

Please cite this paper as:

Payet, S. (2012), "Identification and Assessment of Publicly Available Data Sources to Calculate Indicators of Private Pensions", *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 21, OECD Publishing, Paris.  
<http://dx.doi.org/10.1787/5k94d6g58vxs-en>



OECD Working Papers on Finance,  
Insurance and Private Pensions No. 21

# Identification and Assessment of Publicly Available Data Sources to Calculate Indicators of Private Pensions

Stéphanie Payet

JEL Classification: C81, G23, J26, J32

## **OECD WORKING PAPERS ON FINANCE, INSURANCE AND PRIVATE PENSIONS**

OECD Working Papers on Finance, Insurance and Private Pensions provide timely analysis and background on industry developments, structural issues, and public policy in the financial sector, including insurance and private pensions. Topics include risk management, governance, investments, benefit protection, and financial education. These studies are prepared for dissemination in order to stimulate wider discussion and further analysis and obtain feedback from interested audiences.

The papers are generally available only in their original language English or French with a summary in the other if available.

---

**OECD WORKING PAPERS ON FINANCE,  
INSURANCE AND PRIVATE PENSIONS**  
are published on [www.oecd.org/daf/fin/wp](http://www.oecd.org/daf/fin/wp)

---

*This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.*

*Ce document et toute carte qu'il peut comprendre ne préjugent en rien du statut de tout territoire, de la souveraineté s'exerçant sur ce dernier, du tracé des frontières et limites internationales, et du nom de tout territoire, ville ou région.*

# IDENTIFICATION AND ASSESSMENT OF PUBLICLY AVAILABLE DATA SOURCES TO CALCULATE INDICATORS OF PRIVATE PENSIONS

## TABLE OF CONTENTS

1. Introduction.....	6
2. Objectives and coverage of the analysis .....	7
3. Identification and evaluation of data sources available to assess coverage, contributions and benefits in private pension plans.....	8
Types of data sources .....	8
Assessment of alternative approaches to combine information from different data sources .....	10
Identification and availability of data sources.....	12
General results from the assessment of available data sources .....	16
4. Detailed evaluation of multinational surveys.....	17
The Survey of Health, Ageing and Retirement in Europe.....	18
The EU – Income, Social Inclusion and Living Conditions survey .....	20
The EU – Household Finance and Consumption Survey .....	24
The Luxembourg Income Study .....	25
The Luxembourg Wealth Study .....	27
5. Identification and detailed evaluation of publicly available national data sources.....	29
Austria .....	29
Belgium .....	31
Bulgaria .....	33
Cyprus .....	34
Czech Republic .....	35
Denmark .....	37
Estonia.....	38
Finland.....	39
France.....	41
Germany.....	42
Greece.....	49
Hungary .....	50
Ireland .....	51
Italy .....	55
Latvia.....	58
Lithuania.....	59
Luxembourg .....	60
Malta .....	61
Netherlands.....	62
Poland.....	67
Portugal .....	68
Romania .....	70
Slovak Republic .....	71
Slovenia.....	72
Spain.....	73
Sweden .....	76
United Kingdom.....	77
Australia .....	88
United States .....	91
References.....	105

## **Abstract**

### **IDENTIFICATION AND ASSESSMENT OF PUBLICLY AVAILABLE DATA SOURCES TO CALCULATE INDICATORS OF PRIVATE PENSIONS**

Considering the growing role of private and funded pension provision and the sensitivity of private pension provision to the economic climate, there is an increasing need of comparable and reliable information on private pension plans in order to better monitor retirement income adequacy and the role of private provision in retirement income. Key indicators of the extent to which private pension provision contributes to the adequacy of pensions are the level of coverage that private pensions have across countries' workforce, contributions made into pension funds and personal retirement accounts, and benefits paid to retirees. This paper provides the assessment of data sets available to estimate pension coverage, contributions and benefits in private pensions and discusses ways to use available data sets in order to better inform policy discussions on the role of private pensions on retirement benefit adequacy. It covers all EU-27 Member States and selected non-EU countries.

*JEL codes: G23, J26, J32, C81*

*Keywords: Coverage, contributions, benefits, funded and private pensions, publicly available data sources, assessment of data sets*

## **Résumé**

### **IDENTIFICATION ET EVALUATION DES SOURCES DE DONNEES DISPONIBLES POUR LE CALCUL D'INDICATEURS SUR LES PENSIONS PRIVEES**

Dans un contexte où le rôle des dispositifs de retraite privés et par capitalisation s'accroît et où les dispositifs de retraite privés sont sensibles au climat économique, il existe un besoin croissant d'information comparable et fiable sur les plans de retraite privés afin de mieux contrôler l'adéquation du revenu de retraite et le rôle des dispositifs privés dans le revenu de retraite. Les indicateurs clés qui permettent de mesurer dans quelle mesure les dispositifs privés de retraite contribuent à l'adéquation des pensions sont le niveau de couverture atteint par les pensions privées au sein de la population active des pays, les cotisations effectuées dans les fonds de pension et les comptes de retraite personnels, et les prestations payées aux retraités. Ce document fournit l'évaluation des bases de données disponibles permettant l'estimation de la couverture, des cotisations et des prestations des pensions privées et discute des moyens d'utiliser les bases de données disponibles afin de mieux informer les discussions politiques sur le rôle des pensions privées dans l'adéquation des prestations de retraite. Il couvre les 27 États Membres de l'Union Européenne et certains pays hors de l'Union.

*Codes JEL: G23, J26, J32, C81*

*Mots clés: Couverture, cotisations, prestations, retraite privée et par capitalisation, sources de données disponibles au public, évaluation de bases de données*

## EXECUTIVE SUMMARY

Considering the growing role of private and funded pension provision and the sensitivity of private pension provision to the economic climate, there is an increasing need of comparable and reliable information on private pension plans in order to better monitor retirement income adequacy and the role of private provision in retirement income. The main indicators considered are the level of coverage that private pensions have across countries' workforce, contributions made into pension funds and personal retirement accounts, and benefits paid to retirees. This paper provides the assessment of data sets available to estimate pension coverage, contributions and benefits in private pensions and discusses ways to use available data sets in order to better inform policy discussions on the role of private pensions on retirement benefit adequacy. It covers all EU-27 Member States and selected non-EU countries.

The main conclusions of the analysis are as follows:

- There are two main types of data sources that are available to calculate coverage, contributions and benefits in private pension plans: administrative data sets and household survey data sets.
- They both have their strengths and weaknesses to assess private pensions and combining them may allow having the best of both worlds and achieving a comprehensive assessment of coverage, contributions and benefits in private pension plans. Depending on the goal, the approach to combine information from different data sources is different.
- When the goal is to complement administrative data on pension funds with individual information from survey data, merging data sets that share the same unique personal identifiers allows for the best use of available information from both sources. Unfortunately, this kind of merge is seldom possible. Countries are encouraged to make sure that administrative and household survey data sets share the same unique personal identifiers, like is already the case in few countries.
- Countries should also facilitate further access to national data sources. While administrative data sets and multinational household surveys are generally publicly available, data availability of national household surveys varies across countries, in some countries the identified national data sources are not publicly available.
- Multinational surveys provide comparable information across several countries. Unfortunately, none of these surveys allow for the calculation of all private pensions' indicators and for all targeted countries. National surveys are therefore needed to complement multinational surveys.

## 1. Introduction<sup>1</sup>

The importance of funded pensions in the retirement income of pensioners is expected to grow in the near future.<sup>2</sup> In some countries (*e.g.* Ireland, Netherlands, Poland, United Kingdom) the role that funded private pension already play in providing retirement income is quite important. In some other countries, its role is still relatively limited, as the bulk of pension income comes from pay-as-you-go (PAYG) pensions. However, funded pensions will play a larger role in the near future (*e.g.* Germany, Italy, Sweden). Private pensions have an important role to play in diversifying the sources to finance retirement. Moreover, there is a need to assess the socio-economic structure of private provision in order to address the weaknesses identified as the result of the 2008/09 financial and economic crises.

This growing role of private and funded pension provision, as well as their observed sensitivity to the economic climate, has increased the need of comparable and reliable information on private provision in order to better monitor retirement income adequacy and the role of private provision. Key indicators of the extent to which private pension provision contributes to the adequacy of pensions are the access that individuals have to such provision and the benefit levels when reaching retirement. In that respect, important indicators that should be considered pertain to the level of coverage that private pensions have across countries' workforce, contributions made into pension funds, and benefits paid by pension funds. Several data sets to estimate coverage, contributions and benefits in private pensions have already been identified in the past. However, there is a need to update this knowledge and to assess ways to use available data sets in order to better inform policy discussions on the role of private pensions on retirement benefit adequacy.

Assessing coverage, contribution and benefits in private pension plans is vital to have a complete picture of retirement income adequacy, and to address the impact on retirement income of negative market shocks. Private pension plans are complementary to public pension provision, providing a non-negligible part of total retirement income in most OECD countries. Moreover, to understand the impact on retirement income of negative market outcomes (*e.g.* the recent financial and economic crisis) there is a need to know how many people are affected, *i.e.* how many people have private pensions; how important the impact of negative market shocks could be, *i.e.* the share of total retirement income stemming from private pension plans; and whether people can afford it. For the latter issue, information by age and income level would help as younger people have time to recoup and the older would be the more adversely affected by the crisis. Additionally, if only high income people have private pension plans, poverty concerns will not be pressing.

This paper addresses the first two objectives of a broader project,<sup>3</sup> which main goals were three-fold: (i) to assess publicly available data sources that allow calculating levels of private pension coverage, contributions and benefits; (ii) to examine ways and means to make better use of available administrative data and micro data sets at national and international levels; (iii) and to estimate key private pensions' indicators related to coverage, contributions and benefits for selected countries.<sup>4</sup> The paper is organised as follows. The next section describes the objectives of the analysis. Section 3 discusses the main types of data sets available to assess coverage, contributions and benefits. These are administrative and household survey data sets. The section addresses their strengths and weaknesses. It then identifies the main data

- 
- 1 . This paper has benefited from useful comments by Pablo Antolin.
  - 2 . Throughout the paper, the term "private pensions" refers to pension plans for both public and private sector workers that are funded or run on a book reserve basis. Pension plans that are financed on a pay-as-you-go basis are excluded.
  - 3 . This project has been possible thanks to the financial support of the European Commission.
  - 4 . Chapter 4 of OECD (2012) addresses the third objective, with a focus on indicators related to coverage.

sources available, and discusses different methods to combine information from micro and macro data sets. Section 4 provides a detailed evaluation of multinational household surveys that allow calculating indicators of coverage, contributions and benefits in a comparable manner across countries. Finally, Section 5 lists all identified data sources at a national level and provides a detailed evaluation for the data sets that are publicly available.

## 2. Objectives and coverage of the analysis

The study covers all EU-27 Member States plus Australia and the United States. It assesses publicly available data sources which could be used to estimate levels of private pension coverage, contributions and benefits for each country. More specifically, the detailed objectives are to:

- Identify administrative data sets (either micro or macro) and survey data sets in each country from which it could be envisaged to calculate or estimate the selected list of indicators (see Table 1);
- Among the identified data sets, assess the ones that are publicly available. This assessment involves the identification of the variables that allow for the calculation or estimation of the selected indicators, the examination of the level of disaggregation of the information (by socio-economic variables and by type of pension plans), and the identification of possible methodological limitations that could jeopardise data quality (*e.g.* variations in definitions, timeliness, scope, sampling method).

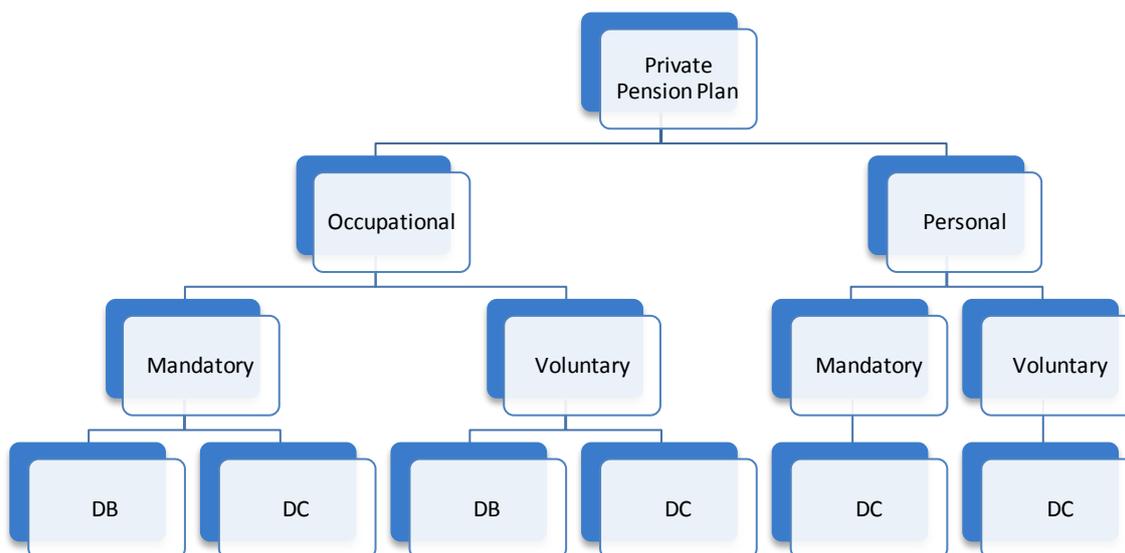
**Table 1. Selected list of key private pension indicators**

Group of indicators	List of indicators
Coverage	1. Current pensioners as a % of the population 65+
	2. Total active pension members as a % of the workforce, of which members in "occupational pensions"
	3. Total pension members by type of status ( <i>i.e.</i> active, deferred and passive)
	4. Breakdown of active members by socio economic characteristics ( <i>i.e.</i> age, gender and wages)
	5. Breakdown of active members by type of plans ( <i>i.e.</i> DB vs. DC plans, occupational vs. personal plans)
Benefits paid by pension plans	6. Typical plan design of DB plans (accrual rate / replacement rate for full career record)
	7. Average benefit as a % average wages by type of plans ( <i>i.e.</i> DB vs. DC plans, occupational vs. personal plans)
Contributions in DC pension funds	8. Average annual contributions by type of plan ( <i>i.e.</i> occupational vs. personal, mandatory vs. voluntary)
	9. Average annual contributions by socio economic characteristics ( <i>i.e.</i> age, gender and wages)
Accumulated savings in DC accounts	10. Accumulated savings in DC accounts

The paper considers all types of private and funded pension plans that exist across EU and OECD countries. These plans can be classified according to the OECD classification, as shown in Figure 1. Pension provision through private pension arrangements can take the form of mandatory or voluntary arrangements. They could be linked to an employment relationship, making them occupational pension plans, or they may be based on contracts between individuals and private pension providers, making them personal pension plans. Moreover, pension provision can be achieved through either defined contribution (DC) or defined benefit (DB) arrangements. DC plans are plans under which the plan sponsor pays fixed

contributions and has no legal or constructive obligation to pay further contributions to an ongoing plan in the event of unfavourable plan experience, while DB plans are plans other than DC plans.

**Figure 1. Private pension plan classification**



Source: OECD (2005), *Private Pensions: OECD Classification and Glossary*, OECD Publishing, Paris.

To be an active member of a private pension plan from the perspective proposed in this paper, an individual must have assets or accrued benefits in a plan. Hence, an individual who does not contribute or on behalf of whom contributions are not made during a year would still be considered as an active plan member if s/he has assets accumulated or benefits accrued in the plan. The ultimate goal is to evaluate how much people have to finance retirement, so there is a need to account for those who have assets in funded plans independently on whether they actively contribute today or not. A deferred member is defined as an active plan member that no longer contributes to or accrues benefits from the plan, but has not yet begun to receive retirement benefits from that plan, while a passive member is an individual receiving benefits from the plan. The paper also considers all types of contributions paid to the pension plan (*i.e.* employer and employee contributions) and all types of benefits paid by the pension plan (*i.e.* paid in the form of a pension or a lump sum).

### **3. Identification and evaluation of data sources available to assess coverage, contributions and benefits in private pension plans**

#### *Types of data sources*

There are two broad types of data sources to assess coverage, contributions and benefits from private pensions. Administrative data sets include administrative pension fund data that refer primarily to private pension plans and administrative social security records with detailed individual information on public pensions. Household or survey data sets provide detailed individual information independently of whether they have public or private pensions. Both types of data sets have their strengths and weaknesses.

Administrative data sets on private pension plans usually provide very valuable information on the number of plan members, aggregate national levels of contributions and benefits, as well as on other financial variables (such as total investment, asset allocation, and investment returns for example). In addition, data are published regularly, most of the time yearly, but sometimes more regularly, such as quarterly or monthly.

Unfortunately, membership data may suffer from multiple counting issues, as they may actually reflect the number of plans in a country rather than the number of distinct individuals covered. For instance, an individual can be at the same time member of an occupational pension plan (*e.g.* 401(k) in the United States) and of a personal pension plan (*e.g.* IRA in the United States). Additionally, multiple counting can result from workers having deferred rights in pension plans offered on previous jobs. In addition, the breakdown of coverage, contributions and benefits by socio-economic characteristics is rarely available in administrative data sets, while such breakdowns allow for the identification of population subgroups that may be more at risk of not having enough private pension provision to finance retirement.

Alternatively, household surveys provide detailed information at the individual or household level which avoids multiple counting issues and allows for a richer breakdown by socio-economic characteristics. Household surveys interview individuals or households directly and can therefore, in principle, provide information on whether they are enrolled, have assets, contribute to or receive pension benefits from private pension plans.

However, household surveys may suffer from sampling and non-response biases. For instance, the sample of the Italian Survey of Household Income and Wealth under-represents workers in economic sectors where the coverage rate of private pensions is higher than the average (for instance, employees in large firms). Consequently, private pension coverage as measured using this survey may be underestimated. The non-response bias arises when sampled individuals do not answer to some questions, either because they do not know the answer, or because they refuse to answer. If these non-responding individuals have specific characteristics, the results obtained when analysing the data for the responding individuals only may be biased.<sup>5</sup>

Additionally, the design of surveys may prevent them from being useful to assess coverage and estimate contributions in private pension plans. For example, the University of Michigan Health and Retirement Study (HRS), which is widely used to examine retirement issues in the United States (*e.g.* Gale and Phillips, 2006), the English Longitudinal Study of Ageing (ELSA), and the Survey of Health, Ageing and Retirement in Europe (SHARE) provide a wealth of information about individuals and their retirement savings and benefits. Alas, they only survey individuals aged 50 or older, making it impossible to measure coverage and contributions of the working age population. Nevertheless, these household surveys will be useful for estimating benefits in private pension plans.

Questions posed in surveys to individuals or households are not always suitable to measure private pension coverage accurately, and several measures coexist of private pension coverage.<sup>6</sup> Individuals can be considered as covered by a private pension plan if they have a positive account balance, if they contribute to a plan or if contributions are being made on their behalf. To be a member of a private pension plan from the perspective proposed in this report, an individual must have assets in a plan. Hence, an individual who do not contribute (for various reasons, including unemployment) or on behalf of whom contributions are

---

5 . An appropriate way of dealing with the non-response bias is to use various techniques to impute missing values (simple edits, hot-deck, multiple imputations, *etc.*). Most of the surveys analysed do use such techniques, but not all (*e.g.* in the Italian Survey of Household Income and Wealth, the missing values have not been imputed).

6 . See Turner (2003).

not made during a year would still be considered as a plan member if s/he has assets accumulated in the plan.

Additionally, household survey data may be difficult to access to (the access to some data sets is only granted to national academic researchers for instance) and are less regularly published than administrative data (while most surveys are conducted annually, some others are only conducted every two or five years).

Finally, it may be difficult to gather reliable information from individuals in the field of private pensions. A study about the feasibility of surveying individuals on occupational pensions currently conducted in Germany shows that people do not know a lot about occupational pension systems in general and are not very interested in improving their knowledge in this field. The Health and Retirement Survey suggests that participants have difficulty accurately making the distinction between the DB and DC plans. Respondents for whom their pension data could be linked to employer information correctly identified their plan as being either a defined contribution or defined benefit plan only half of the time.<sup>7</sup> The accuracy regarding key pension information in survey data may therefore be limited.

### *Assessment of alternative approaches to combine information from different data sources*

The previous section argued that both administrative and survey data have important information to assess private pensions. Consequently, combining both may allow having the best of both worlds. This sub-section discusses alternative approaches available in the literature to combine or merge information from different data sources to achieve a comprehensive assessment of coverage, contributions and benefits from privately managed pensions by different socio-economic characteristics.

Unfortunately, merging administrative and survey data to improve our knowledge of private pensions is not possible unless the merged data sets share the same ID record to match different individuals or households. Some of the exercises in the literature merging administrative and survey data focus on social security administrative data. Social security administrative data and household survey data can be merged as they sometimes both share the same ID numbers for individuals or households. Unfortunately for the purpose of this work, social security records lack information on private pensions making the exercise of merging social security administrative data with household survey data less useful than expected to assess private pension provision.

Fortunately, there is still the possibility of using information on private pension plans from pension funds' administrative data, such as those acquired through the OECD Global Pension Statistics exercise,<sup>8</sup> and combine that information with the one from survey data. Obviously, it is not possible to match this information at the individual or household level, except in countries where data sources share a common individual or household ID record (*e.g.* Chile). Even when this is not the case, combining different data sources is still useful in order to have a more complete picture of private pension provision.

In what follows, the report discusses several approaches to merge, join and compare administrative data sets with survey data sets. The approaches to merge, join and compare information from different data sources depend on the goals and type of information in them.

The goal of administrative data sets could be just to check the accuracy of survey data. Macro administrative data (*e.g.* the OECD Global Pension Statistics – GPS – data set) allow checking whether the aggregates from survey data are correct or accurate. In case they are not, they permit researchers to explain

---

7. See Gustman and Steinmeier (2002).

8. More information on the Global Pension Statistics exercise can be found at [www.oecd.org/daf/pensions/gps](http://www.oecd.org/daf/pensions/gps).

where the differences may stem from. Administrative micro data (*e.g.* social security administrative records) permit a double check on individual responses.

A broader goal could be to complement administrative data on pension funds with individual information. This could be achieved by merging administrative and survey data sets and would allow assessing the weight of private pensions in total benefits. The German AVID project uses administrative social security records to assess the weight of private pensions in total benefits (Box 1). This is possible because both data sets share a common id number. In Chile, it is possible to merge administrative data on pension funds (which contains information on accumulated assets, rates of return, portfolio structure, *etc.*) with individuals' information from survey data (age, gender, income, occupation, labour history, *etc.*) thanks to both data sets containing the same unique personal identifier (*i.e.* ID codes for individuals). Several labour market studies are able to match as well different data sources like the European Community Household Panel (ECHP) with the Finnish Linked Employer-Employee Data (FLEED),<sup>9</sup> and the ECHP with the Danish longitudinal register data,<sup>10</sup> because both share a common individual ID code.<sup>11</sup> This is a perfect match that allows merging individual specific information with pension data information. Unfortunately, sharing a common individual ID number across different types of data sets is far from common in most OECD and EU countries, except, maybe, the administrative social security records. However, administrative social security records lack information on private pensions.

**Box 1. The Survey on Retirement Pension Provision Schemes in Germany (AVID)**

The AVID study combines survey data with process-produced data from individual pension record accounts and (partially) simulated biographies. The survey covers every pension scheme in Germany: the Statutory Pension Insurance, the public and private supplementary systems, the civil servants' pension scheme, the farmers' old-age pension scheme as well as special schemes for the liberal professions. Private provisions for old age such as life insurances and private pension insurances are taken into account as well.

The AVID 1996 study consisted of the following phases:

- The first step was a representative personal face-to-face survey of Germans who live in Germany, were born between 1936 and 1955 and hold an account with the Statutory Pension Insurance. In addition, their spouses were included irrespective of their age and nationality and whether or not they were covered by the Statutory Pension Insurance. Respondents and their spouses were asked to give in depth information on their current work status, their different provisions for old age and their life courses.
- After a clarification of the Statutory Pension Insurance accounts both data sets were joined with the interviewees' consent using the individual social security numbers.
- The biographies and incomes were extrapolated for every individual until the age of 65 based on a micro simulation model.
- The types and amounts of pension entitlements accruing from the different pension schemes were calculated as well as the resulting gross and net incomes.
- An analysis was performed to determine the distribution of future old-age incomes based on current legislation.

9. See Bokerman (2011).

10. See Clark (2009).

11. Turner (2003) and McNabb (2009) combine micro administrative data sets in the United States using unique common individual social security numbers.

Another goal could be to use survey data sets to estimate a multiple counting factor to adjust administrative private pension data. Administrative macro pension fund data (*e.g.* OECD GPS) suffer of potential problems of multiple counting as they collect information on pension accounts or plans and individuals can have more than one pension plan. Survey data sets sometime contain information on the number of pension plans individuals have, which allows estimating a factor to address the multiple count problem of administrative data sets.<sup>12</sup>

When the goal is to obtain a range of different indicators, different administrative and household survey data sources can be combined. This could be done by using different data sources, either macro or micro, to obtain different but complementary indicators. Each source could provide different indicators and all combined can give an overall picture, for example, of private pension arrangements.<sup>13</sup> This is the approach taken in this report. We use all the sources publicly available to estimate different indicator of coverage, contribution and benefits in private pension plans.

The objective of increasing the precision of survey data on pension specific issues could be achieved by using macro administrative data sets to adjust the original survey weights. For example, total assets in pension plans from survey data may not add up to total assets as reported in administrative macro data, then the administrative data could somehow be used to adjust the weights in the survey data.<sup>14</sup>

Finally, the goal could just be to attach information on pension funds, only available at macro data level (*e.g.* asset allocation, liabilities, costs and fees, investment returns, *etc.*) to individual information from survey data. In this case, the objective could be achieved by using for example the split by type of pension plans (*e.g.* DB vs. DC; occupational vs. personal) as a common link between the macro administrative data sets and the micro survey data sets. An output of this approach could be that DB pension funds have an average investment return of say 5% and their members are on average between 45 and 54 years of age, while their median income is above the median of the country. This is useful information but far from the ideal of matching through unique common individual ID codes.

Summing up, it is possible to match different data sources, and in particular administrative and survey data sources, as long as both data sources contain the same unique personal identifiers (*i.e.* ID codes for individuals). Otherwise, the approach available (and the one used in this overall study) is to combine the information extracted from each data source without merging or matching the different sources. In the future, countries are urged to make sure that administrative and survey data sources share the same unique personal identifiers, like the Danish and Finish ECHP did when compared with administrative national sources, or the Chilean data sources.

### ***Identification and availability of data sources***

This sub-section discusses the data sources identified for the countries analysed and assesses whether they are publicly available in order to calculate private pensions' indicators. Table 2 below summarises all identified data sources, administrative and survey data that could be used to calculate some or all of the indicators for each country. Administrative data sets and household survey data sets are distinguished and

---

12 . Antolin (2007) provides an estimation of this factor for three OECD countries.

13 . Morissette (2001) uses this approach in the case of Canada. This study uses the Canadian Longitudinal Administrative Databank (LAD) and a combination of household survey to provide a broader picture of private pension provision. The study shows that combining tax data and survey data sets produce consistent results on the trend in pension coverage among men and women of different age groups.

14 . This approach could be useful when total assets do not add up because weights were not constructed for this purpose. However, if they do not add up because miss-reporting in survey data, changing weights may compound the problem.

data sets that are publicly available are followed by the mark (A). Most of the administrative data sets are not available per se, in the sense that the raw data are usually not available, the data may be however accessible by some other way. For instance, in many countries, the pension funds' supervisory authorities publish the statistics on their website, making the information accessible to everyone. In some other cases, the participation of such authorities to the OECD Working Party on Private Pensions allows the OECD to have an indirect access to the data through specific requests to the Delegates of this group.

While all identified multinational household survey data sets are publicly available, data availability varies across countries for national household surveys. Five different multinational household surveys have been identified. These are the Survey of Health, Ageing and Retirement in Europe (SHARE), the EU – Income, Social Inclusion and Living Conditions (EU-SILC) survey, the EU – Household Finance and Consumption Survey (EU-HFCS), the Luxembourg Income Study (LIS) and the Luxembourg Wealth Study (LWS). For all of them, the data are provided freely to the broad research community. As regard national household surveys, in Germany, Ireland, the United Kingdom and the United States, several data sets are relevant for the calculation of the indicators and publicly available. In countries like Austria, Finland, France and Portugal however, none of the identified data sets are publicly available.

At a national level, household surveys having information on private pensions' coverage, contributions and benefits can usually be classified into the following broad categories:

- The Household Budget Surveys: These surveys are mandatory for all EU Members States and usually have information on households' income and expenditures;
- The surveys on living conditions: These surveys correspond to the national components of the EU-SILC survey;
- The surveys on income dynamics: This kind of surveys can be found in non EU Member States (Australia, Canada and the United States);
- The surveys on ageing: These surveys usually target old age individuals (*e.g.* aged 50 and over) and study their living conditions toward the end of their work lives and in the years that follow;
- Other kinds of household surveys, dealing with households' or individuals' wealth, assets, finances, or savings (*e.g.* the Italian Survey of Household Income and Wealth, or the Spanish Survey of Household Finances).

**Table 2. List of identified data sources that could be used to calculate private pension indicators by country and type of source**

<b>Country</b>	<b>Administrative dataset</b>	<b>Household survey datasets</b>
Austria	- Financial Market Authority (FMA) <b>(A)</b>	- Micro census - Household Budget Survey (HBS) - Household Survey of Financial Wealth - EU-SILC <b>(A)</b> - LIS <b>(A)</b> - LWS <b>(A)</b> - SHARE <b>(A)</b>
Belgium	- The Banking, Finance, and Insurance Commission (CBFA) <b>(A)</b> - SIGEDIS database (under development)	- SHARE <b>(A)</b>
Bulgaria	- Financial Supervisory Commission (FSC) <b>(A)</b>	- EU-SILC <b>(A)</b>
Cyprus		- Survey of Consumer Finances (SCF) - EU-SILC <b>(A)</b>
Czech Republic	- Czech Statistical Office <b>(A)</b> - Czech National Bank (CNB) <b>(A)</b> - Association of pension funds of the Czech Republic (APF CR) <b>(A)</b> - Ministry of Finance <b>(A)</b>	- Household Budget Survey (HBS) - EU-SILC <b>(A)</b> - SHARE <b>(A)</b>
Denmark	- Danish financial supervisory authority (FTNET) - Danish Insurance Association - Personal Income Statistics tax based register	- Household Budget Survey (HBS) - EU-SILC <b>(A)</b> - LIS <b>(A)</b> - SHARE <b>(A)</b>
Estonia	- Ministry of Finance <b>(A)</b>	- EU-SILC <b>(A)</b>
Finland	- Finnish Centre for Pensions (ETK) <b>(A)</b> - Financial Supervisory Authority (FSA) <b>(A)</b>	- Household wealth survey - Saving and borrowing in Finland survey - LIS <b>(A)</b> - LWS <b>(A)</b>
France	- Statistical information system on retirement savings (DREES) <b>(A)</b> - ACEMO survey (DARES) <b>(A)</b> - Asset Management Association (AFG) <b>(A)</b>	- Wealth survey - EU-SILC <b>(A)</b> - LIS <b>(A)</b> - SHARE <b>(A)</b>
Germany	- Study on Occupational Pension Schemes (BAV) <b>(A)</b> - Federal Financial Supervisory Authority (BaFIN) <b>(A)</b> - Federal Ministry of Labour and Social Affairs <b>(A)</b>	- German Socio-Economic Panel (GSOEP) <b>(A)</b> - SAVE survey <b>(A)</b> - German Ageing Survey (DEAS) <b>(A)</b> - Retirement Pension Provision Schemes in Germany (AVID) - Continuous household budget survey (LWR) - Sample Survey of Income and Expenditure (EVS) - Micro census - Retirement Insurance in Germany (ASID) - EU-SILC <b>(A)</b> - LIS <b>(A)</b> - LWS <b>(A)</b> - SHARE <b>(A)</b>

**List of identified data sources that could be used to calculate private pension indicators by country and type of source (continued)**

<b>Country</b>	<b>Administrative dataset</b>	<b>Household survey datasets</b>
Greece	- Ministry of Employment and Social Protection <b>(A)</b> - Hellenic Actuarial Authority <b>(A)</b>	- Household Budget Survey (HBS) - EU-SILC <b>(A)</b> - SHARE <b>(A)</b>
Hungary	- Hungarian Financial Supervisory Authority (PSZAF) <b>(A)</b>	- EU-SILC <b>(A)</b>
Ireland	- Pensions Board <b>(A)</b>	- Quarterly National Household Survey (QNHS) <b>(A)</b> - Household Budget Survey (HBS) <b>(A)</b> - National Employment Survey (NES) <b>(A)</b> - EU-SILC <b>(A)</b> - LIS <b>(A)</b> - SHARE <b>(A)</b>
Italy	- Pension Fund Supervision Commission (COVIP) <b>(A)</b>	- Survey on Household Income and Wealth <b>(A)</b> - EU-SILC <b>(A)</b> - LIS <b>(A)</b> - LWS <b>(A)</b> - SHARE <b>(A)</b>
Latvia	- Financial and Capital Market Commission (FKTK) <b>(A)</b>	- EU-SILC <b>(A)</b>
Lithuania	- Securities Commission of the Republic of Lithuania (SCRL) <b>(A)</b>	- EU-SILC <b>(A)</b>
Luxembourg	- <i>Commission de Surveillance du Secteur Financier</i> (CSSF) <b>(A)</b> - <i>Commissariat aux Assurances</i> (CA) <b>(A)</b> - PenCom database (under development)	- EU-SILC <b>(A)</b>
Malta		- Perception on Retirement and Pension
Netherlands	- Dutch national bank (DNB) <b>(A)</b> - Income Panel Survey (IPO) - Pension Entitlements (PA)	- DNB Household Survey (DHS) <b>(A)</b> - Longitudinal Internet Studies for the Social sciences (LISS) <b>(A)</b> - Pensioen kijker - EU-SILC <b>(A)</b> - LIS <b>(A)</b> - SHARE <b>(A)</b>
Poland	- Polish Financial Supervisory authority (PFSA) <b>(A)</b>	- EU-SILC <b>(A)</b>
Portugal	- Insurance and Pension Funds' Supervisory Authority (ISP) <b>(A)</b>	- Household wealth and indebtedness survey - Household Budget Survey (HBS) - EU-SILC <b>(A)</b>
Romania	- Private Pension System Supervision Commission (CSSPP) <b>(A)</b>	
Slovak Republic	- National Bank of Slovakia (NBS) <b>(A)</b>	- EU-SILC <b>(A)</b>
Slovenia	- Securities Market Agency (SMA) <b>(A)</b> - Insurance Supervision Agency (ISA) <b>(A)</b>	- EU-SILC <b>(A)</b> - LIS <b>(A)</b>
Spain	- Directorate of Insurance and Pension Entities <b>(A)</b>	- Survey of Household Finances (EFF) <b>(A)</b> - EU-SILC <b>(A)</b> - LIS <b>(A)</b> - SHARE <b>(A)</b>

**List of identified data sources that could be used to calculate private pension indicators by country and type of source (continued)**

<b>Country</b>	<b>Administrative dataset</b>	<b>Household survey datasets</b>
Sweden	- Statistics Sweden <b>(A)</b>	- Longitudinal Individual Data for Sweden (LINDA) - EU-SILC <b>(A)</b> - LIS <b>(A)</b> - LWS <b>(A)</b> - SHARE <b>(A)</b>
United Kingdom	- Occupational Pension Scheme Survey (OPPS) - HM Revenue & Customs (HMRC) - The Pensions Regulator (TPR) <b>(A)</b>	- Annual Survey of Hours and Earnings (ASHE) - Wealth and Assets Survey (WAS) - Family Resources Survey (FRS) <b>(A)</b> - British Household Panel Survey (BHPS) <b>(A)</b> - English Longitudinal Study on Ageing (ELSA) <b>(A)</b> - EU-SILC <b>(A)</b> - LIS <b>(A)</b> - LWS <b>(A)</b>
Australia	- Australian Prudential Regulation Authority (APRA) <b>(A)</b>	- Household, Income and Labour Dynamics survey (HILDA) <b>(A)</b> - Survey of Employment Arrangements, Retirement and Superannuation (SEARS) - Household Expenditure Survey (HES) - Survey of Income and Housing (SIH) - LIS <b>(A)</b>
United States	- EBRI/ICI Participant-Directed Retirement Plan Data Collection Project - Employee Benefit Survey <b>(A)</b> - EBSA Form 5500 series <b>(A)</b>	- Survey of Consumer Finances (SCF) <b>(A)</b> - Current Population Survey (CPS) <b>(A)</b> - Survey of Income and Programme Participation (SIPP) <b>(A)</b> - Panel Study of Income Dynamics (PSID) <b>(A)</b> - Health and Retirement Study (HRS) <b>(A)</b> - LIS <b>(A)</b> - LWS <b>(A)</b>

Note: Data sources that are freely available are followed by the mark **(A)**.

***General results from the assessment of available data sources***

Multinational surveys have the interesting feature of providing comparable information across several countries. We can distinguish three types of multinational surveys: those having the same questionnaire for all countries (*e.g.* the SHARE), those having a common framework, but allowing each country to have its own questionnaire (*e.g.* SILC and HFCS), and those gathering already existing national surveys and transforming the collected information into a common framework to allow for international comparisons (*e.g.* LIS and LWS). The assessment of the multinational surveys shows that all indicators cannot be calculated using a single multinational data set. None of the identified multinational survey allows for the calculation of all indicators on private pension coverage, contributions and benefits. The HFCS may cover part of data gaps, and allow for the calculation of most of the indicators. Unfortunately, only Euro area countries will be covered by this survey. National surveys are therefore needed to complement multinational surveys.

Even though each national household survey has specific characteristics, some common features arose from their assessment. Household surveys can be classified into two broad categories depending on the level for which the information is provided. Some surveys provide information at the level of the individual (for instance, all individuals in the household aged 16 and over are interviewed), while others provide information at the level of the household (for instance, only the head of the household is interviewed and provide information for the whole household). Indicators calculated at both levels are not

directly comparable. In addition, when using household level information, the breakdown of indicators by socio-economic characteristics can only be done using the characteristics of the head of the household, who may not be the actual pension plan member in households covered by private pensions.

The survey design may also limit the calculation of some indicators. Design issues can arise at three different levels: the sample, the scope of the survey and the questions asked. If the sample is limited to a certain sub-population, it may not be possible to calculate all indicators. For instance, in the SHARE survey, only people aged 50 and above are interviewed, which impedes calculating coverage indicators for the total labour force. The scope of the survey may not cover all existing types of private pension plans in a country. For instance, the SILC survey only covers personal pension plans, and not occupational pension plans. Finally, questions asked may not be appropriate to calculate some of the selected indicators. In the GSOEP survey for example, available questions do not allow for an accurate calculation of the average level of benefits paid to pensioners. The survey allows for the identification of individuals receiving a pension income (whatever the source) and to know the number of months during the previous year a pension income has been paid. Additional questions investigate which sources of pension income are available to the individual (public pension, occupational plans, personal plans, *etc.*) and the amount of monthly benefits paid by each source. If the individual receives a pension income from more than one source, it is not possible to know to which source the number of months provided in the previous question applies. The same number of months needs to be used for each source, while it may not be appropriate for all of them.

Finally, due to individuals' lack of knowledge about private pensions, it may be difficult to gather reliable information. For instance, analyses of historical data from the American Survey of Income and Programme Participation show that members of DB plans tend to misunderstand the questions related to their contributions, so that data accuracy regarding employee contributions is questionable. Indeed, only State and local government pension plans allow their employees to contribute to DB plans. However, historical data show that the number of respondents declaring themselves as contributing to their occupational pension plan tend to be higher than the actual number of State and local government employees. Therefore, information provided by the respondents about their contribution level may not be reliable.

#### **4. Detailed evaluation of multinational surveys**

This section gives an assessment of the identified multinational surveys that have information on private pension coverage, contributions and benefits. The advantage of multinational surveys is that they are meant to provide comparable information across participating countries, through a standardised questionnaire or a common framework. This assessment however shows that they do not allow for the calculation of all selected indicators for all targeted countries, making it necessary to identify and assess surveys at a national level as well.

Five multinational data sets which could contribute to estimate indicators of private pension coverage, contributions and benefits have been identified. They can be classified into three different categories. The first category is composed of the Survey of Health, Ageing and Retirement in Europe (SHARE), where the survey questionnaire is the same for all participating countries. In the second category, the participating countries are using a common framework rather than a common questionnaire. This is the case of the EU – Income, Social Inclusion and Living Conditions (EU-SILC) survey and the EU – Household Finance and Consumption Survey (HFCS).<sup>15</sup> Finally, the Luxembourg Income Study (LIS)

---

15. This survey could not be assessed yet as it is still under development. However, available information describing the survey seems to show that it could be a useful survey to calculate the private pension indicators in the future.

and the Luxembourg Wealth Study (LWS) are surveys that put together already existing national surveys and transform the collected information into a common framework to allow for international comparisons. The assessment of each survey provided below includes the following components:

- A general assessment, describing very broadly the survey's usefulness for the calculation of the selected indicators;
- A brief overview of the survey's scope and objectives;
- The definitions used for the variables that could be used to calculate the indicators; and
- A detailed assessment, highlighting the survey's strengths and weaknesses for the calculation of the selected indicators.

### ***The Survey of Health, Ageing and Retirement in Europe***

#### *General assessment*

The Survey of Health, Ageing and Retirement in Europe (SHARE) can be mainly used to calculate indicators related to current pensioners and benefits paid to them. While the survey's focus on individuals aged 50 and over allows for the availability of detailed information on today's and future pensioners, it is at the cost of a lower relevance for indicators related to active members' coverage. This survey cannot be used to calculate indicators on contributions. Additionally, the use of the longitudinal feature may be limited due to changes made to the questionnaire between the first two waves, in particular for payments received from occupational pension plans.

#### *Overview*

The SHARE is a multidisciplinary and cross-national panel database of micro data on health, socio-economic status and social and family networks of more than 40,000 individuals aged 50 or over. The survey started in 2004 and is conducted every two years in 14 European countries (Austria, Belgium, Czech Republic, Denmark, France, Germany, Greece, Ireland, Italy, the Netherlands, Poland, Spain, Sweden and Switzerland) plus Israel. The last wave (Wave 2) has been conducted in 2006/2007 in most countries.<sup>16</sup>

#### *Variables' definitions*

The "Employment and pensions" module provides information on income from private pensions and on pension entitlements for future retirees. For three different jobs, it is possible to identify individuals that received income from an "occupational old age pension" during the previous year (variable EP324), and to know the amount of after tax benefits received from this source, in the form of a "typical regular payment" (variable EP078) and of any "additional, or extra or lump sum payment" (variable EP081). Individuals that received "regular private annuity or private personal pension payments" (variable EP089) during the previous year can also be identified, as well as the "average payment received" (variable EP094) and any "additional payments" (variable EP209). This module of the SHARE also identifies individuals that are entitled to a "private occupational old age pension" that they still do not receive (variable EP098).

---

16 . Wave 3 of SHARE is already available, but focuses on individual's life histories. It complements the first two waves by providing life history information to enhance the understanding of how early life experiences and events throughout life influence the circumstances of older people.

The “Asset” module of the survey allows identifying individuals with “individual retirement accounts”, defined as plans that let the person put some money away each year, to be (partially) taken out at retirement time (variable AS065). The “amounts accumulated” in respondents’ accounts and in their spouses’ or partners’ are also available (variables AS021 and AS024).

### *Detailed assessment*

Indicators related to active members’ coverage and contribution levels cannot be calculated accurately based on the SHARE survey. Although variables exist to measure individuals’ entitlements to occupational and personal pensions, this is limited to individuals aged 50 or over. The coverage of younger workers cannot therefore be assessed, while this is of major policy relevance. The only relevant indicator that could be calculated would be the share of active members over individuals of the workforce above age 50 (noted as “over age 50” in the summary Table 3). In addition, the level of contribution of active members is not available in this survey.

The SHARE is however well designed to calculate indicators related to current pensioners and benefits paid to them. Current pensioners that received income during the previous year from occupational (occupational old age pensions from three different jobs can be recorded)<sup>17</sup> or personal pension plans can be identified. In addition, for each income source, both regular payments and additional lump sum payments are available, which allows a comprehensive assessment of benefits paid to pensioners.

The total amount of accumulated savings in individual retirement accounts is also available. Only amounts in respondents’ accounts and in their spouses’ or partners’ are available however, meaning that any amounts that other individuals of the household under the age of 50 may have in individual retirement accounts are not available. Additionally, amounts accumulated in DC occupational pension plans are not available.

Changes between waves may limit the use of the longitudinal feature of the survey.<sup>18</sup> Two main changes were made to the questionnaires in the second wave that have an impact on the calculation of indicators related to benefits paid to current pensioners. First, pension payments (either regular payments or additional lump sum payments) used to be collected before taxes in wave 1, while in wave 2, they are collected after taxes.<sup>19</sup> In order to compare benefits received during the two periods, one has therefore to know taxation rules for private pension payments in each country. Second, requested information about pension payments from occupational pension plans has been changed. In wave 1, the average payment of the individual’s private occupational old age pension was requested, while in wave 2, the interviewer did not refer to the average payment, but to the typical payment. In addition, wave 2 refers to occupational old age pensions an individual may receive from 3 different jobs, while in wave 1 it was not specified from which job the pension payment should refer to.

---

17 . In the case of Sweden, occupational pensions payments collected are not related to three different jobs, but to different occupational pension plan types, covering blue-collar workers in the private sector (SAF-LO), white-collar workers in the private sector (ITP) and workers in municipalities (KPA), in counties or in the government (PA).

18 . For the first wave of the survey, eligible individuals were all individuals born in 1954 or earlier and their spouses/partners independent of age. For the longitudinal survey of wave 2, the target population consists of all persons interviewed in wave 1 plus their spouses or partners, independent of age and independent of their participation in wave 1. The proportion of individuals of wave 1 that could be re-interviewed equals 60%. Unlike in wave 1, only one age eligible person per refresher household and his/her partner was interviewed in wave 2.

19 . For France, payments are still provided before taxes as taxes are paid in year t+1 on the whole family income, hence nobody knows his or her after tax pension, wages etc.

The quality of the analysis for Ireland using the SHARE may be limited. There are indeed no weights available for that country, which makes the representativeness of the results questionable. Additionally, there is one module of the SHARE with multiply imputed data for many financial variables (including pension payments). This multiple imputation technique allows working on a complete data set as all missing values are replaced using a robust methodology. However, Ireland is the only country for which these imputations are not available.

**Table 3. Possibility to calculate each indicator by country using SHARE**

	Total active pension members as a % of the workforce	Breakdown of active members by socio-economic characteristics	Breakdown of active members by type of plans	Accumulated savings in DC accounts	Current pensioners as a % of the population 65+	Average benefits as a % of average wages by type of plans
Austria	Over age 50	Over age 50	Over age 50	Personal only	Yes	Yes
Belgium	Over age 50	Over age 50	Over age 50	Personal only	Yes	Yes
Czech Republic	Personal only	Personal only	Personal only	Personal only	Yes	Yes
Denmark	Over age 50	Over age 50	Over age 50	Personal only	Yes	Yes
France	Over age 50	Over age 50	Over age 50	Personal only	Yes	Yes
Germany	Over age 50	Over age 50	Over age 50	Personal only	Yes	Yes
Greece					Yes	Yes
Ireland	Over age 50	Over age 50	Over age 50	Personal only	Yes	Yes
Italy	Over age 50	Over age 50	Over age 50	Personal only	Yes	Yes
Netherlands	Over age 50	Over age 50	Over age 50	Personal only	Yes	Yes
Poland						
Spain	Personal only	Personal only	Personal only	Personal only		
Sweden	Over age 50	Over age 50	Over age 50	Personal only	Yes	Yes

Notes: “Yes” means that the indicator can be estimated, while blank cells mean that the indicator cannot be calculated. Only active pension members aged over 50 can be identified. Accumulated savings in DC accounts can be calculated for “personal pension plans only” (individual retirement accounts). This may also be the case for active members over age 50. The number of respondents is too low to get robust information (< 30) to calculate the respective indicators for Poland and Greece.

## *The EU – Income, Social Inclusion and Living Conditions survey*

### *General assessment*

The Income, Social Inclusion and Living Conditions (SILC) survey does not provide enough information to calculate indicators on coverage, contributions and benefits from private pensions. This is mainly due to the fact that the survey only covers personal pension plans. Moreover, it does not allow measuring accurately pension coverage and contribution levels for these personal plans: as only contributions from individuals to their pension plan are recorded, employer or State contributions are not taken into account, and plan members that did not directly contribute during the period under review cannot be identified. In addition, in countries where personal pensions are mainly paid as lump sums, the survey does not permit to assess the level of payments at retirement.

### *Overview*

The SILC survey is based on the idea of a common “framework”<sup>20</sup> and no longer a common “survey” as was the case for its predecessor, the European Community Household Panel (ECHP) survey.<sup>21</sup> In order

- 20 . Under this framework, each country chooses the variables to be collected (that is why it is not a common survey), and combines them in a country-specific way to match with the common “target variables” that are transmitted to Eurostat.
- 21 . The ECHP survey was a survey based on a standardised questionnaire that involved annual interviewing of a representative panel of households and individuals in each country, covering a wide range of topics: income, health, education, housing, demographics and employment characteristic, etc. It covered adults aged 16 years and over. The total duration of the ECHP was 8 years, running from 1994 to 2001 and covered 14 European countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom.

to maximise comparability of the information produced, the common framework defines the harmonised lists of “target variables”<sup>22</sup> to be transmitted to Eurostat, as well as the common guidelines, procedures, concepts (household and income) and classifications. It started in 2004 and is now conducted yearly in the 27 EU Member States, plus Iceland, Norway, Switzerland and Turkey. Last available data refer to the year 2008. All persons aged 16 and over within selected households are covered.

### *Variables’ definition*

Under the framework of this survey, each country chooses the variables to be collected, which allows dealing with country specific features in an easier way than what could be achieved with a common questionnaire. Questionnaire variables are then combined in a country-specific way to match with the common “target variables” that are transmitted to Eurostat. Therefore, the SILC database only provides data related to the target variables and not to the country-specific variables.

Two target variables are related to individual private pension plans: “contributions to individual private pension plans” (variable PY035) and “pensions from individual private plans” (variable PY080). There is no other specific variable that provides information about private pensions.<sup>23</sup> Individual private pension plans are defined as pension policies taken out by individual households on their own initiative and for their own benefit, independently of their employers or government. “Contributions to individual private pension plans” exclude therefore contributions from mandatory government schemes or from mandatory employer-based schemes, but include contributions to individual pension plans related to old age, survivors, sickness, disability and unemployment. “Pensions from individual private plans” are defined as regular pensions and annuities received, during the income reference period, in the form of interest or dividend income from individual private pension plans. They include old age, survivors, sickness, disability and unemployment pensions received from individual private pension plans, but exclude pensions from mandatory government schemes or from mandatory employer-based schemes.

The correspondence between the questionnaire, country-specific, variables and the SILC target variables is not always straightforward. In most countries, two questions are used to build the target variable “Contributions to individual private pension plans”: whether people contributed to a private pension plan and how much they contributed during the reference period. In the same way, two questions are used to build the target variable “Pension from individual private plans”: whether people received an income from a private pension plan during the reference period and how much.<sup>24</sup> When the correspondence was not explicit, national SILC experts were contacted to explain the correspondences. For instance, Statistics Estonia confirmed that collecting insurance schemes are considered as individual private pension in the SILC survey for Estonia, although the purpose of these schemes is not explicitly to provide pension income at retirement.

---

22 . There are two types of target variables: primary target variables are collected annually, while secondary target variables are collected every four years or less frequently;

23 . There are however other variables that may include information about private pensions. For instance, the target variable “Employer’s social insurance contribution” (PY030) may include employers’ contributions to private pension plans. However, as these contributions are mixed with other kinds of employer social contributions, it is not possible to isolate contributions to private pension plans.

24 . The wordings of the questions are comparable across countries. However, each country adapted the denomination of “individual private pension plan” to its own context, using different terms to designate them, such as private pension plan, supplementary pension scheme, pension insurance, or retirement savings plan. This should not weaken data comparability.

All income variables of the SILC database have been imputed when they were missing for an individual.<sup>25</sup> For individuals who did not contribute to, or who did not receive a pension from an individual private pension plan during the reference period, the corresponding variables (PY035 and PY080) have been imputed to 0.

### *Detailed assessment*

The SILC data set only provides information about personal pension plans, while information about occupational pension plans is collected for some countries. For instance, Austria, Belgium, France, Germany, Greece, Ireland, Luxembourg, Spain, and the United Kingdom include in their questionnaire questions related to benefits paid by occupational pension plans. However, this information is not reported in the SILC data set, as it is not a target variable.

Indicators pertaining to the coverage of private pensions, such as total active members as a % of the workforce and the breakdown of active members by socio-economic characteristics, cannot be calculated accurately using the SILC database. Firstly, coverage defined as people having assets in a private pension plan cannot be calculated given the information available in the SILC database, as only individuals that contributed during the year under review can be identified.<sup>26</sup> Indeed, individuals with no reported contribution for a given year can be either individuals that are covered by a personal pension plan but did not contribute that year or individuals that are really not covered by a personal pension plan. Even when contributions are mandatory, as is the case in the Czech Republic, pension plan members who suffered unemployment during the period under review cannot be identified. If the proportion of pension plan members not making contributions is high, coverage as measured by individuals contributing can be well underestimated. Secondly, if individuals contributing are taken as a proxy for active members, the breakdown by socio-economic characteristics may be biased. Individuals contributing may indeed have different characteristics than members that did not contribute the year under review. In Table 5, it is therefore specified that these two indicators can be calculated for contributors only.

Contributions to individual private pension plans may not include all contributions into DC pension plans. The variable related to contributions to individual private pension plans only includes contributions from individuals to their pension plan. In some countries however, the employer or the State can contribute to the individual pension plan (e.g. Bulgaria, Czech Republic, Denmark, Hungary, Ireland, Slovak Republic and the United Kingdom). In these cases, employer contributions are included in the variable “Employer’s social insurance contribution” (PY030G), which is composed of contributions to private retirement (pension) plans as well as contributions to private health insurance, life insurance, other employer insurance schemes (e.g. disability) and government insurance (social security) schemes. Therefore, there is no way to distinguish employer’s contributions to private pension plans from the other social insurance contributions. As a consequence, it is not possible to measure total contributions (employer + employee) to individual private pension plans for some countries. In Table 4, these cases are

---

25 . An imputation factor variable indicates whether the value recorded in the data set has been imputed or not. The imputation factor is a positive number, result of the division between the collected value (during the interview) and the recorded value (in the variable). Fully imputed value has an imputation factor of “0” (collected value is null). Not imputed value has an imputation factor of “1” (collected and recorded values are the same).

26 . In Estonia and the United Kingdom, the individuals are also asked whether they are enrolled in a private pension plan. However, the answers are not reported in the SILC database, as this is not a target variable.

identified with the mention “Only ind. contributions”, meaning that only contributions from individuals are included, while State and employer contributions are excluded.<sup>27</sup>

Indicators related to pension benefits and current pensioners cannot be calculated with enough statistical robustness for half of the countries, as the number of respondents with a positive recorded pension benefit is too low.<sup>28</sup> The number of individuals of the sample with a positive pension from individual private plans during the year under review is below 30 in Belgium, France, Greece, Lithuania, Luxembourg, and Poland, and can be as low as 2 in Bulgaria and Estonia.<sup>29</sup> The information is also not available for Denmark, Latvia, Malta and Romania. These low numbers may be due to the nature of individual private pension plans. In many countries, most of the individuals receive a lump sum from their individual private plan when they retire or reach a certain age. These lump sums are not taken into account in this variable.

Finally, the SILC survey does not provide information to calculate indicators on coverage, contributions and benefits from private pensions for 4 countries (Belgium, Finland, Malta, and Romania). For Belgium, Malta and Romania, this is due to the low number of respondents having positive values for both target variables. For Finland, Statistics Finland strongly advises not to use this survey for the research, as data are not collected directly through the survey but extracted from tax administrative registers, creating problems of data accuracy.

- 
- 27 . In the case of Denmark, contributions to individual private pension plans do not even include all contributions made by individuals. Indeed, for schemes where the payments are done via the employer, it is not possible to know if the employer is just having an administrative function (the practical payment is done by the employer after a deduction in the wage) or if he is in fact contributing to the pension scheme. Therefore some of the employees' contributions are registered in employer's social insurance contribution. Thus, contributions to individual private pension plans only measure contributions made directly by individuals (not through their employer).
- 28 . While individuals over the age of 65 are well represented in the sample, the number of respondents with a positive pension from individual private plans can be very low. For instance in Belgium, individuals over age 65 represent 18.7% of the sample, while only 0.2% of the respondents have a positive pension benefit recorded.
- 29 . Following the law of large numbers, 30 responses may be the minimum to get robust analyses.

**Table 4. Possibility to calculate each indicator by country using the SILC**

	Total active pension members as a % of the workforce	Breakdown of active members by socio-economic characteristics	Average annual contributions in DC pension funds by type of plans	Average annual contributions in DC pension funds by socio-economic characteristics	Current pensioners as a % of the population 65+	Average benefits as a % of average wages by type of plans
Austria	Contributors only	Contributors only	Yes	Yes	Yes	Yes
Belgium						
Bulgaria	Contributors only	Contributors only	Only ind. contributions	Only ind. contributions		
Cyprus	Contributors only		Only ind. contributions		Yes	Yes
Czech Republic	Contributors only	Contributors only	Only ind. contributions	Only ind. contributions	Yes	Yes
Denmark <sup>1</sup>	Contributors only	Contributors only	Only ind. contributions	Only ind. contributions		
Estonia	Contributors only		Include other ins.			
Finland						
France	Contributors only	Contributors only	Yes	Yes		
Germany	Contributors only	Contributors only	Include other ins.	Include other ins.	Yes	Yes
Greece	Contributors only	Contributors only	Yes	Yes		
Hungary	Contributors only	Contributors only	Only ind. contributions	Only ind. contributions	Yes	Yes
Ireland	Contributors only	Contributors only	Only ind. contributions	Only ind. contributions	Yes	Yes
Italy	Contributors only	Contributors only	Yes	Yes	Yes	Yes
Latvia	Contributors only		Only ind. contributions			
Lithuania	Contributors only		Yes			
Luxembourg	Contributors only	Contributors only	Yes	Yes		
Malta						
Netherlands	Contributors only	Contributors only	Yes	Yes	Yes	Yes
Poland	Contributors only	Contributors only	Yes	Yes		
Portugal	Contributors only	Contributors only	Yes	Yes	Yes	Yes
Romania						
Slovak Republic	Contributors only	Contributors only	Only ind. contributions	Only ind. contributions	Yes	Yes
Slovenia	Contributors only	Contributors only	Yes	Yes	Yes	Yes
Spain	Contributors only	Contributors only	Yes	Yes	Yes	Yes
Sweden	Contributors only	Contributors only	Yes	Yes	Yes	Yes
United Kingdom	Contributors only	Contributors only	Only ind. contributions	Only ind. contributions	Yes	Yes

Notes: 1. Only direct contributions are included (contributions made through the employer are not included).

“Yes” means that the indicator can be calculated (only for personal pension plans though), while blank cells mean that the indicator cannot be calculated. Total active pension members as a % of the workforce and the breakdown of active members by socio-economic characteristics can only be calculated for contributors. Pension coverage may be underestimated as pension plan members that did not contribute the year under review are not identified in the survey. Additionally, the socio-economic characteristics of pension plan members that did not contribute the year under review may be different from those of the contributors. “Only ind. contributions” means that State and/or employer contributions are not included. “Include other ins.” means that contributions to other private insurance plans are also included (e.g. collecting insurance schemes for Estonia and life, disability or accident insurance plans for Germany). In the case of Cyprus, Estonia, Latvia, and Lithuania, the breakdown of active members and of contributions by socio-economic characteristics may not be valuable, due to low number of respondents in each subcategory.

### *The EU – Household Finance and Consumption Survey*

The Household Finance and Consumption Survey (HFCS) is currently being implemented by the Household Finance and Consumption Network, which consists of survey experts, statisticians and economists from the European Central Bank, national central banks of the Euro area and a number of national statistical institutes and research institutes. The purpose of the survey is to collect household-level data on household finances and consumption for Euro area countries. The first wave took place between late 2010 and early 2011 for most countries.

Like the SILC survey, the HFCS is conducted at the national level. In view of cultural and institutional differences between euro area countries, some flexibility in formulating the questions for each country is allowed in order to obtain comparable data. Countries can then aim for harmonisation in terms of survey output but will not necessarily use identical questionnaires. Countries will report a set of output variables which have been commonly agreed on. Firstly, so-called ‘core’ output variables are to be delivered by all participating countries. In addition, a set of non-core variables has been defined. Countries can freely decide which of the non-core variables to collect. The collection of standardised variables will ensure cross-country comparability. Based on the list of core variables, it seems that the survey should allow calculating most of the indicators on private pension coverage, contributions and benefits. Additionally, anonymised micro data should be made available to the research community in early 2013.

## *The Luxembourg Income Study*

### *General assessment*

The Luxembourg Income Study (LIS) can provide partial information to calculate indicators on benefits paid by private pensions. However, it is not useful to calculate the other indicators the project is interested in, i.e. coverage and contribution levels. As the main focus of the database is to collect information on income decomposition, benefits received from private pensions are available. Unfortunately, most of the information is only available at the level of the household. One of the main limitations pertains to information time lags, as only 2004 data are currently available for most countries.

### *Overview*

The LIS is a cross-national data archive located in Luxembourg. The LIS database includes income micro data from a large number of countries<sup>30</sup> at multiple points in time. Data are not collected directly through the LIS, but data sets are collected instead, *i.e.* sample surveys that have been already prepared by the Central Statistical Offices of the various participating countries. The micro-data sets received are then transformed according to a variable structure, in order to make them comparable across countries. In other words, LIS creates databases that put together and make comparable surveys of different countries for cross-country research purposes. The database is updated every five years. At the time of writing this report (end-2011), latest available data refer to 2004 in most cases.<sup>31</sup>

### *Variables' definitions*

The LIS data set includes variables collected at both the household and individual level. At both levels, income from “mandatory individual pensions”, “occupational pensions” and “voluntary individual pensions” are available.

“Mandatory individual pensions” (variables HITSILMIP at the household level and PITSILMIP at the individual level) represent all mandatory individual retirement pensions, including those that have been opted out from the main national pension scheme to a private one. “Occupational pensions” (variables HITSILO at the household level and PITSILO at the individual level) represent the second pillar in a 3-tiered pension system. These are usually systems provided by employers for retirement that supplement social security transfers. Self-employment pension plans (or, more generally, personal pension plans) are included if they are designed to supplement social security (*e.g.* individual retirement accounts (IRAs)). It includes both occupational pensions mandated by law or collective agreements (where the employer is required to offer such pension and the employee generally obliged to be affiliated) and voluntary agreements between employers and employees. Finally, income from “voluntary individual pensions” (variables HICVIP at the household level and PICVIP at the individual level) is defined as annuities from life insurance and other pension-like annuities. This represents the third pillar in 3-tiered pension schemes (voluntary individual pensions).

---

30 . Currently 42 countries are covered: Australia, Austria, Belgium, Brazil, Canada, Chile, China, Colombia, the Czech Republic, Denmark, Egypt, Estonia, Finland, France, Germany, Greece, Guatemala, Hungary, India, Ireland, Israel, Italy, Korea, Luxembourg, Mexico, the Netherlands, Norway, Peru, Poland, Romania, the Russian Federation, Serbia, the Slovak Republic, Slovenia, South Africa, Spain, Sweden, Switzerland, Chinese Taipei, the United Kingdom, the United States, and Uruguay.

31 . 2007 data are only available for Germany. For the other countries, the data are currently under the process of being transformed according to the LIS variable structure in order to have comparable information across countries.

In general, the value recorded at the household level should be the sum of the values recorded at the individual level over all individuals in the household. If the information is not available at the individual level, the household variable may however be available based on household level original information.

The LIS data set also includes expenditure variables, such as voluntary contributions to private insurances. Voluntary contributions paid by the individual or the household (variables HXVCS at the household level and PXVCS at the individual level) include all non-mandatory contributions towards private insurances, such as private pensions, private health plans, life insurance, or any other insurance voluntarily agreed upon by individuals (not necessarily in connection with employment). Voluntary contributions paid by the employer (variables HXVCE at the household level and PXVCE at the individual level) include all non-mandatory employer contributions towards private insurances, such as private pensions, private health plans, life insurance, or any other insurance voluntarily agreed upon by employers and workers.

#### *Detailed assessment*

As the LIS data set focuses mainly on income decomposition and demographic variables, the only indicators that could be calculated using this data set refer to the number of current pensioners and to benefits received. Indicators on coverage and contributions cannot be calculated using this data set. In particular, the variables on voluntary contributions to private insurances cannot be used, as it is not possible to distinguish between contributions to private pension plans, private health plans, life insurance or any other insurance.

For most countries, the information is only available at the level of the household. While income variables related to private pensions should be available at the level of the household and at the level of the individual, currently, individual level information is only available for Germany, as part of the last wave (wave 7; 2007 data). For all the other countries, only household level information is currently available. It is therefore only possible to calculate the proportion of households in which members receive private pension benefits and the average benefits paid per households. This may change however in the future as a new LIS database has recently been released (in November 2011). This new database follows a new data template that will be used to harmonise future data sets. Individual level information should therefore become available for more countries as more data get harmonised in wave 7.

The breakdown of average benefits by type of plan (occupational versus personal) is not available for all countries. Indeed, only data related to occupational pension plans are available for Australia, Canada and Denmark while only data related to voluntary pension plans are available for Estonia, Finland and Hungary.<sup>32</sup> In addition, there is no information on private pension benefits for Poland, Romania, Slovak Republic and Slovenia.

In addition, information recorded in the LIS database has large time lags and does not allow for longitudinal analyses. At the time of the writing (end-2011), latest available data refer to the year 2007 (for Germany). For most countries, data refer to the year 2004, and in some cases they refer to 2000 or even before (for Belgium, Romania, and Slovak Republic). Moreover, the LIS database does not allow for longitudinal analyses as the survey used for each country may not have this feature.

---

32 . For Australia, Canada and Denmark, both occupational and personal pension plans exist. For Estonia, Finland and Hungary, both voluntary and mandatory funded pensions exist.

**Table 5. Possibility to calculate each indicator by country using the LIS**

	<b>Current pensioners as a % of the population 65+</b>	<b>Average benefits as a % of average wages by type of plans</b>
Australia	Occupational only	Occupational only
Austria	Yes	Yes
Belgium	Yes	Yes
Canada	Occupational only	Occupational only
Czech Republic	Yes	Yes
Denmark	Occupational only	Occupational only
Estonia	Voluntary per. only	Voluntary per. only
Finland	Voluntary only	Voluntary only
France	Yes	Yes
Germany	Yes	Yes
Greece	Yes	Yes
Hungary	Voluntary per. only	Voluntary per. only
Ireland	Yes	Yes
Italy	Yes	Yes
Luxembourg	Yes	Yes
Netherlands	Yes	Yes
Poland		
Romania		
Slovak Republic		
Slovenia		
Spain	Yes	Yes
Sweden	Yes	Yes
United Kingdom	Yes	Yes
United States	Yes	Yes

Notes: "Yes" means that the indicator can be calculated, while blank cells mean that the indicator cannot be calculated. For some countries, the indicators can be calculated only for specific pension plans, such as occupational pension plans, voluntary pension plans or voluntary personal pension plans.

## ***The Luxembourg Wealth Study***

### *General assessment*

The Luxembourg Wealth Study (LWS) provides partial information to calculate indicators on coverage and benefits from private pensions for a handful of countries, but only at the household level. As pension assets are part of household total wealth, households with active pension members, defined as individuals having assets in a private pension plan, can be identified. Indicators related to current pensioners and benefits paid can also be estimated at the household level as the LWS data set provides income decomposition variables. One of the main limitations of this data set is the time lag in the information. As of mid-2011, data refer to 1998 for Finland, 2000 for the United Kingdom, 2002 for Norway, data for Luxembourg being the more up to date (2007).

### *Overview*

Like the LIS survey, the LWS is a cross-national data archive located in Luxembourg. LWS's main goal is to enable cross-national research on diverse topics related to household wealth. Currently, the

database includes wealth micro data from 12 countries (Austria, Canada, Cyprus,<sup>33</sup> Finland, Germany, Italy, Japan, Luxembourg, Norway, Sweden, the United Kingdom and the United States) at multiple points in time. As for the LIS, data are not collected directly, but data sets prepared by the Central Statistical Offices of the various participating countries are collected instead. The micro-data sets received are then transformed according to a variable structure, in order to make them comparable across countries. The LWS project started in 2006. There is no specific periodicity for data updates and latest available data vary from 1998 for Finland to 2007 for Luxembourg.

### *Variables' definitions*

Wealth variables include three different kinds of pension assets. "Private pension accounts/savings plans" (variable PA1) refer to the current value of voluntary pension saving. "Annuities and other deferred profit plans" (variable PA2) refer to the current value of annuities and other managed accounts, and also include money held in other pension-generating assets such as deferred profit sharing plans. Finally, the "value of pension through employer pension plans" (variable PA3) refers to accumulated amounts in employer pension accounts.<sup>34</sup>

Income variables include income from "private savings plans and annuities" (variable CPRI3) and income from "occupational and other pensions" (variable OCCPEN). Occupational pensions refer to second pillar pensions, usually employer payments for retirement which supplement social security transfers. They include self-employment plans (IRAs) and civil servants' pensions if it is supplementary to social retirement. Other pensions include foreign pensions.

### *Detailed assessment*

The LWS database provides information on private pension assets accumulated and pension benefits at the household level, and not at the individual level. Additionally, indicators related to pension contributions cannot be calculated using the LWS.

The calculation of private pension coverage may not be fully comparable across countries, as the identification of active pension plan members is limited to specific pension plan types for some countries. As shown in Table 6, for Finland, only individuals having assets in voluntary pension savings can be identified, for Germany, these are individuals having assets in life insurance, private pension plans or building savings accounts and for the United States, these are individuals having assets in IRAs, thrift accounts, future pensions or other managed assets (trusts, annuities and managed investment accounts in which the household has equity interest).

---

33 . Footnote by Turkey: "The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people in the Island. Turkey recognizes the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of United Nations, Turkey shall preserve its position concerning the "Cyprus" issue." This note is valid for all other references to "Cyprus" in the document.

34 . For Austria, the amount of pension assets are not available, but there are three dummy variables indicating (1) whether a household has made private pension provisions via deposits into a passbook savings account, savings and loan contract, savings agreement, shares, bonds, mutual funds, other securities, purchase of real estate or other; (2) whether a household has made private pension provisions via life insurance policy, additional private pension insurance, or state-subsidized personal pension provisions; and (3) whether a household has made private pension provisions via company pension schemes.

Accumulated savings in DC accounts can also be calculated using the LWS. Assets accumulated in both occupational and personal pension plans are considered, which allows looking at the breakdown by type of plan of average household assets.

In addition, the proportion of current pensioners can be calculated, as well as the breakdown of average benefits received by pension plan types (occupational versus personal pension plans). However, for Canada and Finland, only data referring to occupational pension plans are available, while for Luxembourg, only data referring to personal pension plans are available.

Finally, as for the LIS, information recorded in the LWS database has large time lags. At the time of the writing (end-2011), latest available data refer to the year 2007 (for Luxembourg only). At the other extreme, data for Finland refer to the year 1998.

**Table 6. Possibility to calculate each indicator by country using the LWS**

	Total active pension members as a % of the workforce	Breakdown of active members by socio-economic characteristics	Breakdown of active members by type of plans	Accumulated savings in DC accounts	Current pensioners as a % of the population 65+	Average benefits as a % of average wages by type of plans
Austria	Yes	Yes	Yes			
Canada	Yes	Yes	Yes	Yes	Occupational only	Occupational only
Cyprus						
Finland	Personal only	Personal only	Personal only	Yes	Occupational only	Occupational only
Germany	Personal only	Personal only	Personal only	Yes	Yes	Yes
Italy					Yes	Yes
Luxembourg					Personal only	Personal only
Sweden					Yes	Yes
United Kingdom					Yes	Yes
United States	Personal only	Personal only	Personal only	Yes	Yes	Yes

Notes: "Yes" means that the indicator can be estimated, while blank cells mean that the indicator cannot be calculated. Active pension members can be identified for "personal pension plans only" for some countries. Indicators related to pensioners and benefits received may be available for "occupational pension plans only". Due to the low sample size of the survey for Cyprus (895 households), the number of households with positive pension assets or pension benefits is too low to get robust information (< 30) for the respective indicators.

## 5. Identification and detailed evaluation of publicly available national data sources

This section describes all identified national data sources that could be used to calculate the selected indicators for each country. The detailed assessment of the publicly available data sources is also provided. Data availability varies significantly between countries. When the data sets are available, they can usefully complement multinational surveys and participate in reducing data gaps.

### *Austria*

#### *Household surveys*

It is difficult to assess accurately whether existing Austrian household surveys would permit estimating indicators on private pension coverage, contributions and benefits, as none of them is publicly available. Three household surveys have been identified: the Micro census, the Household Budget Survey, and the Household Survey of Financial Wealth.

The Austrian Micro census would only allow estimating the number of current pensioners. This is a large scale quarterly household sample survey (22,500 households) conducted by Statistics Austria. It looks at themes such as family, occupation, housing size, training and work. Once a year, a special module questionnaire is added that addresses a specific theme linked to the labour market. For example, the 2006 additional module deals with the transition to retirement. Only people aged between 50 and 69 years who

were economically active at the age of 50 could answer to the questionnaire. In this module, people were asked whether they were receiving a pension from an occupational pension plan or from a personal pension plan.

The Household Budget Survey, also conducted by Statistics Austria, would be useful to calculate indicators related to coverage and contribution levels. This survey, conducted every five years (currently data for 2004/05 are available), provides information on consumption expenditures, equipment and income of private households. Individuals that are members of a personal pension plan or of a company pension plan can be identified from this survey. The level of contributions into personal pension plans is also part of the questionnaire.

Finally, the Household Survey of Financial Wealth, conducted in 2004 by the Austrian National Bank, may have some information on pension coverage. The purpose of this survey was to capture micro-data on households' financial wealth, investment and debt. Questions include socio-demographic characteristics of the household, assets, asset sources, information sources about financial market topics and approaches to financial market issues. As the survey's questionnaire is not publicly available, it was not possible to check whether some questions relate specifically to private pensions.

#### *Administrative data sets*

One administrative data set, gathering information at the pension fund level, can be accessed by the OECD and used to calculate indicators pertaining to coverage. This data set is managed by the Financial Market Authority (FMA), which is the supervisory authority for the Austrian financial market, responsible for the supervision of pension funds. The data set cannot be accessed directly, but as the FMA is a member of the OECD Working Party on Private Pensions (WPPP), the OECD can ask for the data.

The FMA manages an administrative data set covering *Pensionskassen* only, which are specific financial vehicles for occupational pension plans. In 2007, *Pensionskassen* represented 38.4% of total occupational assets and 56.0% of active members of occupational pension plans (WIFO survey).<sup>35</sup> The data set includes yearly statistics on beneficiaries and distinguishes between pensioners and active members, without providing further split by socio-economic characteristics. Total pension benefits and total contributions are also available in this database, but the split by pension plan type is not available.

An important feature of this database is that it provides data on membership without multiple counting of beneficiaries having more than one commitment within the same *Pensionskasse*. In addition, multiple counting due to syndicate business is eliminated by attributing beneficiaries to the *Pensionskasse* holding the highest quota on the respective Investment and Risk Sharing Group. In Austria some pension plans are managed by a consortium of two pension companies. Each pension company reports the number of total membership, and in addition the number of beneficiaries which are also managed by another company, e.g. by the other member of the consortium. This allows for an estimation of membership data net of multiple counting.

#### *Conclusions*

Combining available information from national (the FMA administrative data set) and multinational (SHARE, SILC and LWS household data sets) data sources, it should be possible to estimate most of the indicators for Austria (see Table 7). For some of them however, data limitations avoid their calculation for the full targeted population or for all targeted pension plan types. For instance, the only available data

---

35 . See Url (2010).

source to calculate indicators related to pension contributions is the SILC, while this survey only covers personal pension plans.

**Table 7. Possibility to calculate each indicator for Austria using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Yes	SHARE	
Active members as a % of the workforce	Yes	LWS/FMA	The LWS information has large time lags and is only available at the household level. For up-to-date information, the FMA dataset could be used instead, but it only covers Pensionskassen.
Pension members by type of status	No		
Active members by socio-economic characteristics	Yes	LWS	The LWS information has large time lags and is only available at the household level.
Active members by type of plans	Yes	LWS	The LWS information has large time lags and is only available at the household level.
DB plans design	No		
Benefit as a % average wages by type of plans	Yes	SHARE	
Contributions in DC plans by type of plan	Partially	SILC	The SILC dataset only covers personal pension plans.
Contributions in DC plans by socio-economic characteristics	Partially	SILC	The SILC dataset only covers personal pension plans.
Accumulated savings in DC accounts	Partially	SHARE	Only amounts in personal DC accounts are considered in the SHARE dataset, which only covers individuals aged 50 and over.

## **Belgium**

### *Household surveys*

The only Belgian household survey identified, the Panel Study on Belgian Households, is not useful for our research as it stopped in 2001. This survey, conducted by the Institute for Human and Social Science, started in 1992 with the objective of constructing a longitudinal data set based on a sample representative for households as well as individuals, regarding a broad range of socio-economic and family-related sociological subjects. Most of the indicators related pension coverage, contributions and benefits could be calculated using this survey. However, as it stopped in 2001, it is not worthwhile to assess it further.

### *Administrative data sets*

One administrative data set, gathering information at the pension fund level, can be accessed by the OECD and used to calculate indicators related to active members' characteristics. The Banking, Finance and Insurance Commission (CBFA) is the Belgian authority in charge of supervising most financial institutions and financial services offered to the public. Detailed yearly statistics for occupational pension funds are available on the CBFA's website. The data set cannot be accessed directly, but as the CBFA is a member of the OECD WPPP, the OECD can ask for the data.

The CBFA database covers only voluntary occupational pension plans, financed both via institutions for occupational pensions and group life insurance schemes. Available statistics include membership (by type of status and by socio-economic characteristics – gender and employment category), total contributions received and total benefits paid. However, it does not provide the breakdown between DB and DC plans.

Indicators related to pension plan coverage cannot be calculated using these data, because of multiple counting issues. Multiple counting can be due for example to employees participating both in a pension fund and a group insurance (for example personal contributions in the group insurance and employer's contributions in a pension fund), or to employees participating in several group insurances (for example from previous employers).

A supplementary pensions' database is also being developed under the framework of the SIGEDIS (Individual Social Security Data) project. This source has as objective, among other things, to collect data related to supplementary pensions in so far as this data is necessary for social security and tax monitoring. No further information about this project is available for the moment.

### Conclusions

To calculate some of the indicators for Belgium, information from the multinational household survey SHARE and the CBFA administrative data set could be combined (see Table 8). Unfortunately, the labour force coverage rate and the indicators on private pension contributions cannot be calculated using these data sources. Only indicators related to pensioners and benefits paid to them can be calculated accurately using the SHARE.

**Table 8. Possibility to calculate each indicator for Belgium using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Yes	SHARE	
Active members as a % of the workforce	No		
Pension members by type of status	Partially	CBFA	The split of pension members into active, deferred and passive is only available for institutions for occupational pensions.
Active members by socio-economic characteristics	Partially	CBFA	Membership by gender and employment category (white vs. blue collar workers) can be calculated using the CBFA dataset for occupational pension plans only.
Active members by type of plans	No		
DB plans design	No		
Benefit as a % average wages by type of plans	Yes	SHARE	
Contributions in DC plans by type of plan	No		
Contributions in DC plans by socio-economic characteristics	No		
Accumulated savings in DC accounts	Partially	SHARE	Only amounts in personal DC accounts are considered in the SHARE dataset, which only covers individuals aged 50 and over.

## ***Bulgaria***

### *Household surveys*

No national household survey including information about funded pension plans has been identified for Bulgaria.

### *Administrative data sets*

The Financial Supervisory Commission (FSC) provides quarterly data on pension insurance companies on its website that allow calculating indicators on private pension coverage, contributions and benefits. The FSC database covers the whole supplementary pension insurance system, which is implemented by participation in mandatory universal and/or professional pension funds, supplementary voluntary pension funds and/or supplementary voluntary pension funds with occupational schemes. These funds are established and managed by pension insurance companies licensed by the FSC.

Nearly all indicators can be calculated using this database. The universal, professional and occupational funds are still in the accumulation phase therefore the number of pensioners is relevant and provided only for the voluntary funds, as well as total pensions paid. The number of members by type of fund is available by gender and age. The average monthly contribution per member is also available, as well as the average savings account balance per fund member. Latest FSC statistics refer to the year 2009.

Membership data can suffer from multiple counting issues when adding together values from the various pension fund types. Indeed, public and private-sector employees and self-employed persons born in 1960 or after must become members of a universal pension fund. Each employee, working under specific conditions must, regardless of their age, become a member of a professional pension fund in addition to the universal pension fund. Additionally, every natural person, who has reached the age of 16, may also have supplementary voluntary pension insurance (either personal or occupational).

### *Conclusions*

The FSC administrative data set is the best source to calculate most of the indicators for Bulgaria. As shown in Table 9, all indicators except the breakdown of members by status and the breakdown of contribution levels by socio-economic characteristics can be calculated using the FSC data set. However, it is not possible to calculate a total coverage rate, as individuals can be members of a universal pension fund, a professional pension fund and a supplementary voluntary pension insurance at the same time. The coverage rate can only be calculated for each category separately.

**Table 9. Possibility to calculate each indicator for Bulgaria using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Yes	FSC	This indicator is only relevant for supplementary voluntary pension funds.
Active members as a % of the workforce	Partially	FSC	Multiple counting issues if values from the various pension fund types are added together.
Pension members by type of status	No		
Active members by socio-economic characteristics	Yes	FSC	Membership by gender and age can be calculated using the FSC dataset.
Active members by type of plans	Yes	FSC	
DB plans design	Not applicable		Only DC plans in Bulgaria.
Benefit as a % average wages by type of plans	Yes	FSC	This indicator is only relevant for supplementary voluntary pension funds.
Contributions in DC plans by type of plan	Yes	FSC	The FSC dataset provides average monthly contributions per member, by type of fund.
Contributions in DC plans by socio-economic characteristics	No		
Accumulated savings in DC accounts	Yes	FSC	The FSC dataset provides average savings account balance per fund member, by type of fund.

## Cyprus

### Household surveys

The Survey of Consumer Finances is the only household survey that has been identified for Cyprus, but available information on it is scarce. Therefore, it is difficult to assess whether this survey would permit estimating indicators on private pension coverage, contributions and benefits. This survey has been conducted by the Central Bank of Cyprus in 1999, 2002 and 2005 with a view to gather detailed and comprehensive information on demographics, assets, liabilities, income, employment status and other financial characteristics from a nationally representative sample of households. Data from the 1999 and 2002 surveys have been incorporated in the Luxembourg Wealth Survey.<sup>36</sup> No more detailed information has been found about this survey.

### Administrative data sets

No administrative data set including information about funded pension plans has been identified for Cyprus. The Ministry of labour and Social Insurance, which is the regulatory body for occupational pension schemes, is currently in the process of setting up a data set with statistics available at the earliest at the end of 2011.

36. As shown in the section on the LWS, data from the 2002 survey cannot be used to calculate the selected indicators as the number of households with positive pension assets or pension benefits is too low to have robust results. This may or may not be the case again for the 2005 survey.

## Conclusions

As shown in Table 10, only the multinational household data set SILC can be used to calculate some of the indicators for Cyprus. Unfortunately, only personal pension plans are covered by this survey.

**Table 10. Possibility to calculate each indicator for Cyprus using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Partially	SILC	Only individuals that received a regular pension from a personal pension plan can be identified in the SILC dataset.
Active members as a % of the workforce	Partially	SILC	Only individuals that personally contributed to a personal pension plan can be identified in the SILC dataset.
Pension members by type of status	No		
Active members by socio-economic characteristics	No		
Active members by type of plans	No		
DB plans design	No		
Benefit as a % average wages by type of plans	Partially	SILC	Only regular pensions received by pensioners from personal pension plans can be identified in the SILC dataset.
Contributions in DC plans by type of plan	Partially	SILC	The SILC dataset can only provide individual contributions in personal pension plans.
Contributions in DC plans by socio-economic characteristics	No		
Accumulated savings in DC accounts	No		

## Czech Republic

### Household surveys

The Household Budget Survey, for which data are not publicly available, would allow estimating contribution levels into private pension plans. This survey is conducted yearly by the Czech Statistical Office, with the main aim to provide information on expenditure and consumption structure of private households. It can only provide insights into the level of contributions through the average annual expenditure of the household for supplementary pension schemes per capita.

### Administrative data sets

Four institutions produce publicly available statistics on pension funds in the Czech Republic that would allow estimating most of the indicators related to private pension coverage, contributions and benefits. These are the Czech Statistical Office (Economic results of insurance companies and pension funds database), the Czech National Bank (CNB), the Association of pension funds of the Czech Republic (APF CR) and the Ministry of Finance. Statistics can be downloaded from the respective websites, except for the Ministry of Finance. However, through the Ministry's participation in the OECD WPPP, the OECD can ask for the data.

The Czech Statistical Office's database provides yearly aggregated information about the number of active members, the number of retired members, total pensions paid to retirees (with a breakdown between lump sum and regular payments) and total pension contribution received (with a breakdown between members, employers and State contributions). In addition to these indicators, the CNB database also provides (twice a year) the aggregate volume of plan holders' funds. The APF CR database focuses on persons participating in the additional pension insurance scheme with a State contribution, including insured persons with contracts providing only for contribution by employers. This database also provides aggregate contributions of participants and State contributions (quarterly data). Finally, the Ministry of Finance has data on current pensioners, active members (by age and gender), benefits paid and contributions received (by age and gender).

Administrative data on active pension members can be used to estimate coverage relatively to the total population, but not relatively to the workforce. Participants in the system cannot have multiple accounts. However, pensioners in many cases remain active participants of the pension funds. In practice some pensioners, who take a lump sum when retired, set up a new account as a savings instrument and take a lump sum after a few years. The reason is that retired people (or persons who have reached a certain age) are entitled to take their savings back anytime more than one year after the creation of an account (or five years after setting up the account in order to receive state contributions) and at the same time they can enjoy the benefits of this conservative product. There are no data available to calculate exact coverage related to the workforce as pension funds do not collect and update information on clients occupational status in most cases. However, the percentage of elderly clients is high (23.4% of clients are above 60 years at the end of 2008) and therefore it is estimated that the coverage of workforce is about 70% despite the fact that the ratio of number of clients of pension funds and active workforce is higher.

### *Conclusions*

Nearly all indicators can be calculated for Czech Republic using information from multinational household survey data sets (SHARE and SILC) and administrative data sets (Ministry of Finance and CNB). As the coverage rate of the labour force cannot be calculated accurately using administrative data sets, and as pension plans available in Czech Republic are personal with mandatory contributions, the SILC data set can be used to estimate coverage. This estimation may be underestimated however, as unemployed individuals do not have to make contributions and therefore may not be identified in the data set. In order to take into account all kinds of contributions (i.e. employee, employer and State contributions) for the calculation of the related indicators, the data set managed by the Ministry of Finance is the best suited. Finally, indicators related to pensioners and benefits paid to them should be calculated more accurately using the SHARE (see Table 11).

**Table 11. Possibility to calculate each indicator for Czech Republic using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Yes	SHARE	
Active members as a % of the workforce	Partially	SILC	The SILC dataset does not allow identifying members that are unemployed.
Pension members by type of status	Yes	Ministry	
Active members by socio-economic characteristics	Partially	SILC	The SILC dataset does not allow identifying members that are unemployed.
Active members by type of plans	Not applicable		Only personal DC plans in Czech Republic.
DB plans design	Not applicable		Only DC plans in Czech Republic.
Benefit as a % average wages by type of plans	Yes	SHARE	
Contributions in DC plans by type of plan	Yes	Ministry	
Contributions in DC plans by socio-economic characteristics	Yes	Ministry	The Ministry's dataset can provide the split of active members' contributions by age and gender.
Accumulated savings in DC accounts	Yes	CNB	

## *Denmark*

### *Household surveys*

The Household Budget Survey, for which data are not publicly available, would allow estimating indicators on pension contributions. The purpose of the survey is to give information on the economic conditions of the private households - incomes, savings as well as consumption. Contribution levels to pension schemes and ATP (Danish Labour Market Supplementary Pension Scheme) are available, including both individual and employer contributions. The information is available at the household level, not at the individual level.

### *Administrative data sets*

Three administrative data sets exist related to Danish pension funds, but little information is available in English to assess whether they could be useful to calculate indicators on coverage, contributions and benefits.

The Danish financial supervisory authority (Finanstilsynet, or FTNET) supervises financial undertakings, including pension funds, the Danish Labour Market Supplementary Pension (ATP), and LD Pensions (LD). The Danish Insurance Association covers multi-employer pension funds and company pension funds only. Publicly available information is only available in Danish on both websites (yearly update).

The Personal Income Statistics tax based register could be used to calculate indicators related to contributions and benefits, but access to this register is only possible under strict conditions. The purpose of this register, which is managed by Statistics Denmark, is to provide a yearly statistical picture of the population's income and allowance. Statistics on pension income and on tax-free contributions to pension funds (split up by age and socio-economic characteristics) are available. The OECD could not have access to this register.

## Conclusions

Only multinational household survey data sets are available to calculate indicators for Denmark. As shown in Table 12, indicators related to pensioners and benefits paid to them could be calculated using SHARE. Due to data limitations however, the indicators of coverage and contributions can only be calculated for personal pension plans using the SILC data set. In addition, only direct individual contributions to personal pension plans are taken into account.

**Table 12. Possibility to calculate each indicator for Denmark using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Yes	SHARE	
Active members as a % of the workforce	Partially	SILC	Only individuals that personally and directly contributed to a personal pension plan can be identified in the SILC dataset.
Pension members by type of status	No		
Active members by socio-economic characteristics	Partially	SILC	Only individuals that personally and directly contributed to a personal pension plan can be identified in the SILC dataset.
Active members by type of plans	No		
DB plans design	No		
Benefit as a % average wages by type of plans	Yes	SHARE	
Contributions in DC plans by type of plan	Partially	SILC	The SILC dataset can only provide direct individual contributions in personal pension plans.
Contributions in DC plans by socio-economic characteristics	Partially	SILC	Only individuals that personally and directly contributed to a personal pension plan can be identified in the SILC dataset.
Accumulated savings in DC accounts	Partially	SHARE	Only amounts in personal DC accounts are considered in the SHARE dataset, which only covers individuals aged 50 and over.

## Estonia

### Household surveys

No national household survey including information about funded pension plans has been identified for Estonia.

### Administrative data sets

The Ministry of Finance is providing yearly data regarding mandatory private pension plans through the OECD GPS exercise, but no description of the data set is publicly available. Data related to total contributions, total benefits and total members are available. Voluntary pension plans are not covered.

## Conclusions

Little information is publicly available to calculate indicators for Estonia. Both the SILC data set and the Ministry's data set could be used to calculate partial estimations of indicators of coverage and

contributions (see Table 13). For instance, the Ministry’s data set only covers individuals who joined the mandatory private pension system, but not individuals who are members of voluntary pension funds. The SILC data set does cover individuals contributing to voluntary pension funds, but they cannot be distinguished from individuals contributing to collecting insurance schemes.

**Table 13. Possibility to calculate each indicator for Estonia using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	No		
Active members as a % of the workforce	Partially	Ministry	Only individuals who joined the mandatory private pension system are covered.
Pension members by type of status	No		
Active members by socio-economic characteristics	Partially	Ministry	The Ministry’s dataset provides the split of total members by age.
Active members by type of plans	Not applicable		Only personal DC plans in Estonia.
DB plans design	Not applicable		Only DC plans in Estonia.
Benefit as a % average wages by type of plans	No		
Contributions in DC plans by type of plan	Yes	SILC / Ministry	The SILC dataset provides contributions to voluntary pension funds and collecting insurance schemes, while the Ministry’s dataset provides contributions to mandatory pension funds.
Contributions in DC plans by socio-economic characteristics	Partially	SILC	The SILC dataset provides contributions to voluntary pension funds and collecting insurance schemes.
Accumulated savings in DC accounts	No		

## **Finland**

### *Household surveys*

It is difficult to assess accurately whether existing Finnish household surveys would permit estimating indicators on coverage, contributions and benefits, as little information is publicly available and the data cannot be accessed. Two household surveys have been identified: the Household wealth survey and the Saving and borrowing in Finland survey.

No detailed information about the Household wealth survey could be found. This survey is managed by Statistics Finland but there are question marks over the future data production of that survey: the planned data collection 2010 has been cancelled for economic reasons and there is no decision, yet, when the next survey will be conducted.

The survey “Saving and borrowing in Finland” would only be useful to calculate the coverage of personal pension plans. It is conducted by the Federation of Finnish Financial Services every year since 2006 with persons between 15 and 74 years. The purpose is to outline recent changes in Finns’ saving, borrowing and paying behaviour. The individuals are asked whether they hold a personal pension insurance (the breakdown by age is available).

### Administrative data sets

Two institutions produce publicly available statistics on pension funds in Finland that would allow estimating most of the indicators related to coverage, contributions and benefits. These are the Finnish Centre for Pensions (ETK) and the Financial Supervisory Authority (FSA). Both data sets are updated on a yearly basis.

The ETK only covers the statutory pension insurance system and would allow estimating most indicators related to coverage, contributions and benefits for that system. The number of insured individuals, the number of pension recipients, the pension expenditure, the statutory contribution rates and the accrued rules for DB plans are available in this data set. The split of information into socio-economic characteristics is limited to age and gender.

The FSA provides the same kind of information as the Finnish Centre for Pensions, but for the whole pension system, *i.e.* both statutory and supplementary pension insurance. Aggregated contributions and benefits can be retrieved from this database. Information on the number of insured people and beneficiaries is actually the number of insurance contracts. As an individual may have more than one contract, membership data include multiple counting. However, if only the statutory pension system is considered, it is possible to estimate accurately the total coverage, as this system covers the entire Finnish labour force (including self-employed, farmers *etc.*).

### Conclusions

Only administrative data sets are freely available to calculate indicators for Finland. Information from both the FSA and the ETK data sets can be combined. In order to avoid multiple counting issues, coverage indicators should only be calculated for the statutory system that covers the entire Finnish labour force. Breakdowns of coverage and contribution by socio-economic characteristics are limited to age and gender.

**Table 14. Possibility to calculate each indicator for Finland using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Yes	FSA	To avoid multiple counting issues, only data related to the statutory system should be taken into account.
Active members as a % of the workforce	Yes	FSA	To avoid multiple counting issues, only data related to the statutory system should be taken into account.
Pension members by type of status	No		
Active members by socio-economic characteristics	Partially	ETK	Active members of the statutory pension system can be split by age and gender.
Active members by type of plans	Yes	FSA	
DB plans design	Yes	ETK	
Benefit as a % average wages by type of plans	Yes	FSA	
Contributions in DC plans by type of plan	Yes	FSA	
Contributions in DC plans by socio-economic characteristics	Partially	ETK	Contributions to the statutory pension system can be split by age.
Accumulated savings in DC accounts	Yes	FSA	

## *France*

### *Household surveys*

The Wealth survey, for which data are not publicly available, would allow estimating most of the indicators on coverage, contributions and benefits. The Wealth survey is conducted every six years, the last survey referring to 2010. It looks at the evolution of the households' wealth distribution and of the rate of holding of different wealth assets. The Wealth survey could be used to calculate all indicators, except the typical plan design of DB plans if the data were publicly available. Some indicators however would be restricted to certain types of pension plans: while data referring to active members and current pensioners cover the whole private pension system, data referring to contributions, benefits and accumulated savings in DC accounts only covers different sub-samples. In addition, actual benefits of current pensioners are not available, only future benefits of occupational pension plans and selected voluntary personal pension plans can be retrieved from the survey. PERCO and PERP plans, set up in 2003, are covered in the 2010 survey.

### *Administrative data sets*

Three administrative data sets have been identified for France that could be useful to calculate some of the indicators related to coverage, contributions and benefits, and provide statistics via publicly available publications (but the data sets are not directly available). These are the statistical information system on retirement savings of the Directorate of research, studies, assessment and statistics (DREES), the survey ACEMO on participation, profit-sharing, PEE, and employees' shareholding (PIPA) of the Directorate of research animation, studies and statistics (DARES) (both Directorates are part of the Ministry of Labour, Social relationships, Solidarity and City), and the statistics gathered by the French Asset Management Association (AFG) on retirement savings through PERCO plans. While data available at the DREES and the DARES are collected yearly (last available data respectively 2007 and 2006), the AFG collects quarterly data (last available data June 2010).

The AFG data set and the PIPA survey would permit to calculate indicators pertaining to coverage and contributions, but only for PERCO plans. The AFG data set provides information on the number of member employees (by age and gender) and the amount paid yearly in the plan by employers and employees by source (profit-sharing, participation, or voluntary payments from employees). The PIPA survey covers only PERCO plans as well and provides the same kind of information (however, there is no breakdown of active members by socio-economic characteristics).

The survey conducted by the DREES is more complete as it collects statistical data for the whole private pension system. The survey provides the number of persons covered by type of product (however, summing members from different products to get a total coverage may lead to multiple counting issues as people can be members of different pension plans). Total benefits paid and total contributions received are also available. There is no information on the number of pensioners nor on accumulated savings in DC accounts. Unfortunately, the data are not published every year and the last publication available refers to the year 2007.

The Law of August 21, 2003 allows the DREES to receive micro anonymised data from relevant supervisory authorities in a view to analyse more in depth the coverage of voluntary pension plans. As of today however, this opportunity has never been used by the DREES.

### *Conclusions*

As shown in Table 15, both multinational household survey data sets (SHARE and SILC) and administrative data sets (DRESS) could be used to calculate indicators for France. The SHARE data set is very useful to calculate indicators related to pensioners and benefits paid to them. Unfortunately, using the

SILC data set imposes working on personal pension plans only, which limits the relevance of the indicators of coverage and contributions that could be estimated using that survey. Finally, the DREES data set can be used to calculate the breakdown of active members by type of plans.

**Table 15. Possibility to calculate each indicator for France using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Yes	SHARE	
Active members as a % of the workforce	Partially	SILC	Only individuals that personally contributed to a personal pension plan can be identified in the SILC dataset.
Pension members by type of status	No		
Active members by socio-economic characteristics	Partially	SILC	Only individuals that personally contributed to a personal pension plan can be identified in the SILC dataset.
Active members by type of plans	Yes	DREES	
DB plans design	No		
Benefit as a % average wages by type of plans	Yes	SHARE	
Contributions in DC plans by type of plan	Partially	SILC	The SILC dataset can only provide individual contributions in personal pension plans.
Contributions in DC plans by socio-economic characteristics	Partially	SILC	Only individuals that personally contributed to a personal pension plan can be identified in the SILC dataset.
Accumulated savings in DC accounts	Partially	SHARE	Only amounts in personal DC accounts are considered in the SHARE dataset, which only covers individuals aged 50 and over.

## Germany

### Household surveys

Eight different household surveys having information that could be useful to calculate indicators on private pension coverage, contributions and benefits have been identified for Germany, three of them being publicly available. Publicly available surveys are the German Socio-Economic Panel (GSOEP), the SAVE survey and the German Ageing Survey (DEAS). The other surveys are the Retirement Pension Provision Schemes in Germany (AVID), the Continuous household budget surveys (LWR), the Sample Survey of Income and Expenditure (EVS), the Micro census and Retirement Insurance in Germany (ASID).

The AVID and ASID surveys do not cover all adult individuals, and therefore are not the best sources to assess coverage, but may be more suited to calculate indicators related to benefits paid to pensioners. The AVID survey focuses on individuals aged between 44 and 63 years (and their spouse). The objective of this survey is to assess future old age income. Individuals are asked whether they are covered by a *Riester* plan, a private pension insurance plan or an occupational pension plan. They are also asked whether they receive a regular pension from an occupational pension plan and how much. The ASID survey covers individuals aged over 55 and looks at pension benefits for individuals already retired and to pension entitlements for individuals not yet retired.

DESTATIS, the German statistical office, manages two linked surveys, the EVS and the LWR, which collect the same information on private pensions, *i.e.* household coverage by personal pension plans. The limitation of these surveys is that personal pension plan information is not collected separately, but together with life insurance.

The micro census would be useful to calculate indicators related to coverage and the amount of savings in private pension insurance. The micro census serves to provide statistical information on the population's economic and social conditions and on employment, the labour market and education. Questions related to private pensions allow assessing active members' coverage by type of plans and by socio-economic characteristics, to identify current pensioners and to assess the amount saved in private pension insurance plans.

The description and assessment of the three publicly available surveys (GSOEP, SAVE and DEAS) is provided below.

### *Assessment of the German Socio-Economic Panel*

#### General assessment

The German Socio-Economic Panel (GSOEP) is a useful survey to calculate indicators related to pensioners and the amounts they receive at retirement. Information on pensioners is collected through questions on the different sources of income. Among all sources, the amounts received from company pensions and private pension schemes are available. Active members' coverage by *Riester* plans and by life insurance policy or private retirement insurance policy can also be retrieved from that survey. However, these coverage data are only available in selected years.

#### Overview

The GSOEP is a representative longitudinal survey of private households conducted yearly since 1984. All individuals aged 16 and over are interviewed, consisting of Germans living in the old and new German states, foreigners, and recent immigrants to Germany. Some of the many topics include household composition, occupational biographies, employment, earnings, health and satisfaction indicators. Last available data refer to 2009.

#### Variables' definitions

Information on pensioners is collected yearly through questions on the different sources of income. For the past calendar year, each individual has to describe all sources of income. If the individual is receiving an income from his/her "own pension" (variable ZP91D01), additional questions allow knowing what kind of pension it is and the amount of the monthly payments (gross amount, excluding taxes). Pension sources include "company pensions" (variable ZP9407) and "private pension schemes" (variable ZP9409).

Additional data are collected on an irregular basis. Individuals who signed a contract for a *Riester* pension plan after the 31<sup>st</sup> of December 2001 can be identified in the surveys conducted in 2004, 2006 and 2007 (variable XP124). In the module "Your personal assets and liabilities", included in the 2002 and 2007 questionnaires, individuals having a "life insurance policy or a private retirement insurance policy" purchased by themselves or by their employer can also be identified (variable XP126E01).

#### Detailed assessment

The GSOEP can mainly be used to calculate indicators related to current pensioners and benefits paid to them. Individuals receiving a pension from an occupational pension plan or a personal pension plan can be identified. For each type of plan, the monthly payments (that may be estimated if the individuals do not know the exact gross amount) are also provided.

Indicators of private pensions' coverage, such as total active members as a % of the workforce and the breakdown of active members by socio-economic characteristics or by types of plan can only be calculated for selected types of plans. The survey allows indeed assessing the coverage of *Riester* pension plans and of life insurance or private retirement insurance plans. There is however no way to distinguish life insurance plans and private retirement insurance plans.

The longitudinal aspect of the survey can be used to look at the trend in the number of pensioners and the benefits they received, but not in the coverage of private pension plans. More than 50,000 different individuals have been interviewed in the context of the GSOEP. While 19% were interviewed only once, as much as 36% have been interviewed at least 10 times since 1984. In particular, more than 2,000 individuals have participated to all the waves. As income information has been collected from the beginning of the study, it possible to track the number of pensioners since 1984 (for company pensions only as the category "private pension scheme" has only been added in 2003). However, it is not possible to look at the yearly trend in pension plan coverage as coverage information has not been collected in each wave. For instance, coverage of *Riester* pension plans is only available in 2004, 2006 and 2007.

## *Assessment of the German Ageing Survey*

### General assessment

The German Ageing Survey (DEAS) only covers adult individuals aged over 40, and therefore is better suited to calculate indicators related to benefits paid to pensioners. Pension benefits for individuals already retired are available especially those received from a company pension or supplementary benefits for former public sector employees. As individuals having pension entitlements to a company pension, a company supplementary pension, or the public sector employees' supplementary pension system (VBL) can also be identified, coverage of private pension plans can also be calculated, but only for the subgroup of individuals aged 40 and over.

### Overview

The DEAS is a nationwide representative cross-sectional and longitudinal survey of the German population aged over 40. In each survey year, a nationally representative sample is drawn and subsequently followed up. Only one individual per household is interviewed. Particular issues addressed in the survey include an assessment of occupational status or living conditions after retirement, social participation and leisure activities, information on the economic and housing situation, family ties and other social contacts, as well as issues regarding health, well-being and life-goals. The three waves of the DEAS survey took place in 1996, 2002 and 2008.

### Variables' definitions

Respondents are asked about their entitlement to "a company pension, a company supplementary pension, or the public sector employees' supplementary pension system (VBL)".<sup>37</sup> This information is

---

37. The supplementary pension plans for public sector employees (*i.e.* state agents hired under collective labour agreements who are not civil servants) should be excluded from the analysis as they are mainly pay-as-you-go financed. Unfortunately, the DEAS survey does not allow distinguishing these plans from the other occupational pension plans.

collected through three separated variables: W15\_537, W16\_340 and W17\_448, included in different blocks of the questionnaire depending on whether the respondent is an old-age pensioner or a retiree, an employee or a non-employed person. In a self-administered questionnaire, the respondents are also asked whether they are informed about the state-subsidised *Riester* retirement plan. One of the possible options that respondents can choose is that they already have savings for a private, state-subsidised *Riester* retirement (variable E57\_1).

Individuals and their spouse/partner receiving an income from a “company pension or supplementary benefits for former public sector employees”<sup>38</sup> can be identified in the self-administered questionnaire. Individuals have to complete the monthly amount they currently receive in Deutsche Mark (variables E62\_3\_2 and E62\_3\_5 for the respondent and his/her spouse/partner respectively) and in Euro (variables E62\_3\_3 and E62\_3\_6 for the respondent and his/her spouse/partner respectively). Income should be given net, that is, after deduction of all taxes and social security contributions. If respondents do not remember the various amounts exactly, they are invited to consult their records. Other household members receiving an income from a “company pension or supplementary benefits for former public sector employees” can also be identified (variable E63\_2\_3), but not the amount they receive. Finally, if the respondent or another member of the household also receives a “regular income from a private life insurance policy or private provision schemes”, he/she should give the monthly amount received (variable E64\_4\_2 in Deutsche Mark and variable E64\_4\_3 in Euro).

#### Detailed assessment

The DEAS can mainly be used to calculate indicators related to current pensioners and benefits paid to them, as it covers individual older than 40. Individuals receiving a pension from an occupational pension plan or a personal pension plan can be identified. For each type of plan, the monthly payments are also provided. The only limitation when using these data stems from the number of respondents that provide the monthly payments received from a private life insurance company or private provision schemes. As less than 30 respondents provided such amounts, the analysis may not be robust enough for that type of plans.

Coverage of private pension plans can be accurately measured based on this survey, but only for individuals aged 40 and over. Coverage of occupational pension plans can be measured by the proportion of individuals having entitlements to a company pension, a company supplementary pension, or the public sector employees’ supplementary pension system (VBL). Additionally, coverage of *Riester* plans can be measured by the proportion of individuals having savings in *Riester* pension plans. These coverage indicators could be useful to calculate, but would only be relevant for a subgroup of the German population aged 40 and over.

The longitudinal component of the DEAS allows comparing indicators of coverage and benefits between waves. Of the 4,838 individuals interviewed in 1996, 1,524 individuals (i.e. 31.5%) were also interviewed in 2002 and 990 (i.e. 20.5%) were again interviewed in 2008. Except the question about *Riester* plans (*Riester* plans did not exist yet in 1996), all questions were asked and labelled the same way in the three waves, allowing a meaningful comparison of the indicators across waves.

#### *Assessment of the SAVE survey*

#### General assessment

---

38. Again, benefits for former public sector employees (PAYG-financed) cannot be distinguished from benefits paid by other occupational (funded) pension plans.

The SAVE survey can be used to calculate most of the indicators on private pension coverage, contributions and assets, however, the information is relevant at the household level and not at the individual level. The data collected through this survey can be used to calculate all selected indicators, except the split of members by status, the typical plan design of DB plans and the level of benefits paid to pensioners. Households where the head or his/her partner is the member of one or more pension plans under various financial instruments can be identified as well as households where the head or his/her partner is receiving various types of private pensions. Employee and employer contributions are both taken into account for occupational pension plans in which the head of the household or his/her partner is a member, and the level of assets at the end of the year is also provided for all types of plans. An interesting feature of the survey is that it covers the whole range of private pension plans in Germany, allowing having a full picture of the private pension system regarding coverage, contributions and assets. The main drawback is that the survey does not cover individuals but households.

### Overview

Understanding savings and investment behaviour of German households is the main goal of the SAVE study. The study started in 2001, to measure households' financial behaviour, specially focused on savings and old-age provisions. It collects detailed quantitative information on traditional variables (such as income, earnings and asset holdings) as well as the relevant socio-psychological aspects of a representative sample of German households. The panel component of the survey broadly represents half of each year sample, with the same households being annually interviewed since 2006. The last available wave was conducted in 2010.<sup>39</sup>

### Variables' definitions

Pensioners can be identified in the survey through questions on income sources. It is therefore possible to know whether the head of the household and his/her partner receive an income from a "company pension" (variables f53m1\_m and f53m2\_m for the head and the partner respectively) or a "private pension insurance plan" (variables f53m1\_r and f53m2\_r for the head and the partner respectively). Unfortunately, the amount of income received during the last year or last month is not available.

The questionnaire also includes a section on company and private pensions. The head of the household is asked whether he/she or his/her partner has one or several of the proposed pension plan types, which are: "occupational life insurance" (variable f72s\_13), "other occupational pension" (variable f72s\_14), "state-subsidised pension products" (variable f72s\_10) and "private pension insurance" (variable f72s\_4). An example of occupational life insurance is direct insurance (*Direktversicherung*). Other occupational pension includes occupational pension from *Pensionskassen* or from support funds (*Unterstützungskassen*), occupational book reserves (*Direktzusagen*), as well as the supplementary benefit plan for former public sector employees.<sup>40</sup> State-subsidised pension products include *Riester* and *Rürup* plans. Finally, private pension insurance includes private pension insurance contracts which were not transformed into state-subsidised products, or were closed before the possibility to transform them became available. The variables are not differentiated for the head of the household and his/her partner; they concern both individuals.

---

39 . However, the assessment refers to the 2009 survey as 2010 data were only available shortly before the writing of this report.

40 . The supplementary pension plans for public service employees (*i.e.* state agents hired under collective labour agreements who are not civil servants) should be excluded from the analysis as they are mainly pay-as-you-go financed. Unfortunately, the SAVE survey does not allow distinguishing these plans from the other types of occupational pension plans.

For each of these pension plan types, the head of the household has also to give the monthly contribution he/she or his/her partner paid (respectively variables f73ano13, f73ano14, f73ano10 and f73ano4 for each type) and the employer monthly contribution where relevant (variable f73ago13 for occupational life insurance and variable f73ago14 for other occupational pension). The level of assets at the end of the year is also required for each type of plan (respectively variables f73eo13, f73eo14, f73eo10 and f73eo4 for each pension plan type).

### Detailed assessment

The SAVE survey is a very valuable survey to assess coverage of private pension plans, contributions made to such plans and the level of accumulated assets at the household level. Households where the head or his/her partner is a member of one or more pension plans under various financial instruments can be identified as well as households where the head or the partner is a pensioner receiving various types of private pensions. Additionally, the whole range of existing financial vehicles is covered by the survey allowing having a full picture of the private pension system coverage. Employee and employer contributions are both taken into account for occupational pension plans and the level of assets at the end of the year is also provided for all types of plans.

The main limitation of the SAVE survey is that not all adults of the household are interviewed. Only the head of the household is interviewed actually, and gives answers concerning his/her own situation and that of his/her partner. If another household member has assets in a private pension plan or receives pension benefits, it is not possible to know it. In particular, all young individuals (let say below 25-30 years old) that are not head of household or partner are not covered by the survey. In the 2009 sample for instance, the youngest head of household and partner are 22 years old, so the survey does not provide any information for individuals between 16 and 22 years old (and in less than 6% of the households, the head or the partner is younger than 30), which limits the use of calculated indicators on coverage or contributions.

Some features of the survey improve the quality of the data. First, the quality of the information provided regarding contributions and assets can be assessed as it is possible to know whether it has been sourced from documents or if it relies on estimations. Second, to prevent biased inference based on an analysis of only complete cases (i.e. observations without missing values for the variables of interest), an iterative multiple imputation procedure has been applied to SAVE data. Multiple imputation simulates the distribution of missing data to allow for a more realistic assessment of variances than single imputation. The multiple imputation algorithm generates five complete data sets with all missing values replaced by imputed values. This technique allows increasing data accuracy.

The longitudinal component of the SAVE survey allows to compare indicators pertaining to coverage, contributions and assets with various time series length depending on the indicators and the types of plans. For instance, pensioners can be identified since the first survey in 2001, while individuals having occupational pension plans (either occupational life insurance or other occupational pension) can only be identified as of the 2007 survey. Additionally, the longitudinal sample was quite small between 2001 and 2005 (660 people in 2001 and 357 people in 2005). It has been refreshed in 2006 with 1,636 additional individuals. In 2009, 56% of the individuals in the longitudinal sample of 2006 were still involved in the survey.

### *Administrative data sets*

The three administrative data sets that have been identified gather information at the pension fund level or at the employer level, but have limited usefulness to calculate indicators related to coverage, contributions and benefits. The study on Occupational Pension Schemes (BAV) is commissioned by the

German Federal Ministry for Labour and Social Affairs and is not publicly available. The data set managed by Federal Financial Supervisory Authority (BaFIN) cannot be accessed directly, but as BaFIN is a member of the OECD WPPP, the OECD can ask for the data. The Federal Ministry of Labour and Social Affairs publishes quarterly data on *Riester* pension plans.

The BAV study could be used to calculate active members' coverage. It has been conducted in 2003, 2004 and 2007, and includes yearly information from December 2001 to December 2007. It is based on two samples, a representative sample of private sector employers and a census of *Pensionskassen*, *Pensionsfonds*, public sector pension providers and life insurance companies providing direct pension insurance. Therefore, the study covers the whole German funded pension system. Using the first sample, the number of employees (by gender) covered by an occupational pension plan for both private and public sectors is available. Using the second sample, it is possible to know the number of insured individuals by gender and type of fund. However, the figures cannot be summed up to derive a total private pension system coverage, as this would include multiple counting.

The BaFIN manages an administrative data set covering *Pensionskassen* and *Pensionsfonds* only, which are specific financial vehicles for occupational DB pension plans. There are three other types of financial vehicles for occupational pension plans, namely *Direktzusage* (book reserves), *Unterstützungskassen* (support funds) and *Direktversicherung* (direct insurance), which make up the major part of the German pension funds' market. Total active and passive members, as well as total contributions and benefits can be retrieved yearly from this data set, but no further breakdown by socio-economic characteristics or type of plan is available.

The Federal Ministry of Labour and Social Affairs (BMAS) produces up to date quarterly data on the number of people with a *Riester* pension plan. In addition, the German statutory pension insurance scheme (ZfA) issues a yearly publication on *Riester* pension plans supported by pension-savings grant under Part XI of the Income Tax Act (*EStG*). Unfortunately, only the absolute number of people with a *Riester* pension plan is available, no more information is publicly available. The data do not suffer multiple counting issues as *Riester* pension plans are subject to state subsidies, ensuring that an individual can only have one *Riester* plan at a time.

### Conclusions

Two national household survey data sets (GSOEP, SAVE) and one administrative data set (BMAS) can be combined to calculate most of the indicators for Germany. On the one hand, the GSOEP can mainly be used to calculate indicators related to pensioners and benefits they receive. On the other hand, the SAVE data set is best suited to estimate indicators related to coverage, contributions and assets accumulated. The main limitation however of the SAVE is that information is available at the level of the household, and not at the level of the individual. The BMAS data set can also be used as a complement to estimate coverage of *Riester* pension plans.

**Table 16. Possibility to calculate each indicator for Germany using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Yes	GSOEP	
Active members as a % of the workforce	Yes	SAVE / GSOEP / BMAS	The SAVE survey covers the whole private pension system but information is only available at the household level. The GSOEP provides individual level information for Riester plans, while more up to date information on Riester plans are provided by the BMAS.
Pension members by type of status	No		
Active members by socio-economic characteristics	Yes	SAVE / GSOEP / BMAS	The SAVE survey covers the whole private pension system but information is only available at the household level. The GSOEP provides individual level information for Riester plans, while more up to date information on Riester plans are provided by the BMAS.
Active members by type of plans	Yes	SAVE	Information is only available at the household level.
DB plans design	No		
Benefit as a % average wages by type of plans	Yes	GSOEP	
Contributions in DC plans by type of plan	Yes	SAVE	Information is only available at the household level.
Contributions in DC plans by socio-economic characteristics	Yes	SAVE	Information is only available at the household level.
Accumulated savings in DC accounts	Yes	SAVE	Information is only available at the household level.

## *Greece*

### *Household surveys*

The Household Budget Survey, for which data are not publicly available, would allow estimating the indicators related to pensioners and pension benefits. Through this survey, information is collected on the value of purchases and the receipts in kind of the households as well as on the different characteristics of the households and their dwellings. Individuals above 14 years are asked whether they get an income from private pension (together with survivors' pension, sickness benefits, and disability) or from a parallel pension from private sector (paid by the employer). The amounts they get are also available. Therefore, this allows calculating the current number of pensioners and the average benefits received by type of plan.

### *Administrative data sets*

The Ministry of Employment and Social Protection and the Hellenic Actuarial Authority provide yearly data on occupational insurance funds through the OECD GPS exercise, but no description of the data set is publicly available. Data related to total contributions, total benefits and total members are available.

## Conclusions

In order to calculate or estimate partially the indicators for Greece, the SHARE and SILC multinational data sets and the Ministry's administrative data set could be used. The SHARE can calculate accurately indicators related to pensioners and benefits paid to them. The SILC data set only covers personal pension plans and could be used to calculate coverage of and contribution levels to these pension plan types. Finally, coverage of occupational pension plans and level of assets accumulated in such plans can be obtained using data from the Ministry of Employment and Social Protection.

**Table 17. Possibility to calculate each indicator for Greece using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Yes	SHARE	
Active members as a % of the workforce	Partially	Ministry	Personal pension plans are not covered by the Ministry's dataset.
Pension members by type of status	No		
Active members by socio-economic characteristics	Partially	SILC	Only individuals that personally contributed to a personal pension plan can be identified in the SILC dataset.
Active members by type of plans	No		
DB plans design	Not applicable		Only DC plans in Greece.
Benefit as a % average wages by type of plans	Yes	SHARE	
Contributions in DC plans by type of plan	Partially	SILC	The SILC dataset can only provide individual contributions in personal pension plans.
Contributions in DC plans by socio-economic characteristics	Partially	SILC	Only individuals that personally contributed to a personal pension plan can be identified in the SILC dataset.
Accumulated savings in DC accounts	Partially	Ministry	Personal pension plans are not covered by the Ministry's dataset.

## Hungary

### Household surveys

Due to questionnaire reduction, the Household Monitor Survey, carried out by Tarki Social Research Institute, cannot be used anymore to estimate private pension coverage as of the 2010 survey. The survey is primarily focussed on issues concerning the labour market and incomes, consumer attitudes, savings, economic expectations and economic behaviour, and changing social relations are also included among the subjects of the survey. It used to have information on individuals in mandatory private and voluntary schemes, but in the current survey (2010) these questions were omitted due to questionnaire reduction. Therefore, it is not worthwhile to assess this survey further.

### Administrative data sets

The Hungarian Financial Supervisory Authority (PSZAF) manages and publishes quarterly data for mandatory and voluntary pension plans, which could be used to calculate indicators on coverage and contributions. As no information is provided on pensioners, indicators on pensioners and benefits paid to them cannot be calculated using this data set. Total membership is available for both mandatory and voluntary pension funds, broken down by age and gender. However, the split into active members and

pensioners is not available. The mandatory pension funds are still in the phase of accumulation and practically have not started to pay out benefits, but this is not the case for voluntary pension funds. In addition, contributions paid to the funds by the members, contributions paid in support of temporary unemployed members and additional voluntary contributions are also available, as well as the value of individual accounts.

### Conclusions

Combining information from the SILC multinational household survey data set and the administrative PSZAF data set allows the calculation or partial estimation of the indicators for Hungary. Unfortunately, the SILC only covers voluntary pension funds and only identifies individuals that receive a regular pension from or personally contribute to these funds. The PSZAF data set covers both mandatory and voluntary funds, but membership data suffer from multiple counting issues when trying to calculate the total coverage of the whole private pension system.

**Table 18. Possibility to calculate each indicator for Hungary using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Partially	SILC	Only individuals that received a regular pension from a voluntary pension fund can be identified in the SILC dataset.
Active members as a % of the workforce	Partially	PSZAF	Multiple counting issues if values from the mandatory and voluntary pension funds are added together.
Pension members by type of status	No		
Active members by socio-economic characteristics	Partially	SILC	Only individuals that personally contributed to a voluntary pension fund can be identified in the SILC dataset.
Active members by type of plans	Yes	PSZAF	
DB plans design	Not applicable		Only DC plans in Hungary.
Benefit as a % average wages by type of plans	Partially	SILC	Only regular pensions received by pensioners from a voluntary pension fund can be identified in the SILC dataset.
Contributions in DC plans by type of plan	Yes	PSZAF	
Contributions in DC plans by socio-economic characteristics	Partially	SILC	Only individuals that personally contributed to a voluntary pension fund can be identified in the SILC dataset.
Accumulated savings in DC accounts	Yes	PSZAF	

### Ireland

#### Household surveys

Publicly and not publicly available surveys have been identified for Ireland having information that could be used to calculate indicators of pension coverage, contributions and benefits. Data related to pension arrangements collected via the National Employment Survey (NES) are not available. For three other data sources however, namely the Quarterly National Household Survey (QNHS), the Household Budget Survey (HBS) and the Living in Ireland survey, data are publicly available.

The National Employment Survey (NES) is a major work place survey conducted by the Central Statistical Office. The first NES survey was conducted in 2003 and it became an annual survey in 2006. It provides valuable information on the structure and distribution of employee earnings in both the public and private sectors, covering nearly all sectors of the economy. The NES provides information on the factors which influence earnings such as economic sector of activity, occupation, educational attainment, age group, length of service and nationality, as well as other factors that go to explain differences in rates of hourly earnings. The 2007 survey also included questions relating to pension arrangements. The pension module has however not been published yet and the corresponding data should be available at the end of 2011 only.

While publicly available, the Living in Ireland survey has not been assessed as it is no more conducted. The Living in Ireland Surveys formed the Irish component of the European Community Household Panel (ECHP) that stopped in 2001. As already described in the Section on multinational surveys, this survey would allow calculating most of the indicators related to coverage, contributions and benefits.

A detailed assessment is provided below for both the QNHS and the HBS.

#### *Assessment of the Household Budget Survey*

##### General assessment

The Household Budget Survey (HBS) does not provide enough information to calculate accurately indicators on coverage, contributions and benefits from private pensions. The information is collected at the household level and not at the individual level. In addition, the survey does not allow for the accurate measure of pension coverage as pension members that did not contribute during the period under review cannot be identified. Moreover, employer contributions in occupational pension plans are not provided for most of households that contributed during the reference period. Finally, the number of beneficiaries of private pension benefits in the households is not provided.

##### Overview

The HBS is a survey of a representative random sample of all private households in Ireland and surveys have been carried out periodically since 1951. The main purpose of the survey is to determine in detail the pattern of household expenditure in order to update the weighting basis of the Consumer Price Index. Detailed information is also collected on all sources of household income and on a range of household facilities. Since 1994, the survey is conducted every five years, latest available data referring to the period 2004-05.

##### Variables' definitions

Contributions to private "pension funds" (variable t380) and to "PRSA" (personal retirement savings accounts, variable t1457) are collected within the "Insurance and Pension Contributions" module of the questionnaire, as well as "additional voluntary contributions (AVC) - pension" (variable t1994). Additionally, "PRSA [contributions] - paid by the employer" (variable t1445) and "employee pension contributions - paid by the employer" (variable t1425) are also collected through the "Household Expenses claimed for Tax Purposes of refunded by Employer" module.

Retirement pensions are defined as the gross amounts (i.e. before any deductions) being received by household members as pensions in respect of previous employment. Old age and all other social welfare pensions are not included and treated as State transfer payments. The "Direct Income" module of the

questionnaire distinguishes between “State employment retirement pension” (variable t443) and “Other employment retirement pensions” (variable t444).

All expenditure and income variables of the HBS data set have been imputed when they were missing for an individual. For individuals who did not contribute to, or who did not receive a pension from private pension funds, the corresponding variables have been imputed to 0.

### Detailed assessment

Indicators related to the coverage of private pensions, such as total active members as a % of the workforce and the breakdown of active members by socio-economic characteristics, cannot be calculated accurately using the HBS data set. Firstly, information is only available at the household level, and not at the individual level. Secondly, coverage defined as people having assets in a private pension plan cannot be calculated given the available information, as only households that contributed or for which contributions have been made during the year under review can be identified. If the proportion of pension plan members not making contributions is high, coverage as measured by households that contributed during the reference period would be underestimated.

Contributions to occupational and personal pension plans may not include all employer and employee contributions. Only one household reported PRSA contributions paid by the employer, without contributing itself during the period under review. As it is not compulsory for employers to contribute to their employees’ PRSA, this could be possible. As far as occupational pension plans are concerned, employers must contribute to occupational pension plans. However, only 19% of the households that personally contributed to an occupational pension plan during the year under review also declared employer contributions for the same period. This suggests that employer contributions have not been reported by all households that should have done so.

The indicators related to current pensioners and benefits received can only be calculated for occupational pension plans and at the level of the household. When a household declares receiving retirement pensions from a previous employment, it is not possible to determine exactly the number of beneficiaries within the household. In addition, pension benefits received from personal pension plans are not available.

### *Assessment of the Quarterly National Household Survey*

#### General assessment

The Quarterly National Household Survey (QNHS) could be used to calculate indicators on active members’ coverage, but other indicators on pensioners, contributions and benefits cannot be calculated using this survey. The information available is up-to-date, as the latest survey has been carried out in the fourth quarter of 2009. However, it allows calculating the coverage rate only for workers and not for the total labour force.

#### Overview

The QNHS is a large-scale, nationwide survey of households in Ireland. It is designed to produce quarterly labour force estimates that include the official measure of employment and unemployment in the state. The survey also conducts special modules on different social topics each quarter. Private pension information is collected in the “Pension provision” module once a year for a sub-sample of individuals interviewed in that quarter. Only employed people older than 18 and being interviewed directly can be part of that module. Last time the “Pension provision” module has been conducted was in the fourth quarter of 2009.

## Variables' definitions

Questions in the “Pension provision” module refer only to pension schemes which provide a lump sum and/or income for retirement. Respondents should not consider permanent health insurance, income continuance or disability benefit insurance, medical insurance, or life insurance. Social insurance contributions (Pay Related Social Insurance – PRSI) deductions should not be included either.

As regard occupational pension plans, employees which are members of the pension plan offered by their current employer can be identified (variable PENSION), as well as the type of plan they are enrolled into (variable PENSTYPE). Individuals can choose between type A and type B pensions. Type A pensions (defined contribution or money purchase plans) are defined as plans where the pension contributions are put into a fund, the value of which changes over time. The pension benefits depend on the size of the fund when the individual retires. Type B pensions (defined benefit plans) are defined as plans where the pension benefits are based on a formula involving age, years of service and salary.

Employed individuals are also asked whether they contribute to a personal pension scheme (variable PERSONAL). Respondents who do not have either an employer's or a personal pension plan are asked to provide the main reason why they do not have such plans (variable WHYNO). One of the options proposed is because they already have a pension plan from previous employment.

## Detailed assessment

Coverage in occupational and personal pension plans can be estimated using the QNHS, but only for employed individuals aged between 20 and 69 years. The “Pension provision” module is only asked to a sub-sample of respondents, who are working, aged 18 or over and being interviewed directly. In the publicly available data set, the sample is further restricted to individuals aged between 20 and 69 years. In addition, the age of the individuals is not directly available in the data set, only the age bracket to which individuals belong is available. As a consequence, it is not possible to calculate the coverage rate of private pension plans for the total labour force, but only with respect to total employment.

Coverage of occupational pension plans mainly refers to employees enrolled in the pension plan offered by their current employer. Part of the individuals that have a pension plan from previous employment can also be identified, but only in specific circumstances. Indeed, individuals that are not members of either a pension plan from their current employment or a personal pension plan are asked about the main reason for not having such plans. One of the options<sup>41</sup> proposed to the respondents is the possession of a pension plan from previous employment. As not all respondents have to answer to that question, the number of individuals having a pension plan from previous employment may be underestimated, and as a consequence, the coverage rate of occupational pension plans.

The QNHS is not useful to calculate indicators related to contributions or benefits, as no information of these topics is available in the survey.

## *Administrative data sets*

The Pensions Board, which is the Irish pensions regulator, publishes every year in its annual report the number of members of registered pension schemes (including occupational pension schemes, trust

---

41. Other possible options include: “Never got around to organising a pension”, “Don't understand pensions”, “Can't afford a pension”, “There is too much financial risk involved in pensions”, “No scheme available through work”, “Other sources will be adequate (including state pension, savings, etc.)”, “Spouse/partner has a good pension”, “Other sources offer a better return for my investment”.

Retirement Annuity Contracts and Personal Retirement Savings Accounts) by type of definition (*i.e.* DB vs. DC). This is the only administrative information on private pensions that could be identified.

### Conclusions

Combining information from the SILC multinational household survey data set and two national surveys (the QNHS and the HSB) allows for the calculation or partial estimation of the indicators for Ireland. The Irish component of the SILC survey allows identifying individuals that receive a regular pension from occupational and personal pension plans. The QNHS allows for the calculation of coverage indicators, but only with respect to total employment. Finally, the HBS can be used to calculate indicators related to private pension contributions, but the information is only available at the level of the household.

**Table 19. Possibility to calculate each indicator for Ireland using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Yes	SILC	Only individuals that received a regular pension from occupational and personal plans can be identified in the Irish component of the SILC dataset.
Active members as a % of the workforce	Yes	QNHS	The coverage rate can be calculated with respect to total employment, not with respect to the total labour force.
Pension members by type of status	No		
Active members by socio-economic characteristics	Yes	QNHS	
Active members by type of plans	Yes	QNHS	This information is only available for the pension plan offered by the current employer.
DB plans design	No		
Benefit as a % average wages by type of plans	Yes	SILC	Only regular pensions received by pensioners from occupational and personal plans can be identified in the Irish component of the SILC dataset.
Contributions in DC plans by type of plan	Partially	HBS	Information is only available at the level of the household.
Contributions in DC plans by socio-economic characteristics	Partially	HBS	Information is only available at the level of the household.
Accumulated savings in DC accounts	No		

### Italy

#### Household surveys

One household survey in Italy, the Survey on Household Income and Wealth, is publicly available and provides information that would allow calculating most of the indicators related to private pension coverage, contributions and benefits. The detailed assessment for this study is provided below.

#### Assessment of the Survey on Household Income and Wealth

##### General assessment

The Survey on Household Income and Wealth (SHIW) can be used to calculate indicators on coverage, contributions and benefits. Households having a pension fund or a retirement plan can be identified in the survey, as well as the member of the household which is holder of the fund/plan. The survey may however underestimate coverage. Information about the amount of employer and employee contributions and the type of plan in which contributions are being made is also available. Pensioners can be identified, as well as the amount of benefits received. Unfortunately, the use of the longitudinal feature may be limited as only few variables are comparable across surveys. In addition, missing values for contributions and assets avoid analysing the data on a complete data set, which limits the representativeness of the results for these two topics.

### Overview

The SHIW began in the 1960s with the aim of gathering data on the incomes and savings of Italian households. Over the years, the scope of the survey has grown and now includes wealth and other aspects of households' economic and financial behaviour. All individuals in the surveyed households are interviewed. The survey is conducted by the Bank of Italy every two years, the latest available data referring to 2008. The survey includes a longitudinal component.

### Variables' definitions

The SHIW includes variables collected at both the household and the pension plan level. At the household level, data related to private pension plans in which contributions are being made are collected. Pension benefit data are collected at the pension plan level.

The “employment and earnings” module of the questionnaire asks all payroll employees whether their severance pay fund (TFR) has been transferred to some form of supplementary pension scheme (pension fund or private retirement plan). This allows identifying (only partially) members of occupational pension plans (variable PREVCOM).

The “insurance policies and supplementary pension plans” module of the questionnaire provides information on whether any household member paid during the reference year into a “personal retirement plan or supplementary pension fund”. Pension funds or retirement plans are defined as plans that pay the holder an income when he/she becomes eligible for a state pension. For up to 5 potential pension plans, it is possible to know which member of the household is the holder of the pension plan (variables ASS2C1 to ASS2C5), what type of plan it is – personal / group, but paid entirely by the individual / group, but with employer's contribution – (variables ASS2G1 to ASS2G5), how much the employer contributed during the reference year (variables CONTRAZ1 to CONTRAZ5), how much the household contributed during the reference year (variables ASS2S1 to ASS2S5), and how much was the pension plan worth at the end of the reference year (variables ASS2K1 to ASS2K5).

A special annex for pensioners (B5) deals with pensions received in 2008. For each pension received, the questionnaire collects which body paid the pension (variable ENTEPEN) and how much the pensioner received monthly in pension benefits, net of tax, during the reference year (variable TPENS). Among the options for the body paying the pension is “Private Italian provider (pension fund, insurance company)”.

### Detailed assessment

The survey may underestimate private pension coverage. In a paper issued by the Bank of Italy (Capelletti, 2010), the authors found a coverage rate of private pension plans which is smaller when using the SHIW than when using administrative data sources. They propose several explanations for the difference observed (13% of employees enrolled in private pension plans as measured using the SHIW, as compared to 20% using administrative data sources). First, there is a known tendency in Italy for

interviewees not to provide information about their own wealth. Second, many private pension members have little knowledge about the private pension system. Third, the sample under-represents workers in economic sectors where the coverage rate of private pensions is higher than the average (for instance, employees in large firms). This could explain why the survey underestimates private pension coverage. It should also be considered that administrative data may suffer from multiple counting issues, which would overestimate coverage.

While indicators related to pension contributions can be calculated with a breakdown by type of plans, this is not possible for indicators related to pension benefits. On the one hand, contributions paid by both the household and the employer are available for up to 5 plans, for which the type (occupational or personal) is known. However, the distinction between DB and DC plans is not available. On the other hand, individuals receiving private pension benefits can be identified, as well as the amount they receive monthly, but the type of pension plan is not available.

Missing values for the variables measuring contributions and assets may bias upwards the calculation of the related indicators. Indeed, 36.4% of the individuals identified as being pension plan members did not provide any information about contributions to and assets accumulated in their plan. These individuals are more often employees (as opposed to self-employed and unemployed) and have lower average individual income than members providing the information. This suggests that higher income individuals, which usually also have a higher level of education, have a better knowledge of the private pension system which allows them to answer to detailed questions about contributions and assets. As there is often a positive correlation between income, contributions and assets accumulated, the calculation of the indicators based on responding individuals may overestimate average contribution and assets levels.

The proportion of individuals having a long longitudinal history is limited. The longitudinal component of the survey only concerned 55% of the individuals surveyed in 2008. Less than 10% of the individuals had been already interviewed more than 5 times and as much as 14% of them had already been interviewed once and 13% twice.

Changes over the years in the SHIW questionnaire may limit the use of the longitudinal feature of the survey. These changes made it necessary to standardise the main variables to allow comparisons across years. Therefore, only household pension contributions (for all plans together) and pensions benefits paid by pension funds and insurance companies are available in the historical data set. Contributions are available for all surveys since 1977, while benefits are available since 1989.

#### *Administrative data sets*

The Pension Fund Supervision Commission (COVIP) manages an administrative data set that can be accessed by the OECD and used to calculate some of the indicators on coverage, contributions and benefits. The data set cannot be accessed directly, but as COVIP is a member of the OECD WPPP, the OECD can ask for the data.

The COVIP data set covers the whole private pension system in Italy, composed of pension funds, book reserve plans and individual plans provided through insurance contracts. For each type of financing vehicle, the number of members is available. These figures are net of multiple counting, as the data take into account the fact that members can choose to join one or more than one plan within the same pension fund. However, multiple counting may also come from the fact that people can simultaneously join more than one pension fund / financing vehicle. As the private pension system is still relatively young though, this source of multiple counting should be negligible. In addition, the COVIP data set also provides data on the number of passive members. Unfortunately, only individuals receiving regular pensions are taken into account, while each year, around 80% of the benefits paid by pension funds are in the form of a lump sum.

Finally, the data set provides contributions and benefits by type of plans (DB vs. DC and occupational vs. personal). Data are updated yearly.

### *Conclusions*

Both the household survey SHIW and the COVIP administrative data set can be used to calculate the indicators for Italy. Breakdowns of contributions and benefits by type of plans (occupational versus personal, DB versus DC) can be calculated using the COVIP data set. When breakdowns of coverage and contributions by socio-economic characteristics have to be calculated, the SHIW should be used. The COVIP data set provides a more accurate measure of the coverage rate (see Table 20).

**Table 20. Possibility to calculate each indicator for Italy using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Yes	SHIW	
Active members as a % of the workforce	Yes	COVIP	Multiple counting issues should be negligible.
Pension members by type of status	No		
Active members by socio-economic characteristics	Yes	COVIP / SHIW	COVIP: by gender only.
Active members by type of plans	Yes	COVIP	
DB plans design	No		
Benefit as a % average wages by type of plans	Yes	COVIP	
Contributions in DC plans by type of plan	Yes	COVIP	
Contributions in DC plans by socio-economic characteristics	Partially	SHIW	Contributions cannot be distinguished between DB and DC plans.
Accumulated savings in DC accounts	Yes	COVIP	

## *Latvia*

### *Household surveys*

No national household survey including information about funded pension plans has been identified for Latvia.

### *Administrative data sets*

The Financial and Capital Market Commission (FKTK) provides publicly available quarterly statistics that could be used to calculate some of the indicators on coverage, contributions and benefits. The FKTK is an autonomous public institution, which carries out the supervision of Latvian banks, insurance companies and insurance brokerage companies, participants of financial instruments market, as well as private pension funds. Both mandatory and voluntary pension funds are covered. The number of pensioners and the amount they receive is only available for voluntary pension funds, as the mandatory system will start paying benefits in 2014. In addition, the number of active members in both systems and the amount of contributions paid in the voluntary system (by both the employee and the employer) are also available.

## Conclusions

Using data available in the FKTK's data set, it is possible to estimate most of the indicators for Latvia, as shown in Table 21. However, limited information is available as regards socio-economic characteristics of pension plan members (the only breakdown available is by gender). Additionally, it is not possible to calculate the coverage rate taking into account both the mandatory and the voluntary pension funds as some individuals may be covered by both systems.

**Table 21. Possibility to calculate each indicator for Latvia using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Yes	FKTK	Only relevant for voluntary pension plans.
Active members as a % of the workforce	Partially	FKTK	Multiple counting issues if values from the mandatory and voluntary pension funds are added together.
Pension members by type of status	Yes	FKTK	Only relevant for voluntary pension plans.
Active members by socio-economic characteristics	Partially	FKTK	The breakdown of total members by gender is available.
Active members by type of plans	No		
DB plans design	No		
Benefit as a % average wages by type of plans	Yes	FKTK	Only relevant for voluntary pension plans.
Contributions in DC plans by type of plan	Yes	FKTK	
Contributions in DC plans by socio-economic characteristics	No		
Accumulated savings in DC accounts	No		

## Lithuania

### Household surveys

No national household survey including information about funded pension plans has been identified for Lithuania.

### Administrative data sets

The Securities Commission of the Republic of Lithuania (SCRL) supervises management companies offering 2<sup>nd</sup> and 3<sup>rd</sup> pillar pensions and publishes in its annual report the number of members in both pillars. As individuals can be members of 2<sup>nd</sup> pillar and 3<sup>rd</sup> pillar pension funds, there could be multiple counting issues when adding values from the two systems. This is the only publicly available information.

## Conclusions

The SILC multinational household survey could be used as a complement to the administrative information available to SCRL to calculate or partially estimate some of the indicators for Lithuania. The total coverage can be calculated using data from the SCRL for 2<sup>nd</sup> and 3<sup>rd</sup> pillar pension funds separately. The SILC data set can only be used to calculate coverage and contribution indicators for 3<sup>rd</sup> pillar pension funds.

**Table 22. Possibility to calculate each indicator for Lithuania using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	No		
Active members as a % of the workforce	Partially	SCRL	Multiple counting issues if values from the 2nd and 3rd pillar pension funds are added together.
Pension members by type of status	No		
Active members by socio-economic characteristics	Partially	SILC	Only individuals that personally contributed to a 3rd pillar pension fund can be identified in the SILC dataset.
Active members by type of plans	Not applicable		Only voluntary DC plans in Lithuania.
DB plans design	Not applicable		Only DC plans in Lithuania.
Benefit as a % average wages by type of plans	No		
Contributions in DC plans by type of plan	Partially	SILC	The SILC dataset can only provide individual contributions in 3rd pillar pension plans.
Contributions in DC plans by socio-economic characteristics	Partially	SILC	Only individuals that personally contributed to a 3rd pillar pension plan can be identified in the SILC dataset.
Accumulated savings in DC accounts	No		

## **Luxembourg**

### *Household surveys*

No national household survey including information about funded pension plans has been identified for Luxembourg.

### *Administrative data sets*

Data collected by the *Commission de Surveillance du Secteur Financier* (CSSF) and by the *Commissariat aux Assurances* (CA) can be accessed by the OECD and used to calculate some of the indicators of pension coverage, contributions and benefits. These data sets cannot be accessed directly, but as both the CSSF and the CA are members of the OECD WPPP, the OECD can ask for the data.

The CSSF and the CA supervise occupational pension plans financed via pension funds, ASSEPs (retirement savings entities) and SEPCAVs (pension savings companies with variable capital). They provide yearly statistics on membership by status, total contributions and total benefits. This information can be broken down by type of plan (DB vs. DC). Membership data are not corrected for potential multiple counting issues.

The *Inspection Générale de la Sécurité Sociale* (IGSS) has recently developed the computer program PenCom which has a database that allows for the establishment and publishing of statistics on second pillar pensions in Luxembourg as required by law. The IGSS has amongst its tasks the registration and control of all supplementary pension schemes in Luxembourg. It requests pension schemes managers to provide, in a specified format, specific data for each affiliate and for each scheme. These data are entered in PenCom, a piece of software designed to audit supplementary pensions and check their actuarial compliance with the law of June 8, 1999. The IGSS is still in the process of registering all supplementary

pension schemes. Up until July 2011, the IGSS had registered 2,021 companies managing 6,829 pension plans covering an estimated figure of 86,000 employees. Out of these 6,829 plans, only 72 are pension funds supervised by the CA or CSSF. The national statistical requirements for the PenCom database are sufficient to calculate the indicators on coverage, contributions and benefits, with precise information available from 2013.

### Conclusions

For the moment (*i.e.* until the end of the registration process in the PenCom database), only a partial estimation of the indicators can be obtained for Luxembourg using available administrative information from the CA and the CSSF as well as survey information from the SILC data set. While the CA and the CSSF provide information on occupational pension plans, the SILC data set can be used to have information on personal pension plans. However, the total coverage of the whole private pension system cannot be calculated.

**Table 23. Possibility to calculate each indicator for Luxembourg using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Partially	CSSF / CA	These datasets only cover occupational pension plans.
Active members as a % of the workforce	Partially	CSSF / CA / SILC	Multiple counting issues if values from the occupational and personal pension plans are added together.
Pension members by type of status	Partially	CSSF / CA	These datasets only cover occupational pension plans.
Active members by socio-economic characteristics	Partially	SILC	Only individuals that personally contributed to a personal pension plan can be identified in the SILC dataset.
Active members by type of plans	Partially	CSSF / CA	These datasets only cover occupational pension plans.
DB plans design	No		
Benefit as a % average wages by type of plans	Partially	CSSF / CA	These datasets only cover occupational pension plans.
Contributions in DC plans by type of plan	Partially	SILC	The SILC dataset can only provide individual contributions in personal pension plans.
Contributions in DC plans by socio-economic characteristics	Partially	SILC	Only individuals that personally contributed to a personal pension plan can be identified in the SILC dataset.
Accumulated savings in DC accounts	No		

### Malta

#### Household surveys

A single household survey has been identified for Malta that could be used to estimate active members' coverage (but not the other indicators related to contributions and benefits) and for which the results are published on the National Statistical Office's (NSO) website. This survey, called "Perception on Retirement and Pension" has been conducted in 2005. Individuals not yet retired are asked whether they are currently paying for life insurance and/or private pension for personal cover. The information cannot be split into life insurance and private pension, but the breakdown by age and educational level is available. The data set is not publicly available, but the results can be downloaded from the NSO's website.

### Administrative data sets

No national administrative data set including information about funded pension plans has been identified for Malta. The Occupational Pensions Regulator, within the Ministry of Labour and Social Insurance, is currently in a transition phase with regards to the registration of all occupational pension schemes. It is expected that this task will be completed by the end of 2011. Some statistics about occupational pension plans should be available afterwards.

### Conclusions

Very little information about private pension plans is available for Malta. The unique source of information is the survey conducted by the NSO in 2005. The data set is not publicly available, but published results could be used to estimate the level of coverage of life insurance and private pension plans together.

**Table 24. Possibility to calculate each indicator for Malta using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	No		
Active members as a % of the workforce	Partially	NSO	Data also include individuals contributing to life insurance plans.
Pension members by type of status	No		
Active members by socio-economic characteristics	Partially	NSO	The breakdown by age and educational level is available.
Active members by type of plans	No		
DB plans design	No		
Benefit as a % average wages by type of plans	No		
Contributions in DC plans by type of plan	No		
Contributions in DC plans by socio-economic characteristics	No		
Accumulated savings in DC accounts	No		

### Netherlands

#### Household surveys

Three Dutch household surveys could be used to calculate indicators on coverage and benefits, two of them being publicly available. These are the DNB Household Survey (DHS), the Longitudinal Internet Studies for the Social sciences (LISS) panel, and the “*Pensioen kijker*” survey. Both the DHS and the LISS panel are publicly available and their detailed assessment is provided below. Data for the “*Pensioen kijker*” survey are not publicly available.

No detailed information could be found regarding the “*Pensioen kijker*” survey therefore, it is difficult to know whether it could be useful to calculate the selected indicators. This is a monthly rotating panel, with a rotation time of three months, providing with a random sample of the Dutch population of age 25 and older. The survey asks questions on the respondents’ personal retirement situations and on the

confidence they have in the Dutch pension system in general. Data were collected between August 2006 and June 2009.

### *Assessment of the DNB Household Survey*

#### General assessment

The DNB Household Survey (DHS) can be used to calculate most of the indicators on private pension coverage, contributions and benefits, however the design of the survey may produce biased analyses for private pension recipients. The data collected through this survey can be used to calculate all selected indicators, except the level of assets accumulated in DC pension plans. Individuals who are entitled to a retirement pension through their current work, or have pension rights in pension funds from which they may receive an overview can be identified as well as individuals who have annuity insurance. The DHS also provides information about the design of occupational DB plans. Only individuals' contributions to personal pension plans are available. People receiving pension payments from occupational and personal pension plans can also be identified, as well as the gross amounts received yearly from these plans. However, the elderly in the DHS are not a representative sample of the Dutch elderly population as elderly with a lower educational level are less likely to participate in a computer based panel and more likely to drop out. The average level of benefits received from private pension plans may therefore be overestimated when using the DHS data.

#### Overview

The DHS is a panel survey launched in 1993 that includes information on work, pensions, housing, mortgages, income, assets, loans, health, economic and psychological concepts, and personal characteristics. Data are collected yearly from 2,000 households participating in the CentERpanel. The CentERpanel is an Internet panel that reflects the composition of the Dutch-speaking population. Within each household, all persons aged 16 or over are interviewed. The latest available information refers to 2010.

#### Variables' definitions

In the "Work" module of the survey, respondents are asked whether they are entitled to a retirement pension (apart from the social security system) through their work. This information is collected through two different variables, for individuals having shares in the private limited company they work for (RPENSBV) and for other working individuals (WPENS). All respondents are also asked whether their pension funds sent them an overview of their pension rights in 2009 (variable WS031) and whether there are other pension funds where they have pension rights, but from which they did not receive an overview in 2009 (variable WS033). Apart from the pension built up through the employer, respondents may have made other arrangements for their pension, through annuities for instance (variable DNB911).

In the same module, members of occupational pension plans are asked how their pension is built up (variable DNB88). It can be based on the final pay, on the average pay earned during the individual's working career, correspond to an available premium or being built otherwise. A pension plan can also include an arrangement for correcting the pension that can be claimed and/or the pension that is actually being paid according to a price-index and/or to a salary-index. Pensions that are corrected in this way are called indexed to inflation. It is then possible to know whether the future pension the occupational pension plan member will receive will be indexed to inflation (variable INDEX) and whether the pension will be adjusted to a price index, a salary index or a combination of both (variable INDEXA).

In the "Assets and Liabilities" module of the survey, individuals that took out, in or before 2009, single-premium insurance and/or annuity insurance (pension insurance) that was still in effect on 31

December 2009 can also be identified (variable BZ07). The definition provided in the questionnaire for annuity insurance is the following: “By taking out annuity insurance the insured is entitled to periodic payments, the so-called annuity. The annuity is paid out periodically (for example annually) as of a certain date until the time of death of the insured. Pension insurance is a specific type of annuity insurance. Single-premium insurance is also a specific type of annuity insurance, which involves (as the name indicates) a one-time premium. Other types of annuity insurance involve periodical (for example annual) premium payments. Under certain conditions, these premium payments are income tax deductible.” Annuity insurance taken out by using money from an employer-sponsored savings plan, and pension arrangements provided by the employer or professional pension plans are not included in this variable. The amount paid in up to 10 insurance policies or annuities, in the form of periodic payments or single deposit, is also available (variables KOO1001 to KOO1010 for up to 10 plans).

The DHS finally allows identifying individuals born before 1958 who received in 2009 an annuity (variable IP24) or a pension other than the early retirement pension or the general old-age pension (variable IP23). The gross amount received from each of these two sources in 2009 is also provided (variables IP44 and IP43 respectively).

#### Detailed assessment

The DHS is a very valuable survey to assess coverage of private pension plans. It allows identifying individuals entitled to a retirement pension through their current work and individuals who may not be working anymore but kept pension rights in a pension fund. In addition, individuals having annuity insurance can also be identified, even though not all annuity insurance contracts may be with a pension focus.

The survey also provides interesting information on the design of DB pension plans and reveals that a large proportion of members have little knowledge on the type of plan they are enrolled into. Two types of information can be retrieved from this survey for occupational pension plan members: which formula will be used to calculate benefits and whether the pension will be indexed. However, 26.8% of plan members do not know how their pension will be calculated and more than 40% do not know whether their pension will be indexed to inflation or not.

The survey does not take into account all types of contributions. Contributions to occupational pension plans are not collected. Only individuals' contributions to annuity insurance contracts are available, and all these contracts may not have a pension focus.

The calculation of indicators related to pensioners and benefits may be biased when using the DHS survey. Indeed, the elderly in the DHS are not a representative sample of the Dutch elderly population. On average, the elderly in the DHS have a higher educational level (and especially the private pension recipients)<sup>42</sup> and are therefore more likely to receive higher pensions. The reason for this could be due to the design of the survey, as elderly with a lower educational level are less likely to participate in a computer based panel and more likely to drop out.

---

42. In the DHS sample, 58.1% of private pension recipients aged 65 and older have a high educational level (pre-university degree, vocational college or university degree), as compared to 36.0% for all individuals aged 65 and older.

## *Assessment of the Longitudinal Internet Studies for the Social sciences panel*

### General assessment

The Longitudinal Internet Studies for the Social sciences (LISS) panel has information on occupational pension coverage. It cannot be used to calculate indicators on total coverage (both occupational and personal pensions), contributions and benefits.

### Overview

The LISS panel is the core element of a project entitled Measurement and Experimentation in the Social Sciences (MESS). It consists of 5,000 households, comprising 8,000 individuals. The panel is based on a true probability sample of households drawn from the population register by Statistics Netherlands. It is based on online questionnaires, filled in by panel members every month. Households that could not otherwise participate are provided with a computer and Internet connection. The “Work and Schooling” module of the core study includes questions related to occupational pension plans and is asked to the panel every year. Latest available data refer to 2010.

### Variables’ definitions

Respondents younger than 70 are advised to keep at hand the overviews that they may have of pension funds and/or insurers to reply to the questions related to pensions. They are first asked whether they received an overview from a pension fund (or overviews from more than one pension fund) in 2009 or 2010 (variable CW10C146). It is specified to the respondents that the pension fund overview for 2009 refers to the situation of 31 December 2008 and that the overview of 2010 refers to the situation of 31 December 2009. Overviews of a pension fund or pension insurer arranged through the respondent’s (former) employer are considered, as well as professional pension schemes and pension provision arranged with an insurer through the respondent’s (former) employer. In addition, privately arranged insurances, single-premium insurance policies, bank savings scheme and private disability insurances are not taken into account.

Respondents are also asked whether they have accumulated pension rights at other pension funds or pension insurers in the past, from which they did not receive a pension overview in 2009 to 2010 (variable CW10C188). However, respondents who only started accumulating pension rights from 2010 should reply negatively. Moreover, working respondents can provide the name of the pension funds or pension insurers with which they had an arrangement in 2009 (variables CW10C234 to CW10C287 for up to 52 listed pension funds and pension insurers).

### Detailed assessment

The LISS panel can only be used to calculate coverage of occupational pension plans. The questionnaire does not cover indeed coverage in personal pension plans nor contributions and benefits levels.

Coverage of occupational plans may be slightly underestimated however. Indeed, individuals who just started accumulating pension rights from 2010 are not included and respondents are not directly asked whether they are entitled to a retirement pension through their current work, which would tend to underestimate occupational pension coverage using the LISS data set.

### *Administrative data sets*

The Dutch national bank (*De Nederlandsche Bank*, DNB) provides information on its website that could be used to calculate some of the indicators related to coverage and benefits. All Dutch pension funds are supervised by DNB and must, therefore, periodically report a variety of data to DNB through so-termed pension statements. These pension statements comprise financial information but also data on pension fund membership and type of pension scheme (yearly). More specifically, collected information include, the number of pensioners, the number of active members (by age and gender, and by type of plan), the number of deferred members, the level of contributions paid by active members and employers, and the level of benefits received by pensioners.

Multiple counting issues are important in DNB data. Multiple counting may not originate from individuals being members of more than one plan or fund at the same time, but rather from individuals who change employers one after the other, leave the pension rights in the old plan (deferred member) and become members of a new plan (active member). Likewise there are beneficiaries who receive benefits from more than one plan. A survey on tax revenue data coupled with pension fund data, both related to the year 2004, revealed that 2.295 million benefits were received by 1.903 million unique persons. This results in a multiple counting factor of 1.21. This factor is most probably a minimum and valid for pensioners only. The actual multiple counting factor is probably higher.

Statistics Netherlands conducts two surveys having information on private pensions, which data are not publicly available: the Income Panel Survey (*Inkomens Panel Onderzoek*, IPO) and the survey on Pension Entitlements (*Pensioenaanspraken*, PA). The Income Panel Survey is a representative sample of the Dutch population and consists of an administrative panel data set of, on average, about 95,000 individuals per year. Sampling is based on individuals' national security numbers, and the selected individuals are followed for as long as they are residing in the Netherlands on December 31 of the sample year. An individual only exits the panel by death or emigration from the Netherlands. It includes data on the demographic characteristics, income and labour market status for each member of a selected individual's household. Information on all income components at an individual level is based primarily on records from the tax office and institutions that pay out (insurance) benefits. Data are collected yearly and cover the period 1989 to 2009. The survey on Pension Entitlements is a census of pension funds and pension insurers providing information on 1<sup>st</sup> and 2<sup>nd</sup> pillar pension entitlements for individuals aged between 15 and 65 years old. Data are collected yearly and cover the period 2005 to 2008.

### *Conclusions*

Most of the indicators could be calculated or partially estimated for the Netherlands using primarily the DHS. As the elderly in the DHS do not represent a representative sample of the Dutch elderly population however, the SHARE survey can be used instead to calculate indicators related to pensioners and benefits (see Table 25).

**Table 25. Possibility to calculate each indicator for the Netherlands using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Yes	SHARE	Data refer to 2006 only.
Active members as a % of the workforce	Yes	DHS	
Pension members by type of status	No		The DHS allows distinguishing between active and deferred members, but may not identify correctly passive members.
Active members by socio-economic characteristics	Yes	DHS	
Active members by type of plans	Yes	DHS	
DB plans design	Yes	DHS	
Benefit as a % average wages by type of plans	Yes	SHARE	Data refer to 2006 only.
Contributions in DC plans by type of plan	Partially	DHS	The DHS only provides individuals' contributions to personal pension plans.
Contributions in DC plans by socio-economic characteristics	Partially	DHS	The DHS only provides individuals' contributions to personal pension plans.
Accumulated savings in DC accounts	No		

## ***Poland***

### *Household surveys*

No national household survey including information about funded pension plans has been identified for Poland.

### *Administrative data sets*

The Polish Financial Supervisory Authority (PFSA) displays pension fund statistics on its website that could be used to calculate indicators on pension coverage, contributions and benefits. The PFSA is the supervisory authority for mandatory personal pension funds (open pension funds, called OFEs) and voluntary occupational pension plans (employee pension plans, called PPEs). The voluntary occupational pension plans may be managed by investment funds, life insurance companies, or specially established employee pension funds (PFEs). Statistics from the PFSA do not cover voluntary personal pension plans (IKEs). Data updates are different for OFEs (monthly), PFEs (quarterly) and PPEs (yearly).

For both OFEs and PPEs, data for total members and total contributions are available. The breakdown of members by age and gender is only available for OFEs, as well as the benefits paid to pensioners.

### *Conclusions*

Combining information from the SILC multinational household survey data set and the administrative PFSA data set allows for the calculation or partial estimation of some of the indicators for Poland. The SILC can be used to get data on individuals contributing to voluntary personal pension plans (IKEs), while the PFSA data set provides information for mandatory personal pension plans and voluntary occupational pension plans. The total coverage of the whole private pension system cannot be calculated however, as multiple counting issues arise when trying to mix both data sources.

**Table 26. Possibility to calculate each indicator for Poland using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	No		
Active members as a % of the workforce	Partially	PFSA / SILC	Multiple counting issues if values from the occupational and personal pension plans are added together.
Pension members by type of status	No		
Active members by socio-economic characteristics	Partially	PFSA / SILC	By age and gender for OFEs in the PFSA's dataset, by multiple characteristics for IKEs in the SILC dataset.
Active members by type of plans	Yes	PFSA / SILC	
DB plans design	Not applicable		Only DC pension plans in Poland.
Benefit as a % average wages by type of plans	Partially	PFSA	Only for OFEs.
Contributions in DC plans by type of plan	Yes	PFSA / SILC	
Contributions in DC plans by socio-economic characteristics	Partially	SILC	Only individuals that personally contributed to IKEs can be identified in the SILC dataset.
Accumulated savings in DC accounts	No		

## **Portugal**

### *Household surveys*

It is difficult to assess accurately whether existing Portuguese household surveys would permit estimating indicators on coverage, contributions and benefits, as none of them is publicly available. Two household surveys have been identified: the household wealth and indebtedness survey and the Household Budget Survey.

Little information is available for the household wealth and indebtedness survey. It was launched in 1994 to collect data on the distribution of income and wealth of Portuguese households. In its latest issue, in 2006-07, it was linked to the Household Budget Survey. Hence, the possibility was kept to link, at the microeconomic level, data on household wealth and debt to data on their income and other socio-economic and demographic characteristics. As the questionnaire and the data are not publicly available, it is not possible to assess further to what extent this survey would allow calculating the selected private pensions' indicators.

The Household Budget Survey would only permit to estimate the level of benefits received by pensioners from private pension plans, but would not be useful to calculate indicators on coverage and contributions. The last survey was carried out by Statistics Portugal between October 2005 and October 2006, with the aim of estimating indicators on income distribution and on the level and structure of expenditures of the private households residing in Portugal, and about its well-being. Amounts received the previous year by private pensions are collected at the household level.

### Administrative data sets

The Insurance and Pension Funds' Supervisory Authority (ISP) displays quarterly pension fund statistics on its website that could be used to calculate indicators on pension coverage, contributions and benefits. ISP is the supervisory authority for closed pension funds, open pension funds, and personal retirement saving funds established as pension funds. Available statistics include the number of pensioners, the number of participants (by type of plan and by gender), total pensions received by pensioners (by type of plan) and total contributions paid by the participants (by type of plan).

Membership data include a multiple counting factor. Indeed, some occupational pension plan members are also members of one or more personal pension plans, as a mean of complementing future pension benefits and also because those plans contribute to reduce the personal income tax. Another reason for multiple counting is when an occupational pension plan is financed by a defined contribution and a defined benefit plan.

### Conclusions

To calculate most of the indicators for Portugal, information from the multinational household survey SILC and the ISP administrative data set could be combined (see Table 27). Unfortunately, only individuals that personally contributed to a personal pension plan can be identified in the SILC data set and the multiple counting issues in the ISP data set prevents from using it for the estimation of private pensions' coverage. The breakdown of contributions and benefits by type of plan can be calculated using the ISP data set.

**Table 27. Possibility to calculate each indicator for Portugal using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Partially	SILC / ISP	Only individuals that received a regular pension from a personal pension plan can be identified in the SILC dataset.
Active members as a % of the workforce	Partially	SILC	Only individuals that personally contributed to a personal pension plan can be identified in the SILC dataset.
Pension members by type of status	Yes	ISP	
Active members by socio-economic characteristics	Partially	SILC	Only individuals that personally contributed to a personal pension plan can be identified in the SILC dataset.
Active members by type of plans	Yes	ISP	
DB plans design	No		
Benefit as a % average wages by type of plans	Yes	ISP	
Contributions in DC plans by type of plan	Yes	ISP	
Contributions in DC plans by socio-economic characteristics	Partially	SILC	Only individuals that personally contributed to a personal pension plan can be identified in the SILC dataset.
Accumulated savings in DC accounts	No		

## Romania

### Household surveys

No national household survey including information about funded pension plans has been identified for Romania.

### Administrative data sets

Statistics provided by the Private Pension System Supervision Commission (CSSPP) can be used to calculate indicators related to pension coverage and contributions. The CSSPP is the specialised and autonomous public authority dedicated to inspecting and regulating the functioning of the private pension system. Monthly statistics for mandatory and voluntary pension funds are displayed on the CSSPP's website. As the system is still in its accumulation phase, there are no pensioners yet. The number of participants is provided by type (mandatory vs. voluntary) as well as by age and gender. Individuals can only belong to one mandatory private pension fund and only have one individual account at the same time therefore membership data for the mandatory system are net of multiple counting. However, as individuals may also contribute to a voluntary pension fund, adding membership data from both systems may create multiple counting. Monthly contributions in mandatory pension funds are also available (but not those in voluntary pension funds).

### Conclusions

The CSSPP's data set can be used to calculate most of the indicators for Romania. However, a coverage rate for the whole private pension system (*i.e.* for both the mandatory and voluntary systems) cannot be calculated net of multiple counting.

**Table 28. Possibility to calculate each indicator for Romania using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Not applicable		No pensioners yet.
Active members as a % of the workforce	Partially	CSSPP	Multiple counting issues if values from the mandatory and voluntary pension funds are added together.
Pension members by type of status	No		
Active members by socio-economic characteristics	Yes	CSSPP	Breakdowns by age and gender are available.
Active members by type of plans	Yes	CSSPP	
DB plans design	Not applicable		Only DC plans in Romania.
Benefit as a % average wages by type of plans	Not applicable		No pensioners yet.
Contributions in DC plans by type of plan	Partially	CSSPP	Only contributions to mandatory pension funds are available.
Contributions in DC plans by socio-economic characteristics	No		
Accumulated savings in DC accounts	No		

## *Slovak Republic*

### *Household surveys*

No national household survey including information about funded pension plans has been identified for Slovak Republic.

### *Administrative data sets*

Statistics provided by the National Bank of Slovakia (NBS) can partially be used to calculate indicators related to pension coverage and contributions. Pension savings financial services in Slovak Republic are provided by two types of privately held pension companies - Pension Savings Companies (mandatory personal) and Supplementary Pension Asset Management Companies (voluntary personal), both under the supervision of the NBS. Selected quarterly statistics are displayed on the NBS's website, but the OECD can access to more data thanks to NBS participation in the OECD WPPP. As the mandatory system is still in its accumulation phase, there are no pensioners in the mandatory system yet (individuals must have at least 15 years of contributions before receiving a pension). As far as the voluntary system is concerned, benefits paid to pensioners are not available, as well as the number of pensioners. The NBS can provide total membership and total contributions (by type of plan).

### *Conclusions*

Combining information from the SILC multinational household survey data set and the administrative NBS data set allows for the calculation or partial estimation of most of the indicators for the Slovak Republic. As the NBS does not provide any information broken down by socio-economic characteristics, the SILC survey can be used instead, but only individuals contributing to voluntary pension funds can be identified in this data set. Additionally, the unique source for indicators related to pensioners and benefits is also the SILC, but only regular pensions are taken into account (not lump sums).

**Table 29. Possibility to calculate each indicator for Slovak Republic using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Partially	SILC	Only individuals that received a regular pension from a voluntary pension fund can be identified in the SILC dataset.
Active members as a % of the workforce	Partially	NBS	Multiple counting issues if values from the mandatory and voluntary pension funds are added together.
Pension members by type of status	No		
Active members by socio-economic characteristics	Partially	SILC	Only individuals that personally contributed to a voluntary pension fund can be identified in the SILC dataset.
Active members by type of plans	Yes	NBS	
DB plans design	Not applicable		Only DC plans in Slovak Republic.
Benefit as a % average wages by type of plans	Partially	SILC	Only regular pensions received by pensioners from a voluntary pension fund can be identified in the SILC dataset.
Contributions in DC plans by type of plan	Yes	NBS	
Contributions in DC plans by socio-economic characteristics	Partially	SILC	Only individuals that personally contributed to a voluntary pension fund can be identified in the SILC dataset.
Accumulated savings in DC accounts	No		

## *Slovenia*

### *Household Surveys*

No national household survey including information about funded pension plans has been identified for Slovenia.

### *Administrative data sets*

Two administrative data sets have been identified for Slovenia and can be accessed by the OECD to calculate some of the indicators related to coverage, contributions and benefits. The Securities Market Agency (SMA) supervises mutual pension funds, while the Insurance Supervision Agency (ISA) supervises pension and insurance companies. Both agencies provide statistics on the number of participants, number of pensioners (only for pension and insurance companies, as mutual pension funds do not pay benefits yet), total contributions and total benefits. Both data sets cannot be accessed directly, but as they are members of the OECD WPPP, the OECD can ask for the data. The SMA data set is updated monthly, while the ISA's is updated yearly.

### *Preliminary conclusions*

To calculate or estimate most of the indicators for Slovenia, information from multinational household surveys (SILC and LIS) and administrative data sets (SMA and ISA) could be used (see Table 30). While members of personal pension plans (only those contributing) can be identified using the SILC survey, members of occupational pension plans can be identified using the LIS survey. However, it is not possible to mix both sources to estimate a coverage rate for the whole Slovenian private pension system.

Administrative data sets can be used mostly to calculate indicators that break down the information by type of plans, such as active members and contributions.

**Table 30. Possibility to calculate each indicator for Slovenia using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Partially	SILC / LIS	Multiple counting issues if values from the occupational (LIS) and personal (SILC) pension plans are added together.
Active members as a % of the workforce	Partially	SILC	Only individuals that personally contributed to a personal pension plan can be identified in the SILC dataset.
Pension members by type of status	Yes	SMA / ISA	
Active members by socio-economic characteristics	Partially	SILC	Only individuals that personally contributed to a personal pension plan can be identified in the SILC dataset.
Active members by type of plans	Yes	SMA / ISA	
DB plans design	Not applicable		Only DC plans in Slovenia.
Benefit as a % average wages by type of plans	Yes	SILC / LIS	Only individuals that received a pension from an occupational (LIS) or personal (SILC) pension plan can be identified.
Contributions in DC plans by type of plan	Yes	SMA / ISA	
Contributions in DC plans by socio-economic characteristics	Partially	SILC	Only individuals that personally contributed to a personal pension plan can be identified in the SILC dataset.
Accumulated savings in DC accounts	No		

## *Spain*

### *Household surveys*

The only publicly available household survey that could be identified for Spain is the Survey of Household Finances. Its detailed assessment is provided below.

### *Assessment of the Survey of Household Finances*

#### Preliminary general assessment

The Survey of Household Finances (EFF by its Spanish acronym) can be used to calculate indicators of private pension coverage, contributions, benefits and assets, the only indicator that cannot be calculated using the EFF is related to the design of DB plans. All individuals over the age of 16 are asked whether they receive pension benefits and what is the monthly amount of the pension. In addition, for up to 10 plans in each household, it is possible to know who is the holder of the plan, what is the type of the plan, what is the amount of annual contributions (from both individuals and employers), and what is the value of the investment in the plan. However, as many individuals have limited knowledge about whether they have a private pension, the survey may suffer from under-reporting bias and therefore underestimate private pension coverage. Moreover, latest available data only refer to 2005/06.

## Overview

The EFF is a panel survey launched in 2002 and conducted every three years which allows assessing income, assets, debt and spending of each household unit. The sample over-represents the wealthiest households to have a better measure of households' wealth in Spain, since it is well-known that the distribution of wealth is heavily skewed and some types of asset are only held by a small fraction of the population. The questions on assets and debt (including questions on pension plans) refer to the household as a whole, while those on labour market status and related income are for each household member over the age of 16. This survey can be used to calculate all indicators except the design of DB plans. The latest survey has been conducted in 2008, but latest available data refer to the 2005 survey, which has been conducted between November 2005 and May 2006.

## Variables' definitions

The section on "Insurance policies and pension schemes" allows identifying households where at least one of the members participates in a pension scheme. For up to 10 pension plans per household, it is possible to know which household member participates in the plan (variables P.5.5b.1 to P.5.5b.10 for up to 10 plans). The plan holder can be the reference person of the household, the reference person and the partner, the partner of the reference person alone, one of the children of the reference person and/or of the partner, one of the parents of the reference person or of the partner, brothers or sisters of the reference person or of the partner, or someone else.

For these pension plans, it is also possible to know whether the plan is a personal scheme, an occupational scheme, an associate scheme, a mutual insurance, or a retirement insurance taken out directly with an insurance company (variables P.5.2.1 to P.5.2.10 for up to 10 plans). The respondent can also provide the annual level of contributions of the household to the plan (variables P.5.6.1 to P.5.6.10 for up to 10 plans), the annual level of contributions of the employer to the plan (variables P.5.6a.1 to P.5.6a.10 for up to 10 plans) in case of an occupational scheme, and the present value of the investments in the plan, except for mutual insurance plans (variables P.5.7.1 to P.5.7.10 for up to 10 plans).

The section "Employment situation and related income" collects information for each member of the household over the age of 16 and provides details on income sources. In particular, retirees and permanently disabled persons report how many retirement pensions (including pension plans) or pensions associated to a permanent disability they currently receive. For up to four pensions, they can specify which institution pays their pension (variables P.6.46.i.j, with i=1 to 9 representing the members of the household and j=1 to 4 representing the pension plans) and how much they receive each month in gross terms (variables P.6.49.i.j, with i=1 to 9 representing the members of the household and j=1 to 4 representing the pension plans). Among the institutions that respondents can choose from there are "the internal pension fund of a financial institution or non-financial corporation" and an "insurance company, external pension fund, mutual fund".

## Detailed assessment

While the information is initially available at the level of the household, the EFF allows for the calculation of the indicators of coverage, contributions and assets at level of the individual. Indeed, households in which any member participates in a pension scheme can be identified. For a maximum of 10 pension plans per household, it is possible to know the type of plan or provision, allowing for a distinction between occupational and personal plans, as well as which household member participates in the plan.

Unfortunately, the information about the plan holder is not precise enough to be able to reconcile each plan with each household member in all the cases. For instance, when the plan holder is one of the

children, it is not possible to know which child is actually the holder of the plan if there are at least two children in the household. The reason for this is because the question on the plan holder does not identify individuals by their identification number but only by their belonging to certain groups, such as “the children”, “the parents of the reference person or of his/her partner”, or “the other family members”. As a consequence, 2.8% of the plans could not be assigned to one of the members of the household and cannot be taken into account in the calculations.

The EFF may suffer from under-reporting bias as, according to experts at the Bank of Spain and authorities from the Ministry of Finance, many individuals have limited knowledge about whether they have a private pension. In particular, it is common in Spain that people do not distinguish between a pension plan and other kinds of insurance products like life insurance, or insured provision plans. A measure of this under-reporting bias can be gathered by comparing the total number of pension plans reported by individuals in the survey (6,377,932) and the total number of pension plans in Spain in the middle of 2006 (taking the average between end-2005 and end-2006 figures), according to the Ministry of Finance (9,470,606).

#### *Administrative data sets*

Data from the Directorate General of Insurance and Pension Funds (DGIPF) within the Spanish Ministry of Finance can be accessed by the OECD and can be used to calculate some of the indicators on coverage, contributions and benefits. The data set cannot be accessed directly, but as the Ministry is members of the OECD WPPP, the OECD can ask for the data, which are updated yearly. Data related to the number of pensioners, the number of active participants (by age and gender and by type of plan), benefits and contributions by type of plan are available.

Membership data suffer however from multiple counting. Multiple counting may originate from individuals having two or more personal pension plans, individuals having an occupational pension plan and a personal one, or from individuals having two occupational pension plans (as a deferred member in one of them) and/or one or more personal plans. There is unfortunately no official estimation for the multiple counting factor. In 2004, the Spanish Association of Investment and Pension Funds (INVERCO) measured the multiple counting within each managing entity and found that approximately 20% of the members had two pension plans in the same entity. This value however does not take into account potential multiple counting across managing entities. The number of plans hold by each member is also not provided.

#### *Conclusions*

The EFF is the only survey that can be used to calculate or partially estimate the indicators for Spain. Unfortunately, as the survey may suffer from under-reporting bias, the coverage rate indicators may be underestimated.

**Table 31. Possibility to calculate each indicator for Spain using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Yes	EFF	The survey may suffer from under-reporting bias.
Active members as a % of the workforce	Yes	EFF	The survey may suffer from under-reporting bias.
Pension members by type of status	No		
Active members by socio-economic characteristics	Yes	EFF	
Active members by type of plans	No		
DB plans design	No		
Benefit as a % average wages by type of plans	Yes	EFF	The survey does not allow breaking down the information by type of plan.
Contributions in DC plans by type of plan	Yes	EFF	
Contributions in DC plans by socio-economic characteristics	Yes	EFF	
Accumulated savings in DC accounts	Yes	EFF	

## *Sweden*

### *Household surveys*

It is difficult to assess accurately whether existing Swedish household surveys would permit estimating indicators on coverage, contributions and benefits, as surveys have stopped or are not publicly available. Two household surveys have been identified: the Household market and nonmarket activities panel (HUS) and the Longitudinal Individual Data for Sweden (LINDA).

The HUS panel stopped in 1998 and collected information useful to estimate pension benefits. The first wave of data was collected in 1984 and then data were collected in 1986, 1988, 1991, 1993, 1996 and 1998. Data cover many topics the most important being: labour market experiences, current employment, earnings, schooling, socioeconomic background, housing, child care, incomes and taxes, wealth and time-use. Individuals between age 50 and 64 were asked whether they would be entitled to a job-related pension (so, only coverage for this sub-sample of individuals could be derived from this survey). Additionally, the amount of pension or annuity (both taxable and non-taxable) was recorded for pensioners. Data could be accessed by researchers, but as the survey stopped in 1998, it is not worthwhile to assess it further.

According to Swedish experts, LINDA seems to be a useful survey for the current research, however, little information is publicly available to check to what extent it could be used and the data are not accessible to non-Swedish researchers. LINDA consists of a large panel of individuals, and their household members, which is representative for the population from 1960 through 2008. Variables coming from different registers are also included in this database, such as the Income Register, the Population Census, the Pension Register and the Pension Rights Register. The Pension Register contains detailed information on different forms of old-age pension income, while the Pension Rights Register contains information on annual income affecting pension rights since 1960. No more details are available.

### *Administrative data sets*

No detailed information could be found on administrative data sets including pension statistics in Sweden. As member of the OECD WPPP, Statistics Sweden sends annually consolidated data on benevolent societies, pension foundations, pension contracts with life insurance companies, individual pension savings plans, book reserve pension plans, and the Premium Pension System (PPM). Data for total contributions and total benefits are not available, while only membership data for book reserve pension plans (by status) are available.

### *Conclusions*

Only multinational survey data can be used to calculate or partially estimate the indicators for Sweden, as no national data sources are publicly available and up to date. While the SILC data set could be used to calculate indicators related to coverage and contributions (only for individuals contributing to a personal pension plan), the SHARE data set could be used for indicators related to pensioners and benefits paid to them.

**Table 32. Possibility to calculate each indicator for Sweden using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Yes	SHARE	
Active members as a % of the workforce	Partially	SILC	Only individuals that personally contributed to a personal pension plan can be identified in the SILC dataset.
Pension members by type of status	No		
Active members by socio-economic characteristics	Partially	SILC	Only individuals that personally contributed to a personal pension plan can be identified in the SILC dataset.
Active members by type of plans	No		
DB plans design	No		
Benefit as a % average wages by type of plans	Yes	SHARE	
Contributions in DC plans by type of plan	Partially	SILC	The SILC dataset can only provide individual contributions in personal pension plans.
Contributions in DC plans by socio-economic characteristics	Partially	SILC	Only individuals that personally contributed to a personal pension plan can be identified in the SILC dataset.
Accumulated savings in DC accounts	Partially	SHARE	Only amounts in personal DC accounts are considered in the SHARE dataset, which only covers individuals aged 50 and over.

### *United Kingdom*

#### *Household surveys*

Most of household surveys in the United Kingdom related to private pensions are publicly available and could be used to estimate most of the indicators on coverage, contributions and benefits. Five household surveys have been identified: the Annual Survey of Hours and Earnings (ASHE), the Wealth and Assets Survey (WAS), the Family Resources Survey (FRS), the British Household Panel Survey

(BHPS) and the English Longitudinal Study on Ageing (ELSA). The WAS and the ASHE are the only ones for which the data are not publicly available.

The Annual Survey of Hours and Earnings could be useful to estimate indicators related to coverage and contributions, but not to estimate indicators related to benefits. It is not a household survey, but an employee survey. It covers employee jobs across the whole of the UK, from all industries and occupations, while the self-employed or the armed forces are not covered. It provides yearly information about the levels, distribution and make-up of earnings and hours paid for employees within industries, occupations and regions. The pension tables contain results for UK employees by type of pension arrangements within the company with breakdowns by age, industry including public/private sector, occupation and size of company. Available information could be used to estimate pension coverage of and contributions to pension plans run or facilitated by the employer (plans facilitated by the employer include group personal pensions and stakeholder pensions).

The Wealth and Assets Survey can be used to estimate indicators related to pension coverage and benefits (but not the ones related to pension contributions). It was an ad-hoc survey conducted between 2006 and 2008, with the aim to collect information about the economic well-being of households and individuals in Great Britain. In particular, the survey asked people about their assets and liabilities, including information on property, financial, physical and private pension wealth, savings, debt, borrowing and arrears. A range of demographic data is also available such as sex, age, employment status, socio-economic classification, geography and education. More specifically on private pensions, individuals were asked about the private pension income they received and on their current membership in a private pension (with a breakdown between occupational and personal pension plans and between DB and DC pension plans). They were also asked about the value of the fund at the time of the interview and were encouraged to consult recent statements to improve data accuracy. The survey data are only available to UK researchers.

A detailed assessment is provided below for the three publicly available surveys. Data from the General LiFestyle survey (GLF), which is the British component of the SILC survey, are also publicly available. As relevant information on occupational pension plans (coverage and benefits) is not included in the SILC data set, this survey is also assessed below on its own.

### *Assessment of the General Lifestyle Survey*

#### Preliminary general assessment

The General LiFestyle survey (GLF) has information on private pension coverage, contributions and benefits, but only indicators related to beneficiaries and benefits paid to them can be calculated accurately. There is no information on assets accumulated in private pension plans. Occupational pension coverage does not include former employer pension plans and cannot be broken down between DB and DC plans. Additionally, contributions to private pension plans only take into account individuals' contributions to personal pension plans. Private pension beneficiaries can however be easily identified in the survey, and the amounts of benefits received are available for occupational and personal pension plans. The latest survey was conducted in 2009, but only data up to the 2006 survey are publicly available. Following consultation with users, the Office for National Statistics (ONS) has decided that the GLF will not continue in its current format after January 2012.

## Overview

The GLF is a continuous national survey of people living in private households conducted on an annual basis, by the Social Survey Division of the ONS. It is used as the British component of the EU-SILC project.<sup>43</sup> The main aim of the survey is to collect data on a range of core topics, covering household, family and individual information. The GLF has two components, consisting of a household questionnaire, completed by the household reference person, and an individual questionnaire, completed by all adults aged 16 and over resident in the household. The individual questionnaire includes data on employment, pensions, education, health, child care, smoking, drinking, family information, financial situation, and income. The survey started in 1971, and the latest survey refers to 2009.

## Variables' definitions

The “pensions” section of the questionnaire is only asked of those in paid work, (including those temporarily away from job or on a government scheme), but excluding unpaid family workers. It includes information on private pension coverage and contributions for different types of workers and different types of pension plans. If the individual is an employee or on a government scheme, three questions investigate whether their current employer runs an occupational pension scheme or superannuation scheme for any employees, whether the individual is eligible to that scheme and whether the individual belongs to that scheme (variable EMPENSHM). Contributory and non-contributory schemes are included, but employer-sponsored group personal pensions and stakeholder pensions are excluded. Two different variables are available to summarize all that information and allow estimating occupational pension coverage for employees (variables OCCLPENS and OCCPENG).<sup>P</sup>

Employees as well as individuals under pensionable age and not self-employed are also asked about personal pension plans' possession. They can provide up to 4 plans (variables PERSPE1 to PERSPE4) in the following list: a personal or private pension or retirement annuity, a group personal pension (that is a collection of personal pensions arranged by an employer for a group of employees), a stakeholder pension arranged through the employer (who may or may not contribute), and a stakeholder pension arranged by the individual (also includes arrangements where the spouse or someone other than the employer has set up the stakeholder pension). Those having personal pension plans can provide the level of their current monthly contributions to these plans (variable PENAMNT).

Self-employed people may arrange pensions for themselves and get tax relief on their contributions. These schemes include personal pensions, stakeholder pensions and “self-employed pensions” (sometimes called “Section 226 Retirement Annuities”). Self-employed individuals are therefore asked whether they currently contribute to one of these schemes (variable SEPRSPEN). If so, the level of their monthly contributions is also provided (variable SEPPPAMT).

Since April 2001, anyone can take out a stakeholder or other personal pension. Individuals under pensionable age and not currently in paid work are therefore asked whether they currently have one of these types of pension for themselves (variables NEWSHP1 and NEWSHP2, as up to two different types of personal pension plans can be provided). The amount contributed (either by the individual or by anyone else) during the last 12 months is available (variable TOTLST12).

The “income” section of the questionnaire is asked of all adults (except proxy respondents) and look at all possible sources of income. Individuals receiving occupational pensions from former employers, occupational pensions from the spouse's former employers, and private pensions or annuities can be

---

43 . As relevant information on occupational pension plans (coverage and benefits) is not included in the SILC data set, it is interesting to assess this survey separately.

identified (variables *othsrc1* to *othsrc4*, as up to 4 types of regular payments can be provided). For each of these three types of private pension provision, the monthly benefit received by the individual can be provided before and after tax (variables *PFEMPNET* and *PFEMPGRS* for the occupational pension from former employers, net and gross respectively; variables *SPOUSNET* and *SPOUSGRS* for the occupational pension from the spouse's former employers, net and gross respectively; variables *PRIVPNET* and *PRIVPGRS* for private pensions or annuities, net and gross respectively).

#### Detailed assessment

The GLF is not a useful survey to calculate private pension coverage by type of plans (DB vs. DC), contributions and assets accumulated. It can however be used to calculate indicators related to pensioners and benefits received.

Coverage by occupational pension plans only refers to pension plans offered on the current employment, and pension plans offered on any previous employment are not taken into account. Additionally, occupational pension plans offered on the current employment, cannot be split between DB and DC plans.

All types of contributions are not taken into account. First, contributions to occupational pension plans are not collected. Only individuals' contributions to personal pension plans are available. Additionally, the survey provides the information on whether the employer contributes to personal pension plans and whether the HM Revenue and Customs (formerly the Inland Revenue) pays money in such plans, but the corresponding amounts are not available.

Even if the latest survey was conducted in 2009, publicly available data only cover surveys up to the 2006 one. Surveys conducted in 2007, 2008 and 2009 are only available to UK researchers under certain conditions. The present assessment refers therefore to the analysis of the 2006 survey.

Finally, following consultation with users, the ONS has decided that the GLF will not continue in its current format after January 2012. Statistics on Income and Living Conditions required by European law (EU-SILC) will be collected via the Family Resources Survey (FRS) with a standalone survey providing the longitudinal SILC element. GLF questions not covered by EU-SILC will be collected using a separate survey, subject to continued funding for non-EU-SILC variables. Over the next six months, ONS will explore the exact format for this survey to best meet users' needs.

#### *Assessment of the Family Resources Survey*

##### Preliminary general assessment

The Family Resources Survey (FRS) has information on private pension coverage, contributions and benefits. There is no information on assets accumulated in private pension plans. Occupational pension coverage does not include former employer pension plans and cannot be broken down between DB and DC plans. Additionally, only individuals currently contributing to their personal pension plan can be identified. However, individuals having only frozen pension plans can also be identified, which guarantees an accurate estimation for the total coverage. As regards contributions, only those made by individuals to their personal pension plans are taken into account. Private pension beneficiaries can be easily identified in the survey, and the amounts of benefits received are available for occupational and personal pension plans.

## Overview

The FRS collects information on the incomes and circumstances of private households in the United Kingdom. Its annual target sample size is 29,000 households. The FRS collects information at a household (*e.g.* household grid, accommodation type, tenure, housing costs) and individual (*e.g.* occupation, income from different sources, pension provision) level. Household level questions are directed at one person, usually the head, although all adults are encouraged to be present. Individual questions are directed to all non-dependent adults over 16. Proxy responses are only accepted in restricted circumstances. The survey started in 1992, last available data referring to 2009/10.

## Variables' definitions

The “pension schemes” section of the questionnaire provides information on occupational and personal pension provision for different categories of individuals. Individuals younger than 70, employees or doctors and dentists in practice, are asked whether their employer runs an occupational pension plan, whether they are eligible to belong to that plan, and whether they are a member of that plan (variable MEMSCHM). The type of employer-based pension plans is further investigated and members of such plans can precise whether they have a group personal pension, a company or occupational pension scheme, or a group stakeholder pension (variable EMPDEN). Respondents are invited to refer to documentation to answer that question. Otherwise, the interviewer can provide the following definitions to the respondent. A *group personal pension* is defined as a series of individual personal pensions provided by a single life insurance company, but organised by an employer. Both the employer and the employee can contribute to a group personal pension and these contributions will be limited to the Inland Revenue maxima based on the member's age. A *company pension* is gained as a result of a salaried employment, and is sometimes referred to as an occupational or superannuation pension. Employees are generally referred to as members of the scheme. The scheme is generally paid for by the employer who makes contributions into a fund. In many schemes, the employee may also be required to contribute. Like personal pensions, *stakeholder pensions* are sold by insurance companies, banks and building societies, as well as by some trade unions. As with group personal pensions, employers can make an arrangement with a pension provider and offer their employees a *group stakeholder pension scheme*. There are some differences between stakeholder pensions and other types of personal pensions. Stakeholder pensions have to meet certain standards set by the Government to make sure they offer value for money, flexibility and security (the charges are capped, there are low minimum payments, they are more flexible than many other private pension schemes, and other people, including the employer, can pay into a stakeholder pension on behalf of the member).

Personal pension provision is provided for individuals younger than 70 and either employees, doctors or dentists in practice, or currently not working (but who have already worked in the past) as well as for self-employed (of all ages). These individuals are asked whether they have a pension they arranged themselves, for example with a pension company or a financial advisor (variable PRIVPEN). Frozen pensions should not be included, meaning that only individuals currently paying contributions into their personal pension plan can be identified. As for occupational pension plans, the individuals can precise whether they have a personal pension or a stakeholder pension (variables PERSPEN1 and PERSPEN2 for each type respectively). The following definitions are provided. Introduced in 1988, a *personal pension* is a kind of pension that people set up for themselves, with a pension provider such as a bank, life assurance company or building society. It is entirely your own, which means you can continue to contribute to it if you move jobs. Personal pensions are the most common pension arrangement for people who are self-employed. Introduced in 2001, *stakeholder pensions* are a special type of low-charge personal pension. They are suitable for people who are self-employed, moderate and low earners, and those who do not have an income of their own but can afford to save for a pension (*e.g.* women on a career break). Stakeholder pensions can also be set up for children.

For individuals declaring no occupational and personal pension provision, the interviewer can further check whether this information is accurate. The respondents are asked again whether they have no pension at all, are actually contributing to a pension plan or have only frozen pension plans (variable CHKNOP). In a frozen plan, benefits continue to be payable to existing members but no new members are admitted, and no further benefits accrue to existing members. Members can make no more contributions but further employer contributions may be made, and may have to be made, for example to correct a deficit. This checking variable allows therefore identifying individuals having a pension plan (either occupational or personal) into which they stopped contributing.

Finally, for respondents who are not self-employed and older than 69 and those who have never worked (of all ages), the survey investigates whether they pay contributions into a stakeholder pension fund (variable STAKEP). This does not include pensions from which the individual may receive payments.

The “pension schemes” section also provides information on individuals’ contributions to personal pensions and stakeholder pensions (variable PENAMT). Respondents can provide the amount of their last contribution payment and the period that payment covers (variable PENAMTPD).

The section “Income from pensions, trusts, royalties and allowances” provides information on pension beneficiaries and benefits they receive. It is therefore possible to know whether the individual receives an income from an employee pension from a previous employer (variable ANYPEN1), from a widow’s employee pension (variable ANYPEN2), from a personal pension (variable ANPEN3), or from an annuity (variable ANYPEN5). If the individual receives an annuity, s/he can further precise whether that annuity was bought with a lump sum from an employee pension scheme or with a lump sum from a personal pension scheme (variable PENLUMP). The respondent is also asked, for each pension and annuity received how much the last payment was (variable PENPAY).

#### Detailed assessment

Total coverage by private pension plans can be estimated using the FRS. As regards occupational pension plans, individuals who are members of the plan offered on the current employment can be identified, but unfortunately the split between DB and DC plans is not available. As regards personal pension plans, individuals currently paying contributions to their plan can be identified. Individuals who are members of occupational pension plans offered on any previous employment (in which they may have preserved rights) or of personal pension plans into which they stopped paying contributions cannot be identified directly, but a checking variable allows identifying individuals having only frozen pension plans. The total coverage rate can therefore be calculated, including all individuals having assets in a pension plan (whether or not they contributed into it at the time of the survey).

All types of contributions are not taken into account. First, contributions to occupational pension plans are not collected. Only individuals’ contributions to personal pension plans and stakeholder pension are available. Additionally, the survey provides the information on whether the employer contributes to occupational or personal pension plans, whether any money has been paid into the individual’s occupational pension plan as a rebate of part of the individual’s National Insurance contributions because s/he is contracted out of SERPS/S2P<sup>44</sup>, and whether the HM Revenue and Customs (formerly the Inland Revenue) pays money in personal plans, but the corresponding amounts are not available.

The FRS is however a useful source to calculate indicators related to current pensioners and benefits paid to them. Individuals receiving income from an employee pension (either from a previous employer or

---

44 . SERPS is the State Earning Related Pension Scheme, S2P is the Second State Pension introduced in April 2002.

from a deceased partner's previous employer), a personal pension or an annuity can be identified. For each pension plan, the last payment received and the period covered by this payment are also available, allowing the calculation of an annual benefit.

Imputation on the FRS is carried out in three different ways to maximise the information available to users for analysis and help to secure the uniformity of analyses created from the FRS data sets. The first method, called bulk edits, is a very crude method of imputation consisting in converting missing values for a batch of cases that satisfy a particular characteristic to an identical value. The second method uses the hot-deck theory, which allows examining the data set for non-missing cases that have similar characteristics to that missing case with the missing value, and substituting one of these non-missing values for the missing case at random. Finally, algorithms are used to predict the missing value by looking at other relevant characteristics.

### *Assessment of the British Household Panel Survey*

#### Preliminary general assessment

The British Household Panel Survey (BHPS) has information on private pension coverage, contributions and benefits, but only indicators related to beneficiaries and benefits paid to them can be calculated accurately, while occupational pension plans' coverage can only be calculated for the current employment. There is no information on assets accumulated in private pension plans. Occupational pension coverage cannot be broken down between DB and DC plans and only refers to plans offered on the current employment. Personal pension plan coverage can be calculated with more accuracy thanks to the longitudinal component of the survey, as individuals contributing to their plans during the last 5 years can be identified. As regards contributions, only those made by individuals to their personal pension plans are taken into account. Private pension beneficiaries can however be easily identified in the survey, and the amounts of benefits received are available for occupational and personal pension plans. Lump sum pension payouts received are also available.

#### Overview

The BHPS began in 1991 and is a multi-purpose study whose unique value resides in the fact that it follows the same representative sample of individuals over a period of years. It is household-based, interviewing every adult member aged 16 or over of sampled households. The main objective of the survey is to increase the understanding of social and economic change at the individual and household level in Britain. Major topics in the first three waves of the panel survey are household organisation, the labour market, income and wealth, housing, health and socio-economic values. The panel survey thus permits research into a wide range of topics such as the relationship between health changes and unemployment, the effects of life events on changing socioeconomic values, life cycle variations in income, the returns in the labour market to training and education, the causes and consequences of residential mobility, and so on. Last available data refer to 2009.

#### Variables' definitions

The "employment" section of the individual questionnaire deals with occupational pension plans. Individuals are asked whether their employer runs a pension scheme or superannuation scheme for which they are eligible, and whether they belong to that scheme (variable RJBENM). Contributory and non-contributory schemes are included.

Both personal pension membership and pension income sources are taken into account in the section "household finances". As regards personal pensions, individuals that have paid contributions or premiums for a private personal pension or had such contributions paid on their behalf by the Department for Work

and Pensions since September 2007 can be identified (variable RPPPEN). Private personal pensions are defined as pensions that individuals take out on their own behalf and include retirement annuity pensions and personal pensions (the latter has replaced the former since July 1<sup>st</sup> 1988). The amount of the last contribution or premium is also available (variables RPENB4V and RPENADV respectively whether the policy was taken out before or after July 1<sup>st</sup> 1988).

As regards pension income sources, individuals that have received a pension from a previous employer, a pension from a spouse's previous employer, or a private pension / annuity since September 1<sup>st</sup> 2007 can be identified (variables RF102, RF103 and RF104 respectively for each source of private pension income). The last payment received for each source is also available (variable RFRVAL). In addition, individuals that have received a lump sum pension payout since September 1<sup>st</sup> 2007 can also be identified (variable RWINDFB), and the total amount received is provided (variable RWINDFBY).

### Detailed assessment

The BHPS is not a useful survey to calculate private pension contributions and assets accumulated. It can however be used to calculate indicators related to coverage, pensioners and benefits received.

Coverage by occupational pension plans only refers to plans offered on the current employment. The survey does not look at plans offered on a former employment in which individuals may have retained rights. The longitudinal component allows taking track of previous employers' pension plans, but this information cannot be used as it is not possible to know what the individuals did with the plan when they left their employer.

Personal pension coverage can however be calculated with more accuracy. The cross-sectional questionnaire allows identifying individuals who have paid contributions to their plan in the last year or two years. Therefore, individuals having assets in a personal pension plan, but who did not pay contributions into that plan during that period cannot be identified using the cross-sectional component. However, using the longitudinal component, it is possible to know whether these individuals paid any contributions during the last 5 years for instance. This method still has some limitations. On the one hand, all individuals interviewed in the last survey (2009) may not have participated in the preceding 4 surveys. There may be individuals therefore not contributing to any personal pension in the last year and for which we do not know whether they contributed to such plans in the past. On the other hand, individuals that contributed 4 years ago to a personal pension plan may not have any more assets in a private pension plan today if they cancelled their contract in the meantime. These two adverse effects may however offset each other.

The survey does not take into account all types of contributions. Contributions to occupational pension plans are not collected. Only individuals' contributions to personal pension plans are available.

An interesting feature of the BHPS regarding benefits, as compared to other surveys, is that, in addition to benefits received regularly from occupational and personal pension plans, lump sum pension payouts are also available.

Imputation on the BHPS is carried using two different techniques for income and housing cost variables to reduce potential bias caused by the elimination of cases with missing data. A standard hot-deck imputation routine was used for certain categorical money variables. This method was applied by firstly dividing the sample into imputation classes found to be predictive of the variable to be imputed. Then, assuming that cases within each class comprise a random sub-sample of the population, a valid value of the variable taken from a non-missing case within a given imputation class was used to impute the value of a

missing case in the same class. Money amount variables were imputed using a regression-based imputation technique.

## *Assessment of the English Longitudinal Study of Ageing*

### Preliminary general assessment

The English Longitudinal Study of Ageing (ELSA) has information on private pension coverage, contributions, benefits and assets, but is only relevant for the calculation of indicators related to benefits and beneficiaries as the information is mainly collected on individuals over the age of 50. Benefits paid to respondents can be broken down by type of plans (occupational vs. personal and DB vs. DC).

### Overview

The ELSA is a study of people aged 50 and over and their younger partners, living in private households in England. It is the first study in the UK to connect the full range of topics necessary to understand the economic, social, psychological and health elements of the ageing process. The aim of ELSA is to explore the dynamic relationships between health, functioning, social networks and economic position. It is in effect a study of people's quality of life as they age beyond 50 and of the factors associated with it. Many of the measures adopted in ELSA are comparable with measures used in the US Health Retirement Study (HRS) and the Survey of Health, Ageing and Retirement in Europe (SHARE). The last wave (Wave 4) has been carried out between June 2008 and July 2009.

### Variables' definitions

The "Work and pensions" module is aiming at updating or obtaining information on the respondent's current work activities, if any, and update or obtain information about any new or current pensions that they may have. For up to 7 pension plans, it is possible to know the coverage, the type of plan, the accrual rate for DB plans, the contribution level and the level of assets accumulated. Benefits received by former plans can also be obtained.

Coverage can be measured using mainly two variables. The first one, WPPS, relates to a question asked to employees only, to know whether they are members of any pension scheme offered by their current employer and which they are entitled to join. As the employer can offer more than one plan which an employee can be entitled to join, there is a variable to measure plan membership for up to 7 plans (variables WPPSPC to WPPSPC7). The second variable, WPMORE, relates to a question asked only for those employees that are not offered any pension plan by their current employer, to determine whether they belong to any pension scheme (apart from state pensions) or used to have one in the past, including schemes which they currently receive income from. Again, there is a variable for each of the maximum 7 possible plans (variables WPMORP to WPMORP7). For each of the 7 possible pension plans, it is then possible to know what type of pension it is (employer pension, private personal pension, group personal pension, stakeholder pension, S226 plan, retirement annuity pension, or other retirement savings scheme – variables WPPENT et WPPENT7) and what type of plan it is (DB or DC – variables WPDCDB to WPDCDB7). DB plans are defined as plans where the pension is based on a formula involving age, years of service and salary. DC plans are defined as plans where pension contributions are put into a fund which grows over time and where the pension depends on the size of this fund when the individual retires.

For each plan (up to 7), the respondent is also asked whether s/he (and possibly his/her employer) currently contributes to it. If not, it is possible to determine whether s/he receives a pension from this plan, retained pension rights in this plan, transferred rights into another plan, or received a lump sum refund of contributions (variables WPRGHX to WPRGHX7).

For DB plans, information about the accrual rate (defined as the fraction of the final salary added to the final pension for each year of service) is available. The respondent is given the choice between a fraction of 1/60, 1/80 or other (variables WFSAP to WFSAP7). For DC plans, the current value of the accumulated pension fund is available (variables WPAPF to WPAPF7).

Many different types of contributions are collected. For employer pension plans in which the individual has to contribute, the minimum level of contribution of the employee can be provided, for up to 7 plans, either as an amount (variables WPMCA to WPMCA7) or as a percentage of the salary (variables WPMFRC to WPMFRC7). In addition, for DC pension plans, it is possible to know whether the individual usually contributes more than the minimum contribution, and if so, how much. This information can be provided as an amount (variables WPACOB to WPACOB7) or as a percentage of the salary (variables WPFRA to WPFRA7) for up to 7 plans. For DB pension plans, it is possible to know whether the individual does additional irregular contributions, and the level of these contributions during the last 12 months (variables WPCONY to WPCONY7). For employer pension plans in which the individual is not required to contribute and for any other types of pension plans, the survey distinguishes whether the employee makes regular or irregular contributions to the plan. For regular contributions, the current level of contribution of the individual can be provided as an amount (variables WPYCA to WPYCA7) or as a percentage of the salary (variables WPYFRA to WPYFRA7). For irregular contributions, the level of the last contribution made can be provided as an amount (variables WPAC to WPAC7) or as a percentage of the salary (variables WPFSC to WPFSC7). Finally, the survey also collects employer contributions to all plans, except S226 plans, and distinguishes whether these contributions are regular or not. The usual level of regular employer contributions can be provided as an amount (variables WPAMEC to WPAMEC7) or as a percentage of the salary (variables WPFSCO to WPFSCO7). The last contribution made by the employer, in case of irregular contributions, can be provided as an amount (variables WPAECP to WPAECP7) or as a percentage of the salary (variables WPFSEC to WPFSEC7).

Finally, the “Work and pensions” module also has information on benefits received from past pension plans. Respondents can provide the amount they received in the last payment from up to 7 former pension plans (variables WPPYR to WPPYR7). In case of a private personal pension whose benefits are taken as income drawdown, the amount withdrawn annually from the plan is available (variables WPINCD to WPINCD7).

The “Income and Assets” module allows collecting information about different income sources for each financial unit. Couples who keep their finances separate are defined as two financial units and each partner completes the module on his/her own behalf. However, for couples who keep their finances together, only one of the partners completes the module (the financial respondent). In such cases, information provided by the financial respondent is copied across to the partner. Financial units where at least one of the partners receives any money from a personal or employer pension in the last year can be identified (variable IAPPEN). The income received by the unit from such plans in the last year (variable IAPPEI) or in the last month (IAPPMO) is also available (before taxes and other deductions, and without including any lump sums received).

#### Detailed assessment

The ELSA mainly covers people aged 50 and older, which impedes to calculate coverage and contributions for the overall labour force, even if detailed information is available in the survey to calculate the related indicators with accuracy (e.g. the survey allows distinguishing between current and deferred pension plan members, provides information on accrual rates for DB plans, and takes into account all contributions).

The survey is however well designed to calculate indicators related to beneficiaries and benefits received. The total amount received from personal and occupational pension plans during the previous month or year is available. However, this information is only available at the level of the financial unit, which can be comprised of one or two respondents, depending on whether the couples keep their finances separated or together.

#### *Administrative data sets*

Two administrative data sets, for which only published information is publicly available, have been identified and would allow calculating different indicators. These are the Occupational Pension Scheme Survey (OPSS) and the HM Revenue & Customs (HMRC)'s data set.

Personal pension providers are required to submit on an annual basis statistical reports to HMRC with their claims for tax relief. These reports can be used to estimate coverage of personal pension plans (using the number of individuals contributing to such plans), contributions levels and fund value.

The Occupational Pension Scheme Survey is conducted yearly using a sample of occupational pension schemes. It provides the number of pensions in payment (which is different from the number of pensioners as an individual can receive a pension from more than one occupational plan), the number of active members (by type of plan) and the number of preserved pension entitlements (which is also different from the number of individuals with preserved pension entitlements, as an individual can have preserved pension entitlements in more than on plan). Therefore, membership data available through this database include multiple counting.

#### *Conclusions*

The publication *Pension Trends* of the Office for National Statistics provides information on pension funds' coverage, contributions and benefits, using the best source for each purpose. The data sources in this publication are classed as "National Statistics", which is an accreditation quality mark standing for a range of qualities such as relevance, integrity, quality, accessibility, value for money and freedom from political influence. In this publication, the FRS is used to calculate indicators related to coverage and benefits, while data from the HMRC data set and the OPSS are used to calculate indicators related to contributions. To calculate the selected indicators for the United Kingdom, the same data sources as the ones used by the ONS should therefore be used, when the data are publicly available.

**Table 33. Possibility to calculate each indicator for the United Kingdom using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Yes	FRS	
Active members as a % of the workforce	Yes	FRS	
Pension members by type of status	No		
Active members by socio-economic characteristics	Yes	FRS	
Active members by type of plans	Yes	FRS	The breakdown between DB and DC plans is not available.
DB plans design	Partially	ELSA	The ELSA dataset only covers individuals aged 50 and over.
Benefit as a % average wages by type of plans	Yes	FRS	The breakdown between DB and DC plans is not available.
Contributions in DC plans by type of plan	Partially	OPSS / HMRC	Only the average level of contributions per account is available (and not per individual).
Contributions in DC plans by socio-economic characteristics	No		
Accumulated savings in DC accounts	Partially	ELSA	The ELSA dataset only covers individuals aged 50 and over.

**Australia**

*Household surveys*

Four different household surveys collecting information that could be useful to calculate indicators on private pension coverage, contributions and benefits have been identified for Australia, one of them being publicly available. The Household, Income and Labour Dynamics (HILDA) survey is the only publicly and freely available survey (its detailed assessment can be found below). The other surveys are the Survey of Employment Arrangements, Retirement and Superannuation (SEARS), the Household Expenditure Survey (HES) and the Survey of Income and Housing (SIH).

The Survey of Employment Arrangements, Retirement and Superannuation (SEARS) has useful information to calculate most of the indicators of pension coverage, contributions and benefits. It has been conducted twice, in 2000 and 2007. The survey collected detailed information about: the diversity of employment arrangements, the working arrangements that people use to balance their work and caring responsibilities, plans that people aged 45 and over have for retirement, characteristics of retirement, the superannuation coverage of individuals, including superannuation contributions and account balances. Information can be split by fund type (corporate / industry / retail / public sector / self-managed or small APRA) and benefit structure (accumulation / DB / hybrid).

The Household Expenditure Survey (HES) could mainly be used to estimate indicators related to coverage and benefits. This survey is conducted every 6 years (latest available data refer to 2003-04) and collects detailed information about the expenditure, income and household characteristics of a sample of households resident in private dwellings throughout Australia. Individuals having accounts in superannuation funds or retirement benefit schemes can be identified as well as individuals receiving regular payments from superannuation, annuities or allocated pensions (and the amounts received).

Finally, similarly to the HES, the Survey of Income and Housing (SIH) could be used to estimate indicators related to coverage and benefits, but not contributions. This survey is conducted biennially. Questions about superannuation funds are the same as for the HES survey. Latest available data refer to 2007-08.

### *Assessment of the Household, Income and Labour Dynamics in Australia survey*

#### Preliminary general assessment

The Household, Income and Labour Dynamics in Australia (HILDA) survey has useful information to estimate indicators related to coverage, contributions, benefits and assets. Individuals making contributions to their superannuation plan or for whom contributions are being made can be identified, for both occupational and personal pension plans. Employer, employee and partner contributions to these plans are available. Individuals receiving income from superannuation funds, rollover funds, annuities, life insurance contracts, or allocated pension funds can also be identified, together with the amount received from these funds. Finally, the total amount accumulated in all the individuals' superannuation funds can also be retrieved from this survey.

#### Overview

The HILDA survey is a household-based panel study that began in 2001 and collects yearly information about economic and subjective well-being, labour market dynamics and family dynamics. Special questionnaire modules are included in each wave. All members of the household aged 15 and over are interviewed. The module on household wealth is available every four years and includes questions on superannuation. Latest available data refer to 2010 for this module.

#### Variables' definitions

The Wealth module includes questions that allow identifying people covered by superannuation funds, as well as the type of fund, the level of contributions made into and the level of assets accumulated in such funds. Starting with coverage, the survey allows identifying Commonwealth public servants who are members of the Commonwealth Super Scheme (variable JSACSS), the Public Sector Superannuation Scheme (variable JSAPSSS) or the Public Sector Accumulation Plan (variable JSAPSSAP). In addition, employees and employees of own business are asked whether their employer/business currently makes contributions into a superannuation scheme on their behalf (variable JSAEMPC) and whether they also make contributions themselves above what the employer is required to put in (variable JSAPC). Employees are also asked whether they currently make contributions into any other superannuation fund (variable JSAPCPS). Finally, self-employed and non-working individuals can tell whether they currently contribute into a fund that is set up for their own superannuation (variable JSAPCS).

All respondents that have been identified as members of a superannuation fund are asked about the type of fund for their largest fund (variable JSALTYPE). Individuals can choose between a defined benefit fund (defined as a fund that pays the individual an amount agreed upon in advance), an accumulation fund (defined as a fund that pays the individual according to how successfully the funds have been invested), or say they do not know the type. Individuals are then asked whether any of their superannuation funds contain a defined benefit component, except for those for which the largest fund is a DB fund (variable JSADBC).

Employees for whom the employer currently makes contributions into a superannuation scheme are asked about the employer contribution level, either as a percentage of their wage and salary income (variable JSAEMPCP) or in dollars (variable JSAEMPCA). If they also make voluntary personal contributions in addition to those made by their employer, these employees can also provide their own

level of contributions into this scheme, either as a percentage of their pre-tax wage and salary income (variable JSAPCP) or in dollars (variable JSAPCA). In addition, individuals contributing to a personal pension plan (*i.e.* a plan into which the employer does not make contributions on behalf of the plan holder) are also asked about their contribution level into such plans, again either as a percentage of their before tax income (variable JSAPCSP) or in dollars (variable JSAPCSA). Finally, when the partner makes contributions into any of the respondent's superannuation funds, the level, in dollars, of such contributions is available (variable JSASPCA).

The Wealth module finally provides information on the level of assets accumulated in superannuation schemes. Respondents have indeed to provide what would be the approximate value accumulated in all their superannuation funds together if they were able to retire or resign today, including those funds in which they may have stopped contributing to (variable JSAVALN).

In addition, the Income module allows identifying individuals receiving income from superannuation funds and to know how much they receive annually. All respondents have indeed to tell whether they received payments during the last financial year from different sources, including from superannuation funds, rollover funds, annuities, life insurance contracts, or allocated pension funds (variable JIOFSUP). The amount received during the last financial year from these sources, including both lump sums and more regular payments, is also available (variable JIOFSUPA).

#### Detailed assessment

The HILDA survey is a very valuable survey to assess most of the indicators on coverage, contributions, benefits and assets in private pension plans, with an interesting breakdown between the mandatory and the voluntary parts of the Australian private pension system. Due to the specific structure of the private pension system in Australia, it is for instance possible to analyse coverage following two different angles. On the one hand, it is possible to consider all individuals enrolled in any superannuation fund, whether contributions are being made by the employer only (mandatory), both the employer and the individual (mandatory and voluntary), or the individual only (voluntary). On the other hand, the voluntary part of the superannuation system can be analysed separately by only considering individuals voluntarily contributing to any superannuation fund.

All kinds of contributions are taken into account in the survey. It is possible therefore to distinguish between the mandatory employer contributions into occupational pension plans, the voluntary employee contributions into occupational and personal pension plans and the voluntary spouse contributions into any plans.

The survey allows identifying individuals receiving benefits from private pension plans, but unfortunately, it is not possible to distinguish between those receiving payments from superannuation funds, rollover funds, annuities, life insurance contracts or allocated pension funds. Only the aggregate information is available.

#### *Administrative data sets*

The data from the Australian Prudential Regulation Authority (APRA), which is the prudential regulator of the Australian financial services industry, can be accessed by the OECD and be used to calculate indicators of private pension contributions and benefits. The data set cannot be accessed directly, but as the APRA is member of the OECD WPPP, the OECD can ask for the data. On the one hand, data regarding membership are available, but they relate actually to the number of member accounts (it is possible for one member to have more than one account at the same time) and the split between active and passive members is not available. However, the member accounts can be segmented by age and gender,

giving an idea of the broad coverage by age and gender. On the other hand, benefit payments, contributions received and the average account balance can all be split by fund type (corporate / industry / public sector / retail / small) and benefit structure (accumulation / DB / hybrid).

### Conclusions

Most of the indicators could be calculated or partially estimated for Australia using the HILDA survey. Indicators related to pensioners and benefits received can only be partially estimated as it is not possible to distinguish between the payments received from superannuation funds, rollover funds, annuities, life insurance contracts and allocated pension funds (see Table 34).

**Table 34. Possibility to calculate each indicator for Australia using publicly available data sources**

Indicator	Possibility to calculate the indicator	Source	Data limitations
Pensioners as a % of the population 65+	Partially	HILDA	It is not possible to distinguish between superannuation funds, rollover funds, annuities, life insurance contracts and allocated pension funds.
Active members as a % of the workforce	Yes	HILDA	
Pension members by type of status	Yes	HILDA	
Active members by socio-economic characteristics	Yes	HILDA	
Active members by type of plans	Yes	HILDA	Information is only available for the largest fund.
DB plans design	No		
Benefit as a % average wages by type of plans	Partially	HILDA	It is not possible to distinguish between superannuation funds, rollover funds, annuities, life insurance contracts and allocated pension funds.
Contributions in DC plans by type of plan	Yes	HILDA	
Contributions in DC plans by socio-economic characteristics	Yes	HILDA	
Accumulated savings in DC accounts	Yes	HILDA	

## United States

### Household surveys

Five different household surveys have been identified for the United States, all of them being publicly available. These are the Survey of Consumer Finances (SCF), the Current Population Survey (CPS), the Survey of Income and Programme participation (SIPP), the Panel Study of Income Dynamics (PSID), and the Health and Retirement Study (HRS). A detailed assessment is provided below for each of them.

#### Assessment of the Survey of Consumer Finances

##### Preliminary general assessment

The Survey of Consumer Finances (SCF) has information on private pension coverage, contributions, benefits and assets. However, this information is only available at the family level and does not take into

account all individuals living in the household, but only a subset of the household represented by the head of the household, his/her spouse or partner, and other individuals in the household who are financially interdependent with that couple. Coverage and assets accumulated in IRA and Keogh accounts are available at the family level. Very detailed information related to employer-provided pensions is also available, such as coverage by type of plan, contributions, benefits and assets accumulated. However, only plans related to the current job of the head of the household and of his/her spouse or partner are taken into account. Therefore, plans related to any previous job or any other current jobs are not taken into account. Additionally, the survey does not ask for employer contributions to DB pension plans.

### Overview

The SCF is a triennial survey of the balance sheet, pension, income, and other demographic characteristics of U.S. families. The SCF is based on a dual-frame sample design. A first sample is selected to provide good coverage of characteristics that are broadly distributed in the population, such as home ownership. The second sample is selected from statistical records (the Individual Research Tax File) to disproportionately select families that are likely to be relatively wealthy. The survey started in 1983, last available data referring to 2007.

### Variables' definitions

Most of the data in the survey are intended to represent the financial characteristics of a subset of the household referred to as the “primary economic unit” (PEU). In brief, the PEU consists of an economically dominant single individual or couple (married or living as partners) in a household and all other individuals in the household who are financially interdependent with that individual or couple. For example, in the case of a household composed of a married couple who own their home, a minor child, a dependent adult child, and a financially independent parent of one of the members of the couple, the PEU would be the couple and the two children. Therefore, all individuals living in the household are not taken into account.

The “Financial Assets” module of the questionnaire includes information on personal pension plans, in particular Individual Retirement Accounts (IRAs) and Keogh accounts. These may include accounts that the respondent “rolled over” into an IRA after leaving a previous job as well as Roth IRAs, or any other type of IRA or Keogh account that is not part of a retirement plan on a current or past job. IRA-SEP or IRA-SIMPLE accounts are not included as they are treated as job pensions. It is possible to know whether the head of the household or any other PEU member has such accounts (variable X3601). Additionally, for each type of account (Roth IRA, roll-over IRA, regular or other IRA account, Keogh account, unknown), the respondent can provide the account balance in his/her own accounts (variables X6551, X6552, X6553, X6554 and X6756 respectively for each type of account), the ones of his/her partner (variables X6559, X6560, X6561, X6562 and X6757 respectively for each type of account) and the ones of any other PEU member (variables X6567, X6568, X6569, X6570 and X6758 respectively for each type of account). The total amount withdrawn from these accounts during the previous year is also available by type of PEU member (variables X6558 for the head, X6566 for the partner and X6574 for any other PEU member respectively).

The “Work and Pensions” module provides a lot of information about employer-provided pension plans. The survey first allows identifying households where the head of the household and/or his/her partner are included in any pension, retirement, or tax-deferred savings plans connected with their current main job (variables X4135 for the head and X4735 for the partner). Additionally, it is possible to know the type of plan for up to 3 current job pension plans for the head of the household (variables X11000, X11100 and X11200) and 3 current job pension plans for the partner (variables X11300, X11400 and X11500). The different types of plans, mainly DB, DC and mixed, are defined as follows: “In one type, a worker is entitled to receive regular retirement payments for as long as the worker lives, which are most often

determined by a formula as a percentage of final or average pay. In the other type of plan, money accumulates in an account designated for a worker, and that money may be paid out in a variety of ways depending on the plan or the worker's choice. Some plans may be like both of these types.” The respondent can also give more details about the type of plan by giving the name the employer call it. Examples provided to the respondent for DC plans include a 401(k) or 403(b) account, a profit sharing plan, a supplemental retirement annuity, a thrift/savings plan, a “cash balance” plan, and an SEP (Simplified Employee Pension). Examples for mixed plans include a supplemental retirement annuity, a “cash balance” plan, and a plan with a “portable cash option”.

For the same 6 plans (3 current job pension plans for the head of the household and 3 current job pension plans for the partner), the respondent is asked about contributions made (separately for employee and employer contributions) and the level of assets accumulated. Employee contributions can be given as a percentage of the pay or as an amount, currently per pay period or per year, or per pay period during the previous year (for instance, the current employee contributions expressed as an amount are recorded in variables X11042, X11142, X11242, X11342, X11442 and X11542). They include contributions through salary deduction, union dues and direct contributions, but exclude payment on the loan. Employer contributions – excluding contributions to DB plans – can be given as a percentage of the pay, as a match rate on the employee contribution or as a dollar amount per pay period, currently or during the previous year (for instance, the current employer contributions expressed as an amount are recorded in variables X11051, X11151, X11251, X11351, X11451 and X11551). The current balance in these 6 pension accounts can also be provided (variables X11032, X11132, X11232, X11332, X11432 and X11532).

Finally, it is possible to identify families where the respondent or his/her partner currently receives any type of retirement, pension, or disability payments, or is making withdrawals from a pension or retirement account (variable X5313). For up to 6 current pension benefit plans, the type of benefit can be specified: a payment or account from a past job, a disability or military benefit, or a former spouse’s pension (variables X5316, X5324, X5332, X5416, X5424, and X5432). For account plans, defined as plans such as a 401(k), where the whole balance could be taken as one payment, the amounts withdrawn over the previous year can be provided (variables X6464, X6469, X6474, X6479, X6484, and X6489). For other types of plans, the monthly or yearly amount received can be provided (variables X5318, X5326, X5334, X5418, X5426, and X5434).

#### Detailed assessment

Most of the indicators on pension coverage, contributions and benefits can be calculated using the SCF, but only at the family level. Additionally, the survey does not take into account all individuals living in the household, but only a subset of the household represented by the head of the household, his/her spouse or partner, and other individuals in the household who are financially interdependent with that couple. Therefore, any financially independent individual in the household is excluded from the survey.

While information on employer-provided pensions is only available for the head of the household and his/her partner, information on IRA and Keogh accounts is also available for other family members (as an aggregate only as it is not possible to know which of the other family members exactly hold the account). Therefore, at the family level, it is possible to calculate the coverage of IRA and Keogh accounts, the withdrawals taken from and the level of assets accumulated in these accounts.

The coverage of employer-related pensions may be underestimated using this survey as only pension plans related to the current main job of the head of the household and of his/her partner are taken into account. Very detailed information is available for employer-related pensions, such as the type of pension plan, the level of employer and employee contributions, the benefits received by pensioners, as well as assets accumulated. However, only the plans related to the current main job of the individuals are taken

into account. Therefore, if the individual has several jobs with pension coverage or if the individual is covered by a former job's pension plan, this is not taken into account. Additionally, employer contributions to DB pension plans are not collected.

Finally, data accuracy is improved by the use of multiple imputation techniques. To prevent biased inference based on an analysis of only complete cases (i.e. observations without missing values for the variables of interest), an iterative multiple imputation procedure has been applied to SCF data. Multiple imputation simulates the distribution of missing data to allow for a more realistic assessment of variances than single imputation. The imputations are stored as five successive replicates of each data record. Thus, the number of observations in the full data set (22,090) is five times the actual number of respondents (4,418 families).

### *Assessment of the Current Population Survey*

#### Preliminary general assessment

The Current Population Survey (CPS) has information on private pension coverage, and benefits but there is no information on contributions to and assets accumulated in private pension plans. Regarding coverage, only employers' pension plans are considered and, for these plans, the breakdown between DB and DC plans is not available. Additionally, the calculation of coverage may not be fully accurate as proxy interviews are allowed and potential former employers' pension plans are not taken into account. Regarding benefits, private pension beneficiaries can easily be identified in the survey and the amounts of benefits received are available for a wide range of income sources.

#### Overview

The CPS is a monthly survey of about 50,000 households conducted by the Bureau of the Census for the Bureau of Labour Statistics. The survey has been conducted for more than 50 years. The CPS is the primary source of labour force statistics for the population of the United States. In addition to the regular labour force questions, the CPS often includes supplemental questions on subjects of interest to labour market analysts. These include annual work activity and income, veteran status, school enrolment, contingent employment, worker displacement, and job tenure, among other topics. The Annual Social and Economic (ASEC) Supplement is implemented every March and has a module on retirement and pensions. Last available data refer to 2010.

#### Variables' definitions

The survey collects information at the individual level, however only one reference person per household is interviewed and asked questions about all members of the household. If the reference person is not knowledgeable about the employment status of the others in the household, attempts are made to contact those individuals directly. However, if they cannot be contacted, proxy interviews are made and tend to diminish data accuracy.

One of the goals of the ASEC Supplement is to collect data on income from all sources. The reference person is therefore asked whether, during the previous year, anyone in the household received any pension or retirement income from a previous employer or union, or any other type of retirement income (variable RET-YN). Social Security retirement income and Veterans' benefits are excluded. Up to two different retirement income sources can be provided (variables RET-SC1 and RET-SC2) among: company or union pension (include profit sharing), Federal Government (civil service) retirement, U.S. Military retirement, State or Local government pension, U.S. Railroad Retirement, regular payments from annuities or paid up insurance policies, regular payments from IRA, Keogh, 401(k), 403(b), and 457(b) and (f) accounts. The amount received from both sources during the previous year can also be provided (variables RET-VAL1

and RET-VAL2) with the appropriate frequency (weekly, every other week, twice a month, monthly, or yearly).

The questionnaire also includes two questions on employer's pension plans. For each individual of the household that worked during the previous year, either full-time, part-time or in a seasonal job, the reference person has to say whether the employer or union the individual worked for had a pension or other type of retirement plan for any of its employees (variable PENPLAN). If so, the inclusion of the individual in that plan is asked (variable PENINCL).

#### Detailed assessment

The CPS is not a useful survey to investigate private pension coverage by type of plans, contributions and assets accumulated. It can however be used to measure occupational pension coverage and indicators related to pensioners and benefits received. Unfortunately, proxy interviews tend to decrease data accuracy for these indicators.

Employer's pension plan coverage can be obtained using the CPS but may not be fully accurate. Indeed, proxy interviews tend to diminish data accuracy, especially if they represent a significant share of all the interviews. Additionally, inclusion in an employer's pension plan is only provided for individuals that worked during the previous year. There is no information about coverage by a former employer's pension plan or by the current employer's pension plan.

Private pension beneficiaries can be identified in the survey (even if proxy interviews may also decrease the accuracy of the information in that respect). The whole range of private pension plans are taken into account, from both occupational and personal pension plans, and for both public and private sector former employees. The level of benefits received can be provided for up to two different private pension income sources by individual, which may not cover all possible income sources from private pensions.

Three different imputation methods are used in the CPS to compensate for item non-response. The first one consists in using other characteristics of the individual or of the household to assign a value to the missing item. The second one consists in using data already provided by the individual in previous months (each housing unit is interviewed for 4 consecutive months). The third imputation method is commonly referred to as "hot deck" allocation. The value observed for an individual sharing the same characteristics (for instance, most labour force questions use age, race, sex, and occasionally another correlated labour force item such as full- or part-time status) is used to populate the missing item.

#### *Assessment of the Survey of Income and Programme Participation*

##### Preliminary general assessment

The Survey of Income and Programme Participation (SIPP) has information on private pension coverage, contributions, benefits, and assets. The survey provides information to calculate coverage of both occupational and personal pension plans. The breakdown of coverage by type of plan, the level of employee and employer contributions and the amount of assets accumulated are only available for occupational pension plans. Unfortunately, as members of DB plans tend to misunderstand the questions related to their contributions, data accuracy regarding employee contributions is questionable. Regarding benefits, beneficiaries of occupational pension plans can easily be identified in the survey and the amounts of benefits are available for the whole range of existing occupational plans. The survey is carried out at irregular intervals of 2 or 3 years since 1985.

## Overview

The main objective of the SIPP is to provide accurate and comprehensive information about the income and program participation of individuals and households in the United States, and about the principal determinants of income and program participation since 1985. The SIPP offers detailed information on cash and non-cash income on a sub-annual basis. The survey also collects data on taxes, assets, liabilities, and participation in government transfer programs. Each household member aged 15 years old and over is interviewed during 12 waves every four months using the same core questionnaire. In each wave, respondents also have to answer to a different topical questionnaire. The topical module “Retirement expectations and pension plan coverage” has been conducted during the 3<sup>rd</sup> wave of the 2008 panel, which covers the period April-July 2009. The core questionnaire also includes a module on assets which is relevant for personal pension plans. The latest wave available for the core questionnaire is the 5<sup>th</sup>, covering the period December 2009-March 2010.

## Variables’ definitions

In the core questionnaire, respondents having an Individual Retirement Account (IRA) or a Keogh account (variable EAST1B) can be identified, as well as respondents having a 401(k), 403(b) or thrift plan (variable EAST1C). Respondents receiving a retirement pension can choose between different sources: Pension from company or union including income from profit-sharing plans (variable RPENSRSN), Federal Civil Service or other Federal civilian employee pension (variable RFCSRSN), State government pension (variable RSTATRSN), Local government pension (variable RLGOVRSN), U.S. Military retirement pay (variable RMILRSN), U.S. Government Railroad Retirement (variable RRRSN), and other retirement, disability or survivor payments (variable ROTHRRSN). The amount received from each of these sources during each of the 4 months of the reference period is also available (variables T30AMT, T31AMT, T34AMT, T35AMT, T32AMT, T02AMT and T38AMT respectively for each source of retirement income).

Additional questions about retirement income are asked to respondents in the topical module when they answered they receive a retirement income in the core questionnaire. They are asked about the nature of the benefits they are receiving, that could be for the rest of their life (variable EPENLNG1), a limited number of payments (EPENLNG2), or just a single lump sum payment (variable EPENGNG3). The monthly benefit received (variable TPENSAMT) and the type of plan (whether the pension payment is based on years of service and pay, or on the amount of money held in an individual account – variable EPENBASE) are then provided if the pension is paid for the rest of the respondent’s life and the pension comes from the respondent’s own former job/business.

Regarding coverage, the topical module includes questions about retirement plans offered on the respondent’s main job.<sup>45</sup> These plans are defined as plans sponsored by the employer and include regular pension plans as well as other kinds of retirement plans like thrift and savings plans, 401(k) or 403(b) plans, and deferred profit-sharing and stock plans. If the employer proposes this kind of plans (variable EPENSNYN), the respondent is asked whether s/he is included in it (variable EINCPEPENS). If yes, several questions referring to the two most important plans on this job are asked. First, the type of plan can be provided (variables E1PENTYP and E2PENTYP). To help respondents to determine which type of plan they are in (DB, DC or cash balance plan), the interviewer reads the following definitions: “There are several types of retirement plans. In the first type, your benefit is defined by a formula usually involving your earnings and years on the job. In the second type of plan, contributions made by you and/or your

---

45. Respondents are allowed to provide up to two jobs or businesses. The “Retirement expectations and pension plan coverage” topical module only asks about one job/business, which is the main job/business of the respondent, defined as the job s/he has held onto longest.

employer go into an individual account for you. The third type of plan shares some characteristics with the above two plans. In this type of plan, your employer contributes a value equal to a percent of each of your earnings each year and there is a rate of return on that contribution. This type of plan is sometimes called a cash balance plan.”

Questions about contributions depend on whether the respondent makes contributions to these plans (variables E1PENCTR and E2PENCTR) and on the type of plan. If the respondent does not contribute, or if s/he makes not tax-deferred contributions (variables E1TAXDEF and E2TAXDEF), then s/he is asked about the employer contribution during the last year (variables T1YRCONT and T2YRCONT) if the plan is a DC plan or a cash balance plan. If the respondent makes tax-deferred contributions s/he is asked about her/his own contributions (variable TSLFCON1) and her/his employer’s (TJBCONT1)<sup>46</sup> for the main plan (whatever the type). Finally, the total amount of money in the account at the end of the reference period for the two most important plans is also collected (variables T1TOTAMT and T2TOTAMT).

The survey also focuses on tax-deferred plans. Respondents were asked whether their employer offer a tax-deferred plan (E3TAXDEF) and if they participate in it (E3PARTIC) in four different situations: (i) if they declare that their employer does not offer a pension plan, (ii) if they do not know or refuse to say whether they participate in their employer’s pension plans, (iii) if the plans they are enrolled into are not tax-deferred, and (iv) if they are not contributing to their plan. Tax-deferred plans are defined as retirement plans that allow workers to make tax-deferred contributions. To help respondents to determine whether their employer proposes such plans, the interviewer reads the following: “For example, you might choose to have your employer put part of your salary into a retirement savings account and you do not have to pay taxes on this money until you retire. These plans are called by different names, including 401(k) plans, pre-tax plans, salary reduction plans and 403(b) plans.” For these plans, employer and employee contributions can be provided (variables TJBCONT1 and TSLFCON1 respectively), as well as the total amount of money in the account (variable T3TOTAMT).

The survey also allows identifying respondents that participate in any pension or retirement plans offered on any other jobs or businesses they currently have (variable EOTHPEN) as well as respondents that have ever been covered by a pension or retirement plan on any previous job or business (EPREVPEN). For respondents covered by a previous job’s pension plan, it is also possible to know whether they expect to receive benefits from this plan in the future (variable EPREVEXP). This identifies deferred members as defined in this report. For this plan, the survey also collects the type (DB or DC – variable EPREVTYP) and the total amount of money in the account (variable EPREVAMT).

Finally, the topical module “Assets and liabilities”, that has been conducted during the 4<sup>th</sup> wave of the 2008 panel (between August 2009 and November 2009), has information on assets accumulated in IRA accounts (variable TALRB), in Keogh accounts (variable TALKB), and in 401(k), 403(b) or thrift plans (variable TALTB).

#### Detailed assessment

The SIPP is a very valuable survey to measure pension plan coverage and assets accumulated. Respondents included in personal and occupational pension plans can be identified. Within occupational pension plans, pension plans offered on the respondent’s main job, pension plans offered on any other jobs the respondent may currently have, and pension plans offered on any previous jobs are covered. Additionally, the type of plan (DB, DC or cash balance) can be determined for up to two plans offered on the respondent’s main job and for one plan offered on any previous jobs. Moreover, the total amount of

---

46. The survey does not allow interviewers to enter zero values for contributions. Thus, contributions below \$2 should be considered as zero contributions.

money in the respondent's account is provided for the two main plans offered on the main job of the respondent, for one plan offered on any previous jobs, and for any IRA and Keogh accounts.

Indicators related to contributions and benefits can also be calculated using the SIPP, but only for occupational pension plans. Benefits received refer to all occupational plans the respondents have been included in, while only contributions made to plans offered on the respondent's main job are available.

Analyses of historical data from the SIPP show that members of DB plans tend to misunderstand the questions related to their contributions, so that data accuracy regarding employee contributions is questionable. Only State and local government pension plans allow their employees to contribute to DB plans. However, historical data show that the number of respondents declaring themselves as contributing to their occupational pension plan tend to be higher than the actual number of State and local government employees. Therefore, since the 2008 panel, members of DB plans are no more asked contribution questions.

The design of the survey does not allow for the derivation of a continuous series of most of the private pension indicators. As the "Retirement expectations and pension plan coverage" topical module is not provided at each wave, only biennial or triennial series beginning in 1985 can be obtained for most of the indicators. However, as respondents having personal pension plans (IRA or Keogh accounts) can be identified as well as respondents having a 401(k), 403(b) or thrift plan, the broad indicator of coverage can be calculated on a monthly basis.

Two different imputation methods are used in the SIPP to compensate for item non-response. The first one, called data editing, is used whenever a missing item can be logically inferred from other data that have been provided. When information exists on the same record from which missing information can be logically inferred, that information is used to replace the missing information. When data editing is not possible, a sequential hot deck procedure is used. In a general sense, this procedure matches a record with missing data to that of a donor with similar background characteristics and uses the donor's values.

### *Assessment of the Panel Study of Income Dynamics*

#### Preliminary general assessment

The Panel Study of Income Dynamics (PSID) has information on private pension coverage, contributions, benefits, and assets, but only for heads of households and their wives. Coverage of private pension plans includes all types of plans (i.e. occupational and personal) except plans offered on any secondary jobs. The survey does not ask for employer contributions to DB pension plans.

#### Overview

The PSID is a longitudinal study of a representative sample of U.S. individuals (men, women, and children) and the family units in which they reside run since 1968 every two years. It emphasizes the dynamic aspects of economic and demographic behaviour, but its content is broad, including sociological and psychological measures. In 1999, a new section added to the core questionnaire introduced questions on pension participation as well as type of pension plans. While some information is collected about all individuals in the family unit, the greatest level of detail is ascertained for the primary adults heading the family unit; this is the case for pension questions that only cover the head of the household and his wife. Last available data refer to 2007.

## Variables' definitions

The income section of the questionnaire has information on pension beneficiaries. Heads of households who received an income in the previous year from retirement pay/pension (variable ER37134), annuities/IRAs (variable ER37150), or other pension (variable ER37166) can be identified. There is only one general question for the wife, who is asked whether she received any income from pensions or annuities during the previous year (variable ER37466). The amount received from each of these sources in the previous year is also available (variables ER37135, ER37151 and ER37167 respectively for the head and ER37467 for the wife).

Information on benefits paid can also be retrieved for the head of the household and his wife in the pensions' section of the questionnaire. Individuals who converted their former job DC pension plan into an annuity and from which they already receive benefits can be identified as well as individuals who already receive benefits from their former job DB pension plan (variables ER37874 and ER37827 respectively for the 1<sup>st</sup> former pension plan of the head for instance – information for up to two different job pension plans can be provided). The current benefits received from these plans can be provided per month or year (variables ER37881 and ER37835 respectively for the 1<sup>st</sup> former pension plan of the head for instance).

The wealth section of the questionnaire provides information on the household's possession of private annuities or Individual Retirement Accounts (IRAs) (variable ER37587). The amount of money that has been put aside in such plans during the previous 2 years can also be retrieved (variable ER37626).

The pension's section then provides detailed information about the current job pension plan and up to 2 former job pension plans of the head of the household and of his wife: coverage, type of plan, level of contributions and amount of assets accumulated. Regarding coverage, individuals covered by a pension or retirement plan on their present job or through their union can be identified (variable ER37779 for the head<sup>47</sup>), as well as individuals having any tax-deferred compensation or savings plans, such as a thrift, profit-sharing or Keogh plan (variable ER37802). Aside from IRA or Keogh plans, individuals included in a pension or retirement plan, or in any tax-deferred savings plan, through a former employer can also be identified (variable ER37807) and it is possible to determine whether they retained any right in such plans (for instance, whether they expect to receive benefits from a DB plan in the future – variable ER37827 – or whether they left the money to accumulate in a DC plan – variable ER37874).

The survey distinguishes current job pension plans according to 3 types: DB, DC and mixed (variable ER37755). DB plans are defined as pension plans that have a definite formula based on years of service or salary. In DC plans, benefits are based on how much money has accumulated in a person's retirement account. They include 401(k), 403(b), ESOP, SRA, thrift/savings, stock/profit sharing, and money purchase plans. Finally, mixed plans are defined as plans using both ways of setting benefits. Former job pension plans can only be distinguished between DB and DC plans (variable ER37808 for the first former job pension plan of the head<sup>48</sup>).

Both employer and employee contributions can be retrieved for the current job pension plan. The survey collects data on employee mandatory contributions (as an amount, variable ER37748, or as a percentage of pay, variable ER37750), and employee voluntary contributions (as an amount, variable ER37752, or as a percentage of pay, variable ER37754). Employer contributions to DC and mixed plans (as an amount, variable ER37757, or as a percentage of pay, variable ER37759) and to tax-deferred plans are also collected (as an amount, variable ER37804, or as a percentage of pay, variable ER37806).

---

47. To facilitate the reading, only the variables related to the head of the household are provided.

48. To facilitate the reading, only the variables related to the first former job pension plan are provided.

Finally, the level of assets accumulated is available for DC and mixed plans on current job pension plans (variable ER37761), mixed plans on former job pension plans (variable ER37815) and DC plans on former job pension plans (variable ER37875).

### Detailed assessment

The PSID can be used to calculate most of the indicators related to coverage, contributions, benefits and assets, but not for all household members. Indeed, the section on pensions in the survey only provides information about the head of the household and his wife. It is not possible therefore to know whether other members of the household have private pension plans.

The survey allows calculating the coverage of both personal and occupational pension plans. The survey considers personal pension plans, such as IRAs, and within occupational plans, for both the head of the household and his wife, it considers one plan offered on their current job and up to 2 plans offered on former jobs. Unfortunately, no other plans that could be offered on any secondary jobs are considered.

Indicators related to contributions, benefits and assets accumulated can also be calculated using the PSID. These three groups of indicators can be calculated for both occupational and personal pension plans. Regarding contributions, both employer and employee contributions are taken into account, as well as the money put aside in IRAs during the 2 previous years. Only employer contributions to DB pension plans are not collected. Regarding benefits, the breakdown by type of plans is not available as there is no much detail about which types of plan individuals are receiving benefits from. However, benefits received from former job pension plans (maximum 2 per individuals) can be broken down by type. Finally, assets accumulated in DC pension plans are available for a wide range of plans: IRAs, current job pension plans and former job pension plans.

### *Assessment of the Health and Retirement Study*

#### Preliminary general assessment

The Health and Retirement Study (HRS) has information on private pension coverage, contributions, benefits and assets, but is only relevant for the calculation of indicators related to benefits and beneficiaries as the information is only collected on individuals over the age of 50. Only benefits paid by occupational pension plans can be obtained with a high level of accuracy as advanced imputation techniques are used to complete missing information for such plans. Unfortunately, this is not the case for benefits paid by personal pension plans.

#### Overview

The Health and Retirement Study (HRS) surveys more than 22,000 Americans over the age of 50 every two years. The study collects information on physical and mental health, insurance coverage, financial status, family support systems, labour market status, and retirement planning. It is a large-scale longitudinal survey that analyses the labour force participation and health transitions that individuals undergo toward the end of their work lives and in the years that follow. The HRS observational unit is an eligible household financial unit. The HRS household financial unit must include at least one age-eligible member older than 50: 1) a single unmarried age-eligible person; 2) a married couple in which both persons are age-eligible; or 3) a married couple in which only one spouse is age-eligible. Last available data refer to 2008.

## Variables' definitions

The questionnaire is organised in different sections. Two sections are relevant for the calculation of coverage, contributions and benefits of private pension plans: Section J "Employment" and Section Q "Assets and income". Section J is further divided into 3 sub-sections: "Previous job and pension", "Current pension new" and "Past pension". Section J has a record per respondent, while Section Q has one record per household unit.

The sub-section "Previous job and pension" of Section J has information on pension plans offered on the respondent's previous job. The corresponding set of questions is only asked to respondents who changed employer or business since the previous wave. Collected information includes whether respondents were included in a pension or retirement plan through their work (variable JL084), what was the name of the pension plan (variables LJW082A, LJW082B, LJW082C and LJW082D for up to four different plans), what was the type of plan (variables LJW001A, LJW001B, LJW001C and LJW001D for up to four different plans), what the respondents did with the plan when they left their employer – such as leave the money in the plan, withdraw all or part of the money, or convert it to an annuity, for instance – (variables LJW097M1A, LJW097M1B, LJW097M1C and LJW097M1D for up to four different plans), how much benefits they receive if the plan was converted to an annuity (variables LJW015A, LJW015B, LJW015C and LJW015D for up to four different plans), and how much is in the account now if the money has been left in the plan (variables LJW009A, LJW009B, LJW009C and LJW009D for up to four different plans).

The sub-section "Current pension new" of Section J deals with the pension plans offered on the respondents' current job (whether or not they changed employer or business since the previous wave). Respondents participating in a retirement plan or tax-deferred savings plan as part of their benefits package can be identified (variables LJ849 or LJ324).<sup>49</sup> For these respondents, it is possible to determine the name of the plan (variables LJ393\_1, LJ393\_2, LJ393\_3 and LJ393\_4 for up to four different plans) and the type of plan (variables LJ338\_1, LJ338\_2, LJ338\_3 and LJ338\_4 for up to four different plans). Current employee contributions (variables LJ404\_1, LJ404\_2, LJ404\_3 and LJ404\_4 for up to four different plans), current employer contributions (variables LJ396\_1, LJ396\_2, LJ396\_3 and LJ396\_4 for up to four different plans), as well current account balance (variables LJ413\_1, LJ413\_2, LJ413\_3 and LJ413\_4 for up to four different plans) can also be retrieved from this sub-section.

In both sub-sections, pension plans can be broken down between "Type A" plans, "Type B" plans and both types A and B plans. "Type A" plans are DB plans defined as retirement plans in which benefits are usually based on a formula involving age, years of service and salary. "Type B" plans are DC plans defined as retirement plans in which money is accumulated in an account for the member. 401(k), 403(b), 457, ESOP, SRA, thrift/savings, stock/profit sharing, money purchase plans, SEP/SIMPLE, 401(a) and cash balance plans should all be considered as DC plans ("Type B" plans).

The sub-section "Past pension" of Section J is only asked to respondents who reported in previous waves that they were expecting benefits from a former job. If the former job pension plan was a DB plan, respondents should say whether they still expect benefits from this plan, are currently receiving benefits, receive a cash settlement, etc. (variables LJ434\_1M1, LJ434\_2M1, LJ434\_3M1 and LJ434\_4M1 for up to four different plans). If the former job pension plan was a DC plan, respondents should say whether they

---

49. In 2008, respondents were randomly assigned to one of two sets of questions. In the first one, the respondents are asked whether their employer offers a retirement plan or tax-deferred savings plan (variable LJ848) and then whether they participate in it (variable LJ849). In the second one, the respondents are only asked whether they participate in a retirement plan or tax-deferred savings plan offered by their employer (variable LJ324).

still have the pension account, withdrew the money, rolled it over into an IRA, converted the account to an annuity, etc. (variables LJ450\_1M1, LJ450\_2M1, LJ450\_3M1 and LJ450\_4M1 for up to four different plans). If they currently receive benefits from any former plan, the amount they get is available (variables LJ437\_1, LJ437\_2, LJ437\_3 and LJ437\_4 for up to four DB plans and variables LJ462\_1, LJ462\_2, LJ462\_3 and LJ462\_4 for up to four DC plans which have been converted to annuities). Finally, the level of assets accumulated at the time of the interview is also collected (variables LJ465\_1M1, LJ465\_2M1, LJ465\_3M1 and LJ465\_4M1 for up to four different plans).

Finally, Section Q deals with assets and income at the household level. In this section, it is possible to identify which households are receiving any other income from retirement pension (variable LQ215). Who in the household is receiving this income can also be further investigated (the head of the household, the partner, or both). Additionally, the amount received the previous month from that kind of pension is provided separately for the head of the household (variables LQ220\_1 and LQ220\_2 for up to two plans) and for the partner (variables LQ246\_1 and LQ246\_2 for up to two plans). Section Q also allows identifying households (and within the household, which individuals) having money or assets held in and IRA or Keogh account (variable LQ162) and collects, for these accounts, the amount of money put into them during the previous 2 years (variable LQ211), the amount of money held at the time of the interview (variables LQ166\_1, LQ166\_2 and LQ166\_3 for up to three plans), and the amount received before taxes and other deductions if the account has been converted to an annuity (variable LQ190).

#### Detailed assessment

Indicators related to the coverage of active members, contribution levels, and asset accumulated cannot be calculated for the entire working age population using the HRS survey as the information is limited to individuals aged over 50.

The HRS is however a useful source to calculate indicators related to current pensioners and benefits paid to them. Individuals receiving income from retirement pensions can be identified. In addition, for up to two different plans, the monthly net benefit received for both the head of the household and his/her partner is provided. Benefits received from IRA or Keogh accounts converted to annuities are also available. Unfortunately, the breakdown of benefits by type of plan (DB vs. DB) is not available for all plans (only for the former job pension plans).

Data accuracy regarding pension income from occupational plans is increased through imputation techniques. Selected wealth and income variables are imputed for each wave. In particular, the annual pension income for the three largest occupational pension plans is available for all respondents. The imputation method uses all available information, in particular value brackets when the respondents were unwilling to give an exact amount. Unfortunately, benefits received from personal pension plans (such as IRA or Keogh accounts) are not imputed and therefore are not available with a sufficient level of accuracy.

#### *Administrative data sets*

Several administrative data sets having data on private pension coverage, contributions and benefits have been identified for the United States: data for the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project are not publicly available, while data are publicly available for the Employee Benefit Survey, and the Employee Benefits Security Administration's data set.

The EBRI/ICI Participant-Directed Retirement Plan Data Collection Project is the largest, most representative repository of information about individual 401(k) plan participant accounts. The 2007 EBRI/ICI database (latest currently available) covers 45% of the universe of 401(k) plan participants, 12% of plans, and 47% of 401(k) plan assets. The EBRI/ICI project is unique because of its inclusion of data

provided by a wide variety of plan record keepers and, therefore, portrays the activity of participants in 401(k) plans of varying sizes—from very large corporations to small businesses— with a variety of investment options. The database contains only the account balances held in the 401(k) plans at participants' current employers and reflects the entrance of new plans and new participants and the exit of participants who retire or change jobs. Retirement savings held in plans at previous employers or rolled over into individual retirement accounts (IRAs) are not included in the database.

The Employee Benefits Survey (EBS) is an annual survey of the incidence and provisions of selected benefits provided by employers. Beginning in 1990, the survey collects data from a sample of approximately 6,000 private sector and State and local government establishments. It covers paid leave benefits such as holidays and vacations, and person, funeral, jury duty, military, parental, and sick leave; sickness and accident, long-term disability, and life insurance; medical, dental, and vision care plans; defined benefit pension and defined contribution plans; flexible benefits plans; reimbursement accounts; and unpaid parental leave. Also, data are tabulated on the incidence of several other benefits, such as severance pay, child-care assistance, wellness programs, and employee assistance programs. The survey therefore allows calculating occupational pension plans' coverage of civilian workers. Last available data refers to March 2010.

The Employee Benefits Security Administration (EBSA) within the U.S. Department of Labour manages a data set based on information completed by private pension plan sponsors in the Form 5500. All private pension plan sponsors are required to file this form, containing detailed information about their plans' finances and participants. The data set only covers occupational pension plans from the private sector and allows getting information on the number of participants (active, retired or participants with vested rights to benefits), total benefits paid and total contributions received, by type of plan (DB versus DC). The number of participants may be overestimated for two reasons: (i) the participant count may include non-vested employees and 401(k)-eligible employees not actively participating in their plans; and (ii) employers must file one form for each plan they offer, which allows for some employees to be counted twice as individuals covered by both a DB and a DC plan. The Department of Labour developed methods to adjust for these potential problems, although some overestimation of coverage may still remain. The data set does not allow breakdowns of the employee population by demographic characteristics, but likely yields reliable numbers on the types of pension plans being offered to employees.

### *Conclusions*

Many different surveys exist in the United States having information on private pension coverage, contributions and benefits. Of those, two can be combined to calculate most indicators: the SIPP and the PSID. The SIPP can provide a complete picture of private pension coverage, in particular for occupational pension plans, for which plans offered on current and past employment are taken into account. It also provides detailed information on pensioners and benefits paid to them, although only for occupational pension plans (other surveys do have information for both occupational and personal pension plans, but at the level of the household, not at the level of the individual). As the accuracy of the information on contributions is questionable in the SIPP, the PSID can be used as a complement to calculate related indicators. Unfortunately, the information is only available at the level of the household.

**Table 35. Possibility to calculate each indicator for the United States using publicly available data sources**

<b>Indicator</b>	<b>Possibility to calculate the indicator</b>	<b>Source</b>	<b>Data limitations</b>
Pensioners as a % of the population 65+	Partially	SIPP	Only pensioners receiving benefits from occupational plans can be identified.
Active members as a % of the workforce	Yes	SIPP	
Pension members by type of status	Yes	SIPP	Only available for occupational pension plans.
Active members by socio-economic characteristics	Yes	SIPP	
Active members by type of plans	Yes	SIPP	The breakdown between DB, DC and cash balance plans is only available for the most important plan offered on the respondent's main job.
DB plans design	No		
Benefit as a % average wages by type of plans	Partially	SIPP	Only benefits from occupational plans are available.
Contributions in DC plans by type of plan	Yes	PSID	Information is only available at the household level.
Contributions in DC plans by socio-economic characteristics	Yes	PSID	Information is only available at the household level.
Accumulated savings in DC accounts	Yes	SIPP	

## REFERENCES

- Antolin, P. (2007), "Coverage in Funded Pensions", *OECD Working Papers on Insurance and Private Pensions*, No. 19, OECD, Paris.
- Bockerman, P., P. Ilmakunnes and E. Johansson (2011), "Job security and employee well-being: Evidence from matched survey and register data", *Labour Economics*, Vol. 18, Issue 4.
- Capelletti, G., G. Guazzarotti (2010), "Retirement savings in the survey on household income and wealth", *Questioni di Economia e Finanza* No. 77, Banca d'Italia, Rome.
- Clark, A., N. Kristensen and N. Westergaard-Nielsen (2009), "Job satisfaction and co-worker wages: status or signal?", *The Economic Journal*, Vol. 119.
- Eurostat (2009), *Comparative Intermediate EU Quality Report 2007*, version 5, October 2009, Luxembourg.
- Eurostat (2007), "Comparative EU statistics on Income and Living Conditions: Issues and Challenges", Proceedings of the EU-SILC conference (Helsinki, 6-8 November 2006), *Eurostat Methodologies and working papers*, Luxembourg.
- Eurostat (2009), *Description of SILC user database variables: Cross-sectional and Longitudinal*, version 2007.1 from 01-03-09, Luxembourg.
- Frick, J.R. and K. Krell (2010), "Measuring Income in Household Panel Surveys for Germany: A Comparison of EU-SILC and SOEP", *SOEPpaper* No. 265, January 2010, DIW Berlin.
- Gales, W.G. and J.W.R. Phillips (2006), "Pensions, Social Security, Wealth and Lifetime Earnings: Evidence from the Health and Retirement Study", *Working Paper* No. 2006-14, Center for Retirement Research at Boston College, Chestnut Hill, MA.
- Gustman, A.L. and T.L. Steinmeier (2002), "The Influence of Pensions on Behavior: How Much Do We Really Know", *Research Dialogue*, Vol. 71, TIAA-CREF Institute, New York.
- Hauser, R. (2008), "Problems of the German Contribution to EU-SILC: A research perspective, comparing EU-SILC, Microcensus and SOEP", *SOEPpaper* No. 86, January 2008, DIW Berlin.
- Figari, F., H. Levy and H. Sutherland (2006), "Using the EU-SILC for policy simulation: prospects, some limitations and some suggestions", *ISER*, University of Essex.
- McNabb, J., D. Timmons, J. Song and C. Puckett (2009), "Use of administrative data at the Social Security administration", *Social Security Bulletin*, Vol. 69, No. 1, Social Security Administration, Washington.
- Morissette, R. and M. Drolet (2001), "Pension coverage and retirement savings of young and prime-aged workers in Canada, 1986-1997", *The Canadian Journal of Economics*, Issue 34(1), Montréal.

OECD (2005), *Private Pensions: OECD Classification and Glossary*, OECD Publishing, Paris.

OECD (2012), *OECD Pensions Outlook 2012*, OECD Publishing, Paris.

Turner, J., L. Muller and S. Verma (2003), “Defining participation in defined contribution pension plans”, *Monthly Labor Review*, August 2003, Bureau of Labor Statistics, Washington DC.

Url, T. (2010), “Occupational Pension Systems in Austria 2007”, *Austrian Economic Quarterly* 1/2010, WIFO.

## WORKING PAPERS PUBLISHED TO DATE

The full series is listed below in chronological order. Prior to March 2010, the series was named OECD Working Papers on Insurance and Private Pensions. All working papers can be accessed online at: [www.oecd.org/daf/fin/wp](http://www.oecd.org/daf/fin/wp).

### **2012**

WP 20: Coverage of Private Pension Systems: Evidence and Policy Options

WP 19: Annual DC Pension Statements and the Communications Challenge

WP 18: Lessons from National Pensions Communication Campaigns

WP17: Review of the Swedish National Pension Funds

WP16: Current Status of National Strategies for Financial Education: A Comparative Analysis and Relevant Practices

WP15: Measuring Financial Literacy: Results of the OECD INFE Pilot Study

WP14: Empowering Women Through Financial Awareness and Education

### **2011**

WP13: Pension Funds Investment in Infrastructure: Policy Actions

WP12: Designing Optimal Risk Mitigation and Risk Transfer Mechanisms to Improve the Management of Earthquake Risk in Chile

WP11: The Role of Guarantees in Defined Contribution Pensions

WP10: The Role of Pension Funds in Financing Green Growth Initiatives

WP9: Catastrophe Financing for Governments

WP8: Funding in Public Sector Pension Plans - International Evidence

WP7: Reform on Pension Fund Governance and Management: The 1998 Reform of Korea National Pension Fund

### **2010**

WP6: Options to improve the governance and investment of Japan's Government Pension Investment Fund

WP5: The New IAS 19 Exposure Draft

WP4: The EU Stress Test and Sovereign Debt Exposures

WP3: The Impact of the Financial Crisis on Defined Benefit Plans and the Need for Counter-Cyclical Funding Regulations

WP2: Assessing Default Investment Strategies in Defined Contribution Pension Plans

WP1: Framework for the development of financial literacy baseline surveys: A first international comparative analysis

### **OECD Working Papers on Insurance and Private Pensions**

WP41: Policy Action in Private Occupational Pensions in Japan since the Economic Crisis of the 1990s

WP40: Pension Funds' Risk-management Framework: Regulation and Supervisory Oversight

WP38: Managing investment risk in defined benefit pension funds

### **2009**

WP37: Investment Regulations and Defined Contribution Pensions

WP36: Private Pensions and Policy Responses to the Financial and Economic Crisis

WP35: Defined-contribution (DC) arrangements in Anglo-Saxon Countries  
WP34: Evaluating the Design of Private Pension Plans: Costs and Benefits of Risk-Sharing  
WP33: Licensing Regulation and the Supervisory Structure of Private Pensions: International Experience and Implications for China  
WP32: Pension Fund Investment in Infrastructure  
WP31: Pension Coverage and Informal Sector Workers: International Experiences  
WP30: Pensions in Africa

## **2008**

WP29: Ageing and the Payout Phase of Pensions, Annuities and Financial Markets  
WP27: Fees in Individual Account Pension Systems: A Cross-Country Comparison  
WP26: Forms of Benefit Payment at Retirement  
WP25: Policy Options for the Payout Phase  
WP24: National Annuity Markets: Features and Implications  
WP23: Accounting for Defined Benefit Plans: An International Comparison of Exchange-Listed Companies  
WP22: Description of Private Pension Systems  
WP21: Comparing Aggregate Investment Returns in Privately Managed Pension Funds: an initial assessment  
WP20: Pension Fund Performance  
WP19: Coverage of Funded Pension Plans  
WP18: Pension Fund Governance: Challenges and Potential Solutions  
WP17: Funding Regulations and Risk Sharing  
WP16: Evaluating the Impact of Risk Based Funding Requirements on Pension Funds  
WP15: Governance and Investment of Public Pension Reserve Funds in Selected OECD Countries  
WP14: Reforming the Valuation and Funding of Pension Promises: Are Occupational Pension Plans Safer?

## **2007**

WP13: Pension Fund Investment in Hedge Funds  
WP11: Implications of Behavioural Economics for Mandatory Individual Account Pension Systems  
WP10: Portfolio Investment in an Intertemporal Setting: Assessment of the Literature and Policy Implications for Latin American Pension Systems  
WP9: Collective Pension Funds: International Evidence and Implications for China's Enterprise Annuities Reform  
WP8: Pension Fund Regulation and Risk Management  
WP7: Survey of Investment Choice by Pension Fund Members  
WP6: Benefit Protection: Priority Creditor Rights for Pension Funds  
WP5: Benefit Security Pension Fund Guarantee Schemes  
WP4: Governments and the Market for Longevity-Indexed Bonds  
WP3: Longevity Risk and Private Pensions  
WP2: Policy Issues for Developing Annuities Markets

## **2006**

WP1: Funding Rules and Actuarial Methods