme 14 | 1131111 | 472957 | No |
| | Scheme 15 | 1131111 | 1110 | No |
| | Scheme 16 | 1131111 | 1477 | No |
| | Scheme 19 | 1131112 | 10453 | No |
| | Scheme 20 | 1131112 | 7538 | No |
| | Scheme 21 | 1131112 | 2153 | No |
| | Scheme 22 | 1131112 | 19671 | No |
| | Scheme 23 | 1132111 | 74091 | No |
| | Scheme 24 | 1131111 | 99919 | No |
| PT | Scheme 25 | 1122111 | 8739 | No |
| | Scheme 25 | 1132111 | 1323 | No |
| | Scheme 42 | 1131111 | 1926 | No |
| | Scheme 42 | 1141111 | 5463 | No |
| | Scheme 43 | 1161113 | 4781 | No |
| | Scheme 59 | 1131112 | 6555 | No |
| | Scheme 61 | 1131112 | 136172 | No |
| | Scheme 62 | 1121111 | 10833 | No |
| UK | Scheme 62 | 1122111 | 47472 | No |
| | Scheme 62 | 1141111 | 83251 | No |
| | Scheme 62 | 1142111 | 1289 | No |
| | Scheme 08 | 1161113 | 128000 | No |
| | Scheme 18 | 1131111 | 12036000 | No |
| | Scheme 28 | 1122112 | 827070 | No |
| UK | Scheme 28 | 1142111 | 81990 | No |
| | Scheme 28 | 1162113 | 616151 | No |
| | Scheme 28 | 1122112 | 737780 | No |
| | Scheme 29 | 1122112 | 737780 | No |

In the case of IT, see the last paragraph in 4.1 above.

5. Comparability

Comparability is a specific aspect of coherence and refers to the measurement of the impact of differences in applying statistical concepts, measurement tools and procedures. The term comparability can be used when referring to:

- Comparing statistics between geographic areas (over regions/countries).
- Making comparisons between different domains of the area of interest (if applicable).

- Comparing the same data over time.

As Regulation 458/2007 refers only to 2006 and 2007 data, this chapter discusses only the comparability between countries and provides a brief summary of how changes in data over time are recorded. In this quality report, no comparison is made with other domains. A possible future exercise might be to compare PB data with Social Inclusion and Living Conditions (SILC) data.

In order to analyse geographic comparability, this QR will explore:

1. The coverage of final figures by country, in terms of whole schemes or in terms of only part of the schemes (items or functions).
2. Whether some countries failed to apply the methodology described in the manual (the definitions included in the “ESSPROS manual” have to be the same for all the countries as required by the Regulation).

Social protection systems differ considerably in the different countries, and the number and the relative importance of the schemes vary widely. In some countries, the number of schemes is very large and some of the schemes - usually those with a small number of beneficiaries - are only partially covered by data sources. For some countries there are also cases of schemes that are not covered by data sources, and the figures concerning these schemes are estimates.

5.1. Coverage in terms of schemes (2007 data)

Six countries report schemes not covered by available data sources in 2007: DK, ES, FR, NL, PT and FI.

- DK reports missing data for the number of beneficiaries in scheme 14, for which only core data are known. The scheme is reported to be of less importance in terms of the number of beneficiaries. The National Quality Report (NQR) states that *'Potential estimation seems complicated and unreliable'*.
- ES reported missing data for all four groups of schemes. Spain is restructuring the schemes system this year and data by group of schemes are not yet available. Only figures at all schemes level are available for Spain.
- FR reported six schemes not covered by available data sources. For the first five of these (schemes 58, 59, 60, 61 and 62)⁶, the information on expenditures is available, but it is not possible to estimate the number of beneficiaries. However, all five schemes are supplementary and the beneficiaries would be automatically eliminated as double counted when the figures are computed at the all schemes level. Concerning the sixth uncovered scheme (78, a new scheme), the pensioners receive the benefits in addition to other old-age pensions, and they would have been eliminated as being double counted.
- NL reported two schemes of less importance not covered by data sources (46 and 47). It is stated that the beneficiaries are included in the total as also being in receipt of another pension. NL also reports missing data for scheme 26, but this scheme does not provide benefits to pensioners.
- PT reports problems with schemes 15, 17 and 35. Schemes 15 and 17 are supplementary (NQR: *'These schemes only pays supplementary and transitional*

⁶ In this paragraph and in the followings for the sake of simplicity, the schemes will be denoted by the progressive numbers introduced by the countries. More details on the schemes can be found in the QI files by country.

pension benefits). As for scheme 35, the corresponding beneficiaries are included in scheme 20.

- FI missed four schemes (14, 27, 28 and 29), but the beneficiaries are accounted for as beneficiaries of other schemes.

5.2. Coverage in terms of beneficiaries (2007 data)

In some cases, the data sources used do not supply all the information needed for a scheme. There are cases in which some categories of beneficiaries are missing. In other cases, only aggregated figures are available, and therefore a breakdown is impossible, unless estimation methods are applied.

Many countries report problems relating to the coverage of specific beneficiaries within some schemes. These problems are summarized below:

- Some countries, such as BE, LV and PT, report that there is no breakdown by gender or by age groups. These cases do not always involve missing data, as the problem may be just the breakdown of the number of beneficiaries by gender or by items.
- BE has a problem in scheme 31, where the beneficiaries under item 1141111 are reported under item 1131111.
- FR is missing the beneficiaries for scheme 63, item 1131111, even though these beneficiaries are supposed to be included in the total number of beneficiaries.
- CZ reports incomplete coverage in scheme 3, item 1121111.
- UK reports missing data for scheme 17 (items 1121111 and 1141111), scheme 29 (item 1131111) and scheme 44 (item 1141111).

A list of the main cases of non-covered items is provided below in table 4.

Table 4. Items incompletely covered by country and by scheme (2007 data)

| Country | Scheme | Items | Observations |
|---------|-----------|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BE | Scheme 8 | 1121111, 1141111 | No estimate for breakdown by gender |
| BE | Scheme 9 | 1121111, 1141111 | No estimate for breakdown by gender |
| BE | Scheme 16 | 1131111, 1141111 | No estimate for breakdown by gender |
| BE | Scheme 31 | 1141111 | Global data for old age and survivors beneficiaries are written in item 113.1111 |
| BE | Scheme 44 | 1121111 | No estimation for gender break down |
| BE | Scheme 46 | 1141111 | No estimation for gender break down |
| CZ | Scheme 3 | 1121111 | Incomplete coverage for a scheme (item 1121111) - the portion of pension beneficiaries in scheme no. 3 to total number of Czech Republic is 2,5 % (an estimation for 1121111 is less) |
| FR | Scheme 63 | 1131111 | Veterans' Retirement: no data found for this benefit. But it is paid in addition to other old-age pensions, so the number of beneficiaries would have been eliminated anyway as double-counting. |
| LV | Scheme 6 | 1121111, 1141111 | Missing breakdown of a total by gender |
| LV | Scheme 13 | 1141111 | Missing breakdown of a total by gender |
| LV | Scheme 15 | 1121111 | Missing breakdown of a total by gender |
| LV | Scheme 24 | 1131112, 1121111, 1141111 | Missing breakdown of a total by gender |
| LV | Scheme 25 | 1141111, 1121111 | Missing breakdown of a total by gender |
| PT | Scheme 13 | 1121111 | Missing breakdown of total by gender. Data available does not include sex, except for the total. |
| PT | Scheme 42 | 1121111, 1131111, 1141111 | Missing breakdown of total by gender.. Data available does not include sex, except for the total. |
| PT | Scheme 59 | 1121111, 1131111, 1131112, 1141111, 1161113 | Data available does not include sex, except for the total. |
| UK | Scheme 17 | 1121111, 1141111 | There is no information available regarding beneficiaries for the items 1121111 and 1141111. |
| UK | Scheme 29 | 1131111 | Missing |
| UK | Scheme 44 | 1141111 | Missing |

5.3. Pensioners outside the country

Eleven countries included the number of pension beneficiaries living outside the country in the figures provided and, consequently, in the total number of beneficiaries (BG, EE, IT, LT, LU, HU, MT, NL, PT, SK and FI).

Another three countries (CZ, CY and AT) reported separately the number of beneficiaries living outside the country, and these pensioners are not included in the figures transmitted.

DK and NO have partial data on this type of beneficiaries. For DK they are counted inside some schemes (e.g. schemes 82 – 84) but there are schemes in which these beneficiaries are not included. NO includes these beneficiaries in scheme 1 but for the other schemes the information is not available.

Four countries reported that they have no information about the number of beneficiaries of this type (DE, EL, LV, and RO).

SI reports that the beneficiaries outside the country are not counted. PL has no information whether the beneficiaries living outside the country are included or not in the figures.

The rest of the countries did not provide to EUROSTAT information in this respect.

5.4. Cases of non-application of the ESSPROS methodology (2006 and 2007 data)

None of the countries reported problems in their QR concerning this matter. However, some cases of incorrect treatment of double counting detected by the validation process carried out by Eurostat are actually cases of failure to apply the ESSPROS methodology (see chapter on double counting).

a). Non compliance with the methodology/regulations

It became apparent from the validation process followed by Eurostat in assessing internal coherence of pension beneficiaries' data that the figures for some countries are not in line with the ESSPROS methodology, even if the country in question did not report any problems in applying the methodology.

The following table summarizes the results of the validation process related to the check for missing information. Further details on the results of the validation process carried out by Eurostat are given in the next chapter.

Table 5. Missed figures by year, country and item (M = missed)

| Year | Country | Item name | Total | Women | Men | Item Code |
|------|---------|-----------------------------------------------------------------------------------|-------|-------|-----|-----------|
| 2006 | BE | Total number of beneficiaries | M | M | M | 1000000 |
| 2006 | BE | Total disability function | - | M | M | 1120110 |
| 2006 | BE | Disability pension beneficiaries | - | M | M | 1120111 |
| 2006 | BE | NMT Disability pension beneficiaries | - | M | M | 1121111 |
| 2006 | BE | MT Disability pension beneficiaries | - | M | M | 1122111 |
| 2007 | BE | Total number of beneficiaries | M | M | M | 1000000 |
| 2006 | EL | Total pension beneficiaries in unemployment function | - | M | M | 1160113 |
| 2006 | EL | Unemployment | - | M | M | 1160113 |
| 2006 | EL | NMT Beneficiaries receiving early retirement benefits for labour market reasons | - | M | M | 1161113 |
| 2006 | IT | Beneficiaries receiving early retirement benefits due to reduced capacity to work | M | M | M | 1120112 |
| 2007 | IT | Beneficiaries receiving early retirement benefits due to reduced capacity to work | M | M | M | 1122112 |

| Year | Country | Item name | Total | Women | Men | Item Code |
|------|---------|-------------------------------------------------------------------------------------------------|-------|-------|-----|-----------|
| 2007 | SE | Beneficiaries of old age or survivors pension | M | M | M | 1190110 |
| 2006 | SE | Total number of beneficiaries | M | M | M | 1000000 |
| 2007 | SE | Total number of beneficiaries | M | M | M | 1000000 |
| 2006 | UK | Total number of beneficiaries | M | M | M | 1000000 |
| 2006 | UK | Disability | M | M | M | 1120110 |
| 2006 | UK | Disability pension beneficiaries | M | M | M | 1120111 |
| 2006 | UK | NMT Disability pension beneficiaries | M | M | M | 1121111 |
| 2006 | UK | MT Disability pension beneficiaries | M | M | M | 1122111 |
| 2006 | UK | Total old age function | M | M | M | 1130110 |
| 2006 | UK | Old age pension beneficiaries | M | M | M | 1130111 |
| 2006 | UK | NMT Old age pension beneficiaries | M | M | M | 1131111 |
| 2006 | UK | MT Old age pension beneficiaries | M | M | M | 1132111 |
| 2006 | UK | Survivors | M | M | M | 1140111 |
| 2006 | UK | NMT survivors' pension | M | M | M | 1141111 |
| 2006 | UK | MT survivors' pension | M | M | M | 1142111 |
| 2006 | UK | Beneficiaries of old age or survivors pension | M | M | M | 1190110 |
| 2007 | UK | Beneficiaries receiving early retirement benefits due to reduced capacity to work | M | M | M | 1120112 |
| 2007 | UK | Means-tested: Beneficiaries receiving early retirement benefits due to reduced capacity to work | M | M | M | 1122112 |
| 2007 | UK | Total pension beneficiaries in unemployment function | - | M | M | 1160113 |
| 2007 | UK | MT Beneficiaries receiving early retirement benefits for labour market reasons | - | M | M | 1160113 |
| 2007 | UK | NMT Beneficiaries receiving early retirement benefits for labour market reasons | - | M | M | 1161113 |

5.5. Comparability over time (2006 and 2007 data)

The two-year data collection on Pension Beneficiaries does not allow an analysis of time series. In order to compare data over time, only 2006 and 2007 data can be compared.

In terms of schemes, data sources, timeliness and coverage there are few changes, which means that the two collections are comparable (see tables 6):

Concerning the number of the schemes, almost all countries maintained the same number and the benefits are almost always the same between the two years. Only two countries changed the number of the schemes:

- HU: one of the schemes was integrated into scheme 8, with the result that, in 2007, the number of beneficiaries in scheme 8 is much larger than in 2006
- FI combined five existing schemes to make two new schemes: The schemes 3, 4 and 6 were combined into scheme 49 (NQR: *'The new Employees' Pensions Act, from 1.1.2007'*) and the schemes 09 and 10 were combined into scheme 50 (NQR: *'The new State Employees' Pensions Act, from 1.1.2007'*).

These changes do not affect the total number of beneficiaries, but they do make it difficult to compare certain benefits over time, because a reduction or an increase in the number of schemes leads to some benefits moving between schemes.

In terms of coverage, the situation in 2007 varies slightly from that of 2006. The table below lists some macro indicators of the two collections:

Table 6. Main indicators for the 2006 and 2007 collections

| Indicator | 2006 | 2007 |
|---------------------------------------------------------------------------------------------|-------------|-------------|
| Number of countries reporting schemes not covered | 5 | 6 |
| Number of schemes reported as uncovered | 18 | ~16 |
| Number of countries reporting items as uncovered | 11 | 6 |
| Missed figures (all schemes level – data for men and women) number of items – all countries | 25 | 10 |
| Missed figures for totals (all schemes level) - number of items - all countries | 15 | 6 |
| Cases of non-application reported | 2 | 0 |
| Number of countries reporting estimations | 19 | 14 |

The main difference between the 2007 data collection and those for 2006 is that there are fewer missed figures in 2007.

The figures reported in 2006 and 2007 show good coherence, as the differences simply reflect normal variations in the number of beneficiaries. Some big differences were registered between 2006 and 2007 data for some countries, although these are very few:

- For HU, scheme 8 has a steep increase in the number of beneficiaries for two items under the ‘Disability’ and ‘Survivors’ functions. This is due to the incorporation of scheme 12 into scheme 8.
- BE has a big increase in number of beneficiaries for ‘Old age’ and ‘Survivors’ functions under scheme 16 (from 6,160 to 28,499 for ‘Non Means-tested old age pension beneficiaries’ and from 1,759 to 7,534 for ‘Non Means-tested survivor’s pension beneficiaries’). This is because some beneficiaries that were previously registered under the schemes 23 and 24 are now registered under schemes 16 and 17.
- Two big jumps were registered in IE, namely for scheme 4, item ‘Non Means-tested old age beneficiaries’ (from 139,724 in 2006 to 237,599 in 2007) and for the item ‘Non Means-tested anticipated old age pension beneficiaries’ (from 91,086 to 5,851). The reasons for these jumps are unknown, as IE did not submit a National Quality Report.

Concerning the trend for 2006, which was reported between 2006 and 2007, and the differences between these figures, see the section on revisions.

6. Accuracy and reliability

Accuracy is a very important criterion for measuring the quality of a data set. The closeness between the figures in the data collection and the true data is very important. The remainder of this quality report deals with this issue.

The accuracy of the data in the ESSPROS data collection depends on the accuracy of the data received from the Member States.

The collection contains mainly figures that are obtained from administrative data sources, and only a small percentage of the figures are estimated using surveys or other sources.

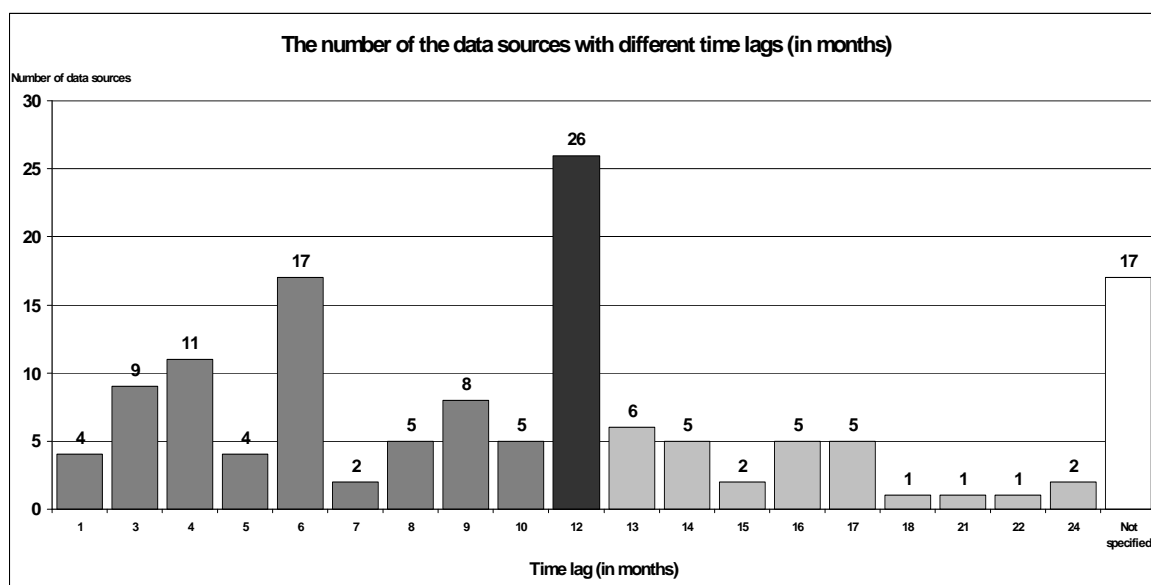
Accordingly, the discussion about accuracy centres on problems of coverage as the main possible sources of error.

6.1. Coverage, timeliness and frequency of data provided by the data sources

Most of the data sources (112 out of 136) have a frequency of one year. A shorter frequency is observed in the case of:

- Eleven monthly data sources, two in AT, four in CZ, three in RO and one each in FR and LU.
- Seven data sources with a frequency of between one month and one year: in DK, PL, SK and UK
- The frequency of the remaining data sources is either shown as more than once a year, or not specified.

The time lags of the data sources used range from one month to two years. The graph below summarizes the situation. It can be seen that the majority of data sources have a time lag of not more than one year, and most of the data sources provide information no later than 18 months after 31 December 2007 (or, in general, the reference year).



Most of the data sources have a full geographical coverage (i.e. at the whole country level) only in BE and UK; some data sources provide information on specific regions (for BE these are the regions of Flanders and Wallonia, while for UK they are Northern Ireland and Great Britain).

6.1.1 Types of data sources

The most important type of data sources used by countries are the administrative data sources (administrative, register based data sources).

Out of a total of 136 data sources used by the 26 countries, 127 are administrative. There is one 'National accounts' used in NL, one census used in CY, five surveys used in DE, LT, PT, RO and UK, and two other data sources used in AT, namely studies of the *Austrian Institute for Economic Research: 'Studies on the occupational pension scheme'*.

Data source types, other than administrative, are summarized below:

Table 7. Data sources, other than administrative data, used for the 2007 collection

| Country | Name of data source | Type | Frequency (months) | Time lag (months) | Observations | Coverage |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------|-------------------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| CY | 3. CYSTAT, "Survey on the Receipts and Expenditure of Provident Funds, Pension Schemes, Sickness/Health Care Funds and other Benefits" (CYSTAT prepared specific questionnaires and collected the required information from all the semi and local governmental units). | Census | 12 | 14 | | Employees in the Local and Semi Government |
| NL | National Accounts | National Accounts | 12 | 12 | Data are used to make estimates of missing data | Full Coverage |
| AT | Austrian Institute for Economic Research (Österreichisches Institut für Wirtschaftsforschung): Studies on the occupational pension scheme (Studien zur betrieblichen Altersvorsorge). | Other | Sporadically | | Data are not provided each year and do not provide information on beneficiaries by sex (scheme 20: 1331111). | Full coverage |
| AT | Austrian Institute for Economic Research (Österreichisches Institut für Wirtschaftsforschung): Additional information on occupational pensions. | Other | 12 | | | Full coverage |
| RO | Household budget survey | Survey | 60 | | | Full coverage |
| DE | Altersvorsorge in Deutschland, BMAS | Survey | 48 | | data for the years between two surveys are estimated. | Full coverage |
| LT | Statistics Lithuania | Survey | 12 | 4 | | Full coverage |
| PT | Mutualists (Associações de Socorros Mútuos (ASM)) | Survey | 12 | 16 | | Full Coverage |
| UK | Occupational Pensions Scheme - Office for National Statistics | Survey | 12 | 12 | | United Kingdom |

Some countries use a single data source for all the figures provided (BG, EE, ES, HU, IT), but it is more usual for multiple data sources to be used, in order to obtain the fullest possible information about the number of pensioners. Some countries use a large number of data sources: AT(16), PT(13), BE(12), FR(11), DE(10), NL(10).

6.1.2 Report on problems which lead to data being estimated

The various countries report a wide range of problems with regard the completeness of the information provided by the data sources used. The time lag of some of the data sources is too long and the data cannot be used on an annual basis; others do not provide information on age group and gender, which means that the splitting of beneficiaries between functions according to ESSPROS methodology is not possible: some do not provide enough information for splitting by function, others do not provide information on double counting.

The problems encountered during this exercise are summarized below and in Table 8.

- Unavailable or incomplete data on age groups or for splitting by gender in RO, AT, LT, NL and SI.
- Information not available for splitting the number of beneficiaries by items or by function in AT and IT.
- Time lag too long or different reference date in AT and DE.
- Problems of coverage either on number of beneficiaries or on double counted beneficiaries in BE, CZ, DK, ES, EL, NL (additional data sources in order to cover the missing information), AT and SK.

Table 8. Data sources with problems reported from the 2007 collection

| Country | Name of data source | Type | Freq (Months) | Time lag (Months) | Problem |
|---------|----------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BE | RSZPPO : annual report | Administrative data source | 12 | 17 | Complementary data to be read in combination with PDOS-data |
| BE | De Post | Administrative data source | 12 | 17 | Only statutory employees and their widows / orphans |
| BE | Ethias, concerning VMW | Administrative data source | 12 | 15 | See above |
| BE | SWDE | Administrative data source | 12 | 16 | See above |
| CZ | registers of private pension funds | Register based data source | | 9 | Incomplete coverage for a scheme (item 1121111) - the portion of pension beneficiaries in scheme no. 3 to the total number of Czech Republic is 2.5 % (an estimation for 1121111 is less) |
| DE | Geschäftsberichte diverser Versorgungsanstalten, insbes. der Arbeitsgemeinschaft berufständischer Versorgungseinrichtungen | Administrative data source | 12 | 24 | The delay of two years leads to estimation of data for year t-2. |
| DE | Altersvorsorge in Deutschland, BMAS | Survey | 48 | | Data for the years between two surveys are estimated. |
| DK | State Employers Authority (Personalestyrelsen) | Administrative data source | 12 | 12 | No figures for the number of municipal civil servants receiving pensions. Thus the number of beneficiaries in scheme 13 is estimated taking the ratio between the number of state civil servants (scheme 12) and their pension benefits and applying that ratio to the expenditure for municipal civil servants |
| DK | The Danish Financial Supervisory Authority (Finanstilsynet) | Administrative data source | 12 | 12 | No figures for those insurance companies with the same tasks as pension funds. Thus the number of beneficiaries is estimated by assuming that the ratio of expenditure to beneficiaries is the same for these companies as for the regular pension funds |
| EL | Social Insurance Organizations (Funds) in private & public sector(Social Security funds) | Administrative data source | 12 | 7 | Greece is faced with problems when it comes to accountability of double counting on P.B. between schemes (1,2,7,8,9) for the same or different categories of pension. Such problems are: a. we cannot specifically identify responsibility for double counting since in Greece there is no system for the application of integrated technology (I T solution) for the Social Security Funds. b. Also Greece has not yet developed a Social Security number for each individual person or pensioner because of the large number of existing funds. For the above reasons we have provided estimates. |
| EL | Private Insurance Enterprises (Occupational Insurance) | Administrative data source | 12 | 6 | See above |
| EL | Banks & Public Corporations (Employer statutory provided benefits) | Administrative data source | 12 | 6 | See above |
| EL | General Accounting Office (Other Government linked social provision) | Administrative data source | 12 | 6 | See above |
| ES | Instituto Nacional de la Seguridad Social: Registro de Prestaciones Sociales Públicas | Register based data source | 12 | 9 | No podemos hacer una estimación para cada uno de los regímenes. |
| IT | Casellario centrale dei pensionati (Central archive of pensioners managed by the National Institute of Social Protection) | Administrative data source | 12 | 9 | Disability function: the item "Disability pension beneficiaries" also include "Beneficiaries receiving early retirement benefits due to reduced capacity to work" because administrative elementary data do not make it possible to distinguish between these two kinds of pensioners. So, data are missing for the item 1120112 and are overestimated for the item 1120111. Unemployment function: the archive enables beneficiaries belonging to unemployment function to be identified only for pensions provided by INPS (National Institute of Social Protection), which represent 80 per cent of all benefits paid to older workers. The remaining 20 per cent cannot be extrapolated and is included in the old-age function. Therefore, the unemployment function is underestimated and the old-age function is slightly overestimated. Scheme 22 : the archive does not allow pension funds to be directly identified among other social protection bodies. We distinguish pension funds by verifying their presence in Covip's (Commissione di vigilanza |

| Country | Name of data source | Type | Freq (Months) | Time lag (Months) | Problem |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | | sui fondi) pension |
| LT | State Social Insurance Fund Board under the Ministry of Social Security and Labour | Administrative data source | 12 | 5 | The estimates for the breakdown of the number of the abroad pensioners (pension beneficiaries living outside the Republic of Lithuania and receiving pensions under international treaties) were conducted by gender. In 2007 the number of abroad pensioners made up about 0.6 (in 2006, 0.5) per cent of the total number of beneficiaries of this scheme. |
| NL | Pensioen en uitkeringsraad (PUR) | Administrative data source | 12 | 6 | No distinction between men/women |
| NL | Budget of Ministry VWS | Administrative data source | 12 | | No distinction between men/women |
| NL | Stichting administratie Indonesische pensioenen | Administrative data source | 12 | 6 | Only partial distinction between men/women |
| NL | Verzekerd van cijfers | Administrative data source | 12 | 8 | No distinction between men/women |
| NL | Algemeen Burgerlijk Pensioenfonds (ABP) | Administrative data source | 12 | 8 | Thorough information to agegroups, men/women etc |
| NL | VUT-fonds overheidspersoneel | Administrative data source | 12 | 12 | Used for scheme 34 and partly estimates |
| NL | Budget of Ministry of Defence | Other | 12 | 12 | Only partial data about persons |
| NL | National Accounts | National Accounts | 12 | 12 | Data are used to make estimates of missing data |
| NL | De Nederlandsche Bank | Administrative data source | 12 | 6 | Data are used to make estimates of missing data |
| AT | Federal Ministry of Social Affairs and Consumer Protection (Bundesministerium für Soziales und Konsumentenschutz): Special tabulation of statutory pension insurance beneficiaries. | Administrative data source | 12 | 10 | Beneficiaries of multiple basic benefits are only counted once in one of the basic pension benefits (scheme 1: 1121111, 1131111, 1141111). Number of beneficiaries of multiple pension benefits is only given in total by sex and age groups (scheme 1: 1121111, 1141111). The so called Alterspensionen (old age pensions) are not split up to the beneficiaries of the different benefits covered under this heading (regular old age pension, early retirement pension based on a reduced ability to work, early retirement pension for long-term contribution payers, pension for long-term insured persons, corridor pension, heavy work pension and early old age pension because of unemployment) (scheme 1: 1121112, 1131111, 1131112, 1161113). The beneficiaries of an equalisation supplement are not split up to different benefits (regular old age pension, early retirement pension based on a reduced ability to work, early retirement pension for long-term contribution payers, pension for long-term insured persons, corridor pension, heav |
| AT | Federal Ministry of Social Affairs and Consumer Protection and Federation of Austrian Social Insurance Institutions (Hauptverband der österreichischen Sozialversicherungsträger): Equalisation supplement (Ausgleichszulagen). | Administrative data source | 12 | 10 | Figures on equalisation supplement are slightly lower than those provided in total by the Federal Ministry of Social Affairs and Consumer Protection (Special tabulation of statutory pension insurance beneficiaries) because of different reference dates (scheme 1: 1122111, 1122112, 1132111, 1132112, 1142111, 1162113). |
| AT | Federation of Austrian Social Insurance Institutions: Individual-related statistics (Personenbezogene Statistiken), in: Soziale Sicherheit. | Administrative data source | 12 | 3 | Data do not cover all beneficiaries of pensions paid by health institutions for some parts of civil servants (Krankenfürsorgeanstalten) (scheme 2: 1121111, 1131111, 1141111). Number of double counting (civil servants survivors' pension and civil servants' pension) is not given (scheme 2: 1121111, 1131111, 1141111). |
| AT | Court of Audit (Rechnungshof): Report on incomes (Bericht gemäß Art. 1 § 8 Bezügebegrenzungsgesetz, BGBl. I Nr. 64/1997 für die Jahre 2006 und 2007). | Administrative data source | 24 | 12 | Data are only available every second year for two reporting years. |
| AT | Federal Ministry of Social Affairs and Consumer Protection | Administrative data source | 12 | 8 | No information by sex for parts of beneficiaries (orphan's pensions, parents' pensions) is given (scheme 3: 1141111). |

| Country | Name of data source | Type | Freq (Months) | Time lag (Months) | Problem |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | (Bundesministerium für Soziales und Konsumentenschutz): Statistical data on social compensation (Statistische Daten der Kriegsopferversorgung, ...). | | | | |
| RO | National House of Pensions and Other Social Insurance Rights and Ministry of Culture | Administrative data source | 1 | 1 | Not available data by age groups (and in some cases, by gender) at the administrative data source level. For performing the transfer of number of beneficiaries of disability pension over the standard retirement age from disability function to old age function Household Budget Survey was used |
| AT | Federal Ministry of Social Affairs and Consumer Protection: Additional information on sex and benefits vs. beneficiaries. | Administrative data source | 12 | 3 | Number of double counting between schemes is not fully given as this information is only recorded for beneficiaries of certain benefits (scheme 3: 1141111). |
| AT | Austrian Institute for Economic Research (Österreichisches Institut für Wirtschaftsforschung): Studies on the occupational pension scheme (Studien zur betrieblichen Altersvorsorge). | Other | Sporadically | | Data are not provided each year and do not provide information on beneficiaries by sex (scheme 20: 1331111). |
| RO | Pensions House of Lawyers | Administrative data source | 1 | 1 | See above |
| RO | Ministry of Defence, Ministry of Interior and Administration, Romanian Intelligence Service | Administrative data source | 1 | 1 | See above |
| SI | 3. The Mutual Fund for Craftsmen and Entrepreneurs | Administrative data source | 12 | 9 | Data from that source are divided only by gender. The legal retirement age, i. e. 60 for women and 65 for men, is not taken strictly into consideration here. |
| SK | Supplementary Pension Insurance Companies At present there are five supplementary pension companies: ING Taty-Sympatia, d.d.s., STABILITA, d.d.s, AXA d.d.s., and Supplementary Pension Company (DDS) Tatra banka, AEGON d.d.s. | Administrative data source | 12 | 3 | Scheme 11 - AEGON d.d.s - Pension Supplementary Savings. There is new Supplementary Savings Company in the Slovak Republic - AEGON d.d.s - which started its activity on 18 May 2007. |

6.2. Methodologies and assumptions used in the estimates of statistics

6.2.1 Estimates for schemes for which no data are available

Fourteen countries report estimates either for some schemes or for some benefits provided by various schemes.

a) Reports on estimates for whole schemes.

- In DE, there are two schemes that are entirely estimated, namely scheme 10 for four items and scheme 15 which provides benefits under three of the items. For scheme 10, the last known annual change is applied and, for scheme 15, which is based on the information provided by a survey, the annual change between the last two surveys is applied.

- DK provides estimates for schemes 11 and 13. For scheme 11 the number of beneficiaries is estimated by assuming that the ratio of expenditure to beneficiaries is the same as for the regular pension funds. Concerning scheme 13 (figures for the number of municipal civil servants receiving pensions), the number of beneficiaries is estimated taking the ratio between the number of state civil servants (scheme 12) and their pension benefits and applying that ratio to the expenditure for scheme 13.
- IT estimates figures for scheme 22 by using the COVIP pension funds register.
- The Quality Report for NL reports eight schemes estimated. Schemes 18, 30, 34, 48 and 66 are estimated by using the expenditure for the number of pension beneficiaries in similar schemes in order to estimate the number of beneficiaries. These estimates are reported as not influencing the total number of beneficiaries at the all schemes level. The other three schemes which were estimated are schemes 28, 29 and 33. These are also schemes that do not affect the total number of beneficiaries.
- PT has only one scheme in which the breakdown by gender is estimated for all five items that provide benefits, using another known distribution.

b) Reports on estimation of benefits.

- BE sent estimates for two items in scheme 39 (1131111 and 1141111), but only for the breakdown by gender.
- FR estimates the item 1161113 for the schemes 15, 34 and 67 based on expenditure (NQR: We estimated the number of beneficiaries by assuming that the average cost is 15 000 euros a year).
- LV provided estimations for 10 items in five schemes: For the items 1121111 and 1141111 in scheme 6, the breakdown by gender is performed using another available distribution. The same method for the breakdown by gender was used for the item 1141111 in scheme 13, for scheme 24, items 1131112, 1121111 and 1141111 and for scheme 25, item 1141111. For the scheme 24, the item 1131112 is estimated in order to follow the methodology. (NQR: *'Service pension beneficiaries who are in the retirement age were withdrawn from the total number of Service pension beneficiaries'*). In scheme 15, item 1121111 and in scheme 25, the item 1121111 is estimated for the same reason.
- LT has one scheme (scheme 10) in which the pensioners abroad are broken down by benefit on the basis of estimates. The items are 1121111, 1131111 and 1141111.
- AT has multiple items estimated in schemes 1 and 2 and one item for each in schemes 3 and 20. Specifically, in scheme 1, beneficiaries are split up between items 1121112, 1131111, 1131112 and 1161113 (NQR: *'Beneficiaries of the so called Alterspensionen (old age pensions) have been split up to the different beneficiaries covered'*). A split is also made, in scheme 1, for almost all items providing Means-tested benefits (except for 1132113). Other estimates in scheme 1 are those for the items 1121111, 1131111, 1141111 and these are performed using a known distribution (NQR: *'The share of civil servants' pension and civil servants survivors' pension inclusive pensioners of health institutions is assumed to be the same as for civil servants' pensioners without pensioners of health institutions'*). For the same items in scheme 2, the share of double counting is also estimated. An estimation based on a hypothesis is made for the item 1141111 in scheme 3 (NQR: *'Beneficiaries of survivor's pensions by sex have partly (orphan's pensions, parents' pensions) been estimated by using assumptions based on the age of the beneficiaries'*). Finally, item 1131111 in scheme 20 is estimated using an expert opinion published in a study by the Austrian Institute for Economic Research.
- RO carries out estimates for item 1131111, because data sources do not contain information on age groups for the transfer of beneficiaries who receive a disability pension, but who are over the standard retirement age and have to be included under

the old age function. The number of beneficiaries for the function 'Old age' is estimated for three schemes (21, 22 and 23 - all schemes in RO). The necessary structure by age groups was derived using the Household Budget Survey.

- UK estimates item 1131111 under scheme 44, based on a survey.
- NO estimates the breakdown by gender in Group 1 of schemes (=Scheme 04 + Scheme 06) for item 1131113, based on a hypothesis (NQR: 'Partial Pension for fishermen - estimate breakdown of a total by gender; Direct contact with the organisation which informed that they do not have any gender distribution, but that a majority of the beneficiaries are men. Estimate 20 percent women and 80 percent men under the age of 67 years'). In the same group of schemes, the number of beneficiaries of item 1131112 is estimated based on a different known distribution.

6.2.2. Information on the treatment of double counting

The treatment of double counting is divided into six steps (see the introductory chapter in this paper), according to the order in which the aggregation is to be performed.

The approach of the various countries to double counting, is outlined below, with brief descriptions of each case. Note that the information contained in the UK's NQR is not reliable.

a) For a pension category inside a single scheme (Type 1 of double counting)

Twelve countries (BG, EE, EL, FR, HU, IT, CY, LT, AT, SK, FI and NO) report the existence of this type of double counting (DC type 1). ES reports that a DC type 1 is also possible, but in cases where it was not possible to perform the treatment of DC in ES at all levels, these are not reported in detail.

1) The treatment using PIN.

This type of double counting is treated in some countries by using different types of personal identification numbers or PIN (BG, EL, FR, HU, IT, FI and NO). In EL, a substitute for the 'Personal Identification Number' is used; this is a 'Tax Identification Number' (NQR: a methodological factor such as a percentage charge, which is 4% for every beneficiary) imposed on all insured persons, for medical and other pharmaceutical products. We were thus able to explain the double counting, given the large number of pension funds... To avoid double counting, every fund counted only those pensioners who had a % charge participation factor imposed on them).

The table below sets out all the cases using PIN, by country, scheme and item:

Table 9. Cases of treatment of DC type I, using a personal identification number.

| Country | Scheme | Items |
|---------|-----------------------|---------------------------------------------|
| BG | Scheme 1 | 1141111 |
| BG | Scheme 2 | 1121111, 1131111 |
| BG | Scheme 3 | 1141111 |
| EL | Schemes 1, 2, 7, 8, 9 | A total of 22 items |
| FR | Scheme 1 | 1121111 |
| HU | Scheme 8 | 1141111 |
| IT | 19 schemes | A total of 67 items |
| FI | 14 schemes | A total of 89 items |
| NO | Scheme 1 | 1121111, 1122111, 1131111, 1131112, 1132111 |
| NO | Scheme 3 | 1121111, 1131111, 1131112, 1161113 |
| NO | Group 1 | 1121111, 1131111, 1131112, 1131113 |

2) Other methods of treatment.

There were also other methods of estimating DC type 1 in addition to a PIN. These include: using a hypothesis, using a distribution that is known from other sources and is applied to the case in question, using micro level data, etc. A brief description of this type of treatment is given below:

- In EE, the only categories of pensioners who can receive dual benefits are orphans under scheme 2, item 1141111. The assumption for the treatment of double counting is that every orphan receives two benefits.
- FR is unable to distinguish between some benefits in Schemes 1, 15 and 18 for the item 1121111 (NQR: *'Within the item "Disability pension beneficiaries", there are two types of benefits: "pensions d'invalidité" (disability pensions) and "rente d'accident du travail et de maladie professionnelle" (pensions for occupational accident or disease)'*). Therefore, double counting is not eliminated, but it can be assumed to be negligible (NQR: *'The conditions for receiving these benefits are very different, so we consider there is no double counting between them'*).
- EL uses for scheme 1, a methodological factor such as a percentage charge (which is 4% for every beneficiary) participation factor imposed to all insured, for medical and other pharmaceutical products, thus we were able to account for double counting, given the large number of pension funds..... every fund, in order to avoid double counting, counted only those pensioners who had a % charge participation factor imposed to them. Also EL uses other data from administrative sources).
- CY calculates the number of pensioners without DC for the item 1141111 in schemes 1, 2, 5 and 6 using micro level data.
- LT, for scheme 12, items 1131111 and 1141111, estimates the double counting by applying a percentage derived from other data sources. Micro level data are used by LT when calculating the number of pensioners in scheme 10, item 1141111.
- AT estimates the number of beneficiaries in scheme 1 for the items 1121111 and 1141111 by adding the number of beneficiaries that are double counted to the number of beneficiaries provided by the data source. This is because, in AT, the data sources provide information on beneficiaries by counting them only once. The same method is used for scheme 2, item 1141111.
- SK also eliminated double counting between some benefits for scheme 13 items 1131111, 1131112 and 1141111, for scheme 18 items 1131111 and 1141111 and for scheme 19 items 112111 and 1141111. However, it does not say what method is used.

3) Cases of no treatment.

There are very few cases of no treatment for this type of DC in AT, ES and FI:

- ES reports only that the treatment was not applied and gives no details about the possible scale of the problem.
- AT reports no treatment for scheme 5 item 1121111, scheme 20 item 1131111 and scheme 4 item 1131112. The double counting is assumed to be not significant in all three cases. Also no treatment is applied for scheme 3 item 1141111, scheme 5 item 1141111 and scheme 11 item 1161113, but the conditions of eligibility required are so different that it can be assumed that there are no cases of this type of DC.
- FI did not report on the DC Type 1 for scheme 18 (items 1121111, 1131111, 1141111 and 1161113)

b) Horizontal aggregation between schemes (Type 2 – a pension category for all schemes)

This type of double counting was treated mainly using a PIN, a different hypothesis or micro level data. Some countries had figures provided by data sources with no double counting.

1) Estimations based on a hypothesis

- EL took the hypothesis that every beneficiary in schemes 7, 8 and 9 also receives a benefit from the main schemes 1 and 2, and that there is no double counting between these schemes and the main schemes. This is valid for all benefits provided by these schemes (see table below). EL estimates the number of double counted beneficiaries between schemes 1 and 2 as negligible, for all items for which the schemes provides benefits.
- FR makes an assumption that there is no double counting for all schemes where they are providing benefits under the item 1121111.
- NL applies the same hypothesis as FR when calculating the sums for the item 1121111. Beneficiaries receiving benefits from schemes 13, 14 and 15 are eliminated, and only the remaining schemes are taken into account based on the assumption that disabled persons receive only one disability pension.
- AT assumes that, as scheme 20 is a supplementary scheme, all the beneficiaries for item 1131111 are double counted with either scheme 1 or 2 or 5. The share of double counting between schemes 5 and either scheme 1 or scheme 2 is also estimated for item 1141111.
- PL assumes that there is no double counting between scheme 8 and any of the schemes 2, 3, 4 and 7, for the items that are common to pairs of schemes (2 – 8, 3 – 8, 4 – 8 and 7 – 8)
- For SI, a treatment similar to double counting is applied between schemes 15 and 17 for items 1121111 and 1131111.
- NO estimates the double counting between scheme 1 and the group 1, for the items 1131111 and 1132111, at 60% of the number of beneficiaries in group 1. For the item 1142111, the double counting between the group 1 and the scheme 1 is assumed to be 75%.

2) Treatment using a PIN.

Some countries used a personal identification number (PIN) for the DC type 2 (as in the case of the double counting). BG applied this method for several items, eliminating the DC between schemes 1, 2, 3 and 6. MT used the method only for the elimination of DC between schemes 1 and 6 for the items 1131111 and 1141111. FI and IT also applied PIN to eliminate the DC for almost all of the items, for relevant schemes.

Table 10. Cases of use of a personal identification number for the treatment of DC type II

| Country | Item | Relevant schemes (providing benefits) |
|---------|------------------|---------------------------------------------------------------|
| BG | 1121111, 1141111 | 1, 2, 3 |
| BG | 1131111 | 1, 2, 3, 6 |
| MT | 1131111 | 1, 6 |
| MT | 1141111 | 1, 6 |
| IT | 1121111 | 3, 5, 6, 8, 10, 11, 12, 13, 14, 15, 16, 19, 20, 21, 22, 24 |
| IT | 1131111 | 3, 4, 5, 6, 8, 10, 11, 12, 13, 14, 15, 16, 19, 20, 21, 22, 24 |

| | | |
|----|---------------------------------------|--------------------------------------------|
| IT | 1131112 | 3, 4, 5, 6, 8, 10, 11, 13, 19, 20, 21, 22 |
| IT | 1132111 | 8, 23, 25 |
| FI | 1121111, 1131111, 1131112, 1161113 | 1, 5, 7, 8, 11, 12, 13, 15, 16, 17, 49, 50 |
| FI | 1121112, 1131113 | 1, 5, 7, 8, 11, 12, 13, 16, 17, 49, 50 |
| FI | 1141111 | 2, 5, 7, 8, 11, 12, 13, 15, 16, 17, 49, 50 |

3) Micro level data.

Three countries (CY, DE and LT) used micro level data in order to eliminate double counting for the items concerned between the relevant schemes.

Table 11. Cases of use of micro level data for the treatment of DC type II

| Country | Item | Relevant schemes (providing benefits) |
|---------|------------------------------------|------------------------------------------|
| DE | 1121111 | 1, 4, 9, 16, 18 |
| DE | 1131111 | 1, 4, 9, 10, 11, 15, 16, 18, 20 |
| DE | 1131112 | 1, 9, 10, 11, 15, 16 |
| DE | 1141111 | 1, 4, 9, 10, 11, 16, 18 |
| CY | 1121111, 1131111 | 1, 4 |
| LT | 1131111, 1141111 | 10, 12 |
| LT | 1121111, 1131111, 1131112, 1141111 | 10, 13 |

4) Other methods

- FR is using the survey 'Echantillon inter-régime des retraités' (EIR) to estimate the DC type 2 for the items 1131111, 1141111 and 1142111.
- AT is receiving data from data sources free of double counted pensioners, so the number of double counted pensioners is estimated and then added to the figures received. This is valid for items 1121111, 1131111 and 1141111 between schemes 1 and 2. Concerning item 1141111 for the other schemes that provide this benefit (1, 2, 3 and 5), it is presumed that there are no cases of beneficiaries receiving two benefits.
- PT is also using a survey for treatment of double counting between schemes 42, 43, 56 and 61, for several items (see table below).

5) No treatment.

Some countries did not apply special treatment, either because the figures contained in the data sources were correct, or because there are specific rules prohibiting double benefit (see table 12).

According to the table, BE has aggregated horizontally for items specified, by adding the figures which contained no double counted beneficiaries. For DK, pensioners in schemes 11 – 15 must be eliminated as they also receive a State old age pension from scheme 82 (Item 1131111). The same solution is applied by CY, as every pensioner in schemes 2, 5 and 6 also receives another pension from scheme 1.

Table 12. Cases of non necessary treatment for DC type II

| Country | Items | Relevant schemes (providing benefits) |
|---------|------------------|------------------------------------------|
| BE | 1121111 | 1, 3, 8, 9, 30, 36, 44 |
| BE | 1131111, 1141111 | 6, 7, 15, 16, 17 |
| DK | 1131111 | 11, 12, 13, 14, 15, 82 |
| CY | 1121111 | 1, 5 |
| CY | 1131111, 1141111 | 1, 2, 5, 6 |
| PT | 1131112 | 61 |
| PT | 1161113 | 43 |
| PT | 1121111, 1141111 | 42, 43 |
| PT | 1131111 | 42, 43, 56 |

Four countries report that it is impossible to treat this type of DC for one or more items. The first is ES, which is restructuring the schemes and therefore the treatment could not be applied. The other countries are FI (four items in one scheme), IT (one item in one scheme) and UK (four items in several schemes).

6) Other treatments

There were also treatments of this type of DC in NL, NO, PL, SK and CZ (see table below for items and relevant schemes).

Table 13. Other cases of DC type II

| Country | Item | Relevant schemes (providing benefits) |
|---------|------------------|------------------------------------------|
| CZ | 1131111, 1141111 | 1, 3, 9 |
| NL | 1131111 | All |
| NL | 1141111 | All |
| NO | 1121111 | 01, 03, G1 |
| PL | 1131111 | 2, 3, 4, 7 |
| PL | 1121111, 1141111 | 3, 4, 7 |
| SK | 1131111, 1141111 | 11, 18 |

c) Between non-means tested and means-tested subcategories (Type 3 - at item level)

Twelve countries report double counting between figures for Non Means-tested and for Means-tested subcategories.

Four of them (FI, IT, MT and SI) dealt with this type of double counting by using a personal identification number (PIN).

As far as the remaining countries are concerned, BE and FR use a survey; in DE, EL, ES, AT and NO, the Means-tested beneficiaries also receive a Non Means – tested benefit, and NO uses other methods.

- BE estimates that the double counting between 1131111 and 1132111 applies to 50% of the number of beneficiaries receiving benefits from 1132111.
- FR is using the survey ‘*Echantillon inter-régime des retraités*’ (EIR) to estimate the DC type 3 between the pairs 1131111 – 1132111 and 1141111 - 1142111. Concerning the pair 1121111 – 1122111, it is known that the Means-tested beneficiaries also receive a Non Means –tested benefit

Table 14. The cases of DC type III

| Country | Items pair | Function | Treated |
|---------|-------------------|------------|---------|
| BE | 1121111 - 1122111 | Disability | Yes |
| BE | 1131111 - 1132111 | Old age | Yes |
| DE | 1131111 - 1132111 | Old age | Yes |
| DE | 1141111 - 1142111 | Survivors | Yes |
| EL | 1121111 - 1122111 | Disability | Yes |
| EL | 1131111 - 1132111 | Old age | Yes |
| EL | 1141111 - 1142111 | Survivors | Yes |
| ES | 1121111 - 1122111 | Disability | Yes |
| ES | 1131111 - 1132111 | Old age | Yes |
| ES | 1131112 - 1132112 | Old age | Yes |
| FR | 1121111 - 1122111 | Disability | Yes |
| FR | 1131111 - 1132111 | Old age | Yes |

| | | | |
|----|-------------------|--------------|------|
| FR | 1141111 - 1142111 | Survivors | Yes |
| IT | 1121111 - 1122111 | Disability | Yes |
| IT | 1131111 - 1132111 | Old age | Yes |
| MT | 1131111 - 1132111 | Old age | Yes |
| AT | 1121111 - 1122111 | Disability | Yes. |
| AT | 1121112 - 1122112 | Disability | Yes. |
| AT | 1131111 - 1132111 | Old age | Yes. |
| AT | 1131112 - 1132112 | Old age | Yes. |
| AT | 1141111 - 1142111 | Survivors | Yes. |
| AT | 1161113 - 1162113 | Unemployment | Yes. |
| SI | 1121111 - 1122111 | Disability | Yes |
| SI | 1131111 - 1132111 | Old age | Yes |
| SI | 1131112 - 1132112 | Old age | Yes |
| SI | 1131113 - 1132113 | Old age | Yes |
| SI | 1141111 - 1142111 | Survivors | Yes |
| FI | 1121111 - 1122111 | Disability | Yes |
| FI | 1121112 - 1122112 | Disability | Yes |
| FI | 1131111 - 1132111 | Old age | Yes |
| FI | 1131112 - 1132112 | Old age | Yes |
| FI | 1161113 - 1162113 | Unemployment | Yes |
| NO | 1121111 - 1122111 | Disability | Yes |
| NO | 1131111 - 1132111 | Old age | Yes |

d) Between categories in aggregation (Type 4 - at intra-function level, at inter-function level, at total pension beneficiaries level)

This type of double counting contains three subtypes, namely:

1. The DC at the level of each function ('Disability', 'Old age', 'Survivors' and 'Unemployment')
2. The DC between 'Old age' and 'Survivors', the item 1190110
3. The DC between the four functions (between 'Disability', 'Old age', 'Survivors' and 'Unemployment')

1. The DC at the level of each function

Only two countries report on the treatment of this type of double counting:

DK, for the function 'Disability', 'The total of category 1120110 (Total pension beneficiaries in disability function) is equal to the total of category 1120111 (Disability pension beneficiaries) as it is assumed that all beneficiaries receiving early retirement benefits due to reduced capacity to work also receive disability pension.'

FI, for the function 113 (between items 1130111 - 1130112 – 1130113), uses a personal identification number (PIN).

2. The DC between 'Old age' and 'Survivors'

The presence of DC for the item 1190110 was reported by 15 countries, as shown in the table below.

Table 15. Cases of treatment of DC for the item 1190110

| Country | Treated | Method |
|---------|---------|--------------------------------------------------------------------------------|
| BE | Yes | Separate calculation of a total old age beneficiaries and of a total survivors |
| BG | Yes | Using a personal identification number |
| CZ | Yes | Based on real data from registers. |
| DE | Yes | Other: using administrative data |
| DK | Yes | Estimation based on a hypothesis |
| EL | Yes | Tax identification number (scheme 2) and Other Method of treatment (scheme 1) |
| ES | Yes | Not reported |
| FR | Yes | Estimation based on a survey + estimation based on a hypothesis |
| IT | Yes | Using a personal identification number |

| | | |
|----|-----|--------------------------------------------|
| CY | Yes | Using micro level data |
| LT | Yes | Using micro level data |
| HU | Yes | Using a personal identification number |
| AT | Yes | Estimation based on previously known data. |
| PT | Yes | Other - Using administrative data. |
| SI | Yes | Using a personal identification number |
| SK | Yes | Not reported |
| FI | Yes | Using a personal identification number |

3. The DC between the four functions

Fourteen countries report the treatment of DC between all four functions (Items 1120110 - 1130110 - 1140111 - 1160113), as shown in the table below:

Table 16. Cases of treatment of DC between the four functions.

| Country | Treated | Method |
|---------|---------|-------------------------------------------------------------------------------|
| BE | Yes | Not reported |
| BG | Yes | Using a personal identification number |
| CZ | Yes | Based on real data from registers. |
| DE | Yes | Other: using administrative data |
| EL | Yes | Tax identification number (scheme 2) and Other Method of treatment (scheme 1) |
| ES | Yes | Not reported |
| FR | Yes | Estimation based on a hypothesis |
| IT | Yes | Using a personal identification number |
| CY | Yes | Using micro level data |
| LT | yes | Using micro level data |
| HU | Yes | Using a personal identification number |
| AT | Yes | Estimation based on previously known data. |
| PT | Yes | Other - Using administrative data. |
| SI | Yes | Using a personal identification number |
| SK | Yes | Not reported |
| FI | Yes | Using a personal identification number |

7. Revisions

Twelve countries revised some figures for various reasons. The revisions were reported under five types, namely:

- Changes in the data sources used
- Changes in the methods used for estimating data
- Revisions of data due to conceptual adjustments
- Revisions of data due to availability of final statistics
- Other revisions of data (e.g. due to quality review actions)

A total of 77 major revisions are reported in 2009 for the 2006 figures on beneficiaries and a number of minor revisions. The table below classifies the major revisions by type:

Table 17. Major revisions by type

| Revision type | Number of important revisions |
|--------------------------------------------------------------|-------------------------------|
| Changes in the data sources used | 11 |
| Changes in the methods used for estimating data | 14 |
| Revisions of data due to conceptual adjustments | 30 |
| Revisions of data due to availability of final statistics | 3 |
| Other revisions of data (e.g. due to quality review actions) | 16 |
| Revisions of data due to conceptual adjustments + | 3 |

| | |
|-----------------------------------------|----|
| due to availability of final statistics | |
| Total | 77 |

A summary of the revisions by country reveals the following picture:

- Revisions in BG and the main revisions in CY are made in order to bring information supplied by data sources into line with the ESSPROS methodology.
- All revisions in DE were made in order to follow the new ESSPROS methodology and to eliminate double counting between schemes. The new data used come from a survey.
- FR made a large number of corrections for several schemes and items, most of them relating to quality reviews.
- LT made some revisions which result from the data sources used.
- NL revisions mainly consist of changes in the estimation procedures and availability of final statistics. For Scheme 45, new information was made available.
- AT reported some revisions due to the fact that the provisional estimate had been replaced by biannual data which were not included in the previous data collection.
- PL made a revision as a quality review action.
- The most important revisions made by RO are also intended to bring the figures into line with the new ESSPROS methodology.
- SI also reported some minor revisions as part of a quality review.
- The revisions made by FI are intended to correct the classification of some pensioners by item (many benefits have been classified as MT).

The table below lists all the main revisions for the 2009 collection, based on figures for pension beneficiaries reported in 2008 (Old value) and revised in 2009 (New value):

Table 18. The main revisions for the 2009 collection

| Country | Scheme | Item | Percent of revision | Old value | New value |
|---------|-----------|---------|---------------------|-----------|-----------|
| BG | Scheme 2 | 1132111 | -28.7% | 7466 | 5323 |
| BG | Scheme 2 | 1141111 | 40.06% | 5349 | 7492 |
| DE | Scheme 1 | 1121111 | 21.4% | 1334416 | 1619953 |
| DE | Scheme 10 | 1131112 | -4.63% | 4194 | 4000 |
| DE | Scheme 11 | 1121111 | -6.45% | 155000 | 145000 |
| DE | Scheme 11 | 1131111 | -32.69% | 1042933 | 702000 |
| DE | Scheme 11 | 1131112 | -5.77% | 157067 | 148000 |
| DE | Scheme 11 | 1141111 | 276.36% | 110000 | 414000 |
| DE | Scheme 15 | 1121111 | -9.7% | 567000 | 512000 |
| DE | Scheme 15 | 1131111 | -8.06% | 4728287 | 4347000 |
| DE | Scheme 15 | 1131112 | -30.94% | 370713 | 256000 |
| DE | Scheme 16 | 1121111 | 79.34% | 121000 | 217000 |
| DE | Scheme 16 | 1131111 | -31.01% | 2019019 | 1393000 |
| DE | Scheme 16 | 1131112 | 44.13% | 169981 | 245000 |
| DE | Scheme 16 | 1141111 | 378.31% | 83000 | 397000 |
| DE | Scheme 19 | 1132111 | -7.14% | 13999 | 13000 |
| DE | Scheme 20 | 1131111 | 3.51% | 57000 | 59000 |
| DE | Scheme 4 | 1131111 | -14.74% | 441000 | 376000 |
| DE | Scheme 4 | 1141111 | 93.42% | 76000 | 147000 |
| DE | Scheme 9 | 1121111 | 137.5% | 32000 | 76000 |
| DE | Scheme 9 | 1131111 | -40.7% | 551445 | 327000 |
| DE | Scheme 9 | 1131112 | 27.36% | 23555 | 30000 |
| DE | Scheme 9 | 1141111 | 407.14% | 42000 | 213000 |

| Country | Scheme | Item | Percent of revision | Old value | New value |
|---------|-----------|---------|---------------------|-----------|-----------|
| FR | Scheme 01 | 1122111 | 196.07% | 33800 | 100071 |
| FR | Scheme 01 | 1122111 | 196.06% | 33800 | 100071 |
| FR | Scheme 01 | 1142111 | -94.34% | 90166 | 5102 |
| FR | Scheme 15 | 1131111 | -3.06% | 1580770 | 1532275 |
| FR | Scheme 15 | 1141111 | -20.98% | 580689 | 458813 |
| FR | Scheme 16 | 1131111 | 2026.17% | 1341 | 28512 |
| FR | Scheme 16 | 1141111 | 38727.58% | 29 | 11260 |
| FR | Scheme 18 | 1131111 | -3.96% | 205451 | 197310 |
| FR | Scheme 28 | 1121111 | -97.38% | 189916 | 4962 |
| FR | Scheme 29 | 1131111 | | 0 | 8141 |
| FR | Scheme 51 | 1141111 | | 0 | 40102 |
| FR | Scheme 51 | 1142111 | -79.32% | 50556 | 10454 |
| HU | Scheme 12 | 1141111 | -83.39% | 36942 | 6135 |
| HU | Scheme 8 | 1141111 | -70.4% | 871720 | 258031 |
| CY | Scheme 4 | 1121111 | -11.87% | 1171 | 1032 |
| LT | Scheme 12 | 1131111 | -4.48% | 74452 | 71114 |
| LT | Scheme 12 | 1141111 | -7.23% | 26545 | 24624 |
| NL | SCH 12 | 1131111 | -8.63% | 5363 | 4900 |
| NL | SCH 28 | 1121111 | -37% | 132400 | 83400 |
| NL | SCH 28 | 1141111 | 8.59% | 332600 | 361200 |
| NL | SCH 29 | 1121111 | 63.72% | 20400 | 33400 |
| NL | SCH 29 | 1131111 | -15.1% | 373300 | 316900 |
| NL | SCH 29 | 1141111 | 27.71% | 113300 | 144700 |
| NL | SCH 30 | 1121111 | -13% | 42300 | 36800 |
| NL | SCH 30 | 1131111 | -46.9% | 659900 | 350400 |
| NL | SCH 30 | 1141111 | -24.4% | 211800 | 160100 |
| NL | SCH 32 | 1131111 | 400% | 500 | 2500 |
| NL | SCH 33 | 1141111 | 23.25% | 4300 | 5300 |
| NL | SCH 34 | 1131112 | 40.57% | 90700 | 127500 |
| NL | SCH 45 | 1121111 | 321.42% | 2800 | 11800 |
| NL | SCH 45 | 1131111 | 43.55% | 16300 | 23400 |
| NL | SCH 45 | 1141111 | 208.33% | 1200 | 3700 |
| NL | SCH 48 | 1131112 | 29.09% | 11000 | 14200 |
| AT | Scheme 2 | 1131111 | -11.54% | 206959 | 183083 |
| AT | Scheme 2 | 1141111 | -8% | 99263 | 91325 |
| PL | Scheme 09 | 1161113 | 141.98% | 88128 | 213258 |
| RO | Scheme 21 | 1121111 | -4.05% | 599441 | 575149 |
| RO | Scheme 21 | 1121112 | 3.09% | 269358 | 277676 |
| RO | Scheme 23 | 1121111 | -4.88% | 2929 | 2786 |
| SI | Scheme 15 | 1131111 | 57.07% | 5257 | 8257 |
| SI | Scheme 16 | 1131111 | -48.65% | 3918 | 2012 |
| SI | Scheme 5 | 1161113 | -100% | 2038 | 0 |
| SI | Scheme 7 | 1161113 | -100% | 4340 | 0 |
| FI | Scheme 1 | 1121111 | -100% | 153554 | 0 |
| FI | Scheme 1 | 1122112 | -100% | 1249 | 0 |
| FI | Scheme 1 | 1122111 | 131.02% | 66467 | 153554 |
| FI | Scheme 1 | 1131111 | -100% | 453008 | 0 |
| FI | Scheme 1 | 1131112 | -100% | 24891 | 0 |
| FI | Scheme 1 | 1132111 | | 80957 | 453008 |
| FI | Scheme 1 | 1132112 | - | 2714 | 24891 |
| FI | Scheme 1 | 1161113 | -100% | 20451 | 0 |

| Country | Scheme | Item | Percent of revision | Old value | New value |
|---------|----------|---------|---------------------|-----------|-----------|
| FI | Scheme 1 | 1162113 | 580.57% | 3005 | 20451 |

The table below lists the main revisions by type and by country.

Table 19. The number of main revised figures by type and by country

| Country | 1 Changes in the data sources used | 2 Changes in the methods used for estimating data | 3 Revisions of data due to conceptual adjustments | 4 Revisions of data due to availability of final statistics | 5 Other revisions of data (e.g. due to quality review actions) | 3 Revisions of data due to conceptual adjustments + 4 Revisions of data due to availability of final statistics |
|--------------|------------------------------------|---------------------------------------------------|---------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| BG | | 2 | | | | |
| DE | | | 21 | | | |
| FR | 4 | | | | 10 | |
| HU | 2 | | | | | |
| CY | | | | | 1 | |
| LT | 2 | | | | | |
| NL | 3 | 12 | | 1 | | |
| AT | | | | 2 | | |
| PL | | | | | 1 | |
| RO | | | | | | 3 |
| SI | | | | | 4 | |
| FI | | | 9 | | | |
| Total | 11 | 14 | 30 | 3 | 16 | 3 |

Conclusions and recommendations

Significant advances have been made in the ESSPROS field following the approval and initial implementation of the three Regulations introduced in 2007 and 2008. For the users of social protection data, the information available has increased considerably.

From the quality point of view, data for more than half of the countries are of good quality and useful for analytical purposes. However, the analysis carried out in this quality report refers only to data from the years 2006 and 2007 and it is not possible to evaluate the revisions in depth.

As the 2009 collection was the second year of data collection for PB data, Eurostat – as a way of further improving the good quality achieved – recommends asking the countries to comply as fully as possible with the quality criteria laid down in the Regulation and in the ESSPROS Manual. A more thorough check of quality may only be possible when comparing results for more years and more collections.

The following table makes some specific recommendations by country with a view to improving the next data collection. All the recommendations are the result of the validation of PB data and of the analysis of the national quality reports.

Table 20. Recommendations by country.

| Country | An effort should made to: |
|---------|-------------------------------------------------------------------------------------------|
| BE | Supply the missing figures. Improve the coverage for small schemes. Improve the coherence |

| | |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | with core system. Improve the coherence with QI |
| BG | Maintain/Improve the good quality achieved |
| CZ | Improve the coverage and the treatment of double counting |
| DK | Maintain/Improve the good quality achieved |
| DE | Maintain/Improve the good quality achieved |
| EE | Maintain/Improve the good quality achieved |
| EL | Improve the treatment of double counting. Supply the missing figures. Improve the timeliness |
| ES | Improve the coverage and the treatment of double counting |
| FR | Improve the coverage for small schemes. Improve the coherence with core system |
| IE | Improve the quality and the timeliness of data |
| IT | Improve the coherence with core system. |
| CY | Maintain/Improve the good quality achieved |
| LV | Maintain/Improve the good quality achieved |
| LT | Maintain/Improve the good quality achieved |
| LU | Maintain/Improve the good quality achieved |
| HU | Improve the comparability over the time |
| MT | Maintain the good quality achieved |
| NL | Improve the coherence with the Core System. |
| AT | Maintain/Improve the good quality achieved |
| PL | Improve the timeliness. Supply more information |
| PT | Supply the missing figures. Improve the coherence with QI. Improve the coherence with core system |
| RO | Maintain/Improve the good quality achieved |
| SI | Maintain/Improve the good quality achieved |
| SK | Improve the consistency with the core |
| FI | Improve the coverage in terms of schemes. |
| SE | Improve the timeliness. Provide the compulsory information. Improve the treatment of DC. |
| UK | Supply the missing figures. Improve the treatment of double counting. Improve the coherence with core system. Improve the coverage in terms of schemes and/or items |
| NO | Maintain the good quality achieved |

List of abbreviations used throughout the paper:

- CS – Core system
- DC = Double counting
- MT = Means-tested
- NMT – Non Means-tested
- NQR = National Quality Report
- PB = Pension beneficiaries
- PIN = Personal Identification Number
- QI = Qualitative information
- QD = Quantitative data

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