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1 Contact

Individual or organisational contact points for the data or metadata, including information on how to reach the contact points

- 1.1 Contact organisation**
- 1.2 Contact organisation unit**
- 1.3 Contact name**
- 1.4 Contact person function**
- 1.5 Contact mail address**
- 1.6 Contact email address**
- 1.7 Contact phone number**
- 1.8 Contact fax number**

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2 Introduction

The production of quality reports is part of the implementation of the EU-SILC instrument. In order to assess the quality of data at national level and to make a comparison among countries, the National Statistics Institutes are asked to report detailed information mainly on: the entire statistical process, sampling and non-sampling errors, and potential deviations from standard definition and concepts.

This document follows the ESS standard for quality reports structure (ESQRS), which is the main report structure for reference metadata related to data quality in the European Statistical System. It is a metadata template, based on 13 main concepts, which can be used across several statistical domains with the purpose of a better harmonisation of the quality reporting requirements in the ESS.

For that reason the template of this document differs from that one stated in the Commission Reg. 28/2004.

Finally it is the combination of the previous intermediate and final quality reports therefore it is worth mentioning that it refers to both the cross sectional and the longitudinal data.

The EU-SILC (Statistics on Income and Living Conditions, Regulation of the European Parliament, no. 1177/2003) is one of the main sources of data for periodic reports on the social situation of the European Union and the spread of poverty in member countries. The core information of EU-SILC is essentially centered around the issues of income and social exclusion. The project is inspired by a multi-dimensional approach to the problem of poverty, with a particular focus on aspects of material deprivation.

Italy participates in the project with a survey on income and living conditions of households, conducted every year since 2004, providing statistics at both cross and longitudinal (households remain in the sample for four consecutive years). Although the EU-SILC Regulation require only the production of indicators at national level, in Italy the survey was designed to provide reliable estimates at regional level. Since 2007 the survey, in addition to net income, also provides an estimate of the gross income, allowing you to calculate the main economic and social indicators (poverty relative persistence of poverty in the state, dispersion around the line of poverty, income inequality) before and after taxation and social transfers. Since 2011 has been modified interview technique and the investigation is carried out through a CAPI

(Computer Assisted Personal Interview).

3 Quality management - assessment	Not requested by Reg. 28/2004
4 Relevance	Not requested by Reg. 28/2004
4.1 Relevance - User Needs	Not requested by Reg. 28/2004
4.2 Relevance - User Satisfaction	Not requested by Reg. 28/2004
4.3 Completeness	Not requested by Reg. 28/2004
4.3.1 Data completeness - rate	Not requested by Reg. 28/2004

5 Accuracy and reliability

The concept of accuracy refers to the precision of estimates computed from a sample rather than from the entire population. Accuracy depends on design effects and structure of the population under study. In addition to that, sampling errors and non-sampling errors need to be taken into account. The variability that occurs at random because of the use of a sample rather than a census and non-sampling errors are errors that occur in all production processes.

5.1 Accuracy - overall

In terms of precision requirements, the EU-SILC framework regulation as well as the Commission Regulation on sampling and tracing rules refers to the sample size to be achieved and to the representativeness of the sample. The effective sample size combines sample size and sampling design effects, design, population structure and non-response rate.

5.2 Sampling error

EU-SILC is a complex survey involving different sampling designs in different countries. In order to harmonize and make sampling errors comparable (with the substantial methodological support of Net-SILC2) has chosen to apply the "linearization" technique coupled with the "ultimate cluster" estimator. Linearization is a technique based on the use of linear approximation to reduce non-linear statistics to a linear form, justified by asymptotic theory. This technique can encompass a wide variety of indicators, including EU-SILC indicators. The "ultimate cluster" approach is a simplification of the variance taking into account only variation among Primary Sampling Units (PSU) totals. This method requires first stage sampling fractions to be the same for all strata. This method allows a great flexibility and simplifies the calculations of variances. It can also be generalized to calculate variances year to year.

The main hypothesis on which the calculations are based is that the "at risk of poverty" threshold is fixed. According to the characteristics and a country we have used different variables to specify strata and cluster information. In particular, countries have been split into four groups:

- 1) BE, BG, CZ, IE, EL, ES, FR, IT, LV, HU, NL, PL, PT, RO, SI, UK and HR whose sampling design could be assimilated to a two-stage stratified design for strata specification and DB060 (Primary Sampling Unit) for cluster specification;
- 2) DE, EE, CY, LT, LU, AT, SK, FI, CH whose sampling design could be assimilated to a one-stage stratified type; we used DB050 for strata specification (household ID) for cluster specification;
- 3) DK, MT, SE, IS, NO, whose sampling design could be assimilated to a simple random sampling; we used DB030 for cluster specification and

The Eurostat methodology is accepted by Italy.**5.2.1 Sampling error - indicators**

	AROPE			At risk of poverty (60%)			Severe Material Deprivation			Very low work intensity		
	Ind. value	Stand. errors	Half CI (95%)	Ind. value	Stand. errors	Half CI (95%)	Ind. value	Stand. errors	Half CI (95%)	Ind. value	Stand. errors	Half CI (95%)
Total	28.2	0.48	0.94	19.6	0.42	0.82	11.2	0.43	0.84	10.4	0.28	0.55
Male	26.4	0.54	1.06	18.3	0.45	0.88	10.9	0.46	0.9	9.2	0.31	0.61
Female	29.9	0.50	0.98	20.8	0.45	0.88	11.5	0.43	0.84	11.6	0.34	0.67
Age 0-17	32.3	0.88	1.73	26.3	0.86	1.69	12.3	0.76	1.49	7.6	0.4	0.79
Age 18-64	28.4	0.52	1.02	18.5	0.43	0.84	11.0	0.43	0.84	11.2	0.3	0.59
Age 65+	24.2	0.66	1.3	17.0	0.52	1.02	10.9	0.53	1.04	-	-	-

Alternative Sampling Error Table View

Indicator	Breakdown	Indicator value	SE %	CI95% lower bound	CI95% upper bound
	Total	28.2	0.48	27.3	29.2
	Male	26.4	0.54	25.4	27.5
	Female	29.9	0.50	28.9	30.9
AROPE	Age 0-17	32.3	0.88	30.5	34.0
	Age 18-64	28.4	0.52	27.4	29.4
	Age 65+	24.2	0.66	22.9	25.5
	Total	19.6	0.42	18.8	20.4
	Male	18.3	0.45	17.4	19.1
	Female	20.8	0.45	19.9	21.7
ARPT60	Age 0-17	26.3	0.86	24.7	28.0
	Age 18-64	18.5	0.43	17.6	19.4
	Age 65+	17.0	0.52	16.0	18.0
	Total	11.2	0.43	10.3	12.0
	Male	10.9	0.46	10.0	11.8
	Female	11.5	0.43	10.6	12.3

SMD	Age 0-17	12.3	0.76	10.8	13.8
	Age 18-64	11.0	0.43	10.1	11.8
	Age 65+	10.9	0.53	9.9	12.0
	Total	10.4	0.28	9.8	10.9
	Male	9.2	0.31	8.6	9.8
LWI	Female	11.6	0.34	10.9	12.3
	Age 0-17	7.6	0.4	6.77	8.5
	Age 18-59	11.2	0.3	10.66	11.8

As comment:

Based on an hypothesis of agreement with the technical phase of construction of the sampling design: the Standard error of the (ARPR) at-risk (at family level), linearized with Taylor Woodruff Method, using (solely for this year) the Software Regenesees with Ultimate Cluster is 0.37 and the

5.3 Non-sampling error

Non-sampling errors are basically of 4 types:

- Coverage errors: errors due to divergences existing between the target population and the sampling frame.
- Measurement errors: errors that occur at the time of data collection. There are a number of sources for these errors: instrument, the information system, the interviewer and the mode of collection
- Processing errors: errors in post-data-collection processes such as data entry, keying, editing and weighting
- Non-response errors: errors due to an unsuccessful attempt to obtain the desired information from an eligible unit. Two non-response errors are considered:

1. – Unit non-response: refers to absence of information of the whole units (households and/or persons) selected into the sample
1. – Item non-response: refers to the situation where a sample unit has been successfully enumerated, but not all required information was obtained

5.3.1 Coverage error

Coverage errors include over-coverage, under-coverage and misclassification:

- Over-coverage: relates either to wrongly classified units that are in fact out of scope, or to units that do not exist in the population
- Under-coverage: refers to units not included in the sampling frame
- Misclassification: refers to incorrect classification of units that belong to the target population

5.3.1.1 Over-coverage - rate

	Main problems	Size of error
Cross sectional data	.Over-coverage	NOT PRESENT
	.Under-coverage	NOT PRESENT
	.Misclassification	NOT PRESENT

The definition of the sample population is not different from the definition of the target population, considering the registry office.

5.3.2 Measurement error

Cross sectional data

Source of measurement errors	Building process of questionnaire	Interview training
	<p>The final version of the questionnaire, as used in the survey 2007, revisited for the CAPI edition of the survey 2011, is based on (i) the first three waves of SILC surveys; (ii) the support of experts working in other research institutes; and (iii) a cognitive laboratory on self-employment. Information is collected through three main questionnaires: the first one collects information about each household member's demographic characteristics, and child care; the second one collects information at household level; the third one collects information at individual level (about individual aged 16 and over).</p> <p>This building process of questionnaire is likely to be affected by: (i) memory effect, because information is collected according to respondents memories (official documentation about income is not required; external sources of information, as administrative registers, are used when available); (ii) omission, because respondents might not be willing to provide correct information about income or other living conditions; (iii) proxy effect, because in a few cases some individuals are allowed to provide information about other household members;</p>	<p>interviewers, who might provide the respondents with an incorrect interpretation of the questions, or might mistake when filling the questionnaire. A market research company in cooperation with Istat territorial offices, provides a CAPI interview survey. Interviewers are firstly trained and provided with training tools (e.g. instruction manuals, or presentations) by Istat. The market research company implements the questionnaire software (Converso) and provides support during the field work a control for the quality of the interviewers' work. Training strategies have been outlined also on the experience of pilot surveys;</p>

5.3.3 Non response error

Non-response errors are errors due to an unsuccessful attempt to obtain the desired information from an eligible unit. Two main types of non-response errors are considered:

- 1) **Unit non-response** which refers to the absence of information of the whole units (households and/or persons) selected into the sample. According to Regulation 28/2004:

- **Household non-response rates (NRh)** is computed as follows:

$$NRh = (1 - (Ra * Rh)) * 100$$

Where Ra is the address contact rate defined as:

$$Ra = \text{Number of address successfully contacted} / \text{Number of valid addresses selected}$$

and Rh is the proportion of complete household interviews accepted for the database

$$Rh = \text{Number of household interviews completed and accepted for database} / \text{Number of eligible households at contacted addresses}$$

- **Individual non-response rates (NRp)** will be computed as follows:

$$NRp = (1 - (Rp)) * 100$$

Where Rp is the proportion of complete personal interviews within the households accepted for the database

$$Rp = \text{Number of personal interview completed} / \text{Number of eligible individuals in the households whose interviews were completed and accepted}$$

- **Overall individual non-response rates (*NRp)** will be computed as follows:

$$*NRp = (1 - (Ra * Rh * Rp)) * 100$$

For those Members States where a sample of persons rather than a sample of households (addresses) was selected, the individual non-response rate 'the selected respondent', for all individuals aged 16 years or older and for the non-selected respondent.

2) **Item non-response** which refers to the situation where a sample unit has been successfully enumerated, but not all the required information

5.3.3.1 Unit non-response - rate

Cross sectional data

Address contact rate (Ra)*		Complete household interviews (Rh)*		Complete personal interviews (Rp)*		Household Non-response rate (NRh)*		Individual non-response rate (NRp)*		
A*	B*	A*	B*	A*	B*	A*	B*	A*	B*	
99.3	100	75.56	79.33	100	100	24.98	20.67	0	0	24.9

* All the formulas are defined in the Commission Regulation 28/2004, Annex II

A* = Total sample; B = * New sub-sample

For the Italian 2011 SILC survey the address contact rate (Ra), the proportion of completed household interviews accepted for the database (Rh), the proportion of complete personal interviews within the households accepted for the database (Rp), the individual non-response rate (NRp) and the overall individual non-response rates (NRp_overall) are shown below:

Household non-response rates (NRh) will be computed as follows: $NRh = (1 - (Ra * Rh)) * 100$

Where Ra is the address contact rate

Ra = Number of addresses successfully contacted / Number of valid addresses selected =

$$= \frac{\sum [DB120=11]}{\sum [DB120=all]} - \frac{\sum [DB120=23]}{\sum [DB120=all]}$$

Rh is the proportion of complete household interviews accepted for the database

Rh = Number of household interviews completed and accepted for data base / Number of eligible households at contacted addresses =

$$= \frac{\sum [DB135=1]}{\sum [DB130=all]}$$

For those Members States where substitutions are made in case of unit non-response, non-response rates will be calculated before and after substitution

- **Individual non-response rates (NRp)** will be computed as follows: $NRp = (1 - (Rp)) * 100$

Where Rp is the proportion of complete personal interviews within the households accepted for the database

Rp = Number of personal interviews completed / Number of eligible individuals in the households whose interviews were completed and accepted

$$= \frac{\sum [RB250=11+12+13]}{\sum [RB245=1+2+3]}$$

- **Overall individual non-response rates (*NRp)** will be computed as follows: $*NRp = (1 - (Ra * Rh * Rp)) * 100$

For those Members States where substitutions are made in cases of unit non-response, non-response rates will be calculated before and after substitution

For those Members States where a sample of persons rather than a sample of households (addresses) was selected, the individual non-response rate 'the selected respondent' (RB245=2), for all individuals aged 16 years or older (RB245=2+3) and for the non-selected respondent (RB245=3).

5.3.3.2 Item

non-response - rate

The computation of item non-response is essential to fulfil the precision requirements concerning publication as stated in the Commission Regulation. The non-response rate is provided for the main income variables both at household and personal level.

5.3.3.2.1 Item non-response rate by indicator

	Total hh gross income (HY010)	Total disposable hh income (HY020)	Total disposable hh income before social transfers other than old-age and survivors benefits (HY022)	Total
% of household having received an amount	99.23	99.33	98.83	92
% of household with missing values (before imputation)	0.71	1.46	1.72	3.1
% of household with partial information (before imputation)	88.10	55.70	50.00	47

	Imputed rent (HY030)	Income from rental of property or land (HY040)	Family/ Children related allowances (HY050)	Social exclusion payments not elsewhere classified (HY060)	Housing allowances (HY070)	Regular inter-hh cash transfers received (HY080)	Interest
% of household having received an amount	100.00	13.48	25.14	2.42	3.55	3.63	39.7
% of household with missing values (before imputation)	0.00	10.29	6.00	1.32	0.78	0.44	12.3
% of household with partial information (before imputation)	0.00	1.06	0.77	0.04	0.13	0.05	1.67

	Cash or near-cash employee income (PY010)	Other non-cash employee income (PY020)	Income from private use of company car (PY021)	Employers social insurance contributions (PY030)	Cash profits or losses from self-employment (PY050)	Value of goods produced for own consumption (PY070)	Unemployment benefits (PY090)	Old-age benefits (PY100)	Survivors benefits (PY110)	Sick ber (PY120)
% of household having received an amount	40.80	13.24	0.68	38.54	17.20	18.34	10.11	29.92	1.87	-
% of household with missing values (before imputation)	1.15	8.54	100.00	100.00	10.15	0.13	0.43	0.08	0.02	
% of household with partial information (before imputation)	1.93	0.62	100.00	0.00	0.46	0.00	0.09	0.09	0.00	

Income components at household level:

Alternative Table View as requested by the previous NRME Template

	Cross sectional	
	A*	B*
Total household gross income	0.71	88.10
Total disposable household income	1.46	55.70
Total disposable household income before social transfers other than old-age and survivors' benefits	1.72	50.00
Total disposable household income including old-age and survivors' benefits	3.60	47.99
Net income components at household level		
Imputed rent	0.00	0.00
Income from rental of a property or land	10.29	1.06
Family/children related allowances	6.00	0.77
Social exclusion not elsewhere classified	1.32	0.04
Housing allowances	0.78	0.13
Regular inter-household cash transfer received	0.44	0.05
Interest, dividends, profit from capital investments in unincorporated business	12.30	1.67
Interest repayments on mortgage	13.36	0.00
Income received by people aged under 16	0.02	0.00
Regular taxes on wealth	24.28	2.87
Regular inter-household cash transfer paid	0.63	0.04

Repayments/receipts for tax adjustment	0.19	0.29
Value of goods produced by own-consumption	0.13	0.00
Gross income component at household level		
Imputed rent	100.00	0.00
Income from rental of a property or land	10.29	3.05
Family/children related allowances	6.00	0.83
Social exclusion not elsewhere classified	1.32	0.08
Housing allowances	0.78	0.24
Regular inter-household cash transfer received	0.44	0.15
Interest, dividends, profit from capital investments in unincorporated business	12.30	26.42
Interest repayments on mortgage	15.00	0.00
Income received by people aged under 16	0.02	0.00
Regular taxes on wealth	24.28	2.87
Regular inter-household cash transfer paid	0.63	0.04
Tax on income and social contributions	6.59	78.68
Value of goods produced by own-consumption	0.13	0.00
A* = % of household with missing values before imputation; B* = % of household with partial information before imputation		

Income components at personal level:

	Cross sectional	
	A*	B*
Net income components at personal level		
Employee cash or near-cash income	1.15	1.93
Non cash employee income	8.54	0.62
Company car	100.00	100.00
Contributions to individual private pension plans	0.61	0.00
Cash benefits or losses from self-employment	10.15	0.46
Pension from individual private plans	0.00	0.00
Unemployment benefits	0.43	0.09
Old-age benefits	0.08	0.09
Survivor' benefits	0.02	0.00
Disability benefits	0.05	0.00
Education related allowances	0.06	0.00
Gross income components at personal level		
Employee cash or near-cash income	0.45	5.36
Non cash employee income	8.54	4.59
Company car	99.97	0.00
Employer's social insurance contribution	100.00	0.00
Contributions to individual private pension plan	0.61	0.00
Cash benefit or losses from self-employment	1.41	9.37
Pension from individual private plans	100.00	0.00
Unemployment benefits	0.22	9.73
Old-age benefits	0.05	0.63
Survivor' benefits	99.96	0.00
Disability benefits	0.05	0.00
Education related allowances	0.06	0.00
Gross monthly earnings of employees	5.32	0.00
A* = % of household with missing values before imputation; B* = % of household with partial information before imputation		

Administrative data cover 95.3% of recipients of old age benefits, disability benefits and survivor' benefits.

The total item non-response for total disposable household income is 1.46 per cent (number of observations is 283) and the total number of obs (unit=households). For unadjusted gender pay gap the total item non-response is 5.32 per cent (number of observations is 2155) and the total r 40.496 (unit=individuals 16 +).

5.3.4 Processing error

Data entry and coding	Editing controls
The family will be visited by an interviewer (who performs the interview), provided with an identification tag, which performs on behalf of Istat data collection with the	
	Main errors detected in the post data collection process
	Main errors detected are:

Data entry and coding

Editing controls

aid of a personal computer. The information is collected through a questionnaire on the laptop where the interviewer recorded the answers will be provided by the family. This interview method is known as CAPI (Computer Assisted Personal Interviewing). Data entry procedure is realised through the software Converso. The procedure contains automatic controls about: range of variable, main routes of questionnaire and any logical controls referred to internal inconsistency of collected information. Every control is set-up like "soft" in order to reduce typing errors.

Furthermore, the procedure provides for "hard" control in order to compare register and questionnaire information about household's composition, and previous versions/editions of the survey.

- Missing value.
- Value outside acceptance range.
- Incoherence value compared to other information in the same record.

Coding controls

Coding controls are implemented in post-data-collection-process based on donor method.

5.3.4.1 Imputation - rate Not requested by Reg. 28/2004

5.3.4.2 Common units - proportion Not requested by Reg. 28/2004

5.3.5 Model assumption error Not requested by Reg. 28/2004

5.3.6 Data revision Not requested by Reg. 28/2004

5.3.6.1 Data revision - policy Not requested by Reg. 28/2004

5.3.6.2 Data revision - practice Not requested by Reg. 28/2004

5.3.6.3 Data revision - average size Not requested by Reg. 28/2004

5.3.7 Seasonal adjustment Not requested by Reg. 28/2004

6 Timeliness and punctuality Timeliness and time lag are as requested by Eurostat Reg. 28/2004

6.1 Timeliness The length of time between data availability and the event or phenomenon that they describe is as requested by Eurostat Reg. 28/2004

6.1.1 Time lag - first result The number of months from the last day of the reference period to the day of publication of first results is as requested by Eurostat Reg. 28/2004

6.1.2 Time lag - final result The number of months from the last day of the reference period to the day of publication of complete and final results are as requested by Eurostat Reg. 28/2004

6.2 Punctuality Time lag between the actual delivery of the data and the target date when it should have been delivered as requested by Eurostat Reg. 28/2004

6.2.1 Punctuality - delivery and publication The number of days between the delivery / release date of data and the target date on which they were scheduled for delivery/ release as requested by Eurostat Reg. 28/2004

7 Accessibility and clarity Not requested by Reg. 28/2004

7.1 Dissemination format - News release Not requested by Reg. 28/2004

7.2 Dissemination format - Publications Publication on Income and Living condition are downloadable at

<http://www.istat.it/it/archivio/condizioni-economiche-delle-fami>

alias

<http://www.istat.it/en/archive/households-economic-conditions>

or you can contact the Press release Center

7.3 Dissemination format - online database

Your direct access to the Italian National Institute of Statistics is: I.STAT

I.Stat is the warehouse of statistics produced by Istat, a complete and homogeneous wealth of information unique for the Italian official statistics.

<http://dati.istat.it/?lang=en>

7.3.1 Data tables - consultations Your direct access to the Italian Statistics is I.ISTAT

I.Stat is the warehouse of statistics produced by Istat, a complete and homogeneous wealth of information unique for the Italian official statistics.

<http://dati.istat.it/?lang=en>

7.4 Dissemination format - microdata access At the following web address, Istat provides Micro-data access

<http://www.istat.it/en/information/researchers/microdata-files>

7.5 Documentation on methodology The list of methodological documents is available on line through a search engine.

[http://www3.istat.it/dati/catalogo/ricerca.php?tipo=n&ciclo=0&stringa=reddito&settorij\]=7&num_collana=](http://www3.istat.it/dati/catalogo/ricerca.php?tipo=n&ciclo=0&stringa=reddito&settorij]=7&num_collana=)

7.5.1 Metadata completeness - rate Not requested by Reg. 28/2004

7.5.2 Metadata - consultations Not requested by Reg. 28/2004

7.6 Quality management - documentation Documentation on procedures applied for quality management and quality assessment are as requested by Eurostat Reg. 28/2004

7.7 Dissemination format - other Not requested by Reg. 28/2004

8

Comparability According to the Regulation (EC) No 1177/2003 of the European Parliament and of the Council concerning EU-SILC: "Comparability of data betw fundamental objective and shall be pursued through the development of methodological studies from the outset of EU-SILC data collection, carri between the Member States and Eurostat".

Although the best way for keeping the comparability of data is to apply the same methods and definitions of variables, small departures of the de allowed in EU-SILC. In this way, the mentioned Regulation in its article 16th says: "Small departures from common definitions, such as those rel definition and income reference period, shall be allowed, provided they affect comparability only marginally. The impact of comparability shall be

8.1

Comparability Not requested by Reg. 28/2004

- geographical

8.1.1

Asymmetry for mirror flow statistics Not requested by Reg. 28/2004

- coefficient

8.1.2 Reference Reference population

Private household definition

Household memb

population

Reference population

Private household definition

Household membership

Same definition as standard EU-SILC

- the private household definition: in accordance with the Commission Regulation (EC) N° 1980/2003 (Annex I, paragraph 1.1), that allow to the Member States for using the common household definition defined in their own national statistical system. IT-SILC uses the following household definition: "cohabitants related through marriage, kinship, affinity, adoption, patronage and affection";

- the household membership: IT-SILC domestic personnel au pairs. Concerning some socio-demographic information (sex, marital status, duration of stay) the number of these persons included in the survey is 0.82% with respect to the total number of interviewed individuals.

8.1.3 Reference Period

Period for taxes on income and social insurance contributions

Income reference periods used

Reference period for taxes on wealth

Lag between the income ref period :

same definition as standard EU-SILC

same definition as standard EU-SILC

same definition as standard EU-SILC

in the Italian EU-SILC survey of 2011, current the moment of interview that is about 9 months before the income reference period

the total duration of the data collection of the sample: 4 months. starting from the transmission of questionnaires to interviewers until their return

— basic information on activity status during the income reference period: same to the standard EU-SILC concept;

Components of income

Differences between the national definitions and standard EU-SILC definitions

— total household gross income: same definition as standard EU-SILC;

— total disposable household income: same definition as standard EU-SILC;

— total disposable household income, before social transfers other than old-age and survivors' benefits: same definition as standard EU-SILC;

— total disposable household income, before social transfers including old-age and survivors' benefits: same definition as standard EU-SILC;

— imputed rent: estimated by a semilogarithmic regression (log of the rent, avoiding the re-transformation bias) with self-selection correction à la Heckman using distinct probit models for owners/renters at a below-the-mkt price/free tenants vs tenants at a mkt price. Seniority is included between regressors (parameter from regression equal to 0) in estimating predicted values for sub-populations other than tenants at a mkt rate;

— income from rental of property or land: same definition as standard EU-SILC;

— family/children-related allowances: same definition as standard EU-SILC;

- social exclusion payments not elsewhere classified: same definition as standard EU-SILC;

— housing allowances: same definition as standard EU-SILC;

— regular inter-household cash transfers received: same definition as standard EU-SILC;

- interest, dividends, profit from capital investments in unincorporated businesses: same definition as standard EU-SILC;
- interest paid on mortgages: same definition as standard EU-SILC;
- income received by people aged under 16: same definition as standard EU-SILC;
- regular taxes on wealth: same definition as standard EU-SILC;
- regular inter-household transfers paid: same definition as standard EU-SILC;
- tax on income and social insurance contributions: same definition as standard EU-SILC;
- repayments/receipts for tax adjustments: repayments/receipts for tax adjustments are those paid in the n+1 year, where n is the income reference period. the (optional) definition of taxes as 'taxes due on the incomes of the reference period'.
- cash or near-cash employee income: same definition as standard EU-SILC;
- non-cash employee income: the value of the company car for personal use is the user's cost estimated by the ACI (Automobile Club Italiano);
- employers' social insurance contributions: includes also contribution for Cococo "co-ordinated and continuative collaborators", a special category.
- cash profits or losses from self-employment (including royalties): the standard procedure requires to collect the amount of money drawn out of the business when the profit/loss resulting from accounting books or the taxable self-employment income (net of corresponding taxes) are not available. For the Italian survey, when administrative and survey micro-data are available, through an exact matching of tax and sample records. The income from self-employment is split between: (i) the (net) self-employment income resulting from the Tax Report and (ii) the (net) self-employment income reported by the interview. The self-employment income question is preceded by a 'reminder question' that provides a YES/NO list of the possible personal uses of earnings (co-debit and co-credit). The departure from the standard definition (using both sampling and administrative data) is adopted in order to minimise either tax avoidance in the reporting 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 data, under the assumption that other countries' self-employment incomes are not underestimated;
- value of goods produced for own consumption: same definition as standard EU-SILC;
- unemployment benefits: same definition as standard EU-SILC;
- old-age benefits: same definition as standard EU-SILC;
- survivors' benefits: same definition as standard EU-SILC;
- sickness benefits, paid sickness leaves of employees are included in the dependent employment incomes;
- disability benefits: same definition as standard EU-SILC;
- education-related allowances: same definition as standard EU-SILC;
- gross monthly earnings for employees: same definition as standard EU-SILC;

The source or procedure used for the collection of income variables

The sources or procedures used for the collection of income variables are Paper and pencil interviews (CAPI) for all income variables, including the self-employed and administrative data. Administrative data have been linked to sample data and used for estimating data on employee incomes.

incomes.

The form in which income variables at component level have been obtained

All income variables at component level are both net and gross of taxes and social security contribution at source.

The method used for obtaining income target variables in the required form

Gross values are estimated by a new methodology using in conjunction an exact record linkage between survey and fiscal data at micro level an Microsimulation Model SM2-EU-SILC). The integration of microsimulation with register data has the advantage of using administrative data for the results. On the other hand, SM2-EU-SILC estimates those tax and social insurance contributions not covered by register data. Four main registers used by employees and pensioners, UNICO tax returns used primarily by self employed workers, CUD employers' tax statements which include contributions, and Pension Register Data. Both the use of administrative data and microsimulation estimates improves the quality and the amount of variables.

8.1.4 Statistical concepts and definitions

Total hh gross income (HY010) F	Total disposable hh income (HY020) F	Total disposable hh income before social transfers other than old-age and survivors' benefits (HY022) F				Total disposable income (HY022) F				
Imputed rent (HY030) F	Income from rental of property or land (HY040) F	Family/Children related allowances (HY050) F	Social exclusion payments not elsewhere classified (HY060) F	Housing allowances (HY070) F	Regular inter-hh cash transfers received (HY080) F	Interest, dividends, profit from capital investments in incorporated businesses (HY090) F	Interest paid on mortgage (HY100) F	Income received by people under (HY11) F		
Cash or near-cash employee income (PY010) L	Other non-cash employee income (PY020) F	Income from private use of car (PY021) F	Employers social contributions (PY030) F	Cash profits or losses from self-employment (PY050) L	Value of goods produced for own consumption (PY070) F	Unemployment benefits (PY090) F	Old-age benefits (PY100) F	Survivors benefits (PY110) F	Sickness benefits (PY120) F	Disability benefits (PY130) NC
The source or procedure used for the collection of income variables Multi sources data collection: survey and administrative data				The form in which income variables at component level have been obtained Individual		The method used in the Combining survey administrative data				

8.2 Comparability As requested by Eurostat
- over time

8.2.1 Length of comparable time series The number of reference periods in time series are 8 from year 2004 to year 2011, every year four longitudinal component and a cross file are generated.

8.3 Comparability Regional domain comparability are due to weighting calibration and coherence.
- domain

9 Coherence The coherence of two or more statistical outputs refers to the degree to which the statistical processes, by which they were generated, used the same concepts and harmonised methods. A comparison with external sources for all income target variables and the number of persons who receive income from each 'income component' will be provided, where the Member States concerned consider such external data to be sufficiently reliable.

9.1 Comparison of income target variables and number of persons who receive income from each 'income component', with external sources
Coherence - cross domain

In this section we present the main results of the comparison between IT-SILC data and external data sources for the principal income target variables. In particular, we focus on the following income components: 1) Employee – cash, near cash income, non cash –income (PY010N/G+PY020N/G); 2) Social transfers as the sum of Old-age benefits (PY100N/G), Survival benefits (PY110N/G) and Disability benefits (PY130N/G). Data from National Accounts, Labour Force Survey by Istat, Fiscal Agencies of the Ministry of the Economy and Pensions Register by INPS (National Institute for Social Security) are used as external benchmarks. The table 1 below shows the alignment of total net employee income estimate from IT-SILC respect to the National Accounts aggregate in the year 2010 (the

overestimation is below 0.04%). Table 2 shows that the number of employee income earners estimated using IT-SILC approximates the number of employees from Fiscal Agency data (universe of taxable employed income recipients) during 2010.

Differences in applied definitions (i.e. domestic vs resident employment), reference period and coverage of the two data sources can explain well the gap in estimates. By definition, the tax register does not report information on wages and employees arising from the hidden economy, that are only partially included in the survey.

Table 1 - Employee income

		millions of euro – 2010	
		National Accounts*	Eu-Silc_11 and Fiscal Agencies**
Economic components:			
Gross employee income (cash, near cash, non cash)	(PY010G+PY020G)	(+) 479,171	480,783
Social contribution paid on employee income		40,356	42,391
Tax on employee income	(-)	90,465	89,896
Net employee income (PY010N+PY020N)		348,350	348,496

Table 2 - Employees

Number of people who have received wage and salary (cash or near cash) during 2010	Thousands of units – 2010	
	Fiscal Agencies**	Eu-Silc_11
	20,927	21,268

Due to lack of harmonization, National Accounts data are not directly comparable with IT-SILC estimates on self-employment incomes. In table 3 are compared the IT-SILC 2011 estimate of number of self-employment incomes earners with the self-employed of other sources. Notice that in LFS a worker is classified as an independent on the basis of his/her main activity. With respect to NA, the estimate of self-employed units in term of full time equalised workers are presented. The IT-SILC estimate is referred to the number of people whose earnings from self-employment may have been temporary and/or from a secondary working activity.

Table 3 – Self-employed

Number of people who receive cash benefit or losses from self-employment (PY050N)	Thousands of units – 2010		
	National Accounts (ula*)	Labour force survey estimate Istat	Eu-Silc_11
	6,833	5,762	7,797

(*) full time equivalent unit of workers

Finally, in tables 4 and 5 are reported data on social expenditure and beneficiaries for three kind of functions (ESSPROS) put all together: old-age, survival and disability. In both cases, IT-SILC 2010 estimates are quite close to the administrative data. The closeness of the estimates between IT-SILC and administrative data is due to the massive use of administrative information on the construction of the Eu-Silc target variables: PY100G/N, PY110G/N and PY130G/N.

Table 4 – Social benefits payment (old-age, survivors and disability functions)

PY100N-PY110N-Y130N	Millions of euro - 2010	
	National Account* and Fiscal Agencies**	Eu-Silc_11
Economic Components:		
PY100G-PY110G-PY130G* (+)	255,467	253,591
Tax on Old-age-Survival-disability benefits** (-)	41,611	41,708
PY100N-PY110N-PY130N***	213,856	211,883

(***) Severance payments (lump-sum) are excluded

Table 5 – Social benefits recipients

Number of beneficiaries of Old-age-Survival-disability pensions	Thousands – 2010	
	Pension Register of INPS*** (excluded persons aged under 15 and/or residing abroad)	Eu-Silc_11
	16,034	16,423

(***) Severance recipients are excluded

9.1.1

Coherence

- sub

annual

Not requested by Reg. 28/2004

and

annual

statistics

9.1.2

Coherence

- National

Not requested by Reg. 28/2004

Accounts

9.2

Coherence

Not requested by Reg. 28/2004

- internal

10 Cost and Burden

Not requested by Reg. 28/2004

11 Confidentiality

Not requested by Reg. 28/2004

11.1 Confidentiality - policy

Not requested by Reg. 28/2004

11.2 Confidentiality - data treatment

Not requested by Reg. 28/2004

12

Statistical processing

Detailed information concerning sampling frame, sampling design, sampling units, sampling size, weightings and mode of data collection can be found in this section. Such information is mainly used for the computation of the accuracy measures.

12.1

Source data

The sampling frame is composed by the registers of the municipalities.

The sample of the households belonging to the rotational group with DB075=4 was extracted in July 2008 and validated within September 2008.

The sample of the households belonging to the rotational group with DB075=1 was extracted in July 2009 and validated within September 2009.

The sample of the households belonging to the rotational group with DB075=2 was extracted in July 2010 and validated within September 2010.

The sample of the households belonging to the rotational group with DB075=3 was extracted in July 2011 and validated within July 2011, because the survey is a CAPI and the extraction is derived from LAC (the Italian acronym for lists of municipal registry, see <http://www.istat.it/it/archivio/16574>).

The sampling frame is updated in continuous way by the municipalities in interactive modality.

12.1.1

Sampling design and procedure

Type of sampling design

Two stage sampling design: The first stage units (or primary sampling units PSU) are the municipalities, the second stage units (SSU) are the households.

The PSU are stratified according to their size in terms of number of residents. Stratification is carried out inside each administrative region. Four municipalities are selected in each strata.

Use of clustering:

Municipalities are clusters of households, households are clusters of individuals.

Stratification and sub stratification criteria

Stratification of primary sampling units by the number of inhabitants so that the total number of inhabitants in each stratum is approximately constant (this guarantees self-weighting design in each region).

Municipalities which sizes are higher than a threshold are self-representing units i.e. are strata themselves and included with certainty in the sample of PSU.

Secondary sampling units are not stratified.

Sample selection schemes

PSU are selected with probability proportional to their size (number of residents) by means of systematic sampling method by Madow (1949) inside each stratum.

Households are selected with equal probability by systematic sampling in each selected municipality from municipality-registers.

Sample distribution over time

The sample is not distributed over time.

Substitution

In Italy no substitution of unit non-response has been applied.

**12.1.2
Sampling
unit**

Primary sampling units are the municipalities.

Secondary sampling units are the households selected from municipalities' registers with systematic sampling and not selected with PPS.

Sample size (number of SSU)	Number of PSU	Number of SSU (Total)	Average number of SSU for each PSU
<25	505	6308	12.5
26-50	353	11756	33.3
51-75	43	2492	58
76-100	13	1127	86.7
101-250	12	1730	144.2
>250	6	2964	494
Total	932	26377	28.3

**12.1.3
Sampling
rate and
sampling
size**

Concerning the SILC instrument, three different sample size definitions can be applied:

- the actual sample size which is the number of sampling units selected in the sample
- the achieved sample size which is the number of observed sampling units (household or individual) with an accepted interview
- the effective sample size which is defined as the achieved sample size divided by the design effect with regards to the at-risk-of poverty rate indicator

Given that the effective sample size has been already treated in the section dealing with sampling errors, in this section the attention focuses mainly on the achieved sample size.

Achieved sample size

num_of_hh2010 19147 num_of_hh2011 19399 perc1persons_16_over2011 1.01 last_rot_grnum_of_rot_hh2011perc2 40496 1 4255 21.93

DB075	DB135	Number of households for which the interview is accepted	number of persons of 16 years or older by type of interview
	1		
1	N	4255	5452
	%	21.93	20.88
2	N	4189	5517
	%	21.59	21.12
3	N	6748	9923
	%	34.79	38
4	N	4207	5224
	%	21.69	20
Totale	N	19399	26116
	%	100	100

**12.2
Frequency
of data
collection**

Fieldwork
The total duration of the data collection of the sample

start_day start_month end_day end_month
 1 9 31 12

Renewal of sample: rotational groups

Rotational design is used for households; the whole sample is composed of four rotational groups. Each group is included in the sample for four waves of the survey. Each year one fourth of the sample is renewed, replacing the group entered in the sample four years before.

	A	B	C	D	E	F	G	H	I
T	A4	B3	C2	D1					
T+1		B4	C3	D2	E1				
T+2			C4	D3	E2	F1			
T+3				D4	E3	F2	G1		
T+4					E4	F3	G2	H1	
T+5						F4	G3	H2	I1

Each group is associated to one municipality of the strata. The self-representative municipalities are enclosed in each of the rotational groups: in such case the households referring to these municipalities are divided in 4 independent samples.

12.3 Data collection

Mode of data collection

A description of the mode of data collection used in your country. Please mention if you use mixed mode of data collection.

1-PAPI 2-CAPI 3-CATI 4-Self administrated
 (% of total) (% of total) (% of total) (% of total)
 0.0 100.0 0.0 0.0

Alternative Table for Mode of data collection

Systematic process of gathering data for official statistics

	Proxy (% of total)	1-PAPI	2-CAPI
	X data	X data	X data
2010	19	100	
2011	23.9		100

The mean interview duration

The mean interview duration per household is calculated as the sum of the duration of all household interviews plus the sum of the duration of all personal interviews, divided by the number of household questionnaires completed. Only households accepted for the database have to be considered.

Average interview duration = 40.5 minutes

12.4 Data validation

Not requested by Reg. 28/2004

12.5 Data compilation

Not requested by Reg. 28/2004

12.5.1 Weighting procedure

Design factor

Non-response adjustments

Adjustment to external data

Final cross sectional weights

Design factor	Non-response adjustments	Adjustment to external data	Final cross sectional weights
<p>Wave 1;</p> <p>In case of the households at the first wave, the design weight of each household was given by the inverse of its inclusion probability and was calculated taking into account the population of the stratum, the population and the number of households in the extracted municipalities. In every stratum it is extracted one municipality.</p> <p>Let p_{ji} be the design weight of the generic household j in the municipality i:</p> $p_{ji} = 1 / \pi_{hi} = P_h / P_{hi} * M_{hi} / m_{hi}$ <p>where :</p> <p>h is the stratum index;</p> <p>i is the municipality index;</p> <p>π_{hi} is the inclusion probability of the households resident in the municipality i of the stratum h;</p> <p>P_h is the population resident in the stratum h;</p> <p>P_{hi} is the population in the municipality i of the stratum h;</p> <p>M_{hi} is the number of households resident in the municipality i of the stratum h;</p> <p>m_{hi} is the number of sample households in the municipality i of the stratum h.</p>	<p>In the sample we observe two different non-response level: individual-level and household-level.</p> <p>Concerning with the individual-level non-response, the records of the non-respondent individual belonging to respondent households were totally imputed.</p> <p>Concerning with the non-response adjustment at the household level, the base weights were adjusted by a correction factor for total non-response worked out as the reciprocal of the response probability for each household identified by the information we had on the extracted sample (for the households at wave 1) or gathered from the previous year of survey (for the households at wave 2, 3, 4). The response probability is obtained by a logistic regression model.</p> <p>The re-calculated weight p_j(circumflex) for the generic household j is:</p> $p_j(\text{circumflex}) = p_j / \pi_j$ <p>, where p_j the design weight and π_j is the response probability.</p>	<p>After the non-response adjustments, the final weights were obtained applying a calibration of the household weights to external data sources (registers). Let $X_1, X_2 \dots X_p$ denote the external (known) variables</p> <p>The calibration procedure consists of calculating the household weights ψ_j, such as:</p> <ul style="list-style-type: none"> - The calibrated weights are "not very different" from the weights p_j(circumflex) - The totals X_r of the calibration variables are exactly estimated by the same totals in the sample obtained with the weights ψ_j. <p>The external known totals are the following:</p> <p>For the entire sample:</p> <ol style="list-style-type: none"> 1) Distribution of the population by sex and fourteen 5-years age-groups at NUTS I level (year t-1). The age groups are: 0-15, 16-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75+ at the end of the income reference period (year t-1); 2) Distribution of the population by sex and five age-groups at NUTS II level (year t-1). The age groups are: 0-15, 16-25, 26-45, 46-65, 65+ at the end of the income reference period (year t-1). 3) Distribution of non-national population at NUTS I level by sex; by age in two classes: 0-17, 18+ at the end of the income reference period (year t-1). 4) Distribution of the population by demographic size of the municipality at Nuts I level (year t-1) (six classes). 5) Number of households at NUTS II level at the time of the survey (year t); Number of households with non-national components at NUTS I level (year t). 	<p>We applied an integrative calibration, that means that we used both household and personal variables in the procedure. The calibration performed at household level using the household variables and the individual variables in their aggregate form as calibration variables. This technique ensures that members in the same household all receive the same weight. A trimming procedure was applied to avoid extreme values of weights.</p>
<p>Wave 2, 3, 4;</p> <p>In case of the households at the second, third or fourth wave, an indirect sampling of households is done through the panel of persons aged 14+ at the time of the panel selection. In this case, the inclusion probabilities cannot be calculated. Then, the solution consists of applying the Weight Share Method. Within a household, each member has been assigned a weight coming from the final cross-sectional weight of the precedent year of survey corrected for unit non-response, except for co-residents from whom the weight is =0. Average of these weights over all the household members (including co-residents) is assigned to each member (including co-residents).</p>	<p>Wave 1: the information used for the "new" households are:</p> <p>territorial domain (NUTS II level), demographic size of the municipalities, number of household components and sex, age and</p>	<p>For the entering rotational sub-group (at first wave):</p> <ol style="list-style-type: none"> 1) Distribution of the population by sex and five age-groups at NUTS I level. The age groups are: 0-15, 16-25, 26-45, 46-65, 65+ at the end of the income reference period (year t-1). 2) Amount of non-national population at NUTS I level distinct in two classes: 0-17, 18+ at the end of the income reference period (year t-1). 3) Distribution of the population by demographic size of the municipality at Nuts I level (year t-1) (three classes). 4) Number of households at NUTS I level at the time of the survey (year t) 	

Design factor	Non-response adjustments	Adjustment to external data	Final cross sectional weights
	<p>nationality of the householder (gathered from demographic registers).</p> <p>Wave 2, 3, 4: the information used for the "old" households are:</p> <p>territorial domain (NUTS II), demographic size of the municipalities, number of household components, type of income sources, tenure status, rotational group, household disposability to the interview in previous year, nationality, sex, age, education of the household components.</p> <p>In conformity with the previous year of survey a first stage of calibration procedure was adopted to assure the same structure as the population of the Labour Force Survey with regard to the education and professional position of the population. This is due to the fact that in Italy the non-response in an income survey is correlated with the position in the labour market (especially for self-employed) and with the education level of the respondents.</p>	<p>For the other sub-groups:</p> <p>1) Population at NUTS I level (year t-1)</p> <p>2) Number of households at NUTS I level (year t);</p>	

12.5.2 Estimation and imputation

Imputation procedure used	Imputed rent	Company car	
	Objective, hedonic regression or Heckman method	To assign the value to the variable "company car" ACI tables are used, according to the model of car and the year of registration. When the informations about model and car registration are missing, it is used the value stated in the time t-1 (for ¾ of the sample, to say the "re-interviewed").	

12.6 Adjustment The set of procedures employed to modify statistical data to enable it to conform to national or international standards or to address data quality differences when compiling specific data sets are applied at the end of the weighting procedure, after the non-response adjustments.

The external known totals are the following:

For the entire sample:

- 1) Distribution of the population by sex and fourteen 5-years age-groups at NUTS I level (year t-1). The age groups are: 0-15, 16-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75+ at the end of the income reference period (year t-1);
- 2) Distribution of the population by sex and five age-groups at NUTS II level (year t-1). The age groups are: 0-15, 16-25, 26-45, 46-65, 65+ at the end of the income reference period (year t-1).

- 3) Distribution of non-national population at NUTS I level by sex; by age in two classes: 0-17, 18+ at the end of the income reference period (year t-1).
- 4) Distribution of the population by demographic size of the municipality at Nuts I level (year t-1) (six classes).
- 5) Number of households at NUTS II level at the time of the survey (year t); Number of households with non-national components at NUTS I level (year t).

For the entering rotational sub-group (at first wave):

- 1) Distribution of the population by sex and five age-groups at NUTS I level. The age groups are: 0-15, 16-25, 26-45, 46-65, 65+ at the end of the income reference period (year t-1).
- 2) Amount of non-national population at NUTS I level distinct in two classes: 0-17, 18+ at the end of the income reference period (year t-1).
(year t-1).
- 3) Distribution of the population by demographic size of the municipality at Nuts I level (year t-1) (three classes).
- 4) Number of households at NUTS I level at the time of the survey (year t)

For the other sub-groups:

- 1) Population at NUTS I level (year t-1)
- 2) Number of households at NUTS I level (year t);

13 Comment **All the Ad-hoc Module variables are fully comparable.**

Annexes

Description