Department of Living Standard and Labour Force statistics



Final Quality Report

For EU-SILC 2005 operation Cross sectional data

Hungary

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Introduction

The present final quality report follows the structure outlined in Commission Regulation No 28/2004. The regulation defines 3 chapters to ensure constant documentation on quality of EU-SILC instrument. The three chapters reports 3 dimensions of quality as accuracy, comparability and coherence. According to article 16 of EC regulation No 1177/2003 of European Parliament of the Council of 16th June 2003 concerning Community Statistics on Income and Living Conditions (EU-SILC) this report covers only the cross sectional indicators.

1. Common Cross Sectional European Union Indicators

2005 was the initial year of EU-SILC survey in Hungary as a part of a longitudinal sample. On the basis of the cross sectional data the calculated Laeken Indicators are presented here.

Table 1. Laeken Indicators EU-SILC2005

				2005
1	Mean equivalised disposable income			984,110
2	Risk-of-poverty threshold	1 person hh	\$\$NAT	519,937
	(illustrative values)		EUR	2,080
		2 adults 2 den	PPS	3,430
		children	\$NAT	1,091,86
			EUR	4,367
			PPS	7,204
3	Risk-of-poverty rate	Total	Total	13.4
	by age and gender		М	13.8
			F	13.0
		0-15	Total	19.5
		0-64	Total	14.6
			М	15.1
			F	14.2
		16+	Total	12.1
			М	12.5
			F	11.8
		16-64	Total	13.4
			М	13.9
			_ F	12.9
		16-24	Total	16.7
			M	16.9
		0E 40		16.5
		25-49	i otal	14.1
			IVI F	14.0
		50-64	Total	10.0
		00 01	M	10.1
			F	9.8
		65+	Total	6.5
			М	4.2
			F	7.9
1	Risk-of-poverty rate	Total	Total	9.8
	by most frequent activity		М	10.6
	(a) At work		F	8.9
	(d) Not at work	Total	Total	14.9
			M	15.2
	(-1) Of which	T- (-1	F T- (- (14.7
	(e1) Of Which:	Iotal	i otal	49.Z
	Onemployed			00.0 45 0
	(e2) Of which:	Total	Total	40.2 Q Q
	Retired	10141	M	9.2
			F	10.4
	(f) Of which:	Total	Total	17.4
	Other inactive		М	15.4
			F	19.0
5	Risk-of-poverty rate	All hh no dep. childr.		9.6
	by household type	1 person hh	Total	18.5
		1 person hh	М	24.1
		1 person hh	F	15.5
		1 person hh <65yrs		25.7
		1 person hh 65+	(hoth , CT)	10.5
		2 aduits no dep. childr.	(DOIN < 65) (at least onc	9.3
		2 adults no den childr	(di leasi olle 65+)	44
		Other hh no dep.	/	
		childr.		5.7
		All hh with dep. childr.		16.8
		Single parent	(at least 1 child)	27.1
		2 adults 1 dep. child		15.1
		2 adults 2 dep. childr.		15.0
		2 adults 3+ dep. childr.		23.9
		Other hh with dep.		40.0
	Risk-of-poverty rate by accomondation	childr.		12.9
5	tenurestatus		Total	13.0
	(a) Owner or rent-free		М	13.3
			F	12 7
	(h) Tenant		Total	10 0
			i Utal	10.0
			M	19.7
			<i>–</i>	17.9

7	Risk-of-poverty rate	All hh no dep. childr.	WI = 0	18.2
	by work intensity of		0 < WI < 1	9.5
	the household		WI = 1	7.0
		All hh with dep.	14/1 0	50.0
		childr.	VVI = 0	56.3
			0 < WI < 0.5	43.7
			0.5 <= WI < 1	22.7
~		T : 1	VVI = 1	10.2
9	RISK-OF-poverty rate	I Otal	i otal	49.8
	before and after transfers		M	47.7
	by age and gender	0.15	F	51.0
	(a) before all transfers	0-13	Total	40.0
		70+	TOLAI	50.Z
			F	47.0 52.4
		16-64	Total	41.2
		10 04	M	40.3
			F	42.0
		65+	Total	89.7
			M	89.8
			F	89.6
	(b) including pensions	Total	Total	29.3
	(-)		M	30.1
			 E	29.7
		0.15	г Total	20.7
		16-	Total	26.2
		701	M	26.2
			F	25.7
		16-64	Total	29.5
		10 01	M	30.1
			F	29.0
		65+	Total	11.4
			М	7.0
			F	14.0
3	Relative median	Total	Total	18.8
	risk-of-poverty gap		М	19.3
	by age and gender		F	17.9
		0-15	Total	18.8
		16+	Total	18.7
			М	19.9
			F	17.6
		16-64	Total	19.9
			M	21.1
			F	19.2
		65+	Total	9.3
			M	8.5
			F	10.8
4	Sou/S20 quintile snare ratio			4.0400

Final Quality Report EU-SILC 2005 Hungary Table 1. Laeken Indicators EU-SILC2005 –continued

ubie 1. Lucken	111111111111111111111111111111111111	пппией	
16 Distribution of pop	lation Tota	l Total	100.0
by age and gende		0-15	17.1
(a) total population		16-24	11.6
		25-49	36.3
		50-64	19.7
		65+	15.3
		16+	82.9
		16-64	67.6
		0-64	84.7
	Male	e Total	100.0
		0-15	18.5
		16-24	12.5
		25-49	38.2
		50-64	18.9
		65+	12.0
		16+	81.5
		16-64	69.5
		0-64	88.0
	Fema	le Total	100.0
		0-15	15.9
		16-24	10.9
		25-49	34.6
		50-64	20.4
		65+	18.3
		16+	84.1
		16-64	20.4 18.3 84.1 12.9 14.2 100.0 5 24.9
		0-64	
(b) poor populatior	Tota	l Total	100.0
		0-15	24.9
		16-24	14.5
		25-49	38.3
		50-64	14.9
		65+	7.5
		16+	75.1
		16-64	67.7
		0-64	92.6
	Male	e Total	100.0
		0-15	26.1
		16-24	15.3
		25-49	40.5
		50-64	14.5
		65+	3.7
		16+	74.0
		16-64	13.9
		0-64	15.1
	Fema	le Total	100.0
		0-15	23.7
		16-24	13.8
		25-49	36.1
		50-64	15.3
		65+	11.1
		16+	76.3
		16-64	65.2
		10 04	00.2

Final Quality Report EU-SILC 2005 Hungary Table 1 Laeken Indicators EU-SIL C2005 – cont

17	Distribution of population by most frequent activity	Total	16+	100.0
	Status and gender – (a) total population		At work	55.1
			Not at work	44.9
			of which: unemployed	4 1
			of which: retired	32.2
			of which: other	02.12
			inactive	8.6
		Male	16+	100.0
			At work	60.4
			Not at work	39.6
			unemploved	4.2
			of which: retired of which: other	27.0
			inactive	8.4
		Female	16+	100.0
			At work	50.5
			Not at work of which:	49.6
			unemployed	4.0
			of which: retired of which: other	36.7
			inactive	8.8
	(b) poor population	lotal	of which: unemployed of which: retired of which: other inactive 16+ At work Not at work of which: unemployed	100.0
			At work	44.:
			of which:	16
			of which: retired	26.5
			of which: other	20.
			inactive	12.4
		Male	16+	100.0
			At work	51.
			Not at work of which:	48.
			unemployed	18.1
			of which: retired	20.7
			inactive	10.4
		Female	16+	100.0
			At work	38.0
			Not at work of which:	62.0
			unemployed	15.4
			of which: retired of which: other	32.3
			inactive	14.2

2. Accuracy

2.1. Sample design

2.1.1. Type of sampling

In 2005 the sample of the Hungarian EU-SILC survey was a sub-sample of the Income survey sample which was a sub-sample of the micro census sample. It has a stratified two stage sample design in a part of the population (part I., type I., one PSU per stratum), while a stratified one stage sample design on the other part of the population (part II., type II.). Part II. population consists of mostly the bigger localities, part I. consists of the rest.

The micro census, the income survey and the EU_SILC sample consist of 806, 526 and 370 localities and 83132, 22561 and 13975 dwellings, respectively. While the micro census was obligatory, the two other supplementary surveys were voluntary. EU-SILC sample was restricted to the successfully enumerated households in the micro census and the income survey.

2.1.2. Sampling units

In type I. sample design PSU-s are localities, SSU-s are dwellings. In type II. PSU-s are dwellings.

2.1.3. Stratification criteria

Localities of Hungary were stratified by size.

The micro census mother sample's stratification has an effect on the stratification of SILC sample. The micro census sample was designed to provide reliable estimates of the main demographic indicators for the 176 General Electoral Districts (GEDs) of the country. The GEDs were roughly of the same size, the average being 24000 in terms of dwellings. Each GED has a 2 % sample of its own, resulting in a self-weighting 2 % overall sample of the country. Some GEDs are towns or segments of major cities, other GEDs consist of a number of smaller localities. Localities within GEDs were stratified by size (number of dwellings). In strata with more than one locality, only one locality (PSU) was selected for micro census.

Micro census has 806 localities in the sample, but EU-SILC could not allow more than 370, which resulted in collapsing some micro census strata together and consider them as EU-SILC strata. Collapsing micro census strata was carried out within county: 2, 3 or 4 micro census strata similar in size of localities were collapsed. Within these collapsed strata only one locality was selected for EU-SILC (one PSU per stratum).

Strata with more than one locality constitute the part of the population where we have one stage sample design (type II.), strata with one locality constitute the other part, where two stage sample design was applied (type I.).

2.1.4. Sample size and allocation criteria

The minimum effective sample size for Hungary is 4750 households and 10 250 person aged 16 or older, which numbers have established on the assumption of using simple random sampling. Since we use a more sophisticated two-staged stratified sampling and selection method it requires larger sample size.

13975 dwellings were selected. Based on the minimum effective sample size we took expected non-response rate at the first wave and attrition over time into account. Our aim was to achieve a nearly proportional allocation for the realized sample. We calculate higher non-response rate in urban area, and somewhat lower non-response rate in the rural area.

Tal	ble	2.	Sample	size
1 000	100		Sempre	002,0

	Number
Selected addresses	13 975
Contacted addresses	11 172
Can not be located	11
Unable to access	0
Non-residential, unoccupied, not principal	2 792
residence	

2.1.5. Sample selection shames

Localities were selected with pps, where size is measured by the number of dwellings. Dwellings in a selected locality were selected systematically. Before selection dwellings were sorted by the characteristic of area, enumeration district and serial number of dwellings.

2.1. 6. Sample distribution over time

The field work was carried out in May and June 2005 with the reference month of April 2005.

Weeks of interview	Achieved	Distribution of
	sample size	achieved sample
1 May – 8 May	473	6.8 %
9 May – 15 May	2 088	30.1 %
16 May – 22 May	2 206	31.8%
23 May – 29 May	1 459	21.1 %
30 May – 5 June	652	9.4 %
6 June – 12 June	33	0.5 %
13 June – 19 June	16	0.2 %
Total	6 927	100.0 %

Table 3. Fieldwork timing and sample development over time

2.1.7. Renewal of the sample, rotational groups

2005 was the first year of EU-SILC in Hungary. The 13975 selected dwellings were divided into 4 rotational groups, sized 2702, 3344, 3731 and 4198, where we took the expected attrition into account.

Table 4. Size of rotational groups

14010 11 5120	01 10 10 1101101	8-0 mps			
	Total	R1	R2	R3	R4
Total sample	13 975	2 702	3 344	3 7 3 1	4 198

2.1.8. Weighting

This chapter describes the computation of weights of EU-SILC sample 2005.

2.1.8.1. Design factors

It was calculated by strata; in stratum j the design weight, the reciprocal of inclusion probability $w_j = L_j / l_j$, where L_j is the total number of dwellings in stratum j, and l_j is the number of selected dwellings. In 2005 $w_j \in [227,410]$.

2.1.8.2. Non-response adjustments

Non-response weights were introduced to reduce bias caused by unit non-response on household level. Non-response adjustment was applied by strata. Primary weight in stratum j, $w_j = L_j / l_j$, where l_j is the number of observed dwellings. A care was taken to primary weights not to exceed 2500.

2.1.8.3. Adjustment to external data

The aim of this adjustment was to improve the accuracy of data using socio-economical information available the constantly updated Census 2001. Iterative raking scale method were applied. For the integrative calibration the following controls were used:

- Population totals of sex*age groups defined by ages 0-15, 16-19, 20-29, 30-39, 40-49, 50-59, 60 or more;
- Population totals of regions (NUTS2 level);
- Number of households with members 1, 2, 3, 4, 5 or more;
- Population totals by activity status;
- Population totals by qualification;
- Population totals of actives by qualification;
- Population totals by types of localities.

Calibration was carried out with a self made SAS program.

2.1.8.4. Final longitudinal weight

Not applicable, since EU-SILC 2005 is the first wave of EU-SILC survey with 4 year rotational panel design.

2.1.8.4.1. Final cross-sectional weight

Not applicable in 2005.

2.1.9. Substitution

There was no substitution in the survey.

Income component		Mean	Nr of obs	servation	Standard
			Before imputation	After imputation	error
Gross incom	ne components on personal level		•		
PY010G	Employee cash or near-cash income	1 164 079	5 347	7 082	18 381
PY020G	Non-cash employee income	256 719	96	96	29 506
PY050G	Cash benefit or losses from self-employment	1 024 458	1 109	1 318	81 544
PY070G	Value of goods produced by own-consumption	85 690	425	425	5 940
PY080G	Pension from individual private plans	237 333	76	76	41 325
PY090G	Unemployment benefit	228 103	675	810	15 248
PY100G	Old-age benefit	718 409	4 251	4 412	5 118
PY110G	Survivor's benefit	214 819	187	189	13 392
PY120G	Sickness benefit	125 707	590	590	7 554
PY130G	Disability benefit	389 645	1 208	1 521	7 585
PY140G	Education related allowances	82 540	223	223	7 025
Gross incom	e components on household level				
HY010	Total household gross income	2 115944	4 830	6 926	27 791
HY020	Total disposable household income	1 677 865	4 830	6 926	17 239
HY022	Total disp.hhold income before soc.trans other than old-age benefit and survivor's benefit	1 102 166	2 492	6 833	17 731
HY023	Total disp.hhold income before soc.transfers including old-age and survivor's benefit	1 199 447	4 179	5 828	20 325
HY040G	Income from rental of a property or land	353 972	135	135	67 582
HY050G	Family/Children related allowances	273 704	2 076	2 300	6 018
HY060G	Social exclusion not elsewhere classified	113 332	835	835	6 856
HY070G	Housing allowances	44 399	248	248	3 306
HY080G	Regular interhousehold cash transfers received	145 652	1 056	1 056	8 357
HY090G	Interest, dividends, profit from capital investment	207 468	67	67	90 185
HY100G	Interest repayment on mortgage	209 533	576	576	9 782
HY110G	Income received by people under 16	101 417	52	52	22 399
HY120G	Regular taxes on wealth	14 214	3 226	3 226	315
HY130G	Regular interhousehold cash transfers paid	107 098	1 242	1 242	5 857
HY140G	Tax on income and social contribution	640 606	0	4 458	17 214

2.2. Sampling errors Table 5. Mean, total number of observation before and after imputation, Standard errors – unweighted

Income component		Mean	Nr of observation		Standard	
			Before	After	error	
Gross incom	e components on personal level		Imputation	Inputation		
PY010G	Employee cash or near-cash income	1 190 048	3 123 565	4 088 784	18 898	
PY020G	Non-cash employee income	273 773	57 199	57 199	29 171	
PY050G	Cash benefit or losses from self-employment	1107 428	686 139	826 963	63 864	
PY070G	Value of goods produced by own-consumption	84 413	220 887	220 887	6 198	
PY080G	Pension from individual private plans	223 454	41 983	41 983	39 140	
PY090G	Unemployment benefit	235 522	388 167	453 949	14 374	
PY100G	Old-age benefit	725 935	2 117 610	2 203 384	5 227	
PY110G	Survivor's benefit	216 385	110 298	112 319	14 113	
PY120G	Sickness benefit	123 267	360.092	360 092	7 165	
PY130G	Disability benefit	398 041	667 203	845 512	7 427	
PY140G	Education related allowances	81 073	125 499	125 499	6 367	
Gross incom	e components on household level					
HY010	Total household gross income	2 104 914	2 830 765	4 019 272	29 723	
HY020	Total disposable household income	1 639 022	2 830 765	4 019 272	17 273	
HY022	Total disp.hhold income before soc.trans other than old-age benefit and survivor's benefit	1 125 088	1 625 211	3 955 493	17 548	
HY023	Total disp.hhold income before soc.transfers	1 120 000	1 025 211	5 7 5 5 1 7 5	1, 5 10	
	including old-age and survivor's benefit	1 217 498	2 489 125	3 422 948	21 308	
HY040G	Income from rental of a property or land	347 719	77 238	77 238	48 525	
HY050G	Family/Children related allowances	270 218	1 154 353	1 281 087	5 301	
HY060G	Social exclusion not elsewhere classified	111 222	472 504	472 504	7 076	
HY070G	Housing allowances	44 623	138 672	138 672	3 606	
HY080G	Regular interhousehold cash transfers received	156 467	625 629	625 629	9 811	
HY090G	Interest, dividends, profit from cap.investment	219 051	37 181	37 181	90 562	
HY100G	Interest repayment on mortgage	219 525	346 474	346 474	10 937	
HY110G	Income received by people under 16	102 499	31 840	31 840	22 761	
HY120G	Regular taxes on wealth	14 301	1 890 460	1 890 460	318	
HY130G	Regular interhousehold cash transfers paid	113 933	706 978	706 978	7 053	
HY140G	Tax on income and social contribution	660 784	0	2 670 510	19 900	

Table 6. Mean, total number of observation before and after imputation, Standard errors - weighted

v		5 1	
disposable income	Mean	Number of	Standard error
-		observation	
Equivalised disposable income by household size	ze		
1 household member	882 216	1 721	16 345
2 household member	1 035 613	4 274	14 684
3 household member	1 043 686	3 909	22 340
4 and more household member	953 101	8 065	25 106
Per capita disposable income			
Population by age groups			
Under 25	532 243	5 185	12 792
25-34	704 075	2 555	11 857
35-44	615 933	2 193	14 219
45-54	696 037	2 711	17 700
55-64	802 169	2 241	13 758
65+	745 980	3 084	6 570
Population by gender			
Male	660 986	8 344	7 705
Female	664 918	9 625	7 408
Total	663 058	17 969	6 992

Table 7. Mean, number of observation, Standard error for Disposable Income

2.3. Non-sampling errors

2.3.1. Sampling frame and coverage errors

The frame is an updated dataset of addresses used in the 2001 population and housing Census, thus the under-coverage is due to the new buildings completed after the last updating.

The under-coverage in percentages amounts to about $30,000 / 4,260,000 \approx 0.7$ %.

2.3.2. Measurement and processing errors

2.3.2.1. Measurement errors

Measurement errors can be defined as a bias between the recorded value on the basis of the respondent answer and the real, true, but unknown value of the given variable. The sources of the difference can be:

- i. questionnaire problem
- ii. data collection problem
- iii. respondent misinterpreting the question

These unavoidable problems were kept in mind during the preparations of the data collection and following steps were done to reduce them.

Previous to the main operation we implemented two pilot surveys. In frame of the pilots we tested the address sheet, the household and personal questionnaire in different ways:

- We organized some meetings to discuss the draft questionnaires with our colleagues who are responsible for the fieldwork and with some interviewers;
- We used cognitive laboratory to test the design, content and wording of questionnaires;
- We made supplementary questionnaires containing interviewers' remarks on the experiences with each household and personal interviews under the pilots;

- After the pilots we organized a meeting with some interviewers to discuss their experiences concerning with the asking.
- We made use of the experiences of testing, and the final address sheet and questionnaires were built up before the main operation.

Selection of interviewers and training:

The training for interviewers was organized by regional and county offices that were responsible for the fieldwork of SILC. 'Inspectors' – who are working on the EU-SILC project at Social Statistics Department – actively participated each trainings. Each of the counties (20) had one training section organized for the interviewers. The number of interviewers was approximately 400.

Before the fieldwork we try to test the skills and achievement of the interviewers. All of them had to fill two questionnaires in with their friends; neighbors' and the inspectors controlled all of them. After that some interviewers didn't continue their work, because their questionnaire didn't meet the minimum requirement.

We prepared a uniform script of training which was very useful since we could conduct uniform training in different counties and regions.

The training contained four parts:

- General information
- Specific difficulties of the questionnaires (theoretical part)
- Problems with the two questionnaires which were asked before the fieldwork (test interviewing)
- Procedure of controlling.

Fieldwork, controlling:

During the fieldwork the county office made report three times with the ratio of the address contacted and the response rate in case of each interviewer. Interviewers did not fulfill the requirements was excluded from the data collection.

The inspectors and the colleagues worked in county offices controlled the fieldwork personally. They met each interviewer at least once during the fieldwork and they visited some households asked before. During the fieldwork period we had a hotline for interviewers and also for the selected sample households.

Ex post control by phone: After the fieldwork the inspectors called 5% of the households asked about the interviewer (whether the interviewer visited the households, was he/she polite, etc.).

We used personal paper and pencil assisted (PAPI) interviews during the data collection.

2.3.2.2. Processing errors

Blaise was used as data entry program. The data entry program was tested by some county offices and all of the inspectors. After the testing the data entry program was corrected.

Approximately 50 colleagues made the data entry and there was hot line for them. They can call the information specialist with their problems.

The program contained checks to ensure the basic data consistency.

Data controlling, editing

After entry the data were controlled in various ways. The main elements of the controlling were the following:

- Identification numbers controlling
- Outlier controlling
- Data consistency checking (for instance, basic demographic data highest education level attained; basic demographic data economic status; economic status under the income reference period the income components)
- Controlling of the amount of social transfers

2.3.3. Non-response errors

The sample of EU-SILC 2005 wave designed according to the expected panel mortality and response rate in 4 rotational groups.

R4 4 198 2 064

0.49

Tuble 6. Sumple size and	rotational gro	ups on nouse	nota tevet		
Household level	Total	R1	R2	R3	
Selected sample size	13 975	2 702	3 344	3 731	
Achieved sample size	6 927	1 300	1 688	1 875	
Achieved/Selected sample	0.50	0.48	0.50	0.50	

Table 8. Sample size and rotational groups on household level

Table O Sample siz	a and rotational	aroung on	norgonal	anal
Tuble 9. Sumple Siz	ε απα τσταποπαι	groups on	personal i	evei

Personal level	Total	R1	R2	R3	R4
Selected sample size	24 210	4 709	5 839	6 423	7 239
Achieved sample size	14 791	2 802	3 638	3 975	4 376
Achieved/Selected sample	0.61	0.60	0.62	0.62	0.60
size					

2.3.3.2. Unit non-response

Household non-response rates (NRh)

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

size

$$Ra=\underline{Number of addresses successfully contacted}= \underbrace{\Sigma[DB120=11]}_{\Sigma[DB120=all] - \Sigma[DB120=23]}$$

$$= \underbrace{11 \ 172}_{13 \ 975 - 2 \ 792} = \mathbf{1.00}$$

Ra =0.99. Ra is the address contact rate, but we calculated DB120 on household level. As it was mentioned before the sampling unit was the address, and if more than one

household lived at the same address, then we interviewed all of them. The database is also a household level database so we calculated the rate on household level. If we aggregate this number to the level of addresses, the value of the indicator is also 1.00.

(10 704/(13 507-2 792))

Rh= <u>Number of household interviews completed and accepted for database</u> = Number of eligible households at contacted addresses

 $= \frac{\Sigma[DB135=1]}{\Sigma[DB130=all]} = \frac{6.927}{11.172} = 0.62$ NRh=(1-(1.00*0.62))*100=38%

Individual non-response rate (NRp): NRp=(1-(Rp))*100

As it was mentioned, in 2005 the SILC data requirements came from three different data sources. The basic personal data, demographic data, education, including highest ISCED level attained, basic labour information on current activity status and on current main job were asked in Microcensus. Microcensus was a compulsory survey so every household and personal interviews were successful. (at this phase the non response rate is 0). The Income Survey and the SILC was not compulsory so many households refused to cooperate. SILC was implemented in the second phase covering only the households that had been involved successfully in the Microcensus and the Income Survey. If the SILC household questionnaire was not completed then the value of DB130 is 21,22,23 or 24. (unit non-response) But if somebody refused to cooperate at personal level we didn't regard as unit non-response just item non-response, because most of the personal data we had from the Microcensus.

 Rp=
 Number of personal interviews completed
 =

 Number of eligible individuals in the households whose interviews were completed and accepted for the data base
 =

 $\frac{\Sigma[RB250=11]}{\Sigma[RB245=1]} = \frac{14\ 791}{14\ 791} = 1.00$

Overall individual non-response rate (*NRp):

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

NRp=(1-(1.00*0.62*1.00))*100=**38%**

2.3.3.3. Distribution of households by "record of contact address"(DB120), by "household questionnaire result" (DB130) and by "household interview acceptance" (DB135), for each rotational group and for the total

Table 10. Distribution of DB120 Distribution	
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5					
DB120- Contact address	Total	R1	R2	R3	R4
Address contacted (11)	11 172	2 149	2 703	2 984	3 366
Address can not be located (21)	11	3	1	3	4
Address unable to access (22)	0	0	0	0	0
Address does not exist or etc (23)	2 792	550	640	744	858
Not contacted address (24)	2 803	553	641	747	862
Total	13 975	2 702	3 344	3 731	4 198

Table 11. Distribution of DB130

DB130- Household questionnaire result	Total	R1	R2	R3	R4
Household questionnaire completed (11)	6 927	1 300	1 688	1 875	2 064
Refusal to co-operate (21)	4 023	812	954	1 049	1 208
Entire household temporarily away (22)	163	26	48	43	46
Household unable to respond (23)	25	6	5	7	7
Other reason(24)	34	5	8	10	11
Total	11 172	2 149	2 703	2 984	3 366

Table 12. Distribution of DB135

DB135- Household interview acceptance	Total	R1	R2	R3	R4
Interview accepted for database (1)	6 927	1 300	1 688	1 875	2 064
Interview rejected (2)	0	0	0	0	0
Total	6 927	1 300	1 688	1 875	2 064

2.3.3.5. Item non-response

The item non-response is covered by the following tables about completeness of information regarding each income item on household level and personal level as well.

Income items		Household har received an ar	aving nount	Full inform	nation	Partial infor	mation	Missin	ıg
		count	%	count	%	count	%	count	%
HY010	Total household gross income	6 926	100.0	4 830	69.7	2 092	30.2	4	0.1
HY020	Total disposable household income	6 926	100.0	4 830	69.7	2 092	30.2	2	0.0
	Total disp.hhold income before soc.trans other than old-age benefit and survivor's benefit								
HY022	Total disp.hhold income before soc.transfers including old-age and survivor's benefit	6 833	98.6	2 492	36.5	4 304	63.0	37	0.5
HY023		5 828	84.1	4 179	71.7	1 591	27.3	58	1.0
HY040G	Income from rental of a property or land	135	1.9	135	100.0	0	0.0	0	0.0
HY050G	Family/Children related allowances	2 300	33.2	2 076	90.3	206	9.0	18	0.8
HY060G	Social exclusion not elsewhere classified	835	12.1	835	100.0	0	0.0	0	0.0
HY070G	Housing allowances	248	3.6	248	100.0	0	0.0	0	0.0
	Regular interhousehold cash transfers received								
HY080G	Interest, dividends, profit from capital investment	1 056	15.2	1 056	100.0	0	0.0	0	0.0
HY090G		67	1.0	67	100.0	0	0.0	0	0.0
HY100G	Interest repayment on mortgage	576	8.3	576	100.0	0	0.0	0	0.0
HY110G	Income received by people under 16	52	0.8	52	100.0	0	0.0	0	0.0
HY120G	Regular taxes on wealth	3 2 2 6	46.6	3 226	100.0	0	0.0	0	0.0
HY130G	Regular interhousehold cash transfers paid	1 242	17.9	1 242	100.0	0	0.0	0	0.0
HY140G	Tax on income and social contribution	4 458	64.4	0	0.0	0	0.0	4 458	100.0

Table 13 .Item non-response on household level by income items

Personal ir	ncome items	Household havin an amou	g received nt	Full inform	mation	Partial info	rmation	Missir	ıg
		count	%	count	%	count	%	count	%
PY010G	Employee cash or near-cash income	7 082	47.9	5 347	75.5	1 268	17.9	467	6.6
PY020G	Non-cash employee income	96	0.6	96	100.0	0	0.0	0	0.0
PY050G	Cash benefit or losses from self-employment	1 318	8.9	1 109	84.1	55	4.2	154	11.7
PY070G	Value of goods produced by own-consumption	8 290	56.0	425	5.1	0	0.0	7 865	94.9
PY080G	Pension from individual private plans	206	1.4	76	36.9	0	0.0	130	63.1
PY090G	Unemployment benefit	810	5.5	675	83.3	133	16.4	2	0.2
PY100G	Old-age benefit	4 412	29.8	4 251	96.4	74	1.7	87	2.0
PY110G	Survivor's benefit	189	1.3	187	98.9	0	0.0	2	1.1
PY120G	Sickness benefit	590	4.0	590	100.0	0	0.0	0	0.0
PY130G	Disability benefit	1 521	10.3	1 208	79.4	30	2.0	283	18.6
PY140G	Education related allowances	223	1.5	223	100.0	0	0.0	0	0.0

Table 14. Item non-response on personal level by personal income items

2.4. Mode of data collection

Distribution of persons aged 16 or over by "data status" (RB250) and by "type of interview" (RB260)

Table 15. Distribution of RB250

¥					
RB250- Data status	Total	R1	R2	R3	R4
Information completed only from	14 791	2 802	3 638	3 975	4 376
interview(11)					
From registerno reason (12-33)	0	0	0	0	0
Total	14 791	2 802	3 638	3 975	4 376

Table	16.	Distribution	of RB260
-------	-----	--------------	----------

RB260- Contact address	Total	R1	R2	R3	R4
PAPI (1)	13 137	2 471	3 247	3 531	3 888
CAPI, CATI, Other(2,3,4)	0	0	0	0	0
Proxy(5)	1 654	331	391	444	488
Total	14 791	2 802	3 638	3 975	4 376

Table 17. Interview duration in minutes

Interview	Mean	By household size	Mean
Household interview	21	HH with 1 member	37
Personal interview	14	HH with 2 members	48
Total (at household level)	51	HH with 3 members	55
		HH with 4 members	60
		HH with 5+ members	69
		Total	51

2.5. Imputation procedure

According to the principles of the detailed methodology of EU-SILC (Doc. 065/04) we applied imputation for the case of item non-response. The aim was to insert a value where the original data is missing due to item non-response. The inserted value was estimated on the basis of following procedures:

- i. deterministic method
- ii. stochastic method

Deterministic method was covering the cases, when the missing value can be determined by several available background information at the given record. Practically it was used for social incomes and benefits. Most of the benefit income items had got fixed amount according to the corresponding governmental measures and regulations. When the respondents were not able to give us the exact value of childcare benefit (*Családi pótlék*), we imputed the value of childcare benefit according to the information about the number, age and activity status of the children at the household. Similar imputation was done, when the respondent did not report the value of his unemployment benefit. In this case we imputed the value the official unemployment benefit minimum to this variable.

Stochastic method was covering the cases of item non-response for work related income items. The estimations were based on linear or logarithmic regression models built up for the income items. We tested several models and chose the ones with the highest R 2 . If we could not assign a regression model to describe the missing information, the mean value of the group was used.

Final Quality Report EU-SILC 2005 Hungary 2.6. *Imputed rent*

Imputed rent was not calculated for EU-SILC 2005 wave.

2.7. Company car

A question was used to determine the value of private use of company car in on the questionnaire. It was answered by the respondents reporting use of company cars. The respondent had to estimate this value and this estimation was used in the database.

3. Comparability

This chapter will report the differences between Eurostat definitions and definitions Hungary applied in EU-SILC 2005.

3.1. Basic concepts and definitions

- *Reference population*No difference to common definition *Private household definition*
- No difference to common definition
- *iii. Household membership* No difference to common definition
- *iv.* Income reference period Fixed twelve month period was used, which was the previous calendar year 2004.
- v. *Period for taxes on income and social insurance* No difference to common definition
- vi. *Reference period for taxes on wealth* The reference period for taxes on wealth was the same as income tax period. We included the tax on motorcars and property tax. Tax was imposed on

motorcars on the basis of it's' weight and it was compulsory for the owner.
Property tax was could be imposed by the local municipality. It was not used in every settlement, and had several options for reductions for the property owners.

- vii. *The lag between the income reference period and the current variables* The lag between the income reference period and the current variables is 3 months since the reference time of interviewing was 1 April 2005.
- viii. *Total duration of data collection of the sample* The data collection lasted 8 weeks.
- *ix.* Basic information on activity during the income reference period Activity information was asked for each month of the income reference period in the questionnaire.

3.2. Components of income

3.2.1. Differences between the national definitions and standard EU-SILC definitions and assessment of consequences of the differences

- *i. Total household gross income* No difference to common definitions.
- *ii. Total disposable household income*

No difference to the common methodology.

- *Total disposable household income, before social transfers other than oldage benefit and survivors' benefit* No difference to the common methodology.
- *iv.* Total disposable household income, before social transfers including old-age and survivors' benefit
 - No difference to the common methodology.
- *v. Imputed rent* Imputed rent was not calculated.
- *vi.* Income from rental of property or land No difference to the common methodology.
- Family/children related allowances vii. The sophisticated child related allowance system of Hungary was covered here. For the age of 6 moths of the baby, the mother can stay at home with the baby on a *Child birth leave* receiving the amount of a normal sickpay, about 80 % of her former salary. For the age of 2 years of the child the mother or the father of the child can stay home receiving *Child care allowance(Gyed)*, which is equals to 75 % of her/his former salary, but not higher than 80 000 HUF (about 320 Euro/months). Until the age of 3 of the child the parent can stay home receiving Child care aid (Gyes), which equals to the minimum old age pension (about 110 Euro). This allowance can be passed to the any of grandparents who is responsible for the daily care of the child if the parent goes back to work again. If the family has got 3 or more children and the mother does not work full time (max. 20 hours a week) or does not work at all she can receive Child care benefit (Gyet), which equals to the minimum oldage pension until the youngest child does not fulfill the age of 8.
- *viii.* Social exclusion payment not elsewhere classified No difference to common methodology

3.2.2. The source or procedure used for collecting income variables

All the income variables were collected from the respondents. The income target variables were grouped into more detailed sub-components according to Hungarian tax and benefit system.

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

Gross income data were collected for the income items but in case of certain benefits according to tax law which were not considered to be belonging to the taxable income net value were asked, like old-age pension or family allowance.

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

The income items were divided into sub-components according to the Hungarian tax regulations and benefit practice in the questionnaire. The personal and household incomes were separated. Gross income items were asked for work related incomes and other incomes belonging to the personal tax system and net income items were asked for benefits and other allowances. The following steps were taken to obtain income target variables in the required form.

i. The subcomponents were summed up to obtain the income items on personal income level.

- ii. While Hungary has a personal income tax system, the household type incomes had to be connected to household members. It was done on the basis of the income type, eg. Agricultural income was connected to the household member(s) reporting agricultural activity. Obviously just adult members were involved.
- iii. The value of taxable income was calculated for each household member.
- iv. The total household gross income was calculated for the household including all income types on basis of the process listed at i. and ii.
- v. On the basis of value of taxable income for each household member, the value of personal income tax and social insurance fee was calculated. The deductions were summed up for total of the household.
- vi. The total disposable income on household level was calculated as difference between the total household gross income and the total tax deductions.

3.3. Tracking rules

Since 2005 was initial survey of EU-SILC including a panel component, tracking rules were not applied.

4. Coherence

Coherence refers to comparison of target variables and common cross-sectional indicators with external sources. The initial survey year for EU-SILC survey was launched in 2005 although Hungarian Statistical Office calculated the common cross-sectional indicators on the basis of Household Budget Survey data from 2002. It was our aim to provide reliable data and indicators by the new tool, so detailed comparison was done on output- indicator- level between HBS and EU-SILC. From the comparison point of view we were in a very pleasant situation because our Office carried out three surveys focused on Hungarian private households' income and expenditure structures in 2005 with the reference year of 2004. Namely: EU-SILC, HBS, Income Survey (IS). A comparative study was published in Hungarian in August 2006.

http://portal.ksh.hu/pls/ksh/docs/hun/xftp/idoszaki/pdf/laekindikator.pdf

Differences of estimates are due to the differences between sample designs, selection schemes, non-response treatments and weighting procedures. A short description on major differences and similarities is given below.

HBS: continuous survey with long tradition and a new sample design since 2003.

EU-SILC: annual survey, first wave in 2005 (subsample of the Micro census and Income survey sample).

Income survey (IS): a single survey in 2005 (subsample of the Micro census sample).

4.1. Comparing sample design

As for sample designs, IS and EU-SILC are very similar, both being carried out on a subsample of the Micro census sample. The only difference is between sample sizes. SILC sample is a subsample of IS sample. While for the IS 22561 dwellings were selected in 526 localities, SILC sample has 13625 selected dwellings in 370 localities. At the first stage one locality per stratum was selected with pps, at the second stage dwellings were selected systematically.

The HBS sample design differs significantly from the others. In the three stages localities, enumeration districts and households are selected with pps, pps and srs, respectively. At the first stage localities are stratified by region and size (measured by

number of dwellings), at the third stage households are stratified by the characteristic of the head of the household. The sample size in 2004 was

4.2. Comparing imputation

IS applied imputation on a large scale, using micro simulation.

4.3. Comparing calibration

Integrated calibration was applied for all three surveys. However, there are some differences. On the one hand the type of controls used for calibration are not the same, on the other hand they are from different sources. The latter caused variant totals for the same concept (e.g. the number of households used in EU SILC is a bit far from the ones used in IS and HBS).

Table 18. Comparison of common cross-sectional indicators,

HBS2005, Income-Survey2005, EU-SILC2005

Reference year 2004

				HBS	Income Survey	EU-SILC	
				As Type 1 b	TYPE 2 As Type 1 but including income-in-kind		
,	Mean equivalised disposable			1 000 (12	1 100 200	004 110	
2	Dick of powerty threshold	I norson bb	MAT	502 415	1 180 300	510.027	
2	Risk-oj-poverty infesnoia	1 person nn	NAI	393 413	002 002	519 957	
	(illustrative values)		EUR	2 358	2 395	2 080	
			PPS	4 005	4 068	3 430	
		2 adults 2 dep.					
		children	NAT	1 246 172	1 265 591	1 091 867	
			EUR	4 951	5 029	4 367	
			PPS	8 411	8 542	7 204	
3	Risk-of-poverty rate	Total	Total	11.8	13.8	13.4	
	by age and gender		М	11.6	13.5	13.8	
			F	11.9	14.0	13.0	
		0-15	Total	16.8	18.0	19.5	
		0-64	Total	12.3	14.0	14.6	
			Μ	12.5	14.1	15.1	
			<i>F</i>	12.1	13.8	14.2	
		16+	Total	10.7	12.9	12.1	
			М	10.3	12.5	12.5	
			F	11.1	13.2	11.8	
		16-64	Total	11.1	12.9	13.4	
			Μ	11.1	13.1	13.9	
			<i>F</i>	11.1	12.8	12.9	
		16-24	Total	13.9	16.1	16.7	
			M	13.1	15.7	16.9	
			<i>F</i>	14.8	16.4	16.5	
		25-49	Total	11.4	12.8	14.1	
			M	11.4	12.9	14.6	
		50.64	F	11.4	12.8	13.6	
		50-64	Total	9.1	11.3	10.1	
			M	9.4	11.8	10.6	
		(5)	F	8.8	10.9	9.8	
		65+	Total	8.8	12.8	6.5	
			M	5.0	9.4	4.2	
1	Diale of nonontrinents	Total	Total	6.1	14.8	7.9	
4	Risk-of-poverty rate	Total	1 otal	0.1	5.8	9.8	
	by most frequent activity		E INI	7.1	0.8	10.0	
	(d) Not at work	Total	r Total	4.9	4.0	0.9	
	(<i>a</i>) <i>NOT at WOR</i>	Totat	10iai M	15.2	10.7	14.9	
			F	15.1	18.0	14.7	
	(al) Of which:	Total	Total	30.3	30.1	14.7	
	(e1) Of which.	Totai	10iui M	41.5	42 1	4 <i>)</i> .2	
	οπεπιριογεα		F	41.J 27 1	+2.1 35 7	45 C	
	(e2) Of which:	Total	Total	97.1 Q /	13.7	4J.2 Q Q	
	Retired	10101	M	2.4 8 3	12.7	9.2	
	100000		F	10.0	12.0	10.4	
	(f) Of which:	Total	Total	17.5	20.6	17.4	
	Other inactive	10101	M	17.5	20.0	15.4	
			F	17.9	21.1	19.0	

reference year 2004

				HBS	Income Survey	EU-SILC
					TYPE 2	
				As Type 1	but includir	ng income-
					in-kind	
_					10.0	
5	Risk-of-poverty rate	All hh no dep. childr.		8.5	12.0	9.6
	by household type	I person hh	Total	18.0	24.5	18.5
		I person hh	M	19.3	27.0	24.1
		I person hh	F	17.4	23.3	15.5
		<i>I person hh <65yrs</i>		19.9	26.6	25.7
		1 person hh 65+		16.2	22.4	10.5
		2 adults no dep. childr.	(both < 65) (at least one	7.9	11.0	9.3
		2 adults no dep. childr.	65+)	5.3	9.7	4.4
		Other hh no dep. childr.		5.5	6.1	5.7
		All hh with dep. childr.		14.3	15.3	16.8
		Single parent	(at least 1 child)	23.5	25.9	27.1
		2 adults 1 dep. child		10.6	12.3	15.1
		2 adults 2 dep. childr.		13.9	13.0	15.0
		2 adults 3+ dep. childr.		28.1	25.2	23.9
		Other hh with dep.				
		childr.		10.0	10.8	12.9
6	Risk-of-poverty rate	Total	Total	11.6	13.1	13.0
	by accommodation		M	11.5	12.8	13.3
	tenure status (a) Owner or rent-				10.4	10.5
	free	T 1	F	11.7	13.4	12.7
	(b) Tenant	Total	Total	14.2	20.2	18.8
			M	13.3	20.4	19.7
			F	15.0	20.1	17.9
7	Risk-of-poverty rate	All hh no dep. childr.	WI = 0	:	:	18.2
	by work intensity of		0 < WI < I	:	:	9.5
	the household		WI = I	:	:	7.0
		All hh with dep. childr.	WI = 0	:	:	56.3
			0 < WI < 0.5	:	:	43.7
			0.5 <= WI < 1	:	:	22.7
			WI = 1	:	:	10.2
8	Dispersion around	Total	Total	3.2	3.4	3.1
	the risk-of-poverty		M	3.5	3.4	3.5
	threshold		F	3.0	3.4	2.7
	by age and gender	0-15	Total	3.8	3.6	3.6
	(a) 40% of median	16+	Total	3.1	3.4	3.0
			М	3.4	3.4	3.4
			F	2.9	3.3	2.6
		16-64	Total	3.6	3.6	3.5
			М	3.9	3.8	4.0
			F	3.4	3.4	3.1
		65+	Total	0.7	2.4	0.7
			M	0.2	1.6	0.5
			F	0.9	2.9	0.8

				HBS	Income Survey	EU-SILC	
				TYPE 2 As Type 1 but including income-in-kind			
-	(b) 50% of median	Total	Total	$l \qquad 6.0 \qquad 7.2$			
	(2) 2 2 / 2 / 2		М	6.3	7.2	7.8	
			F	5.8	7.3	7.0	
		0-15	Total	8.2	8.8	10.8	
		16+	Total	5.5	6.9	6.7	
			М	5.7	6.9	7.2	
			F	5.4	6.9	6.2	
		16-64	Total	6.1	7.1	7.7	
			М	6.4	7.4	8.2	
			F	5.9	6.8	7.1	
		65+	Total	2.9	6.1	2.2	
			М	1.6	4.1	1.0	
-			F	3.7	7.3	2.9	
	(c) 70% of median	Total	Total	19.5	21.9	21.0	
			Μ	18.9	21.3	21.1	
			F	20.1	22.4	20.9	
		0-15	Total	26.4	27.9	29.4	
		16+	Total	18.1	20.7	19.2	
			Μ	16.8	19.8	19.1	
			F	19.2	21.4	19.3	
		16-64	Total	18.1	20.0	20.7	
			М	17.8	20.1	21.0	
			F	18.4	19.9	20.5	
		65+	Total	18.1	23.7	12.5	
			М	10.8	18.1	8.5	
-			F	22.3	26.9	14.9	
13	Relative median	Total	Total	18.9	18.0	18.8	
	risk-of-poverty gap		М	21.0	18.3	19.3	
	by age and gender		F	16.9	17.7	17.9	
		0-15	Total	17.8	16.5	18.8	
		16+	Total	19.2	18.4	18.7	
			М	19.7	16.1	19.9	
			F	15.9	17.0	17.6	
		16-64	Total	21.2	19.0	19.9	
			М	22.7	19.8	21.1	
			F	20.1	18.4	19.2	
		65+	Total	13.0	15.9	9.3	
			М	11.1	14.6	8.5	
			F	13.0	16.3	10.8	
14	S80/S20 quintile share ratio			3.29374	4.43079	4.04000	
15	Gini coefficient			0.26511	0.29654	0.27540	

reference year 2004