

**QUALITY REPORT
FINAL LONGITUDINAL SURVEY
2005-2006-2007-2008**

1. COMMON LONGITUDINAL EUROPEAN UNION INDICATORS BASED ON THE LONGITUDINAL COMPONENT OF EU-SILC

For the first time the longitudinal dataset 2005-2008 of the EU-SILC operation comprises a four-years panel, making it possible the calculation of the at-persistent-risk-of-poverty rate. It is defined as the percentage of persons with an equivalised disposable income below the respective at-risk-of-poverty threshold for the last wave and at least two times in the preceding three years.

The reference population comprises all persons who were in the panel for all four waves. The share of persons is weighted using the base weight of the last wave; for each year, the median and two thresholds (respectively 60% or 50% of the median) are estimated from the cross-sectional sample¹.

Table 1. Types of at-persistent-risk-of-poverty

Duration of at-risk-of-poverty	T = 2008	T-1 = 2007	T-2 = 2006	T-3 = 2005	Threshohld = 60% median	Threshohld = 50% median
T & 3 times in preceding waves	At risk	At risk	At risk	At risk	8.8	4.9
T & 2 times in preceding waves	At risk	At risk	At risk	Not at risk	1.84	0.8
	At risk	At risk	Not at risk	At risk	1.41	0.92
	At risk	Not at risk	At risk	At risk	0.89	0.53
					12.94	7.15

Table 2. At-persistent-risk-of-poverty by age and sex

		Threshohld = 60% median	Threshohld = 50% median
Age	Sex	%	%
0+	T	12.94	7.15
	M	11.78	6.29
	F	14.02	7.95
0-17	T	18.19	10.08
18-64	T	11.31	6.56
	M	10.32	5.8
	F	12.31	7.32
65+	T	14.14	6.85
	M	11.46	4.67
	F	16.06	8.42

2. ACCURACY

2.1. Sampling design for the first wave of the longitudinal component

2.1.1 Type of sampling (stratified, multi-stage, clustered)

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.

¹ As a result, these estimates are not fully comparable with what reported in the Final Quality Report 2007. In that case the at-risk-of-poverty thresholds were estimated for each wave by observations in the four-year panel.

2.1.2 Sampling units (one stage, two stages)

Primary sampling units are the municipalities.

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

Extracted sample

DB075	Sample size (number of SSU)	Number of PSU	Number of SSU (Total)	Average number of SSU for each PSU
1	<=25	200	1563	7.8
1	26-50	184	5345	29.0
1	51-75	3	185	61.7
1	76-100	2	175	87.5
1	101-250	4	591	147.8
1	>=250	1	432	432.0
1	Total	394	8291	21.0
2	<=25	174	1511	8.7
2	26-50	183	5328	29.1
2	51-75	3	187	62.3
2	76-100	2	175	87.5
2	101-250	4	589	147.3
2	>=250	1	433	433.0
2	Total	367	8223	22.4
3	<=25	144	1363	9.5
3	26-50	185	5356	29.0
3	51-75	3	185	61.7
3	76-100	2	175	87.5
3	101-250	4	589	147.3
3	>=250	1	432	432.0
3	Total	339	8100	23.9

2.1.3 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.

2.1.4 Sample size and allocation criteria

Sample size have been determined on the basis of expected deft reported in table 1 for macroregions (North, Centre, South). Data of ECHP for years 1995-1999, have been the basis for the evaluation of deft, results on income and poverty have been averaged over the 5 available years. National intra-classes correlation coefficient inside households, ρ_{SR} , and inside municipality, ρ_{NSR} , have been estimated on the basis of the above averages; then following formula to evaluate *deff* has been applied:

$$deff_r = \frac{n_r}{N_r^2} \left\{ \frac{N_{rSR}^2}{n_{rSR}} (1 + \rho_{SR} (\bar{b}_{rSR} - 1)) + \frac{N_{rNSR}^2}{n_{rNSR}} (1 + \rho_{NSR} (\bar{b}_{rNSR} - 1)) \right\}$$

where n_r and N_r are sample and population dimension of administrative regions, \bar{b}_{rSR} is the average household dimension and \bar{b}_{rNSR} is the average number of individuals selected in each municipalities.

On the basis of survey on income of year 2003, the following response rates have been estimated:

- T(reg) for regions by municipality type (municipality type: metropolitan, over 50.000 residents and others);
- T(mr) for macro-regions by municipality type.

Then to smooth the estimates, $T(c) = 0.25 * T(reg) + 0.75 * T(mr)$, has been applied to inflate the achieved sample size so that

$$n(sel) = n(ach) / T(c).$$

The sample inside macro-regions has been allocated by means of a generalized version (Falorsi et al, 1998 and Falorsi e Russo, 2003.) of Bethel methods (Bethel 1989), with iterative procedure that recalculate at each step deff and sampling dimensions to satisfy given requirements. Allocation inside regions averaging proportional and uniform allocation.

Table 1

Macroregions	Deft income	Deft poverty	Deff income	Deff poverty
1	2.64	1.59	6.97	2.54
2	2.26	1.43	5.09	2.05
3	2.69	1.61	7.24	2.61
Italy	2.61	1.58	6.84	2.50

The sampling size of each rotational group is one/fourth of the above size.

2.1.5 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.

2.1.6 Sample distribution over the time

The sample is not distributed over time.

2.1.7 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
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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.

2.1.8. Weightings

FOR THE FIRST WAVE OF THE EU-SILC LONGITUDINAL COMPONENT

2.1.8.1 Design factor

In case of the individuals at the first wave, the base weight is equal to the household cross-sectional weight, and is the same for all the household components. 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 and the number of extracted households in the municipality. In every stratum it is extracted one municipality.

Let p_{ji} be the design weight of the generic household j in the municipality i :

$$p_{ji} = \frac{1}{\pi_{hi}} = \frac{P_h}{P_{hi}} \frac{M_{hi}}{m_{hi}}$$

where :

h is the stratum index;

i is the municipality index;

π_{hi} is the inclusion probability of the households resident in the municipality i of the stratum h ;

P_h is the population resident in the stratum h ;

P_{hi} is the population in the municipality i of the stratum h ;

M_{hi} is the number of households resident in the municipality i of the stratum h ;

m_{hi} is the number of sample households in the municipality i of the stratum h .

2.1.8.2 Non-response adjustments

For the first wave of the longitudinal sample, we observe two different non-response level: individual-level and household-level.

Concerning with the individual-level non-response, the records of the non-respondent individual belonging to respondent households were totally imputed.

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 ratio for subgroups of households identified by the information we had on the extracted sample (for the households at wave 1). The groups are identified by segmentation obtained with a chi-squared decision tree.

The re-calculated weight $\hat{p}_{j,k}$ for the generic household j in the sub-group k is:

$$\hat{p}_{jk} = p_{jk} \frac{N_{Ek}}{N_{Ok}}, \text{ where } p_{jk} \text{ is the design weight, } N_{Ek} \text{ is the number of households extracted in the}$$

sub-group k , and N_{Ok} is the number of respondent households.

The information used are:

territorial domain (NUTS II level), demographic size of the municipalities, number of household components and nationality of the householder (gathered from demographic registers), type of income sources (gathered from fiscal registers).

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.

2.1.8.3 Adjustments to external data (level, variables used and sources)

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

The calibration procedure consists of calculating the household weights ψ_j , such as:

- The calibrated weights are “not very different” from the weights \hat{p}_j
- The totals X_r of the calibration variables are exactly estimated by the same totals in the sample obtained with the weights ψ .

The external known totals regarding the households at the first participation are the following:

For the entering rotational sub-group:

- 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 (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 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 by sex and by UE and non UE distribution at NUTS I level (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)

2.1.8.4 Final longitudinal weights

For the first wave of each panel, the base weight is equal to the cross-sectional weight. We applied an integrative calibration, that means that we used both household and personal variables in the procedure. The calibration is 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.

FOR THE SECOND WAVE OF THE EU-SILC LONGITUDINAL COMPONENT

2.1.8.5 Non-response adjustments

In the longitudinal component of the survey we observe non-response at individual-level.

Concerning with the non-response adjustment at the individual level, the base weights were adjusted by a correction factor for total non-response worked out as the reciprocal of the response ratio for identified through the information gathered from the previous year of survey. The response probability is obtained through a logistic regression model.

The re-calculated weight $\hat{p}_{j,k}$ for the generic individual j in the sub-group k is:

$$\hat{p}_{jk} = p_{jk} \frac{N_{Ek}}{N_{Ok}}, \text{ where } p_{jk} \text{ is the base weight of the previous year, } N_{Ek} \text{ is the number of}$$

individuals interviewed in the sub-group k , and N_{Ok} is the number of respondent individuals.

The information used to identify the sub-groups are:

territorial domain (NUTS II), demographic size of the municipalities, number of household components, type of income sources, level of household income, nationality, sex, age, education and professional condition of the household components.

2.1.8.6 Adjustments to external data

No adjustment to external data was applied for the individuals participating not for the first time.

2.1.8.7 Final longitudinal weights

The longitudinal weight is only at individual level and is equal to the base weight at the first year of participation corrected for non-response.

2.1.8.8 Final household cross-sectional weights

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).

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

The calibration procedure consists of calculating the household weights ψ_j , such as:

- The calibrated weights are “not very different” from the weights \hat{p}_j
- The totals X_r of the calibration variables are exactly estimated by the same totals in the sample obtained with the weights ψ .

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 UE and non UE distribution; 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)

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);

2.1.9. Substitutions

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

2.2. Sampling errors

With reference to the cross-sectional component of the survey - year 2008 -, standard errors were calculated for the mean of the Income components (listed in Table 1) and for the mean of the Equivalised disposable income by household size, population age groups, population by sex (see Table 1).

Table 1. Mean, number of observations and standard errors(cross-sectional component 2008)

Income components	Mean	Number of observations		Standard
		Before imputation	After imputation	Error
Total household gross income	39354.92	20737	20928	271.55
Total disposable household income	29392.01	20748	20928	169.89
Total disposable household income before social transfers other than old-age survivors' benefits	28018.43	20617	20928	170.63
Total disposable household including old-age survivors' benefits	21138.69	19381	20928	169.53
Net income components at household level				
Income from rentals of properties or lands	6670.52	1042	1766	345.13
Family/children related allowances	1085.17	5617	6029	27.74
Social exclusion	4838.08	116	128	781.83
Housing allowances	2214.72	354	386	265.88
Transfers received	4533.84	1013	1125	222.79
Interest, dividends, profits	1042.18	7938	11288	23.58
Interest repayments on mortgage	3965.39	0	2530	118.01
Income of people aged less than 16	3151.99	115	136	656.15
Regular taxes on wealth	374.74	7644	14599	5.09
Transfers paid	4255.37	907	972	235.83
Repayments/receipts for tax adjustment	-302.43	13855	13888	15.60
Gross income components at household level				
Income from rentals of properties or lands	9381.43	1042	1766	527.24
Family/children related allowances	1085.17	5617	6029	27.74
Social exclusion	4838.08	116	128	781.83
Housing allowances	2214.72	354	386	265.88

(Follows) Table 1. Mean, number of observations and standard errors (cross-sectional component 2008)

Transfers received	4533.84	1013	1125	222.79
Interest, dividends, profits	1342.21	7938	11288	29.96
Interest repayments on mortgage	3965.39	0	2530	118.01
Income of people aged less than 16	3151.99	115	136	656.15
Regular taxes on wealth	374.74	7644	14599	5.09
Transfers paid	4255.37	907	972	235.83
Net income components at personal level				
Employee cash or near-cash income	15835.85	15446	17925	123.52
Non cash employee income	1269.77	904	4429	30.09
Contributions to individual private pension plan	1840.34	2334	2682	72.07
Cash benefit or losses from self-employment	17513.88	6030	7125	212.54
Pension from individual private plans	4690.09	78	81	911.38
Unemployment benefits	3338.44	4179	4343	102.72
Old-age benefits	12592.04	13390	13406	91.42
Survivor' benefits	6772.51	720	721	363.35
Disability benefits	5736.82	1414	1423	225.17
Education related allowances	4409.60	199	231	595.16
Gross income components at personal level				
Employee cash or near-cash income	21493.97	17765	17925	182.70
Non cash employee income	1316.21	904	4429	31.87
Contributions to individual private pension plan	1840.34	2334	2682	72.07
Cash benefit or losses from self-employment	26246.56	6977	7125	669.02
Pension from individual private plans	6341.15	81	81	1312.24
Unemployment benefits	3900.83	4281	4343	123.93
Old-age benefits	14966.93	13392	13406	125.12
Survivor' benefits	7997.24	720	721	449.05
Disability benefits	6547.91	1417	1423	267.48
Education related allowances	4409.60	199	231	595.16
Gross monthly earnings of employees	1744.24	13284	14732	14.91

(Follows) Table 1. Mean, number of observations and standard errors (cross-sectional component 2008)

Income components	Mean	Number of observations		Standard Error
		Before imputation	After imputation	
<i>Subclasses by household size</i>				
1 household member	16318.06	5416	5515	222.58
2 household members	18932.59	5861	5900	310.68
3 household members	18998.30	4549	4575	328.29
4 and more	16801.60	4922	4938	229.68
<i>Population by age group</i>				
<25	15993.69	12946	13048	135.15
25-34	18315.70	6316	6374	161.91
35-44	18167.65	8154	8225	176.59
45-54	18988.81	7350	7398	179.44
55-64	20905.73	6671	6693	252.33
65+	16333.22	10676	10695	131.97
<i>Population by sex</i>				
Male	18298.12	25136	25280	112.53
Female	17181.43	26977	27153	97.25

With reference to the component of the survey - year 2005-2006-2007-2008, DB075=1 -, standard errors were calculated for the mean of the Income components (listed in Table 1) and for the mean of the Equivalised disposable income by household size, population age groups, population by sex (see Table A).

Table A. Mean, number of observations and standard errors (DB075 = 1)

Income components	Mean	Number of observations		Standard Error
		Before imputation	After imputation	
Total household gross income	40852.8	4511	4528	611.8
Total disposable household income	30442.1	4522	4536	380.7
Total disposable household income before social transfers other than old-age survivors' benefits	29042.1	4498	4525	384.9
Total disposable household including old-age survivors' benefits	21251.4	4228	4359	382.9
Net income components at household level				
Income from rentals of properties or lands	7633.7	221	373	1220.1
Family/children related allowances	1086.5	1243	1330	55.0
Social exclusion	5139.9	22	25	1247.9
Housing allowances	2082.7	63	68	412.5
Transfers received	4485.7	213	233	385.0
Interest, dividends, profits	1131.0	1659	2427	55.4
Interest repayments on mortgage	3694.0	0	610	225.5
Income of people aged less than 16	3177.4	24	29	1033.1
Regular taxes on wealth	388.1	1686	3199	11.7
Transfers paid	4481.6	184	205	697.2
Repayments/receipts for tax adjustment	-259.3	3076	3084	4.3
Gross income components at household level				
Income from rentals of properties or lands	11103.3	221	373	2003.1
Family/children related allowances	1086.5	1243	1330	55.0
Social exclusion	5139.9	22	25	1247.9
Housing allowances	2082.7	63	68	412.5
Transfers received	4485.7	213	233	385.0
Interest, dividends, profits	1450.6	1659	2427	68.8
Interest repayments on mortgage	3694.0	0	610	225.5
Income of people aged less than 16	3177.4	24	29	1033.1
Regular taxes on wealth	388.1	1686	3199	11.7
Transfers paid	4481.6	184	205	697.2

(Follows) Table A. Mean, number of observations and standard errors (DB075 = 1)

Income components	Mean	Number of observations		Standard Error
		Before imputation	After imputation	
Net income components at personal level				
Employee cash or near-cash income	15914.5	3463	3961	280.5
Non cash employee income	1304.4	173	915	66.7
Contributions to individual private pension plan	1840.6	505	581	141.3
Cash benefit or losses from self-employment	18103.7	1313	1569	1015.3
Pension from individual private plans	4986.6	20	22	1509.3
Unemployment benefits	3699.2	923	953	256.4
Old-age benefits	13235.7	2972	2975	209.4
Survivor' benefits	6962.5	157	157	666.1
Disability benefits	5276.0	322	322	394.2
Education related allowances	5583.9	39	43	1297.9
Gross income components at personal level				
Employee cash or near-cash income	21646.9	3930	3961	411.3
Non cash employee income	1343.5	173	915	70.5
Contributions to individual private pension plan	1840.6	505	581	141.3
Cash benefit or losses from self-employment	27145.1	1532	1569	1546.1
Pension from individual private plans	6620.8	22	22	2109.2
Unemployment benefits	4299.4	946	953	305.7
Old-age benefits	15827.6	2973	2975	287.9
Survivor' benefits	8181.7	157	157	806.7
Disability benefits	5971.8	322	322	451.2
Education related allowances	5583.9	39	43	1297.9

(Follows) Table A. Mean, number of observations and standard errors (DB075 = 1)

Equivalised disposable income	Mean	Number of observations		Standard Error
		Before imputation	After imputation	
<i>Subclasses by household size</i>				
1 household member	16780.6	1132	1147	404.1
2 household members	19532.0	1295	1304	680.8
3 household members	20041.5	986	995	802.7
4 and more	17581.1	1109	1114	534.1
<i>Population by age group</i>				
<25	16520.6	2852	2887	318.6
25-34	18858.8	1380	1395	346.9
35-44	18904.6	1802	1815	412.5
45-54	19114.6	1579	1590	413.2
55-64	22063.6	1496	1502	507.2
65+	16983.9	2367	2367	317.2
<i>Population by sex</i>				
Male	18913.7	5584	5621	233.8
Female	17859.1	5892	5935	220.6

With reference to the component of the survey - year 2006-2007-2008, DB075=2 -, standard errors were calculated for the mean of the Income components (listed in Table B) and for the mean of the Equivalised disposable income by household size, population age groups, population by sex (see Table B).

Table B. Mean, number of observations and standard errors (DB075 = 2)

Income components	Mean	Number of observations		Standard Error
		Before imputation	After imputation	
Total household gross income	39981.6	4843	4865	488.3
Total disposable household income	29890.8	4848	4871	314.4
Total disposable household income before social transfers other than old-age survivors' benefits	28606.2	4821	4859	313.0
Total disposable household including old-age survivors' benefits	21243.0	4519	4660	291.4
Net income components at household level				
Income from rentals of properties or lands	7329.8	229	399	691.1
Family/children related allowances	1061.2	1325	1422	38.6
Social exclusion	5544.0	27	33	1124.3
Housing allowances	2863.3	70	77	877.4
Transfers received	4945.7	219	242	463.2
Interest, dividends, profits	1090.7	1885	2649	50.0
Interest repayments on mortgage	3893.9	0	579	214.7
Income of people aged less than 16	2881.3	29	35	566.4
Regular taxes on wealth	387.5	1835	3463	10.7
Transfers paid	4102.0	198	215	407.8
Repayments/receipts for tax adjustment	-323.3	3196	3203	3.8
Gross income components at household level				
Income from rentals of properties or lands	10347.3	229	399	1060.2
Family/children related allowances	1061.2	1325	1422	38.6
Social exclusion	5544.0	27	33	1124.3
Housing allowances	2863.3	70	77	877.4
Transfers received	4945.7	219	242	463.2
Interest, dividends, profits	1398.4	1885	2649	62.7
Interest repayments on mortgage	3893.9	0	579	214.7
Income of people aged less than 16	2881.3	29	35	566.4
Regular taxes on wealth	387.5	1835	3463	10.7
Transfers paid	4102.0	198	215	407.8

(Follows) Table B. Mean, number of observations and standard errors (DB075 = 2)

Income components	Mean	Number of observations		Standard Error
		Before imputation	After imputation	
Net income components at personal level				
Employee cash or near-cash income	15931.0	3472	4060	222.5
Non cash employee income	1226.4	177	966	52.9
Contributions to individual private pension plan	1931.8	484	566	157.1
Cash benefit or losses from self-employment	17942.0	1380	1612	744.0
Pension from individual private plans	4272.4	18	19	1249.5
Unemployment benefits	3240.4	942	977	164.6
Old-age benefits	12962.0	3240	3243	200.6
Survivor' benefits	6355.9	188	188	596.2
Disability benefits	5803.9	296	297	435.7
Education related allowances	2761.1	45	52	603.3
Gross income components at personal level				
Employee cash or near-cash income	21631.3	4029	4060	326.9
Non cash employee income	1268.4	177	966	55.5
Contributions to individual private pension plan	1931.8	484	566	157.1
Cash benefit or losses from self-employment	26612.4	1578	1612	1130.7
Pension from individual private plans	6080.6	19	19	1807.6
Unemployment benefits	3806.9	970	977	198.0
Old-age benefits	15561.2	3240	3243	276.9
Survivor' benefits	7521.6	188	188	745.5
Disability benefits	6615.9	297	297	516.5
Education related allowances	2761.1	45	52	603.3

(Follows) Table B. Mean, number of observations and standard errors (DB075 = 2)

Equivalised disposable income	Mean	Number of observations		Standard Error
		Before imputation	After imputation	
Subclasses by household size				
1 household member	16830.1	1283	1317	437.2
2 household members	19194.3	1406	1409	597.6
3 household members	19472.1	1017	1022	641.6
4 and more	16862.5	1142	1145	415.2
Population by age group				
<25	16083.9	2791	2989	243.4
25-34	18388.4	1399	1412	290.1
35-44	18248.4	1850	1867	325.8
45-54	18775.7	1733	1742	283.9
55-64	21023.2	1575	1579	443.7
65+	16996.4	2587	2593	323.6
Population by sex				
Male	18407.2	5768	5795	206.7
Female	17381.2	6347	6387	182.5

With reference to the component of the survey - year 2007-2008, **DB075=3** -, standard errors were calculated for the mean of the Income components (listed in Table C) and for the mean of the Equivalised disposable income by household size, population age groups, population by sex (see Table C).

Table C. Mean, number of observations and standard errors (DB075 = 3)

Income components	Mean	Number of observations		Standard Error
		Before imputation	After imputation	
Total household gross income	39323.7	5305	5331	670.7
Total disposable household income	29443.9	5319	5344	415.7
Total disposable household income before social transfers other than old-age survivors' benefits	28092.6	5284	5324	420.6
Total disposable household including old-age survivors' benefits	21281.2	4946	5095	434.6
Net income components at household level				
Income from rentals of properties or lands	6968.9	267	444	630.5
Family/children related allowances	1067.0	1487	1583	41.4
Social exclusion	4264.3	26	28	1249.0
Housing allowances	1539.7	95	106	250.9
Transfers received	4309.4	265	295	388.5
Interest, dividends, profits	1055.3	2052	2901	45.1
Interest repayments on mortgage	3715.2	0	688	189.0
Income of people aged less than 16	3097.2	30	35	502.0
Regular taxes on wealth	385.4	1927	3690	10.1
Transfers paid	4017.0	242	255	346.2
Repayments/receipts for tax adjustment				
Gross income components at household level				
Income from rentals of properties or lands	9819.5	267	444	957.8
Family/children related allowances	1067.0	1487	1583	41.4
Social exclusion	4264.3	26	28	1249.0
Housing allowances	1539.7	95	106	250.9
Transfers received	4309.4	265	295	388.5
Interest, dividends, profits	1357.3	2052	2901	56.4
Interest repayments on mortgage	3715.2	0	688	189.0
Income of people aged less than 16	3097.2	30	35	502.0
Regular taxes on wealth	385.4	1927	3690	10.1
Transfers paid	4017.0	242	255	346.2

(Follows) Table C. Mean, number of observations and standard errors (DB075 = 3)

Income components	Mean	Number of observations		Standard Error
		Before imputation	After imputation	
Net income components at personal level				
Employee cash or near-cash income	15842.1	4067	4656	220.2
Non cash employee income	1287.9	243	1151	57.5
Contributions to individual private pension plan	1773.2	598	692	160.3
Cash benefit or losses from self-employment	18497.7	1570	1849	1077.5
Pension from individual private plans	4641.2	15	15	1456.1
Unemployment benefits	3238.5	1073	1112	176.6
Old-age benefits	12281.4	3416	3418	178.0
Survivor' benefits	7615.3	183	183	716.6
Disability benefits	5581.4	405	409	412.4
Education related allowances	4200.4	58	69	921.5
Gross income components at personal level				
Employee cash or near-cash income	21449.0	4622	4656	327.0
Non cash employee income	1340.4	243	1151	61.8
Contributions to individual private pension plan	1773.2	598	692	160.3
Cash benefit or losses from self-employment	27901.4	1815	1849	1688.5
Pension from individual private plans	6035.5	15	15	1898.5
Unemployment benefits	3788.9	1102	1112	213.1
Old-age benefits	14552.3	3416	3418	248.1
Survivor' benefits	9046.3	183	183	908.4
Disability benefits	6395.1	407	409	501.9
Education related allowances	4200.4	58	69	921.5

(Follows) Table C. Mean, number of observations and standard errors (DB075 = 3)

Equivalised disposable income	Mean	Number of observations		Standard Error
		Before imputation	After imputation	
<i>Subclasses by household size</i>				
1 household member	16155.6	1406	1428	482.2
2 household members	18185.6	1476	1485	668.2
3 household members	19468.3	1192	1198	595.0
4 and more	17212.0	1245	1249	570.7
<i>Population by age group</i>				
<25	16505.6	3247	3269	348.4
25-34	18175.1	1680	1698	294.5
35-44	17922.6	2010	2023	394.2
45-54	19898.0	1936	1948	486.9
55-64	20867.3	1758	1763	613.2
65+	15980.6	2713	2717	248.5
<i>Population by sex</i>				
Male	18617.6	6450	6481	254.8
Female	17116.2	6894	6937	210.1

2.3 Non sampling errors

2.3.1. Sampling frame and coverage errors

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

The sample of the households belonging to the first rotational group was extracted in July 2005 and validated within September 2005; while the others households were extracted in June 2004.

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

2.3.2. Measurement and processing errors

2.3.2.1. Measurement errors

We consider that the following sources of measurement errors are likely to affect the collected data:

1. *respondents*: (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;
2. *interviewers*, who might provide the respondents with an incorrect interpretation of the questions, or might mistake when filling the questionnaire. Istat territorial offices are firstly trained and provided with training tools (e.g. instruction manuals, or presentations). Then, they are responsible for the interviewers training: they establish the timing and the duration of the training meetings, as well as provide support during the field work and control for the quality of the interviewers' work. Training strategies have been outlined also on the experience of pilot surveys;
3. *data entry* personnel, who might enter incorrect information, although some automatic controls are implemented in the registration software;
4. *questionnaire*. The final version of the questionnaire, as used in the survey 2006, is based on (i) the first two 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).

2.3.2.2. Processing errors

Description of data entry procedure

Data entry procedure is realised through a software application implemented using Blaise. 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.

Coding controls

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

Main errors detected in the post data collection process

Main errors detected are:

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

2.3.3 Non-response errors

2.3.3.1. Achieved sample size

Table 1. Number of Households for which an interview is accepted for the database (DB135 = 1). Longitudinal component by wave.

	2005	2006	2007	2008
DB075=1 & DB135 = 1	6194	5426	4928	4560
DB075=2 & DB135 = 1	-	6167	5315	4893
DB075=3 & DB135 = 1	-	-	6115	5360
Total	6194	11593	16358	14813

Table 2. Number of persons 16 years or older, number of sample persons (RB100 = 1) and number of co-residents (RB100 = 2), who are members of the households for which the interview is accepted for the database (D135 = 1), and who completed a personal interview (RB250 = 11 to 13). Longitudinal component by wave.

		DB135 = 1 & RB250 = 11 to 13			
		2005	2006	2007	2008
DB075=1	RB100 = 1	13289	11502	10299	9267
	RB100 = 2	-	181	290	506
DB075=2	RB100 = 1	-	12956	11087	10038
	RB100 = 2	-	-	153	258
DB075=3	RB100 = 1	-	-	12956	11242
	RB100 = 2	-	-	-	152
Total	RB100 = 1	13289	24458	34342	30547
	RB100 = 2	-	181	443	916
Total		13289	24639	34785	31463

2.3.3.2 Unit non-response

Table 1.1 Unit non-response, Rotational Group 1, first wave 2005

TYPE OF RATE	VALUE
RA	0.989
RH	0.826
NRH	18.339
RP	1
NRP	0
NRP_OVERALL	18.339

Table 1.2 Unit non-response, Rotational Group 2, first wave 2006

TYPE OF RATE	VALUE
RA	0.984
RH	0.819
NRH	19.417
RP	1
NRP	0
NRP_OVERALL	19.417

Table 1.3 Unit non-response, Rotational Group 3, first wave 2007

TYPE OF RATE	VALUE
RA	0.991
RH	0.811
NRH	19.687
RP	1
NRP	0
NRP_OVERALL	19.687

Table 2. Household response rates by rotational group and wave

	Rotational Group 1			Rotational Group 2		Rotational Group 3
	Waves 2005-2006	Waves 2006-2007	Waves 2007-2008	Waves 2006-2007	Waves 2007-2008	Waves 2007-2008
WAVE RESPONSE RATE	87.31	85.7	86.84	86.42	85.75	87.5
REFUSAL RATE	6.76	6.61	5.59	6.43	6.91	6.43
NO-CONTACTED AND OTHERS RATE	5.11	6.65	6.6	6.67	6.57	5.44
LONGITUDINAL FOLLOW-UP RATE	-	90.9	91.76	-	90.04	-
FOLLOW-UP RATIO	-	92.31	93.33	-	91.68	-
ACHIEVED SAMPLE SIZE RATIO	87.31	90.53	91.99	86.42	91.73	87.5

Table 3. Personal interview response rates by rotational group and wave

	Rotational Group 1			Rotational Group 2		Rotational Group 3
	Waves 2005-2006	Waves 2006-2007	Waves 2007-2008	Waves 2006-2007	Waves 2007-2008	Waves 2007-2008
WAVE RESPONSE RATE OF SAMPLE PERSONS	88.5	88.35	89.12	87.40	88.82	88.891
WAVE RESPONSE RATE OF CO-RESIDENTS	NA	NA	100.00	NA	NA	NA
LONGITUDINAL FOLLOW-UP RATE	85.8	86.29	87.12	85.09	86.54	86.583
RATE (RB205=21, 22, 23, 31, 32, 33)	0.00	0.00	0.00	0.00	0.00	0.00
ACHIEVED SAMPLE SIZE RATIO FOR SAMPLE PERSONS	85.8	86.25	85.95	85.04	86.34	86.192
ACHIEVED SAMPLE SIZE RATIO FOR SAMPLE PERSONS & CO-RESIDENTS	87.15	87.38	88.38	86.21	87.45	87.357
ACHIEVED SAMPLE SIZE RATIO FOR CO-RESIDENTS SELECTED IN THE FIRST WAVE	NA	NA	NA	NA	NA	NA
WAVE RESPONSE RATE FOR NON-SAMPLE PERSONS	100	100	100	100	100	100

2.3.3.3 Distribution of households by household status, by record of contact at address, by household questionnaire result and by household interview acceptance

Table 1.1 Distribution of households by DB110, DB120, DB130 and DB135, Rotational Group 1, 2nd wave 2006

Household Status - Rotational Group 1, Wave=2006

	DB110=1	DB110=2	DB110=3	DB110=4	DB110=5	DB110=6	DB110=7	DB110=8	DB110=11	TOTAL
N	5829	196	11	11	36	0	0	158	111	6352
%	91.8	3.1	0.2	0.2	0.6	0	0	2.5	1.7	100

Record of Contact at Address - Rotational Group 1, Wave=2006

	DB120=1	DB120=21	DB120=22	DB120=23	TOTAL
N	343	1	2	8	354
%	96.9	0.3	0.6	2.3	100

Household Questionnaire Result - Rotational Group 1, Wave=2006

	DB130=1	DB130=21	DB130=22	DB130=23	DB130=24	TOTAL
N	5426	424	219	50	53	6172
%	87.9	6.9	3.5	0.8	0.9	100

Household Interview Acceptance - Rotational Group 1, Wave=2006

	DB135=1	DB135=2	TOTAL
N	5426	0	5426
%	100	0	100

Table 1.2 Distribution of households by DB110, DB120, DB130 and DB135, Rotational Group 1, 3rd wave 2007

Household Status - Rotational Group 1, Wave=2007

	DB110=1	DB110=2	DB110=3	DB110=4	DB110=5	DB110=6	DB110=7	DB110=8	DB110=11	TOTAL
N	5480	128	18	4	38	1	1	104	78	5852
%	93.6	2.2	0.3	0.1	0.6	0	0	1.8	1.3	100

Record of Contact at Address - Rotational Group 1, Wave=2007

	DB120=11	DB120=21	DB120=22	DB120=23	TOTAL
N	224	1	4	3	232
%	96.6	0.4	1.7	1.3	100

Household Questionnaire Result - Rotational Group 1, Wave=2007

	DB130=11	DB130=21	DB130=22	DB130=23	DB130=24	TOTAL
N	4928	395	232	59	90	5704
%	86.4	6.9	4.1	1	1.6	100

Household Interview Acceptance - Rotational Group 1, Wave=2007

	DB135=1	DB135=2	TOTAL
N	4928	0	4928
%	100	0	100

Table 1.3 Distribution of households by DB110, DB120, DB130 and DB135, Rotational Group 1, 4th wave 2008

Household Status - Rotational Group 1, Wave=2007

	DB110=1	DB110=2	DB110=3	DB110=4	DB110=5	DB110=6	DB110=7	DB110=8	DB110=11	TOTAL
N	4986	123	9	9	34	2	6	94	56	5319
%	93.7	2.3	0.2	0.2	0.6	0	0.1	1.8	1.1	100

Record of Contact at Address - Rotational Group 1, Wave=2007

	DB120=11	DB120=21	DB120=22	DB120=23	TOTAL
N	213	2	0	2	217
%	98.2	0.9	0	0.9	100

Household Questionnaire Result – Rotational Group 1, Wave=2007

	DB130=11	DB130=21	DB130=22	DB130=23	DB130=24	TOTAL
N	4560	298	93	51	197	5199
%	87.7	5.7	1.8	1	3.8	100

Household Interview Acceptance - Rotational Group 1, Wave=2007

	DB135=1	DB135=2	TOTAL
N	4560	0	4560
%	100	0	100

Table 1.4 Distribution of households by DB110, DB120, DB130 and DB135, Rotational Group 2, 2nd wave 2007

Household Status - Rotational Group 2, Wave=2007

	DB110 =1	DB110 =2	DB110 =3	DB110= 4	DB110= 5	DB110 =6	DB110 =7	DB110= 8	DB110= 11	TOTAL
N	5867	137	19	6	32	0	0	111	106	6278
%	93.5	2.2	0.3	0.1	0.5	0	0	1.8	1.7	100

Record of Contact at Address - Rotational Group 2, Wave=2007

	DB120=11	DB120=21	DB120=22	DB120=23	TOTAL
N	245	1	1	1	248
%	98.8	0.4	0.4	0.4	100

Household Questionnaire Result - Rotational Group 2, Wave=2007

	DB130=11	DB130=21	DB130=22	DB130=23	DB130=24	TOTAL
N	5315	405	296	29	67	6112
%	87	6.6	4.8	0.5	1.1	100

Household Interview Acceptance - Rotational Group 2, Wave=2007

	DB135=1	DB135=2	TOTAL
N	5315	0	5315
%	100	0	100

Table 1.5 Distribution of households by DB110, DB120, DB130 and DB135, Rotational Group 2, 3rd wave 2008

Household Status - Rotational Group 2, Wave=2008

	DB110= 1	DB110= 2	DB110= 3	DB110= 4	DB110= 5	DB110= 6	DB110= 7	DB110= 8	DB110= 11	TOTAL
N	5387	143	16	12	42	0	14	111	91	5816
%	92.6	2.5	0.3	0.2	0.7	0	0.2	1.9	1.6	100

Record of Contact at Address - Rotational Group 2, Wave=2008

	DB120=11	DB120=21	DB120=22	DB120=23	TOTAL
N	248	2	0	4	254
%	97.6	0.8	0	1.6	100

Household Questionnaire Result - Rotational Group 2, Wave=2008

	DB130=11	DB130=21	DB130=22	DB130=23	DB130=24	TOTAL
N	4893	401	150	43	148	5635
%	86.8	7.1	2.7	0.8	2.6	100

Household Interview Acceptance - Rotational Group 2, Wave=2008

	DB135=1	DB135=2	TOTAL
N	4893	0	4893
%	100	0	100

Table 1.6 Distribution of households by DB110, DB120, DB130 and DB135, Rotational Group 3, 4th wave 2008

Household Status - Rotational Group 3, Wave=2008

	DB110=1	DB110=2	DB110=3	DB110=4	DB110=5	DB110=6	DB110=7	DB110=8	DB110=11	TOTAL
N	5825	121	16	10	40	0	19	123	84	6238
%	93.4	1.9	0.3	0.2	0.6	0	0.3	2	1.3	100

Record of Contact at Address - Rotational Group 3, Wave=2008

	DB120=11	DB120=21	DB120=22	DB120=23	TOTAL
N	236	5	0	3	244
%	96.7	2	0	1.2	100

Household Questionnaire Result - Rotational Group 3, Wave=2008

	DB130=11	DB130=21	DB130=22	DB130=23	DB130=24	TOTAL
N	5360	403	150	38	110	6061
%	88.4	6.6	2.5	0.6	1.8	100

Household Interview Acceptance – Rotational Group 3, Wave=2008

	DB135=1	DB135=2	TOTAL
N	5360	0	5360
%	100	0	100

2.3.3.4 Distribution of persons for membership status

Table 1.1 Distribution of persons for membership status (RB110), Rotational Group 1, 2nd wave 2006

	Current Household Member				No Current Household Member			TOTAL
	RB110=1	RB110=2	RB110=3	RB110=4	RB120=2-4	RB110=6	RB110=7	
N	13432	134	246	79	16	70	0	13977
%	96.1	1	1.8	0.6	0.1	0.5	0	100

Table 1.2 Distribution of persons for membership status (RB110), Rotational Group 1, 3rd wave 2007

	Current Household Member				No Current Household Member			TOTAL
	RB110=1	RB110=2	RB110=3	RB110=4	RB120=2-4	RB110=6	RB110=7	
N	12183	98	196	64	14	71	11	12637
%	96.4	0.8	1.6	0.5	0.1	0.6	0.1	100

Table 1.3 Distribution of persons for membership status (RB110), Rotational Group 1, 4th wave 2008

	Current Household Member				No Current Household Member			TOTAL
	RB110=1	RB110=2	RB110=3	RB110=4	RB120=2-4	RB110=6	RB110=7	
N	11181	90	228	57	18	68	11	11653
%	95.9	0.8	2.0	0.5	0.2	0.6	0.1	100

Table 1.4 Distribution of persons for membership status (RB110), Rotational Group 2, 2nd wave 2007

	Current Household Member				No Current Household Member			TOTAL
	RB110=1	RB110=2	RB110=3	RB110=4	RB120=2-4	RB110=6	RB110=7	
N	12927	92	203	77	14	54	1	13368
%	96.7	0.7	1.5	0.6	0.1	0.4	0.0	100

Table 1.5 Distribution of persons for membership status (RB110), Rotational Group 2, 3rd wave 2008

	Current Household Member				No Current Household Member			TOTAL
	RB110=1	RB110=2	RB110=3	RB110=4	RB120=2-4	RB110=6	RB110=7	
N	11831	92	200	59	18	58	13	12271
%	96.4	0.7	1.6	0.5	0.1	0.5	0.1	100

Table 1.6 Distribution of persons for membership status (RB110), Rotational Group 3, 2nd wave 2008

	Current Household Member				No Current Household Member			TOTAL
	RB110=1	RB110=2	RB110=3	RB110=4	RB120=2-4	RB110=6	RB110=7	
N	13031	108	206	73	39	71	0	13528
%	96.3	0.8	1.5	0.5	0.3	0.5	0.0	100

Table 2.1 Distribution of persons moving out by variable RB120, Rotational Group 1, 2nd wave 2006

	RB110=5				TOTAL
	RB120=1	RB120=2	RB120=3	RB120=4	
N	232	3	13	0	248
%	93.5	1.2	5.2	0	100

Table 2.2 Distribution of persons moving out by variable RB120, Rotational Group 1, 3rd wave 2007

	RB110=5				TOTAL
	RB120=1	RB120=2	RB120=3	RB120=4	
N	188	3	11	0	202
%	93.1	1.5	5.4	0	100

Table 2.3 Distribution of persons moving out by variable RB120, Rotational Group 1, 4th wave 2008

	RB110=5				TOTAL
	RB120=1	RB120=2	RB120=3	RB120=4	
N	175	5	13	0	193
%	90.7	2.6	6.7	0	100

Table 2.4 Distribution of persons moving out by variable RB120, Rotational Group 2, 2nd wave 2007

	RB110=5				TOTAL
	RB120=1	RB120=2	RB120=3	RB120=4	
N	179	9	5	0	193
%	92.7	4.7	2.6	0	100

Table 2.5 Distribution of persons moving out by variable RB120, Rotational Group 3rd wave 2008

	RB110=5				TOTAL
	RB120=1	RB120=2	RB120=3	RB120=4	
N	195	14	25	0	234
%	83.3	6	10.7	0	100

2.3.3.5 Item Non-response

Table 1.1. Item non-response for income variables at household level. Every available wave of the longitudinal component

Item Non-response	2005				2006				2007				2008		
	(A)	(B)	(C)		(A)	(B)	(C)		(A)	(B)	(C)		(A)	(B)	(C)
Total household gross income	NA	NA	NA		NA	NA	NA		99.5	0.3	81.1		99.6	0.43	88.1
Total disposable household income	99.53	0.76	50.06		99.57	0.37	38.93		99.52	0.42	22.89		99.58	0.40	62.28
Total disposable household income before social transfers other than old-age and survivors' benefits	99.23	0.87	46.55		99.31	0.48	37.07		99.14	0.50	23.22		99.29	0.69	60.94
Total disposable household income including old-age and survivors' benefits	93.59	1.73	43.67		93.69	1.35	36.10		94.66	1.09	20.08		95.28	2.80	58.75
<i>Net income components at household level</i>															
Imputed rent	NA	NA	NA		NA	NA	NA		NA	NA	NA		NA	NA	NA
Income from rentals of properties or lands	7.51	0.61	0.06		7.23	0.68	0.11		7.17	0.74	0.15		8.21	3.37	0.70
Family/children related allowances	27.99	1.61	0.65		28.36	2.24	0.75		28.11	2.30	0.51		29.26	1.89	0.50
Social exclusion	1.02	0.15	0.00		0.70	0.21	0.00		0.61	0.13	0.00		0.58	0.07	0.00
Housing allowances	1.94	0.58	0.02		1.68	0.47	0.00		1.64	0.25	0.02		1.69	0.16	0.01
Transfers received	4.46	0.57	0.03		4.74	0.39	0.05		5.01	0.46	0.06		5.20	0.49	0.07
Interest. dividends. Profits	48.64	11.32	2.07		44.77	6.29	1.83		46.16	6.90	2.57		53.85	16.07	2.82
Interest repayments on mortgage	11.98	11.45	0.00		11.01	11.01	0.00		11.74	11.74	0.00		12.67	12.67	0.00
Income of people aged less than 16	0.79	0.11	0.10		0.62	0.15	0.01		0.74	0.09	0.29		0.67	0.11	0.05
Regular taxes on wealth	67.06	2.60	1.37		66.89	2.65	1.07		67.25	3.07	1.74		69.88	33.11	11.09
Transfers paid	4.52	0.32	0.03		4.84	0.29	0.01		4.65	0.26	0.03		4.56	0.34	0.05
Repayments/receipts for tax adjustment	42.93	4.18	1.68		39.14	3.26	1.36		63.21	0.76	0.66		66.32	0.12	0.14
<i>Gross income components at household level</i>															
Imputed rent	NA	NA	NA		NA	NA	NA		88.45	100	0.00		89.31	100	0.00
Income from rentals of properties or lands	NA	NA	NA		NA	NA	NA		7.17	0.74	6.06		8.21	3.37	4.54
Family/children related allowances	NA	NA	NA		NA	NA	NA		28.11	2.30	0.51		29.26	1.89	0.50
Social exclusion	NA	NA	NA		NA	NA	NA		0.61	0.13	0.00		0.58	0.07	0.00
Housing allowances	NA	NA	NA		NA	NA	NA		1.64	0.25	0.02		1.69	0.16	0.01
Transfers received	NA	NA	NA		NA	NA	NA		5.01	0.46	0.06		5.20	0.49	0.07

Interest. dividends. Profits	NA	NA	NA	NA	NA	NA	46.16	6.90	39.26	53.85	16.07	37.78
Interest repayments on mortgage	NA	NA	NA	NA	NA	NA	11.74	11.74	0.00	12.67	12.67	0.00
Income of people aged less than 16	NA	NA	NA	NA	NA	NA	0.74	0.09	0.29	0.67	0.11	0.05
Regular taxes on wealth	NA	NA	NA	NA	NA	NA	67.25	3.07	1.74	69.88	33.11	11.09
Transfers paid	NA	NA	NA	NA	NA	NA	4.65	0.26	0.03	4.56	0.34	0.05
Tax on income and social contributions	NA	NA	NA	NA	NA	NA	94.20	9.27	70.80	94.95	42.22	44.98

(A) % of households having received an amount

(B) % of households with missing values (before imp.)

(C) % of households with partial information (before imp.)

Table 1.2. Item non-response for income variables at personal level. Every available wave of the longitudinal component

Item Non-response	2005			2006			2007			2008		
	(A)	(B)	(C)	(A)	(B)	(C)	(A)	(B)	(C)	(A)	(B)	(C)
<i>Net income components at personal level</i>												
Employee cash or near-cash income	39.63	11.07	0.00	40.25	1.19	0.00	40.39	0.35	0.48	40.29	5.32	1.52
Non cash employee income	NA	NA	NA	NA	NA	NA	9.46	7.76	0.87	9.64	7.75	0.93
Company car	1.08	0.00	0.00	0.77	0.00	0.00	0.70	0.01	0.00	0.80	0.00	0.00
Employer's social insurance contribution	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Contributions to individual private pension plan	7.64	0.79	0.00	6.69	0.63	0.00	6.20	0.74	0.00	5.84	0.80	0.00
Cash benefit or losses from self-employment	18.22	4.09	0.07	16.73	2.52	0.40	16.52	3.63	0.35	15.99	2.44	0.21
Value of goods produced by own-consumption	NA	NA	NA	NA	NA	NA	25.76	0.00	0.00	25.18	0.00	0.00
Pension from individual private plans	0.21	0.02	0.00	0.23	0.00	0.00	0.20	0.01	0.00	0.18	0.01	0.00
Unemployment benefits	9.10	0.27	2.69	8.81	0.15	0.03	9.12	0.28	0.04	9.67	0.33	0.05
Old-age benefits	28.17	1.20	0.31	28.83	0.04	0.04	29.76	1.30	1.37	30.63	0.02	0.16
Survivor' benefits	1.72	0.05	0.00	1.68	0.00	0.00	1.71	0.05	0.00	1.68	0.00	0.00
Disability benefits	3.41	0.29	0.00	3.23	0.02	0.00	3.27	0.16	0.00	3.27	0.02	0.01
Education related allowances	0.69	0.06	0.00	0.76	0.09	0.00	0.53	0.07	0.00	0.52	0.07	0.00
<i>Gross income components at personal level</i>												
Employee cash or near-cash income	NA	NA	NA	NA	NA	NA	40.39	0.07	3.13	40.29	0.30	9.18
Non cash employee income	NA	NA	NA	NA	NA	NA	9.46	7.76	0.87	9.64	7.75	1.29
Company car	NA	NA	NA	NA	NA	NA	0.70	0.00	0.04	0.80	0.00	0.05
Employer's social insurance contribution	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Contributions to individual private pension plan	NA	NA	NA	NA	NA	NA	6.20	0.74	0.00	5.84	0.80	0.00

Cash benefit or losses from self-employment	NA	NA	NA	NA	NA	NA	16.52	0.59	4.07	15.99	0.33	3.22
Value of goods produced by own-consumption	NA	NA	NA	NA	NA	NA	25.76	2.83	0.00	25.18	2.93	0.00
Pension from individual private plans	NA	NA	NA	NA	NA	NA	0.20	0.00	0.02	0.18	0.00	0.02
Unemployment benefits	NA	NA	NA	NA	NA	NA	9.12	0.30	8.73	9.67	0.07	9.45
Old-age benefits	NA	NA	NA	NA	NA	NA	29.76	0.69	2.47	30.63	0.02	0.78
Survivor' benefits	NA	NA	NA	NA	NA	NA	1.71	0.01	0.05	1.68	0.00	0.03
Disability benefits	NA	NA	NA	NA	NA	NA	3.27	0.10	0.08	3.27	0.01	0.07
Education related allowances	NA	NA	NA	NA	NA	NA	0.53	0.07	0.00	0.52	0.07	0.00

(A) % of households having received an amount

(B) % of households with missing values (before imp.)

(C) % of households with partial information (before imp.)

2.4. Mode of data collection

Table 1.1 The distribution of household member by RB250 and Rotational Group (DB075), Wave 2005

Household Members 16+ (RB245= 1 to 3), Wave 2005

		RB250=11	Total
DB075=1	N	13289	13289
	%	100	100
Total	N	13289	13289
	%	100	100

Note: in 2005 all Household Members 16+ are defined as Sample Persons

Table 1.2 The distribution of household member by RB250 and Rotational Group (DB075), Wave 2006

Household Members 16+ (RB245= 1 to 3), Wave 2006

		RB250=11	Total
DB075=1	N	11683	11683
	%	100	100
DB075=2	N	12956	12956
	%	100	100
Total	N	24639	24639
	%	100	100

Sample Persons 16+ (RB245= 1 to 3 and RB100=1), Wave 2006

		RB250=11	Total
DB075=1	N	11502	11502
	%	100	100
DB075=2	N	12956	12956
	%	100	100
Total	N	24458	24458
	%	100	100

Co-residents 16+ (RB245= 1 to 3 and RB100=2), Wave 2006

		RB250=11	Total
DB075=1	N	181	181
	%	100	100
DB075=2	N	0	0
	%	-	-
Total	N	181	181
	%	100	100

Table 1.3 The distribution of household member by RB250 and Rotational Group (DB075), Wave 2007

Household Members 16+ (RB245= 1 to 3), Wave 2007

		RB250=11	Total
DB075=1	N	10589	10589
	%	100	100
DB075=2	N	11240	11240
	%	100	100
DB075=3	N	12956	12956
	%	100	100
Total	N	34785	34785
	%	100	100

Sample Persons 16+ (RB245= 1 to 3 and RB100=1), Wave 2007

		RB250=11	Total
DB075=1	N	10299	10299
	%	100	100
DB075=2	N	11087	11087
	%	100	100
DB075=3	N	12956	12956
	%	100	100
Total	N	34342	34342
	%	100	100

Co-residents 16+ (RB245= 1 to 3 and RB100=2), Wave 2007

		RB250=11	Total
DB075=1	N	290	290
	%	100	100
DB075=2	N	153	153
	%	100	100
DB075=3	N	0	0
	%	-	-
Total	N	443	443
	%	100	100

Table 1.4 The distribution of household member by RB250 and Rotational Group (DB075), Wave 2008

Household Members 16+ (RB245= 1 to 3), Wave 2008

		RB250=11	Total
DB075=1	N	9773	9773
	%	100	100
DB075=2	N	10296	10296
	%	100	100
DB075=3	N	11394	11394
	%	100	100
Total	N	31463	31463
	%	100	100

Sample Persons 16+ (RB245= 1 to 3 and RB100=1), Wave 2008

		RB250=11	Total
DB075=1	N	9267	9267
	%	100	100
DB075=2	N	10038	10038
	%	100	100
DB075=3	N	11242	11242
	%	100	100
Total	N	30547	30547
	%	100	100

Co-residents 16+ (RB245= 1 to 3 and RB100=2), Wave 2008

		RB250=11	Total
DB075=1	N	506	506
	%	100	100
DB075=2	N	258	258
	%	100	100
DB075=3	N	152	486
	%	100	100
Total	N	927	927
	%	100	100

Table 2.1 The distribution of household member by RB260 and Rotational Group (DB075), Wave 2005

Household Members 16+ (RB245=1 to 3) and RB250 in 11 or 13, Wave 2005

		RB260=.	RB260=1	RB260=5	Total
		Missing	Face to face interview-PAPI	Proxy interview	
DB075=1	N	239	11103	1947	13289
	%	1.8	83.55	14.65	100
Total	N	239	11103	1947	13289
	%	1.8	83.55	14.65	100

Note: in 2005 all Household Members 16+ are defined as Sample Persons

Table 2.2 The distribution of household member by RB260 and Rotational Group (DB075), Wave 2006

Household Members 16+ (RB245=1 to 3) and RB250 in 11 or 13, Wave 2006

		RB260=.	RB260=1	RB260=5	Total
		Missing	Face to face interview-PAPI	Proxy interview	
DB075=1	N	152	9707	1824	11683
	%	1.3	83.09	15.61	100
DB075=2	N	219	10843	1894	12956
	%	1.69	83.69	14.62	100
Total	N	371	20550	3718	24639
	%	1.51	83.40	15.09	100

Sample Persons 16+ (RB245=1 to 3 and RB100=1) and RB250 in 11 or 13, Wave 2006

		RB260=.	RB260=1	RB260=5	Total
		Missing	Face to face interview-PAPI	Proxy interview	
DB075=1	N	148	9563	1791	11502
	%	1.29	83.14	15.57	100
DB075=2	N	4	144	33	181
	%	2.21	79.56	18.23	100
Total	N	152	9707	1824	11683
	%	1.30	83.09	15.61	100

Co-residents 16+ (RB245=1 to 3 and RB100=2) and RB250 in 11 or 13, Wave 2006

		RB260=.	RB260=1	RB260=5	Total
		Missing	Face to face interview-PAPI	Proxy interview	
DB075=1	N	219	10843	1894	12956
	%	1.69	83.69	14.62	100
DB075=2	N	0	0	0	0
	%	-	-	-	-
Total	N	219	10843	1894	12956
	%	1.69	83.69	14.62	100

Table 2.3 The distribution of household member by RB260 and Rotational Group (DB075), Wave 2007

Household Members 16+ (RB245=1 to 3) and RB250 in 11 or 13, Wave 2007

		RB260=.	RB260=1	RB260=5	Total
		Missing	Face to face interview-PAPI	Proxy interview	
DB075=1	N	157	8660	1772	10589
	%	1.48	81.78	16.73	100
DB075=2	N	170	9230	1840	11240
	%	1.51	82.12	16.37	100
DB075=3	N	204	10788	1964	12956
	%	1.57	83.27	15.16	100
Total	N	531	28678	5576	34785
	%	1.53	82.44	16.03	100

Sample Persons 16+ (RB245=1 to 3 and RB100=1) and RB250 in 11 or 13, Wave 2007

		RB260=.	RB260=1	RB260=5	Total
		Missing	Face to face interview-PAPI	Proxy interview	
DB075=1	N	140	8451	1708	10299
	%	1.36	82.06	16.58	100
DB075=2	N	166	9123	1798	11087
	%	1.5	82.29	16.22	100
DB075=3	N	204	10788	1964	12956
	%	1.57	83.27	15.16	100
Total	N	510	28362	5470	34342
	%	1.49	82.59	15.93	100

Co-residents 16+ (RB245=1 to 3 and RB100=2) and RB250 in 11 or 13, Wave 2007

		RB260=.	RB260=1	RB260=5	Total
		Missing	Face to face interview-PAPI	Proxy interview	
DB075=1	N	17	209	64	290
	%	5.86	72.07	22.07	100
DB075=2	N	4	107	42	153
	%	2.61	69.93	27.45	100
DB075=3	N	0	0	0	0
	%	-	-	-	-
Total	N	21	316	106	443
	%	4.74	71.33	23.93	100

Table 2.4 The distribution of household member by RB260 and Rotational Group (DB075), Wave 2008

Household Members 16+ (RB245=1 to 3) and RB250 in 11 or 13, Wave 2008

		RB260=.	RB260=1	RB260=5	Total
		Missing	Face to face interview-PAPI	Proxy interview	
DB075=1	N	0	7883	1890	9773
	%	-	80.66	19.34	100
DB075=2	N	0	8297	1999	10296
	%	-	80.58	19.42	100
DB075=3	N	0	9282	2112	11394
	%	-	81.46	18.54	100
Total	N	0	25462	6001	31463
	%	-	80.93	19.07	100

Sample Persons 16+ (RB245=1 to 3 and RB100=1) and RB250 in 11 or 13, Wave 2008

		RB260=.	RB260=1	RB260=5	Total
		Missing	Face to face interview-PAPI	Proxy interview	
DB075=1	N	0	7545	1722	9267
	%	-	81.42	18.58	100
DB075=2	N	0	8123	1915	10038
	%	-	80.92	19.08	100
DB075=3	N	0	9178	2064	11242
	%	-	81.64	18.36	100
Total	N	0	24846	5701	30547
	%	-	81.34	18.66	100

Co-residents 16+ (RB245=1 to 3 and RB100=2) and RB250 in 11 or 13, Wave 2008

		RB260=.	RB260=1	RB260=5	Total
		Missing	Face to face interview-PAPI	Proxy interview	
DB075=1	N	0	338	168	506
	%	-	66.8	33.2	100
DB075=2	N	0	174	84	258
	%	-	67.44	32.56	100
DB075=3	N	0	104	48	152
	%	-	68.42	31.58	100
Total	N	0	616	300	916
	%	-	67.25	32.75	100

2.5. Imputation procedure

The imputation procedure for each quantitative variable is implemented by using the IMPUTE module of the software Iweware, as recommended by EUROSTAT.

The imputation procedure for the qualitative variables is based on a 'hot deck' stochastic technique that imputes each missing or inconsistent answer by replacing it with a correct value, taken from the 'nearest donor' (i.e. from a record randomly selected within a group of statistical units similar to the one that presents missing or erroneous answers). In a preliminary step, a set of explicit consistency rules is used to check for logical inconsistencies between the reported answers. The set is then expanded by using the Felleggy-Holt algorithm, in order to account for all the implicit rules (i.e. those logically implied by the explicit ones).

2.6. Imputed rent

It is estimated through a semilogarithmic 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-mkt price/free tenants vs tenants at a mkt 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 mkt rate.

2.7. Company cars

The monetary value of company cars is taken from the tables published in the Italian Automobile Club (ACI) for tax purposes. The ACI values are econometric estimates of the user cost.

3. COMPARABILITY

3.1. Basic concepts and definitions

The national concepts use **the differences between the national concepts and standard EU-SILC concepts**, and an assessment, if available, of the consequences of the differences mentioned.

- The reference population: 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 in EU-SILC Italy uses the following Italian household definition: “*cohabitants related through marriage, kinship, affinity, adoption, patronage and affection*”;
- the household membership: the Italian EU-SILC does not include live-in domestic personnel au pairs. Concerning these persons, only some socio-demographic information are collected (date of birth, sex, marital status, duration of stay in the household). The number of these persons included in the sample was 51 (0.19% with respect to the total number of households and 0.08% with respect to interviewed individuals).
- the income reference period(s) used: same definition as standard EU-SILC;
- the period for taxes on income and social insurance contributions: same definition as standard EU-SILC;
- the reference period for taxes on wealth: same definition as standard EU-SILC;
- the lag between the income reference period and current variables: *in the Italian EU-SILC 2007 current variables are referred to the moment of interview that is about 10 months after the end of the income reference period*;
- the total duration of the data collection of the sample: *2 months. starting from the transmission of questionnaires to interviewers until their return back.*
- basic information on activity status during the income reference period: same to the standard EU-SILC concept;

3.2. Components of income

3.2.1. 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. In the first stage, we run 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, but its effect is depurated (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. This is consistent with the (optional) definition of taxes as 'taxes due on the incomes of the reference period'. An accurate assessment of the differences between the two tax concepts will be feasible after 2009, when it is possible to compare the total taxes due on the incomes of the reference period with the total taxes paid during the same period for the individuals included in the first two-year panel with gross incomes.

— 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 of status in employment;

— cash profits or losses from self-employment (including royalties): 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 under-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 leads to more comparable 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;

3.2.2. 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 (PAPI) for all income variable, including the money drawn out of business by the self-employed and administrative data. Administrative data have been linked to sample data and used for estimating data on employee income, pensions and self-employment incomes.

3.2.3. 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.

3.2.4. 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 and a microsimulation model (Siena Microsimulation Model SM2-EU-SILC). The integration of microsimulation with register data has the advantage of using administrative data for the validation of microsimulation results. On the other hand, SM2-EU-SILC estimates those tax and social insurance contributions not covered by register data. Four main register data are used: 730 tax returns used by employees and pensioners, UNICO tax returns used primarily by self employed workers, CUD employers' tax statements which include also data on social security contributions, and Pension Register Data. Both the use of administrative data and microsimulation estimates improves the quality and the amount of information on gross income variables.

3.3. Tracing rules

They were adopted the standard EUSILC tracing rules.