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## 2008 COMPARATIVE EU INTERMEDIATE QUALITY REPORT

Version 2 – June 2010

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## 0. LEGAL BASIS

The EU-SILC Framework Regulation (EC N°1177/2003 – Article 16) states the following:

*1. Member States shall produce by the end of the year N+1 an intermediate quality report relating to the common cross-sectional EU indicators based on the cross-sectional component of year N. [...]*

*2. The Commission (Eurostat) shall produce by the end of June N+2 a comparative intermediate quality report relating to the common cross-sectional EU indicators of year N. [...]*

The 2008 comparative intermediate EU quality report aims at summarizing all the information contained in the 2008 national intermediate quality reports that countries sent to Eurostat. The objective is to evaluate the quality of the instrument from a European point of view, i.e. by establishing cross-country comparisons in some of its key quality dimensions.

The outline followed in this document is the one specified in the Commission Regulation N° 28/2004 (Annex IV) about the detailed content of intermediate quality reports to be produced by Eurostat.

This document analyses the national quality reports prepared by all EU Member States except Denmark<sup>1</sup>, as well as Iceland and Norway. Switzerland is not included in this report by lack of information available at Eurostat<sup>2</sup>.

## 1. ACCURACY

The concept of accuracy refers to the reliability of estimates computed from a sample rather than the entire population. This section dwells on methodological features of the EU-SILC samples surveyed in each country and intends to draw a picture of their relevance for estimation purposes.

### 1.1. Sample design

In 2008, the EU-SILC instrument covered 31 countries<sup>3</sup>.

The Framework Regulation calls for the selection of nationally representative probabilistic samples<sup>4</sup>. The observation units are both households and individuals. Households are clusters of individuals and all the members of a selected household are eligible for inclusion in the sample.

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<sup>1</sup> This report includes information on Denmark even if no quality report has been delivered by this country to Eurostat by 15 June 2010.

<sup>2</sup> When this report is written Eurostat has not received the intermediate quality report from Switzerland for the 2008 operation.

<sup>3</sup> The 31 countries are all EU Member States plus Iceland, Norway, Switzerland and Turkey (but producing a quality report is not compulsory for this latter country). As noted before, the present report summarizes the information included in the national quality reports available at Eurostat. See summary table of EU-SILC countries per year in the annex.

<sup>4</sup> For the first time in 2008 Germany did not use quota samples.

The following table summarizes the sampling design by country:

**Table 1: Sampling design (2008)**

<b>Sampling of dwellings/ addresses</b>	Simple random sampling	Malta
	Stratified simple random sampling	Luxembourg, Austria*
	Stratified simple random sampling from former participants of micro census	Germany
	Stratified multi-stage sampling	Czech Republic, Spain, France, Hungary, Latvia, The Netherlands, Poland, Portugal, Romania, United Kingdom
<b>Sampling of households</b>	Stratified simple random sampling	Cyprus, Slovakia
	Stratified multi-stage sampling	Belgium, Bulgaria, Greece, Ireland, Italy
<b>Sampling of individuals</b>	Simple random or systematic sampling	Denmark, Iceland, Sweden, Norway
	Stratified simple random or systematic sampling	Estonia, Lithuania
	Stratified two-phase sampling	Finland
	Stratified two-stage sampling	Slovenia

Source: National Quality Reports 2008.

\* Austrian sampling procedure: Stratified simple random sampling with disproportional allocation.

Most of the countries have adopted the four-year rotational design recommended by Eurostat, except Norway and France where a longer panel duration (eight and nine years, respectively) is used, and Luxembourg where a pure panel is supplemented with a new sample each year. In addition, there are some alterations in certain countries.

Countries that carry out a sampling of individuals generally only select persons of age 16 and over. Despite Eurostat recommendation, all those countries except Estonia do not include members aged between 14 and 16 in their sample of 'selected respondents' in order to activate them when they become 16. Denmark deviates from the Eurostat rules as the sampling frame in this country contains all persons aged 13 and over but households where the selected person is less than 16 at the beginning of the survey year are not interviewed at all for that wave.

Countries using mainly registers are: Denmark, the Netherlands, Finland, Slovenia, Sweden, Iceland and Norway. These countries apply the 'selected respondent model', for which it is not essential to collect the detailed personal variables for all persons in the household. It is allowed to do this collection only for the selected respondent.

## 1.2. Sampling errors

Sampling errors affect any indicator calculated from the EU-SILC data, caused by observing only a fraction of the target population. Measuring sampling errors is an important step in assessing the accuracy as confidence intervals in which the population value lies with a high probability can be easily derived. Assuming the estimator follows a normal distribution, a confidence interval at 95% is centred at the estimated value and the half-length is given by  $1.96\sigma$ , where  $\sigma$  denotes the sampling error. It is implicitly assumed in this development that

there are no non-sampling errors. However, their effect can be significant and can distort the confidence intervals. Next section examines non-sampling errors in EU-SILC.

The following table presents the different methods used by the countries to estimate the standard errors for 2008 indicators.

**Table 2: Method used for variance estimation by country (2008)**

<b>Belgium</b>	No information about the method used.
<b>Bulgaria</b>	JRR method.
<b>Czech Republic</b>	JRR method.
<b>Denmark</b>	No quality report received.
<b>Germany</b>	No information about the method used.
<b>Estonia</b>	Deville linearization approach. After the linearization the variance estimated were computed using the Bascula module of Blaise.
<b>Ireland</b>	No information about the method used.
<b>Greece</b>	JRR method.
<b>Spain</b>	Bootstrap replication method.
<b>France</b>	Linearization plus POULPE (software developed by INSEE).
<b>Italy</b>	Linearization using SAS programs developed by Eurostat and calculation of sampling variance using GENESEES software (software used at ISTAT to evaluate sampling errors).
<b>Cyprus</b>	No information about the method used.
<b>Latvia</b>	Taylor linearization method (using the software SUDAAN and SPSS)
<b>Lithuania</b>	Taylor linearization method using the SAS macro-program CLAN.
<b>Luxembourg</b>	Standard errors not provided.
<b>Hungary</b>	No information about the method used.
<b>Malta</b>	No information about the method used.
<b>The Netherlands</b>	JRR method.
<b>Austria</b>	Linearization method*.
<b>Poland</b>	Bootstrap replication method.
<b>Portugal</b>	No information about the method used.
<b>Romania</b>	JRR method.
<b>Slovenia</b>	Bootstrap replication method.
<b>Slovakia</b>	Linearization method with SAS plus 'surveymeans' in SAS software.
<b>Finland</b>	Bootstrap replication method.
<b>Sweden</b>	No information about the method used.
<b>United Kingdom</b>	No information about the method used.
<b>Iceland</b>	Linearization with Software R using households as clusters.
<b>Norway</b>	No information about the method used.

Source: National Quality Reports 2008.

\* Statistics Austria applied bootstrapping for two indicators (before social transfers including old-age and survivors' benefits: 65+ years and woman 65+ years); for all other indicators linearization was used.

Among the countries for which the used method was explained, the majority used the linearization approach (8 countries). The Jackknife Repeated Replication (JRR) procedure was then applied in 5 countries and the Bootstrap replication method in 4 countries.

The central indicator of EU-SILC is the at-risk-of-poverty rate (after social transfers), which is defined as the share of persons with an income below 60% of the median income (at-risk-of-poverty threshold). This indicator is used as a reference for determining the minimum level of accuracy to be achieved.

The next table contains estimated standard errors, calculated by the countries, **as stated in the national Quality Reports<sup>5</sup>**, for the at-risk-of-poverty rate.

**Table 3: Estimated standard errors for the at-risk-of-poverty rate (2008)**

	<b>At-risk-of-poverty rate (after social transfers)</b>	<b>Standard error</b>
<b>Belgium</b>	14.7	0.68
<b>Bulgaria</b>	21.4	1.0*
<b>Czech Republic</b>	9.1	0.9*
<b>Denmark</b>	11.8	:
<b>Germany</b>	15.3	0.10
<b>Estonia</b>	19.5	0.6
<b>Ireland</b>	15.5	:
<b>Greece</b>	20.1	0.82
<b>Spain</b>	19.6	0.42
<b>France</b>	13.4	0.4
<b>Italy</b>	18.7	0.33
<b>Cyprus</b>	16.3	0.4
<b>Latvia</b>	25.5	0.79
<b>Lithuania</b>	20.0	0.9
<b>Luxembourg</b>	13.4	:
<b>Hungary</b>	12.4	0.64
<b>Malta</b>	14.7	0.8
<b>The Netherlands</b>	10.6	0.6
<b>Austria</b>	12.4	0.49
<b>Poland</b>	16.9	0.42
<b>Portugal</b>	18.5	4.31
<b>Romania</b>	23.4	0.9*
<b>Slovenia</b>	12.3	0.24
<b>Slovakia</b>	10.9	0.47

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<sup>5</sup> The figures of the indicator could be different from the current figures published on the Eurostat website.

	<b>At-risk-of-poverty rate (after social transfers)</b>	<b>Standard error</b>
<b>Finland</b>	13.6	0.44
<b>Sweden</b>	12.2	0.24
<b>United Kingdom</b>	19.0	:
<b>Iceland</b>	10.1	0.60
<b>Norway</b>	11.4	0.5*

Source: National Quality Reports 2008.

‘\*’ Estimation based on the values presented on the breakdowns.

‘.’ No information in the National Quality report 2008.

### 1.3. Non-sampling errors

The term 'non-sampling error' is a generic one that encompasses any errors other than sampling errors. The non-sampling errors discussed in this section are: sampling frame and coverage errors, measurement and processing errors and non-response errors.

#### *1.3.1. Sampling frame and coverage errors*

Coverage errors are caused by the imperfections of a sampling frame for the target population of the survey. The target population is the set of elements for which estimates are desired while the frame population is composed of the units which are eligible for inclusion through a given sampling procedure. Ideally, there must be a one-to-one relation between target and frame population elements. If not, there are frame imperfections and we can encounter either over-coverage or under-coverage.

The 29 countries which took part in the 2008 EU-SILC operation have used different sampling sources. The following table summarizes the information provided in the national quality reports:

**Table 4: Source and last update of the sampling frame (2008)**

	Source of the frame	Last update in the frame	Comments
<b>BE</b>	Central Population Register	01/02/2008	“The sampling frame is the Central Population Register. This Register includes all private households and their current members residing in the territory. Persons living in collective households and in institutions are excluded from the target population. The Central Population Register of 1 February was used.”
<b>BG</b>	Population census 2001	Not provided	“Sampling frame was updated according to the administrative changes occurred in human settlements statute in Bulgaria - some villages was recognized as towns; transition of municipalities or settlements from one administrative district to another”. “The frame is updated every ten years through the general population census. Only sampling frame was updated regularly according to the administrative changes occurred”
<b>CZ</b>	Geographical register	Continuously	“Sampling frame covers existing buildings with the information on number of dwelling units in each building.”
<b>DE</b>	DSP (Subsample of the German microcensus)	Each year	“The sampling frame for the random sample is an access panel, the so called permanent sample of households ready to co-operate with official statistics (DSP) that was established in German official statistics in 2004. The households in the DSP are recruited from the German micro census (Mikrozensus). Each year new households are recruited for the DSP after having participated in the microcensus. Thus, the DSP as a sampling frame is steadily growing.”
<b>EE</b>	Population register	Continuously	
<b>IE</b>	Not provided	Not provided	
<b>EL</b>	Population census	Just before the fieldwork	“The dwellings in each newly selected Census area are enumerated just before the fieldwork, so coverage errors ought to be minor.”
<b>ES</b>	Municipal Register (population register)	26/04/2007	
<b>FR</b>	1999 Census + Sampling frame of new dwellings (BSLN)	End 2005	

<b>IT</b>	Registers of the municipalities	Continuously	
<b>CY</b>	2001 Census of Population	Not provided	The Census data is supplemented with a list of newly constructed houses. “The Statistical Service of Cyprus was provided by the Electricity Authority of Cyprus (E.A.C.) with a list of domestic electricity consumers, which contained all the new connections of electricity between 2001 and 2007.”
<b>LV</b>	Population Census 2000 + Population register	October 2007	
<b>LT</b>	(population register)	Regularly	
<b>LU</b>	Luxembourg Social Security database (IGSS) + Sample of international civil servants	31/12/2007	
<b>HU</b>	2001 Population and housing census	Not provided	“The frame is an updated dataset of addresses used in the 2001 population and housing census, thus the under-coverage is due to the new building completed after the last updating.”
<b>MT</b>	Census of Population and Housing 2005 database	Annually	“The sample is extracted from the Census of Population & Housing 2005 which is updated regularly on annual basis. Therefore, this database gives quite a good picture of all the private households and their current members. Despite this, 30 households from the sample were ineligible addresses which correspond to 0.7 per cent of the total sample selected.”
<b>NL</b>	Population register	Not provided	“The EU-SILC sample has been selected from the sub-sample of the responding addresses to LFS which are willing to participate to EU-SILC. This feature of the Dutch EU-SILC sampling design may bias the sample seriously as the units which have accepted to take part in EU-SILC after responding to 5 consecutive waves of LFS are likely to have specific patterns.”
<b>AT</b>	Central residence register	31/12/2007	“Zentrales Melderegister – ZMR”
<b>PL</b>	Domestic Territorial Division Register	01/01/2007	

<b>PT</b>	Census of Population and Housing 2001	Not provided	“Since the end of 2006 the MS is being updated. Each quarter a set of approximately 100 areas are updated in the field. There is no information about coverage problems.”
<b>RO</b>	Census of the Population and Dwellings	Not provided	“Due to the lack of appropriate information, the new dwellings, built after 2002 Census of the Population and Dwellings, that could possibly constitute a sampling frame of the new dwellings, have not been taken into account. Thus, an update has been done for the PSU included in EMZOT in 2007 year, on the basis of a micro-census type survey. The micro-census has aimed in particular the updating of the addresses of the dwellings.”
<b>SI</b>	Central Register of Population (CRP)	Just before the fieldwork	“For EU-SILC the sampling frame was built from the CRP on 30th June 2006. Before the fieldwork we updated the sampling frame with the latest available CRP data at the Ministry of the Interior.”
<b>SK</b>	2001 Population and Housing Census	2007	
<b>FI</b>	Population register	Continuously	“The sample is drawn from the Population Information System maintained by the Population Register Centre of Finland. The register is a continuously updated population register based on domicile. It is updated daily with information on population changes: births, deaths, migration, immigration and emigration, marriages, divorces, adoptions and changes of names. The Population Information System is a compilation of local registers kept up by population register districts.”
<b>SE</b>	TRP(Total Population Register)	Continuously	“Every year a systematic sample is drawn from the register of total population (TPR). This is sorted by age and covers the entire population according to the national registration.”
<b>UK</b>	PAF (Postcode Address File)	Updated twice a year	“Households are sampled from the small users Postcode Address File (PAF). This is a list of all addresses maintained by the UK Post Office. The AF files used on our sampling system are updated twice a year. The Postcode address file is ordered by postcode sector, which are similar in size to a UK electoral ward area. The postcode sectors are the Primary Sampling Units (PSU-1) for EU-SILC and the Secondary Sampling Units (PSU-2) are addresses within those sectors.”
<b>IS</b>	Population register	December 2006	“The sampling frame is the population register of Iceland in the end of the year 2007.”
<b>NO</b>	1990 Census (FoB90) + Population register	Annually + monthly	

Source: National Quality Reports 2008.

-- No information for Denmark.

### *1.3.2. Measurement and processing errors*

Generally, measurement errors arise from the questionnaire, the interviewer, the interviewee and the data collection method used. The information presented in this section is very varied among countries.

In order to better assess and improve the checking of the data quality, countries are asked to focus in next quality reports on the following items:

- Measurement errors
  - The different sources of measurement errors likely to be found
  - Questionnaire design and testing
  - Intensity and efficiency of the interview training
  - Quality control studies (re-interview, record check studies...)
  - Modelling and methodological studies
- Processing errors
  - Quality of the description of data entry, coding and editing controls
  - Are main processing errors listed?
  - Are rates of failed edits for income variables given?
  - And of failed edits for other relevant variables?

The information available on records of processing procedures and errors in national quality reports is limited. In particular, little quantitative information is available on indicators such as rates of failed edits for income variables.

### *1.3.3. Non-response errors*

All surveys have to deal with non-response, i.e. information missing for some of the sample units.

This section presents a summary and a comparison 2007-2008 of the available information.

#### *1.3.3.1. Achieved sample size*

The following table ("Achieved sample size") shows the achieved sample size for the 2008 cross-sectional component<sup>6</sup>. Column (1) shows the number of household interviews completed. Column (2) shows the number of personal interviews completed in 'survey countries', and the number of adults (aged 16+) for which information on income – and also on certain basic characteristics – has been compiled from registers. Column (3) shows the number of completed personal interviews in 'register' countries; these concern non-income variables which cannot be compiled from registers. Since only one such respondent is selected per household – and since a household is accepted as completed only if interview with that selected respondent is completed – the number in column (3) is the same as the number in column (1) for register countries.

The second part of the table (columns (4) – (6)) shows the number of household interviews completed for the rotational group of the sample introduced for the first time in 2008.

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<sup>6</sup> In order to calculate the number of households and persons 16+ in full cross-sectional sample, the records in H and P files are counted respectively.

The last two columns of the table compares the 2008 and 2007 cross-sectional sample sizes in terms of the number of completed household interviews.

**Table 5: Achieved sample size (2008)**

	Achieved sample size: cross-sectional sample 2008			Achieved sample 2007				
	Total sample 2008			New sample (households) 2008			Total	ratio
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	households	persons aged 16+	selected Respondents	Rotation Group	households	% of Total	households	2008/2007
<b>BE</b>	6300	12154		4	1574	25	6348	0.99
<b>BG</b>	4344	10373		2	1682	39	4270	1.02
<b>CZ</b>	11294	22754		4	2072	18	9675	1.17
<b>DK</b>	5778	11545	5778	1	1643	28	5783	1.00
<b>DE</b>	13312	24336		4	3719	28	14153	0.94
<b>EE</b>	4744	10851		8	1447	31	5146	0.92
<b>IE</b>	5247	10116		1	1194	23	5608	0.94
<b>EL</b>	6504	14123		1	2484	38	5643	1.15
<b>ES</b>	13014	30082		4	3875	30	12329	1.06
<b>FR</b>	10418	20125		4	1894	18	10498	0.99
<b>IT</b>	20928	44286		4	6115	29	20982	1.00
<b>CY</b>	3355	8090		1	840	25	3505	0.96
<b>LV</b>	5196	10910		4	1889	36	4471	1.16
<b>LT</b>	4823	10473		3	1247	26	4975	0.97
<b>LU</b>	3779	7638		n.a.	n.a.	n.a.	3885	0.97
<b>HU</b>	8818	18710		4	2542	29	8737	1.01
<b>MT</b>	3368	7874		4	1028	31	3477	0.97
<b>NL</b>	10337	19519	10337	3	3621	35	10219	1.01
<b>AT</b>	5711	10955		4	1861	33	6806	0.84
<b>PL</b>	13984	33801		3	3821	27	14286	0.98
<b>PT</b>	4454	10101		4	1332	30	4310	1.03
<b>RO</b>	7805	16527		4	1930	25	8031	0.97
<b>SI</b>	9028	25005	9028	2	3390	38	8707	1.04
<b>SK</b>	5450	14098		3	1481	27	4941	1.10
<b>FI</b>	10472	21131	10472	3 - 6	5484	52	10624	0.99
<b>SE</b>	7452	14889	7452	7	2179	29	7183	1.04
<b>UK</b>	8936	16825		3	1876	21	9275	0.96
<b>IS</b>	2887	6618	2887	1	794	28	2872	1.01
<b>NO</b>	5553	10897	5553	5	622	11	6013	0.92

Source: Micro-database (March 2010).

(1), (5), (7) Number of households for which an interview is accepted for the database in 2008 (1), for the new part of the sample (5) or in 2007 (7).

(2) Number of persons of 16+ who are members of interviewed households who completed a personal interview in 2008.

(3) Number of selected respondents who are members of the households who completed a personal interview in 2008.

(4) Number of the new rotational group in 2008.

(6) Percentage of the new sample compared with the total sample in 2008.

(8) Comparison of the number of households for which an interview is accepted for the database in 2008 with 2007 data.

Columns (4), (5) and (6) are not applicable for Luxembourg as this country uses a pure panel.

Main findings in these tables are the following:

- As in 2007, in 2008 the achieved sample size in terms of number of households varies from below 4000 households in Iceland (2887), Cyprus (3355) and Luxembourg (3779), to 12000-15000 in Spain (13014), Germany (13312) and Poland (13984), and nearly 21000 in Italy (20928). In terms of personal interviews, the range goes from below 7000 in Iceland (6618) to nearly 45000 in Italy (44286).
- The percentage of newly interviewed households is below 20% in the Czech Republic (18%), and above 30% in Bulgaria (39%), Latvia (36%), Malta (31%), the Netherlands (35%), Austria (33%) and Slovenia (38%). Norway and France present also a percentage below 20% but it should be reminded that these countries have a longer panel duration (8 and 9 years, respectively). In the other extreme, Finland has a percentage above 50% but it is because in this country half of the sample is renewed for the cross-sectional sample.
- A significant increase between 2007 and 2008 was observed in the achieved sample size in the Czech Republic (+17%), Greece<sup>7</sup> (+15%), Latvia (+16%) and Slovakia (+10%).

#### *1.3.3.2. Unit non-response*

The Commission Regulation 28/2004 defined indicators aimed at measuring unit non-response in EU-SILC: Address contact rate (Ra), Household response rate (Rh), Individual response rate (Rp).

- Address contact rate (Ra): the ratio of the number of addresses successfully contacted, to the number of valid addresses selected.
- Household response rate (Rh): the ratio of the number of household interviews completed (and accepted in the data base), to the number of eligible households at the contacted addresses.
- Individual response rate (Rp): the ratio of the number of personal interviews completed (and accepted in the data base), to the number of eligible individuals in completed households.

Non-response at the three stages – address contact, household interview and personal interview – is cumulative, so that the overall non-response rates for households and individual interviews are defined, respectively, as follows:

- Overall household interview non-response rate:  $NRh = 1 - (Ra * Rh)$
- Overall personal interview non-response rate:  $*NRp = 1 - (Ra * Rh * Rp)$

The following table presents the response rates for the whole sample (W) and for the new entries (N) by country.

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<sup>7</sup> Comment from Greece: “Due to high design effect, it is noticed that from the 2008 and in order to reduce the design effect and to achieve the minimum sample size according to regulation, the number of primary sampling units has been increased by 23% and additionally the number of secondary sampling units (households) by 25%.”

**Table 6: Response rates: whole sample and new sample (2008)**

	Ra_W	Ra_N	Rh_W	Rh_N	Rp_W	Rp_N	NRh_W	NRh_N	*NRp_W	*NRp_N
BE	99.09	98.36	65.47	42.99	99.17	99.02	35.13	57.71	35.66	58.12
BG	92.93	92.78	71.83	62.04	98.98	99.20	33.25	42.44	33.93	42.90
CZ	97.25	91.04	83.10	53.10	100	100	19.18	51.66	19.18	51.66
DK	79.77	85.13	69.28	67.06	100	100	44.73	42.91	44.73	42.91
DE	77.93	57.34	96.98	100	99.53	99.30	24.42	42.66	24.78	43.06
EE	92.39	86.25	85.48	72.53	99.17	99.17	21.03	37.44	21.68	37.96
IE	100	100	76.25	64.37	100	100	23.75	35.63	23.75	35.63
EL	99.76	99.40	90.18	88.24	99.40	99.54	10.03	12.29	10.57	12.69
ES	98.58	97.87	80.68	64.97	99.54	99.46	20.47	36.41	20.84	36.75
FR	99.68	98.95	82.72	74.74	100	100	17.54	26.04	17.54	26.04
IT	99.15	98.79	85.53	80.73	100	100	15.20	20.25	15.20	20.25
CY	99.75	99.08	91.57	87.14	99.81	100	8.66	13.67	8.83	13.67
LV	96.70	95.99	79.21	66.33	98.29	97.99	23.41	36.33	24.72	37.61
LT	99.41	98.58	84.22	71.87	99.65	99.04	16.28	29.15	16.58	29.83
LU	95.06	NA	69.93	NA	100	NA	33.53	NA	33.53	NA
HU	99.35	98.39	80.97	70.47	100	100	19.55	30.66	19.55	30.66
MT	95.27	93.77	81.63	74.22	100	100	22.24	30.40	22.24	30.40
NL	94.50	96.02	86.42	79.46	100	100	18.34	23.70	18.34	23.70
AT	97.79	99.41	73.66	64.62	98.26	98.43	27.96	35.76	29.22	36.77
PL	99.57	98.82	85.37	70.06	93.54	93.31	15.00	30.77	20.48	35.40
PT	98.93	99.50	92.71	94.94	99.18	99.30	8.28	5.53	9.03	6.20
RO	99.84	99.42	95.44	87.05	99.67	99.90	4.71	13.45	5.02	13.54
SI	97.70	95.62	77.85	70.91	100	100	23.94	32.20	23.94	32.20
SK	96.48	99.47	96.49	99.06	99.09	100	6.90	1.46	7.75	1.46
FI	100	100	81.78	74.87	100	100	18.22	25.13	18.22	25.13
SE	92.55	92.28	80.02	80.67	100	100	25.95	25.56	25.95	25.96
UK	97.76	96.64	74.66	85.90	100	100	27.01	16.99	27.01	16.99
IS	100	100	73.29	75.55	100	100	26.71	24.45	26.71	24.45
NO	99.33	98.69	63.12	59.01	100	100	37.30	41.76	37.30	41.76

Source: Micro-database (March 2010)

W: whole sample

N: new part of the sample. The rotational group of the new part of the sample are the following: AT: 4, BE: 4, BG: 2, CY: 1, CZ: 4, DE: 4, DK: 1, EE: 8, ES: 4, FI: 3, FI: 6, FR: 4, EL: 1, HU: 4, IE: 1, IS: 1, LU: -, LV: 4, LT: 3, MT: 4, NL: 3, NO: 5, PT: 4, RO: 4, SE: 7, SI: 2, SK: 3, UK: 3.

The main conclusions derived from this table are the following:

- The address contact rates for the whole sample (Ra\_W) are rather high. The lowest values are observed in Germany (78%) and Denmark (80%). For the new sample (Ra\_N) the values are always below the ones for the whole sample with only five exceptions: Denmark (W: 80; N: 85), the Netherlands (W: 95; N: 96), Austria (W: 98; N: 99), Portugal (W: 99; N: 99.5) and Slovakia (W: 96; N: 99).
- The household response rates for the whole sample (Rh\_W) differ considerably among countries: from Norway and Belgium (both below 66%) to Germany, Slovakia and Romania (all above 95%). Again (as for Ra) the values for the new sample (Rh\_N) are always below the ones for the whole sample with only six exceptions: Germany (W: 97; N: 100), Portugal (W: 93; N: 95), Slovakia (W: 96; N: 99), Sweden (80; 81), United Kingdom (W: 75; N: 86) and Iceland (W: 73; N: 76).

- The individual response rate for the whole sample (Rp\_W) as well as for the new sample (Rp\_N) is above 98% for all countries with only one exception: Poland (around 93%).
- The overall household interview non-response rate for the whole sample (NRh\_W) is below 10% in four countries: Cyprus (9%), Portugal (8%), Romania (5%) and Slovakia (7%). On the other extreme, in Denmark the value is 45%. The rates for the new sample (NRh\_N) are always lower than for the whole sample with only four exceptions: Denmark (W: 45; N: 43), Portugal (W: 8; N: 6), Slovakia (W: 7; N: 1) and Iceland (W: 27; N: 24).
- The overall personal interview non-response rate (\*NRp) presents a similar picture as the one of the overall household interview non-response rate. The biggest difference is found in Poland because the low rate of Rp implies a change in \*NRp.

Data for the new entries are missing in Luxembourg because of the use of a pure panel.

At this stage, elaborate models controlling many external control variables are desirable in order to correct non-response. Most of the countries apply either a standard post-stratification based on homogeneous response groups or a more sophisticated logistic regression model.

### *1.3.3.3. Item non-response*

Item non-response is high for some income components and it has been dealt with by imputation. This technique aims to ‘fill the holes’ in a distribution, so only unit non-response can be assumed. However, it has to be kept in mind that imputed values are not exact values and underlain on a model that could not be the perfect fit of the reality.

Imputation can have a significant effect on the overall accuracy: it generally skews a sample distribution so estimates will be biased. Furthermore, variance estimates assuming that imputed values are exact ones will generally be biased.

The revision of the income flags, effective starting with the 2008 operation, allows some analysis of the impact of the imputation of the EU-SILC income data. It is namely possible to have information on the used imputation method per record. A digit in the flag variable associated to each income value refers to the main source of imputation used for the components, making the distinction between the deductive imputation, the statistical imputation and the gross/net conversion.

## **1.4. Mode of data collection**

Information can be extracted either from registers or collected from interviews.

For the interview, there are four different ways to collect the data: Paper-Assisted Personal Interview (PAPI), Computer-Assisted Personal Interview (CAPI), Computer-Assisted Telephone Interview (CATI), Self-administrated questionnaire.

The following table presents the different modes of data collection used by the countries for the 2008 operation<sup>8</sup>.

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<sup>8</sup> Figures are obtained adding up the number of interviews carried out by each mode of data collection by each country and dividing it by the total of interviews carried out in each country.

**Table 7: Mode of data collection (Cross-sectional 2008)**

	<b>PAPI</b>	<b>CAPI</b>	<b>CATI</b>	<b>Self-administered</b>
<b>Belgium</b>	.	100	.	.
<b>Bulgaria</b>	100	.	.	.
<b>Czech Republic</b>	85.77	14.11	.	0.12
<b>Denmark</b>	.	.	94.98	5.02
<b>Germany</b>	.	.	.	100
<b>Estonia</b>	3.23	96.47	0.29	0.01
<b>Ireland</b>	.	100	.	.
<b>Greece</b>	84.62	11.08	4.23	0.08
<b>Spain</b>	.	92.38	7.62	.
<b>France</b>	.	100	.	.
<b>Italy</b>	100	.	.	.
<b>Cyprus</b>	0.16	99.84	.	.
<b>Latvia</b>	8.49	74.11	17.31	0.1
<b>Lithuania</b>	80.46	.	19.05	0.48
<b>Luxembourg</b>	100	.	.	.
<b>Hungary</b>	100	.	.	.
<b>Malta</b>	.	100	.	.
<b>The Netherlands</b>	.	.	100	.
<b>Austria</b>	.	71.63	28.37	.
<b>Poland</b>	100	.	.	.
<b>Portugal</b>	5.06	94.94	.	.
<b>Romania</b>	100	.	.	.
<b>Slovenia*</b>	.	51.23	48.77	.
<b>Slovakia</b>	99.52	.	.	0.48
<b>Finland</b>	.	3.72	96.28	.
<b>Sweden</b>	0.14	.	99.86	.
<b>United Kingdom</b>	.	99.85	0.15	.
<b>Iceland</b>	.	.	100	.
<b>Norway</b>	.	0.94	99.06	.

Source: Micro-database (February 2010).

(\*) In Slovenia the mode of interviewing depends first of all on the wave of the interviewing and availability of the phone in the household.

The main conclusions from this table are the following:

- PAPI is the mode of data collection mostly used in ten countries, CAPI in twelve, CATI in six and Self-administered only in one.
- Among the twelve countries using CAPI as main mode of data collection, only eight present a percentage above 80%.

- Even if CATI is mainly used in six countries, eight additional countries also use it; in the majority of cases CATI is used as a complement when CAPI has been used, with only one exception Lithuania which uses it as a complement for PAPI.

Proxy interviewing is permitted if the proxy rate is kept as limited as possible. Some countries that encountered rather high non-response rates chose to use proxies to ensure a certain degree of accuracy in their data. For instance, in countries that use the selected respondent type of survey, the household respondent (in most cases selected respondent) is asked for information about all household members, therefore, these countries have a high percentage of proxy interviews concerning personal interviews. Nevertheless, it has to be kept in mind that the respondent error tends to increase by proxy responses. This kind of interviewing can result in biased responses, because the proxy generally takes place in the case of selective categories of persons, for example people in employment or self-employment which are less accessible than retired or unemployed persons. That problem can become much more serious in a complex survey like EU-SILC, with complex content. For instance, EU-SILC collects non-monetary income components (e.g., income from private use of company car...) which are difficult to report by proxy. The same applies of course to subjective and personal questions.

The table below presents the percentage of proxies in 2008 (cross-sectional).

**Table 8: Percentage of proxy interviews (cross-sectional)**

<b>Belgium</b>	<b>Bulgaria</b>	<b>Czech Republic</b>	<b>Denmark</b>	<b>Germany</b>	<b>Estonia</b>
16%	19%	12%	49%	21%	13%
<b>Ireland</b>	<b>Greece</b>	<b>Spain</b>	<b>France</b>	<b>Italy</b>	<b>Cyprus</b>
31%	7%	40%	28%	19%	17%
<b>Latvia</b>	<b>Lithuania</b>	<b>Luxembourg</b>	<b>Hungary</b>	<b>Malta</b>	<b>The Netherlands</b>
16%	17%	24%	17%	21%	1%
<b>Austria</b>	<b>Poland</b>	<b>Portugal</b>	<b>Romania</b>	<b>Slovenia</b>	<b>Slovakia</b>
27%	18%	18%	20%	23%	5%
<b>Finland</b>	<b>Sweden</b>	<b>United Kingdom</b>	<b>Iceland</b>	<b>Norway</b>	
43%	3%	10%	0%	28%	

Source: Micro-database (February 2010).

This table outlines that only five countries present a proxy rate below 10% (Greece, the Netherlands, Slovakia, Sweden and Iceland), and at the other extreme twelve countries have a rate above 20% (Denmark, Germany, Ireland, Spain, France, Luxembourg, Malta, Austria, Romania, Slovenia, Finland and Norway); among these last countries three present a rate above 40% (Denmark, Spain and Finland).

The following table presents the additional information provided in the national quality reports on proxy interviews:

**Table 9: Comments from countries on proxy interviews (2008)**

<b>Belgium</b>	No information.
<b>Bulgaria</b>	The interviewers decided on proxy interviews only if the substitute respondents

	were well informed about the situation in the household and there was no other possibility to get the information. Proxy interviews were performed in the following situations: - no contact with the respondent because of long-term absence (e.g. work in another town or abroad); - respondent's disability or illness; - the respondent was only available late at night and was not willing to participate in such a long interview, while at the same time the proxy could provide detailed information, even based on the documents, such as tax statements.
<b>Czech Republic</b>	Registers are not used at all. Due to strict definition of response, there are any "not completed interviews" at individual level or "not contacted individuals" (all such cases were filled as proxy or were self-administered by respondents).
<b>Denmark</b>	No quality report received.
<b>Germany</b>	No additional information.
<b>Estonia</b>	No additional information.
<b>Ireland</b>	No additional information.
<b>Greece</b>	No additional information.
<b>Spain</b>	The percentage of proxy interviews is very high in the Spanish SILC. It is related to the individual non-response. One of the major concerns is the individual non-response after the bad results in 2004 survey (15.63 %). Since the 2005 survey an effort in fieldwork has been made to reduce this individual non-response. Once the individual non-response has been reduced, there is from 2005 a high rate of proxy interviews that we are trying to reduce.
<b>France</b>	No additional information.
<b>Italy</b>	No additional information.
<b>Cyprus</b>	Proxy interviews occurred mainly for persons serving as national guards or for students fully supported by their parents and temporarily away; both of these categories were considered to be members of their parents' households.
<b>Latvia</b>	No additional information.
<b>Lithuania</b>	Proxy interviews were allowed for persons temporarily away or in incapacity. To avoid non-response within household proxy interview as an exception was allowed when it was no possibility to make personal interview and another member of household could provide the information. Some data collected by proxy interview were amended by telephone, but method of data collection was not changed in the microdata.
<b>Luxembourg</b>	No additional information.
<b>Hungary</b>	No additional information.
<b>Malta</b>	Proxy and telephone interviews are allowed only as an alternative to non-response. Notwithstanding, we still request interviewers to collect income information directly from interviewees.
<b>The Netherlands</b>	One point of concern is the number of proxy-interviews with respect to the detailed variables (selected respondent). In 2005, this proxy rate was quite high (27%). For the 2006 and 2007 operation, specific measures have been taken to substantially reduce the number of proxy-interviews for the selected respondent, such as interview-training and specific instructions how to approach the selected person in the household. This resulted in a very low proxy rate for the 2008 operation.
<b>Austria</b>	Proxy interviews are only allowed as an exception if a respondent is either away from the household, incapacitated or ill and this status is sustained for a longer time than the fieldwork period. The proxy-rate of first wave interviews

	in rotational group 4 is the lowest with 22.6%. In the follow-up waves proxy-rates exceed the limit of 20% considerably with 28% in rotational group 3 to 31% in rotational group 1. Personal CATI interviews have a higher share of proxy interviews (34.1%) than CAPI interviews (25.3%).
<b>Poland</b>	As for individual interviews, in 2008 a relatively high share (18.1%) of proxy interviews was noted. This was thoroughly discussed with the survey coordinators in the field. The interviewers decided on proxy interviews only if the substitute respondents were well informed about the situation in the household and there was no other possibility to get the information. Proxy interviews were performed in the following situations: - no contact with the respondent because of long-term absence (e.g. work in another town or abroad); - respondent's disability, illness or pathology (such as alcoholism); - according to other members of the household, the respondent was only available late at night and was not willing to participate in such a long interview, while at the same time the proxy could provide detailed information, even based on the documents, such as tax statements.
<b>Portugal</b>	No additional information.
<b>Romania</b>	No additional information.
<b>Slovenia</b>	No additional information.
<b>Slovakia</b>	No additional information.
<b>Finland</b>	<p>In Finland, the EU-SILC is designed on the selected respondent model. Typically, only one person is interviewed. As a rule, this interviewee should be the selected person. He/she gives all the information: the household questionnaire and the personal questionnaires of the selected person and the other members of the household.</p> <p>In the EU-SILC, it is important to interview selected respondents about their subjective evaluations. The selected respondent (especially the youngest selected respondents who still live with their parents or very old respondents) may not be aware of the household economy, household debts, child care, housing items, the other household members' activities, or many other items. The interviewers have been instructed to negotiate with the selected respondent and prefer interviewing him if he is able to give all the information. Otherwise, a household respondent is chosen by the interviewer.</p> <p>Interviewing more than one household member – both the selected person and a household respondent – is supported, but it rarely happens. Other members are allowed to be consulted during the interview if they are available. This option is often used.</p> <p>The interviewers have traditionally been trained to find a household respondent in the earlier years when collecting the IDS data and they have been continuing this procedure. According to an estimate of the interviewers, about 85 per cent of their informants are those who have the best knowledge of the household's affairs. In case the selected person is aged less than 18 years, the contact letter is also sent to his/her parents or guardians. In 2008, 90 per cent of the selected respondents under the age of 18 have been represented by a proxy respondent. Problems arising from the use of proxy respondents concentrate on the subjective questions: the control in terms of which household member answers the questions involving subjective assessments, depends on the interviewer. Use of proxy is denied only in the self-reported health questions (PH010-PH030). On the other hand, the selected respondent may be utterly unaware of the household economy and other members' activities. This is the case</p>

	<p>especially with the youngest respondents.</p> <p>In 80 per cent of the households, the selected respondent was interviewed. Of the 10472 selected respondents in the cross-section, 20 per cent were represented by a proxy. On the other hand, of all the other 10658 household members aged 16 or older (who were not selected persons), 80 per cent were represented by the selected person.</p> <p>The high percentage of proxy interviews guarantees a higher quality of the household information. Most of the proxy respondents are parents or spouses. Proxies are mostly (89 %) 1st or 2nd persons responsible for the accommodation, which also indicates their competence regarding knowledge of the household affairs.</p>
<b>Sweden</b>	No additional information.
<b>United Kingdom</b>	<p>In strictly controlled circumstances, interviewers are allowed to conduct a proxy interview with a close household member to reduce unit non-response errors. Proxy interviews are only used where it has proved impossible, despite repeated calls, to contact a particular member of a household in person. In these cases, some questions are omitted, for example those which are more subjective such as those relating to health.</p> <p>Further effort is directed towards reducing item non-response by converting this proxy interviews to full interviews. Attempts are made to contact the household member, who was unavailable during the initial face-to-face interview, and ask them the questions that were omitted from the proxy interview. It was established through extensive research that the most efficient way of re-contacting these respondents was by employing Telephone Unit (TIU) interviewers who could contact a widely dispersed population more efficiently than would be possible by conducting face-to-face interviews.</p> <p>A problem specific to the UK concerns missing income data for some respondents. In the 2005 and 2006 surveys and for the first 3 months of the 2007 survey, respondents were allowed to refuse to answer all income questions. As such, information for these respondents is missing (approximately 60 individuals in 2007). In addition, proxy respondents are not asked any income questions, apart from one question relating to 'total personal disposable income' (this has also been rectified, since November 2007 proxy respondents have been asked to provide full-income information).</p>
<b>Iceland</b>	No additional information.
<b>Norway</b>	No additional information.

Source: National Quality Reports 2008.

We can see in the table above that only eleven countries presented additional information on the use of proxies. Nevertheless, as said above, the proxy rate should be kept as limited as possible and when this is not possible it is very useful if countries report on the reasons for using proxies. Therefore, countries are encouraged to include information on proxy interviewing in the next national quality reports.

### 1.5. Interview duration

The EU-SILC Framework Regulation states that the total duration of the interview shall not exceed one hour on average. The following table presents the mean interview duration in minutes calculated as the sum of the duration of all household interviews (HB100) plus the sum of the duration of all personal interviews (PB120), divided by the number of household members aged

16 and over whose household questionnaire is completed and accepted for the database (PB030)<sup>9</sup>.

**Table 10: Average interview duration in minutes (cross-sectional)<sup>10</sup>**

	2005	2006	2007	2008
<b>Belgium</b>	26.5	26.9	22.5	22.3
<b>Bulgaria</b>	NA	37.6	32.6	35.9
<b>Czech Republic</b>	45.3	42.5	41.3	36.6
<b>Germany</b>	54.2	45.8	46.6	46.7
<b>Estonia</b>	25.2	22.2	20.9	22
<b>Ireland</b>	19.3	21	22.1	22.1
<b>Greece</b>	28	26.5	26.9	24.9
<b>Spain</b>	26	19.3	14.6	14.1
<b>France</b>	28.1	27.9	27.4	24.1
<b>Italy</b>	32.2	32.6	33.8	34.7
<b>Cyprus</b>	17.3	18.3	23.3	20.5
<b>Latvia</b>	28.6	18.5	35.7	12.5
<b>Lithuania</b>	24.8	28.5	28.4	36.2
<b>Luxembourg</b>	25.7	25.4	29.9	29.7
<b>Hungary</b>	23.8	32.4	32.2	33.5
<b>Malta</b>	17	15.1	15.5	19.3
<b>The Netherlands</b>	9.7	9.8	11.1	13.3
<b>Austria</b>	17.9	23.9	17.9	25.1
<b>Poland</b>	40.6	39.5	38	36.3
<b>Portugal</b>	28.3	29.4	27.9	28.5
<b>Romania</b>	NA	NA	32.8	33.5
<b>Slovenia</b>	16.1	27.7	38.4	25.4
<b>Slovakia</b>	32.2	32.3	28.9	27.8
<b>Sweden</b>	95.7	27.5	27.2	32.6
<b>United Kingdom</b>	34	59.6	54.5	59.1
<b>Iceland</b>			21.2	26.8
<b>Norway</b>	9.8	11.2	29.1	26.5

Source: Micro-database (March 2010).

The main conclusions from the table are the following:

- For all countries the average in 2008 is below 60 minutes.
- There is no clear picture on the evolution of the average interview duration. For some countries the evolution can be described as decreasing year after year, but for most of

<sup>9</sup> If the household interview duration (HB100) or one personal interview duration (PB120) is missing for one member of the household, then the household is excluded from the calculation.

<sup>10</sup> There is no information from Denmark and Finland because PB120 is missing for these countries.

them the evolution is not regular and the lowest average is not always found for the last year.

- In 2008, the lowest average is found in Latvia (12 minutes), the Netherlands (13 min.) and Spain (14 min.), and the highest in the United Kingdom<sup>11</sup> (59 min.) and Germany (47 min.). The following highest averages are found in four countries with an average of approximately 36 minutes: Bulgaria, the Czech Republic, Lithuania and Poland.

## **2. COMPARABILITY**

Comparability is a critical aspect of EU SILC and non-comparability may come from national choices within the general framework.

### **2.1. Basic concepts and definitions**

Two summary tables on different aspects that can hamper comparability can be found in the annex. A first table covers the adherence/deviation to the standard definition of the reference population, the private household and the household membership. A second table presents the reference period for income, for taxes on income and social insurance contributions and for taxes on wealth.

These tables only reflect the information supplied by countries in the national quality reports. When no information is available on a given concept for a given country, Eurostat has assumed that the country follows the standard definition, i.e. it is fully comparable, which could hide some further inconsistencies.

The main conclusions from these tables are the following:

- Most countries follow the standard definitions with only some exceptions:
  - Reference population: Romania.
  - Private household definition: Italy and the United Kingdom.
  - Household membership: Spain, Italy, Portugal and the United Kingdom.
- The reference period for the majority of countries is the previous calendar year with only two exceptions:
  - Income reference period and reference period for taxes on income and social insurance contributions: Ireland (12 months prior to the interview date) and the United Kingdom (centred around the interview date<sup>12</sup>).

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<sup>11</sup> In the case of the United Kingdom, EU-SILC questions are included as part of the General Household Survey questionnaire and there is no information on the interview duration of EU-SILC alone

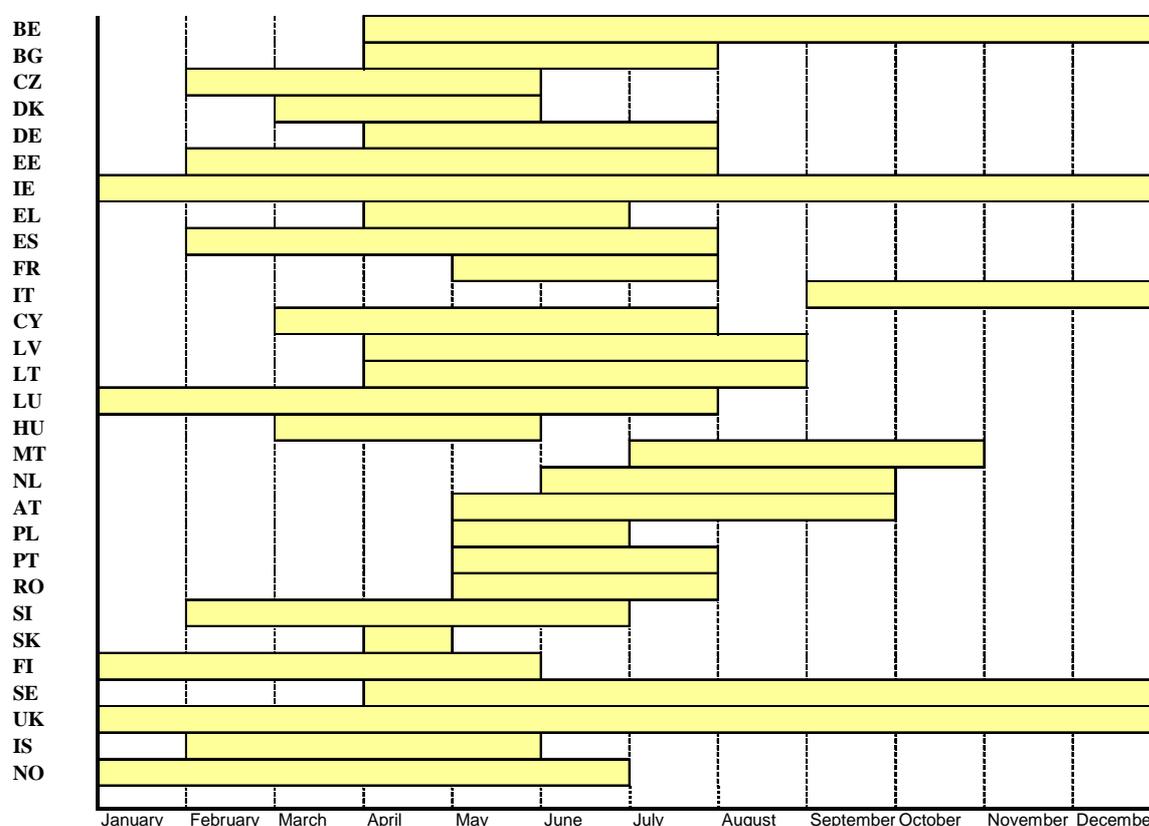
<sup>12</sup> Comment from the United Kingdom: "...The survey measures current income. So for example, for income from earnings and benefits, respondents will provide figures which relate most commonly to the last week, two weeks, or month. With earnings in particular, respondents are asked for usual earnings. These figures, which represent current (and usual) incomes are then annualised (weekly estimates multiplied by 52, monthly by 12 etc). Income from self-employment can be reported for a variety of periods, but it is always up-rated (using the UK's average earnings index) to the interview date. For income from investment and employee non-cash income respondents are most likely provide their most recent annual or half-yearly income that they received from this source. This income would be annualised, although there is no up-rating..."

- Reference period for taxes on wealth: the United Kingdom (based on data provided for the financial years April 2007 – March 2008 and April 2008 – March 2009).

The fieldwork in most of the countries lasted between three and five months. There were only two countries with a shorter (Poland and Slovakia) and six countries with a longer fieldwork duration (Belgium, Ireland, Luxembourg, Sweden, the United Kingdom and Norway).

The following chart summarizes the fieldwork period by country; figures correspond to the information on the month of the household interview (HB050). The coloured cells correspond to the month when the interviews took place. For each country at least 99% of the interviews were carried out in the months represented here, i.e. there could have been a non-significant number of interviews carried out before or after these months. Two main exceptions: in Ireland 5.79% of the interviews were carried out in November and December 2007 and in United Kingdom 0.97% of the interviews were carried out in January 2009.

**Figure 1: Fieldwork period for the 2008 operation**



Source: Micro-database (February 2010).

It can be concluded that in 2008, as in 2007, most of the countries (19) finished the fieldwork period by July, with ten exceptions: Latvia and Lithuania (both in August), the Netherlands and Austria (both in September), Malta (in October), Belgium, Italy, and Sweden (all in December), plus the two countries with a continuous survey, Ireland and the United Kingdom.

## 2.2. Components of income

This section presents some remarks on three important topics: income components by country, the non-monetary income components and the mode of collection of self-employment income.

### 2.2.1. *Income components by country*

An overview of income components by country can be found in the annex in two tables, one on household income components and one on personal income components.

Some remarks on these tables:

- The information has been gathered from the national quality reports and direct exchanges with countries (therefore, there is no information for Denmark as no quality report has been received).
- When there is no information on one variable in the national quality report Eurostat has assumed that the country follows the standard definition, i.e. it is fully comparable. This assumption should be taken into account when analysing the data as it limits its validity.
- When there is an asterisk (\*) in the table, there is additional information provided by the country mentioned after the table.

The main conclusions from the table on household income components are the following:

- For Total gross disposable income (HY010, HY020, HY022 and HY023) there are no differences with the standard definitions; only some clarifications have been reported by the Netherlands, Austria and Iceland.
- For Imputed rent (HY030) Eurostat recommends to use the Regression/Stratification method or the User cost method. Therefore table has been filled in by reference to these criteria: if the method used is one of these, it is marked as "F"; if the method used is different, it is marked as "P". The information has been gathered through a questionnaire sent by countries on 28/11/2008 and complemented with the information received through the national quality reports 2008. It can be highlighted that nearly all countries used the methods suggested by Eurostat, the only exception is the Czech Republic which used a subjective method.
- For Allowances (HY050, HY060 and HY070) the only divergences are found in Belgium, Germany, the Netherlands and Norway. In addition, HY070 was not collected in Romania.
- For Inter-household cash transfers (HY080 and HY130) four countries reported some differences with the standard definitions: France, the Netherlands, Portugal and Sweden.
- For Interests and dividends (HY090) only Germany reported divergences.
- For Interests on mortgage (HY100) Germany is the only country that did not collect the data.
- For Income received by persons below 16 years (HY110) only Estonia reported differences from the standard definition.
- For Taxes on wealth (HY120) no major divergences; it has only to be highlighted that five countries do not have these taxes: Belgium, Ireland, Malta, the Netherlands and Austria.

The main conclusions from the table on individual income components are the following:

- For Employee cash income (PY010) five countries reported some divergences: France, the Netherlands, Poland, Iceland and Norway.

- For Employee non-cash income (PY020) divergences are found in France and the Netherlands.
- For Company car (PY021) Ireland reported some differences with the standard definition; France does not fill in this variable as it can not be isolated from PY010.
- For Employer's social insurance contribution (PY030) the Czech Republic, Ireland, France, Malta and Finland reported divergences; and Germany did not collect these data.
- For Self-employment income (PY050) divergences are reported by Germany, Ireland, Italy, Austria, Poland Iceland and Norway.
- For Own-consumption (PY070) Germany and Ireland reported small divergences; and eight countries did not collect these data: Belgium, Denmark, the Netherlands, Finland, Sweden, the United Kingdom, Iceland and Norway.
- For Private pension plan (PY080): Difficulties to isolate these pensions from those covered by mandatory government- or employer-based scheme have been reported by Finland and Denmark through email exchange.
- For Social benefits (PY090, PY100, PY110, PY120, PY130 and PY140) divergences are reported by Norway; particular divergences were reported for: PY140 by Belgium, PY100 by Germany, PY110 by Estonia, PY090 by the Netherlands, PY090 and PY100 by Austria, PY120 by Poland, and PY090, PPY120 and PY140 by Iceland.
- For Gross monthly earnings (PY200) there are eighteen countries that did not collect the data: Belgium, the Czech Republic, Denmark, Germany, Estonia, France, Cyprus, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Romania, Slovenia, Slovakia, Finland, Sweden and Norway.

### *2.2.2. Non-monetary income components*

A study on the inclusion/exclusion of non-monetary components and extreme values is presented for information and discussion in the Working Group meeting under the item 7.5 "Impact study of inclusion/exclusion of non-monetary income components and extreme values". This paper was presented at the meeting of the SPC Indicators Sub-Group of 13 April 2010. For additional information please refer to document LC-ILC/52/10/EN.

### *2.2.3. Mode of collection and recording of self-employment income*

The following table shows the form of collection and recording of one important income component, namely self-employment income. The table has three panels (one alone followed by two below):

- The first panel shows the percentage of individuals receiving self-employment income, missing cases (where it could not be imputed and/or converted to gross amount), and the number receiving and recording the amount. This recording is always in the gross form. The last column of this panel shows the number of cases where the net amount (in some form) has also been recorded.
- The second panel of the table shows the distribution of income recorded gross according to the form in which the amount was collected. This indicates the extent and form of net-gross conversion, normally involving micro-simulation.

- The third panel shows the form of collection where the net amount has also been recorded. In fact, the net recording can also be in different forms, and this information is also provided in this part of the table.

**Table 11: Number of persons recorded with self-employment income (SEI), gross and net values (2008)**

	Total persons aged 16+	Persons not receiving SEI	Persons not stated	Persons Receiving SEI and recorded	%	Persons with also net SEI recorded
<b>BE</b>	12154	11409	0	745	<b>6.1</b>	745
<b>BG</b>	10373	9581	0	792	<b>7.6</b>	792
<b>CZ</b>	22754	21018	56	1680	<b>7.4</b>	0
<b>DK</b>	11545	8999	0	2546	<b>22.1</b>	0
<b>DE</b>	24336	23007	0	1329	<b>5.5</b>	0
<b>EE</b>	10851	10142	0	709	<b>6.5</b>	651
<b>IE</b>	10116	9119	0	997	<b>9.9</b>	997
<b>EL</b>	14123	11487	0	2636	<b>18.7</b>	2280
<b>ES</b>	30082	27714	0	2368	<b>7.9</b>	2368
<b>FR</b>	20125	19193	0	932	<b>4.6</b>	932
<b>IT</b>	44286	37161	0	7125	<b>16.1</b>	7125
<b>CY</b>	8090	7102	0	988	<b>12.2</b>	2
<b>LV</b>	10910	10441	0	469	<b>4.3</b>	469
<b>LT</b>	10473	9609	0	864	<b>8.2</b>	864
<b>LU</b>	7638	7249	0	389	<b>5.1</b>	381
<b>HU</b>	18710	16839	0	1871	<b>10.0</b>	0
<b>MT</b>	7874	7387	0	487	<b>6.2</b>	0
<b>NL</b>	19519	17431	0	2088	<b>10.7</b>	0
<b>AT</b>	10955	9796	0	1159	<b>10.6</b>	1159
<b>PL</b>	33801	30240	0	3561	<b>10.5</b>	3228
<b>PT</b>	10101	9126	0	975	<b>9.7</b>	975
<b>RO</b>	16527	14572	1	1954	<b>11.8</b>	1954
<b>SI</b>	25005	21492	0	3513	<b>14.0</b>	3513
<b>SK</b>	14098	13349	0	749	<b>5.3</b>	0
<b>SE</b>	14889	12980	0	1909	<b>12.8</b>	1909
<b>FI</b>	21131	16868	0	4263	<b>20.2</b>	0
<b>UK</b>	16825	15553	0	1272	<b>7.6</b>	0
<b>IS</b>	6618	5942	0	676	<b>10.2</b>	0
<b>NO</b>	10897	9998	39	860	<b>7.9</b>	0

**Received, and recorded gross**

Mode of collection (PY050G\_F)

	total	1	2	3	4	5
<b>BE</b>	745		745			
<b>BG</b>	792				792	

**Also net recorded**

Mode of collection and recording of this income (PY050N\_F)

	total	11	22	31	33	41	42	51	52
	745	745							
	792	791					1		

**Received, and recorded gross**

Mode of collection (PY050G\_F)

	total	1	2	3	4	5
<b>CZ</b>	1680	320			1360	
<b>DK</b>	2546				2546	
<b>DE</b>	1329				1329	
<b>EE</b>	709	273			425	11
<b>IE</b>	997				997	
<b>EL</b>	2636	2636				
<b>ES</b>	2368				2368	
<b>FR</b>	932			932		
<b>IT</b>	7125	7125				
<b>CY</b>	988	2			984	2
<b>LV</b>	469				469	
<b>LT</b>	864				832	32
<b>LU</b>	389				389	
<b>HU</b>	1871				1871	
<b>MT</b>	487				487	
<b>NL</b>	2088				2088	
<b>AT</b>	1159				1159	
<b>PL</b>	3561	3561				
<b>PT</b>	975				975	
<b>RO</b>	1954	1954				
<b>SI</b>	3513				3513	
<b>SK</b>	749		749			
<b>SE</b>	4263				4263	
<b>FI</b>	1909			1909		
<b>UK</b>	1272				1272	
<b>IS</b>	676				676	
<b>NO</b>	860				860	

**Also net recorded**

Mode of collection and recording of this income (PY050N\_F)

	total	11	22	31	33	41	42	51	52
	0								
	0								
	0								
	651	215				425		11	
	997	169				828			
	2280	2280							
	2368	2368							
	932				932				
	7125	7125							
	2	2							
	469	469							
	864					864			
	381	381							
	0								
	0								
	0								
	1159	1159							
	3228	3228							
	975					662	313		
	1954	1954							
	3513	3513							
	0								
	0								
	1909			1909					
	0								
	0								
	0								

Source: Micro-database (March 2010).

**PY050G F**

Collected (always recorded gross)

1 net of tax on income at source and social contributions

2 net of tax on income at source

3 net of tax on social contributions

4 gross

5 unknown

**PY050N F**

Collected (1st digit)

1 net of tax on income at source and social contributions

2 net of tax on income at source

3 net of tax on social contributions

4 gross

5 unknown

### Recorded (2nd digit)

1 net of tax on income at source and social contributions

2 net of tax on income at source

3 net of tax on social contributions

The main conclusions from this table are the following:

- The percentage of persons aged above 16 that are receiving self-employment income is above 15% in four countries: Denmark (22%), Sweden (20%), Greece (19%) and Italy (16%), while it is below 5% in two countries: France and Latvia .
- Seventeen countries record also the net values; among these countries four (Estonia, Greece, Luxembourg and Poland) did not record the net values for all the persons for which the gross is recorded.
- Most countries recorded the income from self-employment in gross with nine exceptions, four of which collected it net of tax on income at source and social contributions, two of which collected it net of tax on income at source, two others collecting it net of tax on social contributions and the last one (Estonia) collecting it partly gross and partly net of tax on income at source and social contributions.
- For four countries the number of persons not receiving any self-employment income differs when looking at gross or net data (i.e. PY050G\_F=0 differs from PY050N\_F=0). These countries are: Estonia, Greece, Luxembourg and Poland. For each country the difference is below 10 observations with the exception of Poland for which the difference is 233 observations.

### **3. COHERENCE**

Coherence is a critical aspect of EU-SILC and non-comparability may come from national choices within the framework.

Information on comparisons with other national sources is collected in the national quality reports. The main sources for comparisons are the Household Budget Survey (HBS), the Labour Force Survey (LFS) and the National Accounts. In addition, some countries compare the data with administrative sources or other sources. Finally, an increasing number of countries compare data with previous editions of EU-SILC.

The majority of countries performed coherence studies based on 2008 SILC data. The only exceptions are: on one hand, Luxembourg because of the difficulties to gather income information on 'cross-border' workers and international officials; and on the other hand, some register countries because EU-SILC data already come from registers. Nevertheless, all these countries should envisage the possibility of comparing data with, at least, previous editions of EU-SILC.

The information presented in this section of the national quality report varies greatly among countries. Some countries only explain they did coherence studies but do not present the results in the national quality report. The coherence section is particularly well presented in the national quality reports of: Estonia, Greece, Spain, Hungary, Austria, Poland, Slovenia and Slovakia.

The annex “Coherence studies” presents a summary table on the coherence analysis carried out by countries: “Comparison EU-SILC versus ‘other sources’”. The main conclusions from this table are the following:

- Eleven countries compared data with HBS, twelve with LFS, nine with National Accounts and thirteen with administrative sources.
- Eleven countries compared 2008 data with previous years, mainly with 2007 data.
- Six countries carried out coherence studies with other national sources: Safety Survey, wage statistics and social protection statistics (Estonia), National Farm Survey 2007 (Ireland), ‘Enquête Revenues fiscaux et sociaux’ and ‘Enquête Logement’ (France), Income Panel Survey (The Netherlands), Structure of Earnings Survey (Slovakia) and Family Resources Survey and Living Costs and Food Survey (United Kingdom).

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## Annex 1: EU-SILC countries

**Table 12: EU-SILC participating countries per year**

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	IT	CY	LV	LT	LU	HU
2003	(x)			(x)			(x)	✓							✓	
2004	✓			✓		✓	✓	✓	✓	✓	✓				✓	
2005	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2006	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2007	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2008	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	CH	IS	NO	TR
2003			(x)											✓	
2004			✓		✓				✓	✓			✓	✓	
2005	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓	
2006	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓	
2007	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2008	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

(x) Collected variables not in full accordance with SILC Framework Regulation

## Annex 2: Sampling design

**This annex presents information on sampling design in 2008 by country.**

### Belgium

The Belgian EU-SILC survey is a stratified two-stage sampling. There is no clustering of sampling units. The stratification is done by NUTS2 region (10 provinces plus the Brussels Capital region).

- Primary units: the municipalities (or part thereof in the larger ones) with probability proportional to size.
- Secondary units: private households by systematic sampling.

### Bulgaria

The Bulgarian EU-SILC survey is a stratified two-stage sampling of households.

The two-stage sampling on a territorial principle is implemented as follows:

- on the first stage : the census enumeration units (PSU) are selected;
- on the second stage : the households are identified.

The sample is stratified by administrative-territorial districts in the country (NUTS3) and the household's location. As a result 56 strata are formed (28 of urban and 28 of rural population). Municipalities and settlements are ranged according to the number of their population within each stratum.

The number of census enumeration units (PSU) is calculated for each strata included in the sample. The clusters on the first stage are chosen with probability proportion to population size (number of households) in the PSUs.

In the first year of the survey (2006) the total sample size was 6120 households grouped in 1224 PSUs.

There is a systematic sampling of secondary units (households) in each primary unit. Each PSU contains 5 households.

### **Czech Republic**

A sample of dwellings is selected using a stratified two-stage design. The stratification of the Census Enumerations Units (CEUs-small geographical units) is done by region (NUTS4) and by number of residents in the municipality.

- At the first stage, CEUs are sampled as primary sampling units (PSU) with probability proportional to their size.
- In the second stage, 10 dwellings are sampled in each sampled CEU by simple random sampling without replacement.

All the households and the individuals living in the selected dwellings are then eligible for interview.

### **Denmark**

The sampling design is simple random sampling. The sample is a one stage sampling being the sampling unit the individual person. The sampling frame is all individuals aged 14 or more but only households where the selected person is 16 or more at the beginning of the survey year are included in the indicators computation of that year.

### **Germany**

In 2005 the survey started with three quota samples and one random sample. Each year one quota sample is replaced by a further random sample. Consequently, starting with the 2008 operation, the survey is fully based on a random sampling.

The sampling frame for the random subsamples is the permanent sample (DSP), a sampling frame recruited among former participants of the German Microcensus (which corresponds to a sample of the total population with a clustered sampling design)

The EU-SILC sample follows a stratified design where the stratification criteria are: Land (federal state), Household type, Social status of the main income earner, Household net income, Farm household (separate stratum for each federal state).

All the individuals living in the selected addresses are eligible for interview.

## **Estonia**

The design used is one-stage stratified unequal probability sampling of household, with a household selected with probability proportional to the number of persons aged 14 and more in it. The EU-SILC sample is selected according to the following sampling procedure:

- Stratification by county level into three strata by the population size: "big" counties, "small" counties and the Hiiu County, which forms a separate stratum as the smallest county in terms of population size.
- A sample of persons aged 14 and more is selected with equal probabilities within strata.

All the households of the selected persons are identified and all eligible persons in the household are interviewed.

## **Ireland**

In 2004, the Irish EU-SILC sample is selected according to a stratified two-stage selection. The stratification is done by County and degree of urbanisation.

- At the first stage, simple random selection of dwelling blocks.
- At the second stage, simple random selection of households.

## **Greece**

In 2003, a sample of addresses is drawn according to a stratified two-stage selection. The stratification is done by NUTS2 region and degree of urbanisation.

- At the first stage, a sample of blocks is selected with probability proportional to the number of dwellings.
- At the second stage, households are systematically selected within each block.

All the persons living in the selected addresses are then interviewed in order to obtain information at personal level.

## **Spain**

A sample of dwellings is drawn according to a stratified two-stage selection. The stratification of the Census sections is done by administrative region and the size of the municipality.

- At the first stage, selection of Census sections with probability proportional to the number of dwellings.
- At the second stage, systematic selection of dwellings within each section.

All the persons living in the selected dwellings are eligible for interview.

## **France**

The type of sampling design is a stratified three-stage sampling. In 2004, a sample of dwellings is drawn from the 1999 Master Sample updated for the "new" dwellings (i.e. the units that came out after the 1999 Census). The selection is done so as to make the sample self-weighted.

- At the first stage, selection by groups of municipalities proportional to size (stratified according geographical criteria as NUTS2 and degree of urbanisation).
- At the second stage, the systematic selection is of dwellings for the urban areas and ad-hoc groups of municipalities for the rural areas.
- The third stage only exists for the rural areas and the dwellings are selected by systematic sampling.

All the households and the individuals living in the selected dwellings are interviewed.

### **Italy**

In 2004, a sample of households is drawn according to a stratified two-stage selection. The stratification of the municipalities is done by administrative region and number of residents.

- At the first stage, selection of four municipalities with probability proportional to the number of residents.
- At the second stage, systematic selection of households within each municipality.

All the persons living in the selected households are then eligible for interview.

### **Cyprus**

The sample design is one-stage stratification. The sampling units are private household which are selected by simple random sampling within each stratum (9 strata based on District).

All the individuals that are current members of the selected households are eligible for interview.

### **Latvia**

The Latvian EU-SILC sample is according to a stratified two-stage design. The stratification is based on the degree of urbanisation.

- At the first stage, the primary sampling units (PSU, Population Census counting areas) are selected in each stratum with probability proportional to the number of households.
- At the second stage, a simple random sample of units (addresses) is selected within each area.

In Latvia several households can be registered in one address. All households and individuals living in the selected address are included in the survey.

### **Lithuania**

The new subsample of households is selected by stratified sample design. The stratification is based on degree of urbanisation into seven strata.

- A simple random sample of non-institutional persons aged 16 and over is selected in each stratum from the Population Register.

Households where the selected persons live are surveyed.

## **Luxembourg**

The type of sampling design is stratified simple random sampling. In 2003, first year of the survey, two samples are drawn independently:

- A sample of "tax" households, which are in fact a group of persons who depends on the same Social Security system.
- A sample of dwellings wherein none of the members depends on Luxembourgish Social Security system.

A "tax household" is basically a group of persons living in the same dwelling and who depend on the same Luxembourgish Social Security system.

The samples are selected by stratified simple random sampling.

## **Hungary**

EU-SILC sample is selected by a stratified two-stage sampling in one part of the population and by a stratified one-stage sampling in the other part. Localities are stratified by General Election Districts and size (in terms of number of dwellings).

- In the first part of the population, one locality is selected with probability proportional to the number of dwellings. Within each selected locality, a systematic selection of dwellings is done.
- In the other part of the population, a systematic selection of dwellings is done in each stratum.

The final sampling units are the dwellings and, in each of them, every household is observed.

## **Malta**

The sampling design involves simple random sampling of dwellings from the Census of Population and Housing database, which served as the sampling frame for this survey. Consequently, these dwellings have served as the best possible proxy to the household population that were targeted for this survey.

All the persons living in the selected dwellings are then interviewed in order to obtain information at personal level.

## **The Netherlands**

The EU-SILC sample is composed of the addresses that took part in the Labour Force Survey (LFS) and are willing to cooperate to EU-SILC. The LFS sample is selected according to a stratified three-stage sampling design. The stratification of the municipalities is done by geographical criteria (COROP and interviewer region).

- At the first stage, municipalities are selected with a probability proportional to the number of addresses and according to the above mentioned stratification. At the second stage, there is a simple random selection of addresses within each municipality.
- At a third stage, persons of 16 and older are selected by simple random sampling.

The LFS has a panel structure with five rotational groups. When the first wave (face-to-face interviews) has been completed, addresses with all residents aged over 64 are removed from the sample. In order to get full covering of the target population, an additional sample of addresses with all residents aged 65 and over is drawn for the EU-SILC sample.

All the households and the individuals living at the selected addresses are then eligible for interview. Then, in each sampled household, a respondent is chosen to be fully interviewed, the information on other members of the household being obtained via the registers

### **Austria**

Until the EU-SILC 2006 operation, the sampling design was simple random sampling without stratification. All the households and the individuals living in the eligible addresses were interviewed.

Starting from the addresses selected in 2007 (for the first wave), the sample was stratified by geographical units ("Sprenzel"). These units are used in the Austrian microcensus to distribute addresses among the pool of interviewers. Implicitly this procedure achieves both a regionally stratified sample and control of the number of addresses allocated to each interviewer.

The sample is also stratified according to socio-economic criteria. The households with a higher likelihood to be at-risk-of-poverty received a higher selection probability. The aim of the oversampling of risk households in the sample was to ameliorate the precision of the sample with regard to the main indicators on poverty.

### **Poland**

The Polish EU-SILC sample is selected according to a stratified two-stage design. The stratification is based on NUTS2 region and degree of urbanisation.

- At the first stage, Census areas are selected with probability proportional to the number of dwellings.
- At the second stage, a simple random sample of dwellings is selected.

All the households and the individuals living in the selected dwellings are eligible for contact.

### **Portugal**

The EU-SILC sample follows a stratified two-stage cluster sampling design.

- At the first stage, Census sections are systematically selected. Primary Sampling Units are the areas of the Master Sample (made of census enumeration areas) and they are stratified by a regional criterion.
- At the second stage, a simple random sample of households is selected in each Census section.

All the persons living in the same dwelling are interviewed.

### **Romania**

The sample for the Romanian EU-SILC is a two-stage sampling of dwellings.

The primary sampling unit corresponds to the selection of the master sample, being a group of census sections (census enumeration areas EAs), while the secondary sampling unit corresponds to the selection of the survey sample, being a fix number of dwellings from each PSU.

Stratification concerns only the first stage sampling. There are 88 strata, the criteria used being the area where a certain PSU is located (urban or rural area) and county (NUTS 3 level).

In the first stage, a stratified random sample of 780 areas, Primary Sampling Units (PSUs), was designed after the 2002 census. The PSUs were sampled with probability proportional to size (number of permanent dwellings). This is the Multifunctional Sample of Territorial Areas, so called the master sample EMZOT. The EMZOT sample has 427 PSUs selected from urban area and 353 PSUs selected from rural area.

In the second stage, 9360 dwellings were systematically selected from EMZOT - a constant number of 12 dwellings in each sampled PSUs.

All households within each dwelling are included.

### **Slovenia**

The sample for the Slovenian EU-SILC is selected according to a stratified two-stage design. The strata are defined according to the size of the settlement and its proportion of agricultural households.

- In each stratum, Primary Sampling Units (PSU) are firstly systematically selected.
- In the second phase, seven persons aged 16 and over are selected in each PSU.

Finally, all the households the selected persons belong to are eligible for contact.

### **Slovakia**

One-stage stratified sampling is used in EU-SILC. Stratification is based on geographical criteria (NUTS3 region and degree of urbanisation).

The proportional number of households is selected by simple random sampling in individual strata.

All the households and the individuals living in the selected dwellings are contacted.

### **Finland**

The sampling design of the Finnish EU-SILC survey is a two-phase sampling design. In the first phase, a master sample is drawn by systematic sampling from the Population Register. Then, dwellings units are constructed by adding to the master sample all the persons sharing the same domicile code as the selected persons. The Master Sample is stratified by using a socio-economic categorisation of the dwelling units. In the second phase, a simple random sample of dwelling units is selected in each stratum of the master sample. Households are defined later on in the interview stage.

## Sweden

A systematic sample of persons aged 16 and over is drawn from the Population Register (RTB). The final EU-SILC sample also includes a panel of persons that was drawn in 1980 and are re-interviewed every 8 year. In order to cover the whole target population, this panel has been supplemented every 8 year with a systematic sample of immigrants and a systematic sample of individuals aged 16-23.

Finally, all the households the selected persons belong to are then interviewed.

## United Kingdom

Data is collected from two sources. First, data is collected by the Office of National Statistics (ONS), using the General Household Survey. Second, a sample of 300 households is collected by NISRA (Northern Ireland Statistics and Research Agency) as part of the "Living conditions survey".

EU-SILC uses a probability, stratified two-stage sample design. Households are sampled from the small users Postcode Address File (PAF).

- The postcode sectors are the Primary Sampling Units. The Postcode address file is ordered by postcode sector, which are similar in size to a UK electoral ward area.
- The Secondary Sampling Units are addresses within those sectors.

All adults aged 16 or over from every household at the sampled address are interviewed.

## Iceland

The sampling design is one-stage simple random sample without stratification. The sampling units are persons aged 16 years and more living in private households selected from the Population Register.

All the households the selected persons belong to are then interviewed.

## Norway

Up until 2008, the sample for EU-SILC in Norway was composed of an old sample for a longitudinal survey established in 1997, and a new sample with a different design in 2003.

From 2008 on, the sample is selected only according to the new design because all respondents from the old sample were rotated out.

The sample in 2008 is made according to the rules for systematic random sampling in one stage. The new rotational groups are drawn as the proportion  $p$  of the population 16 years and over. In addition, each existing rotational group is then supplemented with new 16 year old and new immigrants to ensure representativity.

All the households the selected persons belong to are then interviewed.

### Annex 3: Basic concepts and reference periods

**Table 13: Basic concepts and definitions: are the standard EU-SILC definitions used? (2008)**

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR
<b>Reference population</b>	F	F	F	F	F	F	F	F	F	F
<b>Private household definition</b>	F	F	F	F	F	F	F	F	F	F
<b>Household membership</b>	F	F	F	F	F	F	F	F	L	F

	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL
<b>Reference population</b>	F	F	F	F	F	F	F	F	F	F
<b>Private household definition</b>	L	F	F	F	F	F	F	F	F	F
<b>Household membership</b>	L	F	F	F	F	F	F	F	F	F

	PT	RO	SI	SK	FI	SE	UK	IS	NO
<b>Reference population</b>	F	L	F	F	F	F	F	F	F
<b>Private household definition</b>	F	F	F	F	F	F	L	F	F
<b>Household membership</b>	L	F	F	F	F	F	L	F	F

Source: National Quality Reports 2008.

F (fully comparable); L (largely comparable); P (partly comparable); N (not comparable).

#### Deviation from the standard definition of private household

- Italy: Cohabitants related through marriage, kinship, affinity, patronage and affection constitute the private household.
- Romania: Persons living in collective households and in institutions are excluded from the target population, as well as households having members diplomatic missioners.
- United Kingdom: A household is defined as a single person or a group of people who have the address as their only or main residence and who either share one meal a day or share the living accommodation. A group of people is not counted as a household solely on the basis of a shared kitchen or bathroom.

#### Deviation from the standard definition of household membership

- Spain: The quality report provides comparative tables to illustrate the differences between the national and the standard definitions of household membership. In short, the following persons, provided they share the expenses of the household and intend to stay at least 6 months, are not considered as household members in the Spanish SILC (but should be under the EU standard definition) so long as they have another address which they regard as their usual residence: resident boarders, lodgers, tenants, visitors or domestic servants (live-in domestic employees, au-pair).
- Italy: Live-in domestic personal (au pairs) are not included as household members. Concerning these persons, only some socio-demographic information is collected (date of birth, sex, marital status, and duration of stay in the household). The number of these

persons included in the sample was 35 (0.1% with respect to the total number of households and 0.06% w.r.t. interviewed individuals).

- Portugal: Contrary to the EU-SILC concept, persons absent for long periods, but having household ties (persons working away from home) are not considered as household members if the absence is for more than 6 months (the income obtained from them is considered as a private transfer).
- United Kingdom: A person is in general regarded as living at an address if he or she (or the informant) considers the address to be his or her main residence. There are however, certain rules which take precedent over this criterion. Children aged 16 or over who live away from home for the purposes of either work or study and come home only for holidays are not included at the parental address under any circumstances. Children of any age away from the home in a temporary job and children under 16 at boarding school are always included in the parental household. Anyone who has been away from the address continuously for 6 months or longer is excluded. Anyone who has been living continuously at the address for 6 months or longer is included even if she has his or her main residence elsewhere. Addresses used only as second homes are never counted as a main residence.

**Table 14: Reference period (2008)**

	<b>Income reference period</b>	<b>Reference period for taxes on income and social insurance contributions</b>	<b>Reference period for taxes on wealth</b>
<b>Belgium</b>	2007	2007	NA
<b>Bulgaria</b>	2007	2007	2007
<b>Czech Republic</b>	2007	2007	2007
<b>Denmark</b>	2007	2007	2007
<b>Germany</b>	2007	2007	2007
<b>Estonia</b>	2007	2007	2007
<b>Ireland</b>	12 months prior interview date	12 months prior interview date	NA
<b>Greece</b>	2007	2007	2007
<b>Spain</b>	2007	2007	2007
<b>France</b>	2007	2007	01/01/2007
<b>Italy</b>	2007	2007	2007
<b>Cyprus</b>	2007	2007	2007
<b>Latvia</b>	2007	2007	2007
<b>Lithuania</b>	2007	2007	2007
<b>Luxembourg</b>	2007	2007	2007
<b>Hungary</b>	2007	2007	2007
<b>Malta</b>	2007	2007	NA
<b>The Netherlands</b>	2007	2007	NA
<b>Austria</b>	2007	2007	NA
<b>Poland</b>	2007	2007	2007
<b>Portugal</b>	2007	2007	2007
<b>Romania</b>	2007	2007	NA

	<b>Income reference period</b>	<b>Reference period for taxes on income and social insurance contributions</b>	<b>Reference period for taxes on wealth</b>
<b>Slovenia</b>	2007	2007	2007
<b>Slovakia</b>	2007	2007	2007
<b>Finland</b>	2007	2007	2007
<b>Sweden</b>	2007	2007	No information
<b>United Kingdom</b>	Centred around interview date	Centred around interview date	Financial years Apr07 - March08 Apr08 - March09
<b>Iceland</b>	2007	2007	2007
<b>Norway</b>	2007	2007	2007

Source: National Quality Reports 2008.

NA: Not applicable - this tax does not exist in the country.

## Annex 4: Income components

**Table 15: Household income components: are the standard EU-SILC definitions used? (2008)**

	HY010	HY020	HY022	HY023	HY030	HY040	HY050	HY060	HY070	HY080	HY090	HY100	HY110	HY120	HY130
	Total hh gross income	Total disposable hh income	Total disposable hh income before social transfers other than old-age and survivors' benefits	Total disposable hh income before all social transfers	Imputed rent <sup>(1)</sup>	Income from rental of property or land	Family/ Children related allowances	Social exclusion payments not elsewhere classified	Housing allowances	Regular inter-hh cash transfers received	Interest, dividends, profit from capital investments in incorporated businesses	Interest paid on mortgage	Income received by people aged under 16	Regular taxes on wealth	Regular inter-hh transfers paid
<b>BE</b>	F	F	F	F	F	F	L*	L*	L*	F	F	F	F	NA	F
<b>BG</b>	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
<b>CZ</b>	F	F	F	F	P	F	F	F	F	F	F	F	F	F	F
<b>DK</b>															
<b>DE</b>	F	F	F	F	F	F	F	F	L*	F	L*	NC*	F	F	F
<b>EE</b>	F	F	F	F	F	F	F	F	F	F	F	F	L*	F	F
<b>IE</b>	F	F	F	F	F*	F	F*	F	F	F	F*	F	F	NA	F
<b>EL</b>	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
<b>ES</b>	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
<b>FR</b>	F	F	F	F	F	F	F	F	F	L*	F	F	F	F	L*

	HY010	HY020	HY022	HY023	HY030	HY040	HY050	HY060	HY070	HY080	HY090	HY100	HY110	HY120	HY130
	Total hh gross income	Total disposable hh income	Total disposable hh income before social transfers other than old-age and survivors' benefits	Total disposable hh income before all social transfers	Imputed rent <sup>(1)</sup>	Income from rental of property or land	Family/ Children related allowances	Social exclusion payments not elsewhere classified	Housing allowances	Regular inter-hh cash transfers received	Interest, dividends, profit from capital investments in incorporated businesses	Interest paid on mortgage	Income received by people aged under 16	Regular taxes on wealth	Regular inter-hh transfers paid
<b>IT</b>	F	F	F	F	F*	F	F	F	F	F	F	F	F	F	F
<b>CY</b>	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
<b>LV</b>	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
<b>LT</b>	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
<b>LU</b>	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
<b>HU</b>	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
<b>MT</b>	F	F	F	F	F*	F	F	F	F	F	F	F	F	NA	F
<b>NL</b>	F*	F*	F*	F*	F	F	L*	F	F	L*	F	F	F	NA	L*
<b>AT</b>	F*	F*	F*	F*	F	F	F	F	F	F	F	F	F	NA	F
<b>PL</b>	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
<b>PT</b>	F	F	F	F	F*	F	F	F	F	L*	F*	F*	F	F	L*
<b>RO</b>	F	F	F	F	F	F	F	F	NC*	F	F	F	F	F	F

	HY010	HY020	HY022	HY023	HY030	HY040	HY050	HY060	HY070	HY080	HY090	HY100	HY110	HY120	HY130
	Total hh gross income	Total disposable hh income	Total disposable hh income before social transfers other than old-age and survivors' benefits	Total disposable hh income before all social transfers	Imputed rent <sup>(1)</sup>	Income from rental of property or land	Family/Children related allowances	Social exclusion payments not elsewhere classified	Housing allowances	Regular inter-hh cash transfers received	Interest, dividends, profit from capital investments in incorporated businesses	Interest paid on mortgage	Income received by people aged under 16	Regular taxes on wealth	Regular inter-hh transfers paid
SI	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
SK	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
FI	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
SE	F	F	F	F	F	F	F	F	F	L*	F	F	F	F	L*
UK	F	F	F	F	F	F	F*	F	F	F	F	F	F	F	F
IS	L*	F	F	F	F	L*	F	F	F	F	F	F	F	F	F
NO	F	F	F	F	F	F	L*	F	L*	F	F	F	F	F*	F

Source: National Quality Reports 2008.

F (fully comparable), L (largely comparable), P (partly comparable), N (not comparable), NC (Not collected).

(1) Imputed rent: According doc 65, the method used should be Regression/Stratification method or User cost method. If the method used is one of these, it is marked as "F". If the method used is different, it is marked as "P". Information gathered through a questionnaire sent by countries on 28/11/2008 and complemented with the information received through the national quality reports 2008.

\*: comments received by countries (see hereafter)

**Comments from countries** (marked with \* in the table above):

Belgium

- HY050 (Family/ Children related allowances): “Family / children related allowance includes: - Income maintenance benefit in the event of childbirth - Birth grant - Parental leave benefit - Family or child allowance. For the SILC 2008 Belgium asked allowances received from the federal government and also birth grants given by some local authorities and medical organizations.”
- HY060 (Social exclusion payments not elsewhere classified): “Social benefits in the function ‘social exclusion not elsewhere classified’ includes for Belgium: - Income support: periodic payments to people with insufficient resources. - Other cash benefit: support for destitute and vulnerable persons to help alleviate poverty or assist in difficult situations. Belgium only took into account the Benefits paid by the Public Social Welfare Organization (not the benefits paid by private or non profit organizations).”
- HY070 (Housing allowances): “The housing allowances for Belgium includes: - Rent benefit - Benefit to owner–occupiers: a means-tested transfer by a public authority to owner-occupiers to alleviate their current housing costs: in practice help with paying mortgages and/ or interest. It excludes: - Social housing policy organized through the fiscal system - All capital transfers (in particular investment grants), for example rehabilitation subsidy and/or a building subsidy.”

Germany

- HY070 (Housing allowances): “The variable does not include the housing allowances of households receiving HARTZ VI.”
- HY090 (Interest, dividends, profit from capital investments in incorporated businesses): “As regards capital income due to necessary simplification for the respondent and unlike the standard EU-SILC definition there was no restriction made to business in which the person does not work. This difference is of minor relevance since, in 2004, only about 2% of the employees in the German sample received profit-sharing payments or stocks from the employer.”
- HY100 (Interest paid on mortgage): “The variable will be filled in first time in wave 2010. The collection form will be based on the questionnaire of the Household Budget Survey (EVS) 2008. The EVS questionnaire contains several detailed questions on this issue. Empirical results from former EU-SILC waves show that the variable cannot be collected within the scope of one question.”

Estonia

- HY110 (Income received by people aged under 16): “Survivors’ benefits received by people aged 15 or less are recorded under variable PY110 (see below).”

Ireland

- HY030 (Imputed rent): “...As only 5.87% of dwellings were rented at market rate, a regression method would be statistically un-reliable. ...”
- HY050 (Family/ Children related allowances): “Child benefit payments were imputed on the basis of the age of the child at date of interview. All other family/children related allowances were taken from registers.”
- HY090 (Interest, dividends, profit from capital investments in incorporated businesses). “In 2008 there were 1158 households with a  $HY090g > 0$ , this represents an increase of 30% when compared to the number with a  $HY090g > 0$  in 2006. ... The reason why there

was such an increase in the number with HY090G>0 was due to the number of Special Savings Incentive Accounts (SSIAs) that matured in the income reference period. SSIAs were a five-year savings scheme in which the Exchequer topped-up, by way of a tax credit, subscriptions made by an individual to his or her SSIA. For example, if a respondent lodged €100 each month to his/her SSIA with his/her financial institution, he/she received €25 each month by way of a tax credit from the Exchequer. The respondent's financial institution claimed this credit on the behalf of the respondent and lodged it to the SSIA each month. The funds lodged in the SSIA were held on deposit or invested in other investment products such as a life assurance investment policy. SSIAs were commenced between 1 May 2001 and 30 April 2002 and matured during the period 31 May 2006 to 30 April 2007. The majority of SSIAs matured in the 2007 EU-SILC reference period. Even though technically the 25% lodged by the Exchequer were tax credits, they were referred to as 'the Government bonus'. For this reason the government bonus was included in HY090 in addition to the return on the savings. The majority of SSIAs matured in 2007 and there was a substantial decrease in HY090 in 2008."

#### France

- HY080 (Regular inter-household cash transfers received) and HY130 (Regular inter-household transfers paid): "These transfers exclude the exceptional remissions but include the payment of the rent by a third person. This payment has been considered as a payment in kind."

#### Italy

- HY030 (Imputed rent): "Estimated by a semi-logarithmic regression (log of the rent, avoiding the re-transformation bias) with self-selection correction à la heckman. In the first stage, we run distinct probit models for owners/renters at a below-the-market price/free tenants versus tenants at a market price. Seniority is included between regressors, but its effect is depurated (parameter from regression equal to 0) in estimating predicted values for sub-populations other than tenants at a market rate."

#### Malta

- HY030 (Imputed rent): "...estimation of imputed rent values directly from EU-SILC data was not possible. This is due to the fact that the proportion of rented dwellings in Malta is rather low to enable the estimation of rent figures at reliable quality levels. On the basis of 2005 Census data, the National Accounts Unit at the NSO compiled a table of average imputed rent values for dwellings classified by size and type. These values were than attached to the EU-SILC datasets and used as estimates for the imputed rent."

#### The Netherlands

- HY010 (Total household gross income) and HY020 (Total disposable household income): "The total household income (gross/disposable) has been computed without taking account the interest paid on mortgage, the imputed rent, the contributions to and benefits from individual private pension plans. Subsequently the payable tax on income and social insurance contributions has been corrected to get the fictitious amounts that should have been paid if these components were not received/paid."
- HY050 (Family/Children related allowances): "Maternity and parental leave benefits are not included in HY050 as those benefits cannot be separated from wages. These components are included in variable PY010."
- HY080 (Regular inter-household cash transfers received): "Alimonies received from former spouse are available in the Tax Administration. Other transfers like payments

received from parents living in a separate household (e.g. students) and child alimony are collected in the EU-SILC- interview.”

- HY130 (Regular inter-household transfers paid): “Maintenance allowances to former spouse were collected from the Tax Administration. Other transfers like child alimony are collected in the EU-SILC interview.”

### Austria

- HY010 (Total household gross income): “The Austrian question includes questions on two income components that are not directly linked to target variables of EU-SILC. These components are incomes received by persons doing their compulsory military or civilian service and “other incomes not elsewhere classified”. The latter question was integrated to avoid under-recording caused by misunderstandings. The total disposable household income includes these two income components. On individual level, the income from compulsory military/civilian was integrated in the income of employees (PY010); Other incomes not elsewhere classified were - if plausible – included in employee income, income from self-employment or old-age benefit. The treatment of these income components does not affect the comparability of the total household income and is consistent with EUROSTAT guidelines.”

### Portugal

- HY030 (Imputed rent): “This year the imputed rent, i.e., the equivalent market rent to be paid for a similar dwelling, was calculated on the basis of a linear regression on HH070, dwelling dimension and degree of urbanization and with actual rents (HH060) as dependent variable. In 2007, the Portuguese EU-SILC team used the self assessment method to estimate the variable HY030. This change in the estimating method, explains the significant difference in terms of average imputed rent: 1193 in 2008 and 3749 in 2007.”
- HY080 (Regular inter-household cash transfers received): “It was collected according to document EU-SILC 065(2008 operation), but also including monetary transfers from family members away from home for a long time (according to the Portuguese definition of household member, not similar to EU-SILC...)”
- HY090 (Interest, dividends, profit from capital investments in unincorporated businesses): “It was collected according to document EU-SILC 065(2008 operation). However, the collecting team has been trained to control misunderstanding problems; it is possible that some people working in their own “family” company may not have declared their profits as so, but as self-employed work income.”
- HY100 (Interest paid on mortgages): “It was collected according to doc. EU-SILC 065(2008 operation). When the value of the interest paid on mortgage was not available but we knew the value of mortgage, it was necessary to calculate the interest paid with the use of the value of the annuity paid to the bank and the average paid interest in 2007 in Mainland, Açores and Madeira for the general regime and when public authorities help owner-occupiers with paying interest on mortgages.”
- HY130 (Regular inter-household transfers paid): “It was collected according to document EU-SILC 065(2008 operation), but also including monetary transfers given to family members away from home for a long time (according to the Portuguese definition of household member, not similar to EU-SILC...)”

## Romania

- HY070 (Housing allowances): “We didn’t identify any allowance or benefit to be included in this category.”

## Sweden

- HY080 (Regular inter-household cash transfers received) and HY130 (Regular inter-household transfers paid): “...do only consider transactions between parents not living together, other types of alimonies or cash transfers are not included.”

## United Kingdom

- HY050 (Family/ Children related allowances): “The national definition of income includes the cash value of free school meals provided to children from disadvantaged homes. This is not included in the EU-SILC definition of income.”

## Iceland

- HY010 (Total household gross income): “The sum of all income components: HY040G + HY050G + HY060G + HY070G + HY080G + HY090G + HY110 Plus the sum for all household members of: PY010G + PY020G + PY021G + PY050G+ PY090G + PY100G + PY110G + PY120G + PY130G + PY140G.”
- HY040 (Income from rental of property or land): “Income from hiring out property not contacted to business activity. Deviates from SILC definitions in that no information is available in the register on interest repayments, maintenance, insurance and other charges.”

## Norway

- HY050 (Family/ Children related allowances): “...The current register data covers only roughly 50% of the total amount paid out in daily cash maternity benefit. The remaining amount is included in PY010 (Gross employee cash or near cash income).”
- HY070 (Housing allowances): “Includes dwelling support in cash received by renters and owner-occupiers. Deviation from the SILC concept: The benefit from renting a subsidised dwelling is not included in the income concept.”
- HY120 (Regular taxes on wealth): “Included in HY140. ... HY140 (Total tax on income and social contribution) includes both taxes on income and wealth. It is difficult to identify each tax components because all taxes are recorded net, i.e. after special tax deductions (e.g. special tax deduction for residents of Finnmark, tax deduction for received dividends, tax deduction for low-income households etc.).”

**Table 16: Individual income components: are the standard EU-SILC definitions used? (2008)**

	<b>PY010</b>	<b>PY020</b>	<b>PY021</b>	<b>PY030</b>	<b>PY050</b>	<b>PY070</b>	<b>PY090</b>	<b>PY100</b>	<b>PY110</b>	<b>PY120</b>	<b>PY130</b>	<b>PY140</b>	<b>PY200</b>
	Cash or near-cash employee income	Other non-cash employee income <sup>(1)</sup>	Income from private use of company car	Employers' social insurance contributions	Cash profits or losses from self-employment	Value of goods produced for own consumption	Unemployment benefits	Old-age benefits	Survivors' benefits	Sickness benefits	Disability benefits	Education-related allowances	Gross monthly earnings for employees <sup>(2)</sup>
<b>BE</b>	F	F	F	F	F	NC*	F	F	F	F	F	L*	NC
<b>BG</b>	F	F	F	F	F	F	F	F	F	F	F	F	F
<b>CZ</b>	F	P	F	L*	F	F	F	F	F	F	F	F	NC
<b>DK</b>						NC							NC
<b>DE</b>	F	L	F	NC	L*	L*	L*	F	F	F	F	F	NC
<b>EE</b>	F	F	F	F	F	F	F	F	L*	F	F	F	NC
<b>IE</b>	F	L	L*	L*	L*	L*	F	F	F	F	F	F	F
<b>EL</b>	F	F	F	F	F	F	F	F	F	F	F	F	F
<b>ES</b>	F	F	F	F	F	F	F	F	F	F	F	F	F
<b>FR</b>	L*	L*	NC*	L*	F	F	F	F	F	F	F	F	NC
<b>IT</b>	F	F	F	F	L*	F	F	F	F	F*	F	F	F
<b>CY</b>	F	F	F	F	F	F	F	F	F	F	F	F	NC
<b>LV</b>	F	F	F	F	F	F	F	F	F	F	F	F	NC
<b>LT</b>	F	F	F	F	F	F	F	F	F	F	F	F	NC
<b>LU</b>	F	F	F	F	F	F	F	F	F	F	F	F	NC

	<b>PY010</b>	<b>PY020</b>	<b>PY021</b>	<b>PY030</b>	<b>PY050</b>	<b>PY070</b>	<b>PY090</b>	<b>PY100</b>	<b>PY110</b>	<b>PY120</b>	<b>PY130</b>	<b>PY140</b>	<b>PY200</b>
	Cash or near-cash employee income	Other non-cash employee income <sup>(1)</sup>	Income from private use of company car	Employers' social insurance contributions	Cash profits or losses from self-employment	Value of goods produced for own consumption	Unemployment benefits	Old-age benefits	Survivors' benefits	Sickness benefits	Disability benefits	Education-related allowances	Gross monthly earnings for employees <sup>(2)</sup>
<b>HU</b>	F	F	F	F	F	F	F	F	F	F	F	F	F
<b>MT</b>	F	F	F	P*	F	F	F	F	F	F	F	F	NC
<b>NL</b>	L*	L	F	F	F	NC	L*	F	F	F	F	F	NC
<b>AT</b>	F*	F*	F	F	F*	F	F*	F*	F	F	F	F	F
<b>PL</b>	L*	F	F	F	L*	F	F	F	F*	L*	F	F	F
<b>PT</b>	F	F	NC	F	F	F	F	F	F	F	F	F	F
<b>RO</b>	F	F	F	F	F	F	F	F	F	F	F	F	NC
<b>SI</b>	F	F	F	F	F	F	F	F	F*	F	F*	F	NC
<b>SK</b>	F	F	F	F	F	F	F	F	F	F	F	F	NC
<b>FI</b>	F	F*	F	L*	F	NC*	F	F	F	F	F	F	NC
<b>SE</b>	F	F	F	F	F	NC	F	F	F	F	F	F	NC
<b>UK</b>	F	F	F	F	F	NC*	F	F*	F	F	F	F	F
<b>IS</b>	L*	F	F	F	L*	NC	L*	F	F	L*	F	L*	F
<b>NO</b>	L*	F*	F*	F	L*	NC*	L*	L*	L*	L*	L*	F	NC

Source: National Quality Reports 2008.

F (fully comparable), L (largely comparable), P (partly comparable), N (not comparable), NC (Not collected).

(1) Other non-cash employee income: If fulfils: 5 from 5 mandatory components -> "F"; 4 from 5 -> "L"; 3 from 5 -> "P"; 2 from 5 -> "N".

(2) Variable mandatory only for countries that compute the gender pay gap using EU-SILC data.

\*: comments received by countries (see hereafter)

**Comments from countries** (marked with \* in the table above):

Belgium

- PY070 (Value of goods produced for own consumption): “This variable is not recorded in the file because the value of good produced from the own consumption does not constitute a significant component of the income. The importance of the component has been assessed using HBS.”
- PY140 (Education-related allowances): “It includes allowances referring to grants, scholarships and other education help received by students. However to obtain this variable we asked the information on household level instead of personal level because in Belgium this is paid on household level. Afterwards we attributed this amount to the persons in the individual file.”

Czech Republic

- PY070 (Value of goods produced for own consumption): “...is defined at the level of individual household members, is collected at the household level and later assigned to the head of household. This is due to the difficult attribution of this income in kind to individual household members (includes mainly small scale farming activities for own-consumption or own-consumption from family businesses).”

Germany

- PY050 (Cash profits or losses from self-employment): “Both methods measuring self-employment income that are recommended by the standard EU-SILC definitions were used in the German questionnaire. Respondents were asked about benefits/losses according to annual accounts and additionally about the yearly amount of money drawn out of their business. Unlike in the standard EU-SILC recommendations the largest amount of the two was taken for calculation of German self-employment. We think, that given the German tax system, this may in a better way reflect the possibilities of the self-employed to smooth mid-term fluctuations in account benefits contrasting with their more stable potential of wealth. Both amounts were available for all respondents who reported some figures for self-employment income.”
- PY070 (Value of goods produced for own consumption): “The value of goods produced for own consumption was, contrary to the preceding year, collected on the household level since for many households, a differentiation between household members was not possible. Where it was possible, the collected value was split according to the persons’ share on the household level in the preceding year. If no data was available from the preceding year, the amount was just evenly spread to all household members with a personal questionnaire. Since, in general, it may be assumed that expenses incurred in the production of these goods are of minor relevance compared to their market value and in order to simplify answering, in difference to the standard EU-SILC definitions respondents were not asked to deduct such costs.”
- PY090 (Unemployment benefits): “Unemployment benefits include, depending on the duration of unemployment, up to 7% of the former net employee income as a family allowance for dependent children. As these amounts are not transparent for the respondents, they cannot be split up by them. Therefore all reported amounts were considered as unemployment benefits in difference to the standard EU-SILC definition.”

## Estonia

- PY110 (Survivors' benefits): "If more than one household member is eligible for survivors' benefits, the individual benefits are, by default, combined and paid as a single sum to one household member. Due to infeasibility of dividing the survivors' benefit received between household members, the whole benefit is recorded only for the household member to whose account it was transferred. This can marginally affect variable HY110 (income received by those under 16), but has no effect on total household income."

## Ireland

- PY021 (Income from private use of company car): "The Irish EU-SILC questionnaire asks any non public service respondent who received employee income in the income reference period whether he/she received a non-cash benefit from his/her employer. If the respondent indicated that he/she received a company car for private use, the respondent was asked for the original market value (OMV) of the car. The recipient was also asked the number of months that he/she had private use of the company car in the income reference period and the number of business miles travelled. If the respondent didn't know the list price of the car he/she was asked the make and model of the car."
- PY030 (Employers' social insurance contributions): "PY030 includes: – Employers' contributions to private retirement (pension) plans. In the case of government employees there was no estimation of fictitious employer's contributions to pension plans although such employees are entitled to a non -social welfare pension on retirement. All employees were asked if there was a pension contribution deducted from their last wage, if there was, then the employee was asked for the amount deducted and also asked whether or not the employer makes contributions to the pension plan. If there was no pension deducted from the last wage the employee was asked whether or not he/she will be entitled to a non-social welfare pension on retirement. If the respondent answered yes he/she was asked who contributes to the pension plan. In cases where the employer contributed to the pension (where a pension deduction was made from the last wage and the respondent said that the employer also contributes to the pension, or where there was no pension deduction from the last wage but where the respondent will be entitled to a non-social welfare pension on retirement and the employer contributes to the pension), then the employers' pension contribution was estimated @ 8% of gross employee income (This is the same % that National Accounts use to estimate Employer pension contributions). From 2009, there is a new question in the Irish EU-SILC questionnaire that asks respondents who qualify for non-social welfare retirement pensions whether the pension is a defined benefit or defined contribution type pension plan. This means that from 2009 we will be better able to impute the true cost to the Employer of contributing to an employee's pension plan. – Employers' contributions to government insurance (social security) schemes. Each respondent was asked which class of social insurance he/she paid during the income reference period. The Employers' contribution was based on the class of Social insurance, reckonable pay and the number of socially insured weeks. – Employers' contributions to private health insurance (The value of this contribution was collected at data collection). – Employers' contributions to life insurance (The value of this contribution was collected at data collection)."
- PY050 (Cash profits or losses from self-employment): "Detailed information was collected regarding farm practices and a farm income was estimated. PY050g was then estimated by applying the appropriate income coefficient to each farm."

- PY070 (Value of goods produced for own consumption): “This variable is collected from those respondents who have owned or rented a farm or market garden at any time during the income reference period. Other households were not asked about the value of goods produced by own-consumption. In 2009 we intend to impute a value for this variable using HBS results as households have difficulty putting a monetary value on goods produced by own-consumption in an EU-SILC interview.”

#### France

- PY010 (Cash or near-cash employee income): “Wages are net of employees’ social contributions. Since 2008, wages being recovered by matching, they include benefits in kind declared with respect to taxes and taxable early retirement benefits (they can not be distinguished from wages).”
- PY021 (Income from private use of company car): “It is not possible to isolate the part from the company car from the salaries in kind. Variable PY021 is therefore not computed.”
- PY030 (Employers' social insurance contributions): “They include social contributions paid into the general scheme, but also certain taxes levied on wages (transport payment, National Fund for housing assistance, tax learning, vocational training).”

#### Italy

- PY050 (Cash profits or losses from self-employment): “the standard procedure requires to collect the amount of money drawn out of self-employment activity only when the profit/loss resulting from accounting books or the taxable self-employment income (net of corresponding taxes) are not available. For the Italian EU-SILC, both administrative and survey micro-data are available, through an exact matching of tax and sample records. The income from self-employment is set equal to the maximum value between: (i) the (net) self-employment income resulting from the Tax Report and (ii) the (net) self-employment income reported by the interviewee. In the questionnaire, the self-employment income question is preceded by a 'reminder question' that provides a YES/NO list of the possible personal uses of earnings (consumption and saving). The departure from the standard definition (using both sampling and administrative data) is adopted in order to minimise either tax avoidance in the administrative data or underreporting in the survey data, depending on which of the two is greater. With respect to the standard one, the procedure adopted for the Italian EU-SILC leads to more comparable data, under the assumption that other countries' self-employment incomes are not underestimated.”
- PY120 (Sickness benefits): “Paid sickness leaves of employees are included in the dependent employment incomes; the same holds true for self-employment.”

#### Malta

- PY030 (Employers' social insurance contributions): “For Malta the employers’ social insurance contributions is exactly equal to the social contribution paid by the employee plus subsidies paid by the employer on private health insurance, house insurance and life insurance. However, the private retirement plans and other employer insurance schemes were not collected for EU-SILC 2008. This will be amended for EU-SILC 2010.”

#### The Netherlands

- PY010 (Cash or near-cash employee income): Allowances for transport to or from work are not included in PY010. Severance and termination payments to compensate

employees and redundancy payments (including lump-sum payments) are also included in PY010G. They are not included in PY090G (unemployment benefits).

- PY090 (Unemployment benefits): “PY090 includes the vocational training allowance, i.e. payment by social security funds or public agencies to targeted groups of persons in the labour force who take part in training schemes intended to develop their potential for employment. Statistics Netherlands has no information available on benefit (in-kind) related to vocational training.

#### Austria

- PY010 (Cash-or near-cash employee income ): “This variable additionally includes payments in kind for the private use of company cars, income from compulsory military or civilian service, other income not elsewhere classified (if plausible) and proportional lump-sum payments if the person is employed for more than 1 month. This complies with the EUROSTAT definition.”
- PY020 (Non-Cash employee income): “According to EU-SILC Doc 65 (2008 operation) non-cash employee income includes among others the following subcomponents: Free or subsidised meals, free or subsidised housing, other goods and services. Originally it was foreseen that the non-cash employee income from EU-SILC 2007 onwards is integrated in PY010 and therefore part of the household income. After consultations with EUROSTAT the amount for PY020 is calculated separately in EU-SILC 2008 and is not integrated in the household income. The data for EU-SILC 2007 have been changed accordingly.”
- PY050 (Cash profits or losses from self-employment): “The income component includes also other income not elsewhere classified if plausible (see above (HY010)). The addition of these other income then is the result of a mere plausibilisation. Sales revenues from home production (like sold fruits from the own garden) are added to PY050 according to EU-SILC Doc 65 (2008 operation). The questions on privately sold goods were asked on the household level to avoid double reporting. The whole amount is attributed to the person with the highest income from self-employment or, in case that there is no self-employed person within the household, to the person with the lowest personal income. To gather the information for this variable the net amounts from self-employment and the amounts paid for social security and income tax for self-employment are asked. Based on this information the gross amount is calculated. The definitions and calculations for this variable is consistent with EUROSTAT’s definition of the target variable.”
- PY090 (Unemployment benefits): “This income component includes proportional lump-sum payments, if the person is unemployed (for at least 2 months).”
- PY100 (Old-age benefits): “This component also includes other income not elsewhere stated, if plausible and proportional lump-sum payments if the person is retired (at least 2 monthly regular payments, up to the total lump-sum payments). Since the standard retirement age in Austria is 65 years for men and 60 years for women, it contains all pension benefits paid to persons aged 65/60 or over. This complies with the EUROSTAT definition.”

#### Poland

- PY010 (Employee cash or near cash income): “This variable does not account for: - assistance for foster families; since granting the benefit is not connected with quitting the job, this benefit has been qualified to the category of ‘Family related allowances’ (HY050), - benefit granted to the families when the only person providing income for the

family is called up to the active military service; since this benefit is only granted when the only family supporter has been called to the military service, it has been included in the category of 'Family related allowances' (HY050).

- PY050 (Cash benefits or losses from self-employment): "The data on income from self-employment were collected in two different ways: the respondents were asked about the company's costs and profits and also about the amount of money gained from self-employment which was allocated to the household's expenditure. After a detailed analysis of data it was decided that the income from self-employment would be equal to the amount allocated to the household's needs."
- PY110 (Survivors' benefits): "Death grants are not included in the income because the whole sum is used to cover the cost of the funeral."
- PY120 (Sickness benefits): "Sickness and childcare benefits are not included (a childcare benefit is granted to the working parent of a sick child), because they are paid by the employer and cannot be detached from the income from hired employment. Therefore, they are accounted for in the income from hired employment."

### Slovenia

- PY110 (Survivors' benefits): "By calculation PY110G we consider the legislation in Slovenia and we did not exclude these incomes from PY110G in the case that person is older than it should be for reach old age benefits, thus survivor benefits were included in all cases in PY110G, it was not important how old person is." "By calculation PY110N we consider the legislation in Slovenia and we did not exclude these incomes from PY110N in the case that person is older than it should be for reach old age benefits, thus survivor benefits were included in all cases in PY110N, it was not important how old person is."
- PY130 (Disability benefits): "By calculation PY130G we consider the legislation in Slovenia and we did not exclude these incomes from PY130G in the case that person is older than it should be for reach old age benefits, thus disability benefits were included in all cases in PY130G, it was not important how old person is." "By calculation PY130N we consider the legislation in Slovenia and we did not exclude these incomes from PY130N in the case that person is older than it should be for reach old age benefits, thus disability benefits were included in all cases in PY130N, it was not important how old person is."

### Finland

- PY030 (Employers' social insurance contributions): "Optional contributions made by employers on the basis of contractual or specific sector arrangements have not been included in PY030G. A small part of these contributions have been counted in PY020G: e.g. contributions to endowment insurance (excl. life insurance) and other such contributions to individual pension scheme and risk insurance scheme which are determined as taxable employee income. These items are part of other register items and can't be separated. Information on optional contributions is not available. Amount of optional contributions of all ones is about 10 per cent according to NA."
- PY070 (Value of goods produced for own consumption): "Value is not significant at the national level, or to particular groups of households. According to the FI-HBS 2006 results, expenditures of goods produced for own consumption (under COICOP K01 Food and non-alcoholic beverages) was 0,3 per cent from all consumption expenditures in the households in average. In employers and own-account workers in agriculture, the

percentage was highest, 1,7 per cent, whereas in other socio-economic groups the percentage was as next highest, 0,4 per cent, in pensioners. When counting the expenditures of goods produced for own consumption from household disposable income, the percentages are lower in general (1,3 per cent in employers and own-account workers in agriculture). The information is not included in IDS.”

#### United Kingdom

- PY070 (Value of goods produced for own consumption): “This component of income is assumed to be zero.”
- PY100 (Old-age benefits): “All benefits included as old-age benefits are also included in the national definition of income. Income from private pensions is included in the EU-SILC definition of income, as in the national definition; however it is not included for the calculation of EU-SILC indicators. In addition, the national definition also includes the value free television licences provided to those over the age of 75.”

#### Iceland

- PY010 (Employee cash or near cash income): “Deviation from the SILC concept: It is not possible to separate from employee cash income redundancy compensations that should be included under unemployment benefits. The same goes for wages and salaries during sickness, which is a major part of sickness benefits paid in Iceland.”
- PY050 (Cash benefits or losses from self-employment): “Entrepreneurial income is collected net in register data. Royalties are registered as “other income” and not possible to separate and not include here.”
- PY090 (Unemployment benefits): “Deviation from the SILC concept: It is not possible to separate from employee cash income (PY010) redundancy compensations that should be included here or in PY100.”
- PY120 (Social benefits in the sickness): “All sickness benefits that are included in wages and salaries cannot be specified in registers and are included in PY010.”
- PY140 (Education related allowance): “It includes scholarship of various kinds and “educational alimony” received by children at the age of 18 to 20 years living with single parent (e.g. students).”

#### Norway

- PY010 (Gross Employee Cash income): “Defined as the sum of all wages and salaries including overtime, holiday pay, tips and bonuses. Deviations from the SILC concept: - payments to foster parents (included in wages, cannot be separated from wages) - severance and termination pay -sickness benefits that are not directly paid out to the employee (i.e. compensation from the Social Security Scheme to the employer). With the exception of sickness benefits these deviations are expected to be of a minor importance.”
- PY020 (Gross non-cash employee income): “In previous years this has only included the estimated value of using a company car. From 2007 on (the income year 2006) it includes the following elements: -Company car -Electronic communication paid by employer (telephone, internet connection etc) -Insurance against accidents and other insurances - Advantage of subsidised loans -Advantage of subsidised stocks in the company -Other taxable payments in kind such as electricity, accommodation, holidays/travels, transport etc.”
- PY050 (Cash benefits or losses from self-employment): “Entrepreneurial income is collected net in register data. Gross cash losses thus appear as negative amounts.

Deviation from the SILC concept: It has not been possible to identify – and thus deduct from self-employment income – interest paid on business loans.”

- PY070 (Value of own goods produced for own consumption): “The tax-assessed benefit from consuming own goods (estimated by the tax authorities) is included in gross cash income from self-employment (PY050). The variable PY070 is not included in Norwegian data because the value of own goods for own consumption is assumed to be ignorable. Data from the Norwegian HBS in 2006 shows that consumption of own goods is estimated to be only 0.13 percent of the total consumption in the households. In total, the value of own goods for own consumption is less than 400 NKr (approx. 50 euro) on average per household.”
- PY090 (Unemployment benefits): “Includes unemployment benefits for employees and unemployment benefits for the self-employed. Deviation from the SILC concept: No information available on benefits (in-kind) related to vocational training.”
- PY100 (Old-age function): “Include old-age pension from the social security system and occupational pensions. Deviation from the SILC concept: It was not possible to split the different types of occupational pensions into different functions, e.g. old-age, disability or survivor’s pension. In stead all types of occupational pensions have been included under the old-age function.”
- PY110 (Survivor’s benefits): “Includes survivor’s pension from the National Insurance Scheme. In addition several minor income items have been included that are received mainly by survivors, e.g. tax-free wage income and holiday pay earned by the deceased. Deviation from the SILC concept: Not possible to include funeral grants in the income concept. This benefit is transferred directly to the firm of undertakers.”
- PY120 (Social benefits in the sickness): “Includes sickness benefits paid by the National Insurance Scheme directly to the employee (i.e. after day 16 of sickness). Deviation from the SILC concept: The current register data covers only roughly 50% of the total amount paid out in daily cash sickness benefit. The remaining amount (compensation to the employer) is included in PY010 (Gross employee cash or near cash income).”
- PY130 (Disability benefits): “Include disability pension from the National Insurance Scheme, basic and attendance benefit and rehabilitation benefits. Deviation from the SILC concept: Early retirement benefit is included in occupational pension, i.e. old-age function.”

## Annex 5: Coherence studies

**Table 17: Comparison EU-SILC versus ‘other sources’ (2008)**

	Comparison with previous EU-SILC	Comparison with Household Budget Survey	Comparison with Labour Force Survey	Comparison with National Accounts	Comparison with administrative sources	Comparison with other sources
<b>Belgium</b>	Y	N	N	N	N	N
<b>Bulgaria</b>	N	Y	Y	N	Y	N
<b>Czech Republic</b>	N	N	N	Y	Y	N

	Comparison with previous EU-SILC	Comparison with Household Budget Survey	Comparison with Labour Force Survey	Comparison with National Accounts	Comparison with administrative sources	Comparison with other sources
<b>Denmark</b>	--	--	--	--	--	--
<b>Germany</b>	N	Y	N	N	N	N
<b>Estonia</b>	Y	N	Y	Y	N	Y*
<b>Ireland</b>	N	N	N	N	Y	Y*
<b>Greece</b>	Y	Y	Y	N	Y	N
<b>Spain</b>	Y	N	Y	Y	Y	N
<b>France</b>	N	N	N	N	Y	Y*
<b>Italy</b>	N	N	Y	Y	Y	N
<b>Cyprus</b>	Y	N	Y	N	N	N
<b>Latvia</b>	N	Y	Y	N	Y	N
<b>Lithuania</b>	N	Y	N	N	Y	N
<b>Luxembourg</b>	N	N	N	N	N	N*
<b>Hungary</b>	Y	Y	Y	N	N	N
<b>Malta</b>	N	N	Y	Y	Y	N
<b>The Netherlands</b>	Y	N	N	N	N	Y*
<b>Austria</b>	Y	N	N	Y	Y	N
<b>Poland</b>	Y	Y	N	Y	N	N
<b>Portugal</b>	Y	Y	N	N	N	N
<b>Romania</b>	N	Y	N	N	N	N
<b>Slovenia</b>	Y	Y	Y	Y	N	N
<b>Slovakia</b>	Y	Y	Y	N	Y	Y*
<b>Finland</b>	Y	N	Y	Y	Y	Y
<b>Sweden</b>	N	N	N	N	N	N
<b>United Kingdom</b>	N	N	N	N	N	Y*
<b>Iceland</b>	N	N	N	N	N	N
<b>Norway</b>	N	N	N	N	N	N

Source: National Quality Reports 2008.

-- No information for Denmark as no national quality report 2008 has been received.

**Comments from countries** (marked with \* in the table above):

Estonia

- Safety Survey, wage statistics and social protection statistics.

Ireland

- National Farm Survey 2007.

France

- 'Enquête Revenues fiscaux et sociaux' and 'Enquête Logement'.

### Luxembourg

- “...La conjonction de deux phénomènes -le poids des travailleurs frontaliers et le poids des fonctionnaires internationaux dans la population active- n’autorise pas une comparaison des variables cibles du revenu et du nombre de personnes percevant un revenu avec des sources extérieures. Les sources extérieures excluent la plupart du temps les fonctionnaires internationaux et incluent les travailleurs frontaliers...”

### The Netherlands

- Income Panel Survey.

### Slovakia

- Structure of Earnings Survey.

### United Kingdom

- Family Resources Survey and Living Costs and Food Survey.