Central Statistical Bureau of Latvia

FINAL QUALITY REPORT RELATING TO EU-SILC OPERATIONS 2005, 2006 & 2007

Riga 2009

CONTENTS

Background

In Latvia the EU-SILC survey was launched in 2005. The Latvian EU-SILC survey is an annual survey with a four-year rotational panel and it is carried out as an independent survey, by single operation covering cross-section and longitudinal primary target variables as well as secondary target variables.

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

Longitudinal indicators are not available, as no rotational group has been yet in the survey for four years.

2. ACCURACY

2.1. SAMPLE DESIGN

In Latvia a stratified two-stage sampling design was used for the EU-SILC survey. At the first stage a systematic sampling of the primary sampling units (Population Census counting areas) was carried out. At the second stage a simple random sampling was made to select secondary sampling units (addresses). The stratification was made depending on a degree of urbanization of the area. The code of administrative territories was used for stratifying.

2.1.1. Type of sampling

A stratified two-stage sampling was used for the EU-SILC survey in Latvia. A systematic sampling with inclusion probabilities proportional to the unit size was carried out at the first stage and a simple random sampling was carried out at the second stage.

2.1.2. Sampling units

The Population Census counting areas were used as primary sampling units (PSUs) at the first stage. In general, all territory of Latvia is covered in lists of population counting areas. PSUs were selected by a systematic sampling with inclusion probabilities proportional to the population size (number of households) of PSUs.

Addresses were used as secondary sampling units (SSUs). Simple random sampling was used to select SSUs from PSUs selected at the first sampling stage. In Latvia several households can be registered in one address. All households and individuals living in the selected address were included in the EU-SILC survey in urban areas, but in rural areas only those households, which were formed by persons enumerated in the Household List (see 2.3.2.). If none of persons enumerated in the Household List lived in the selected address, then it was possible:
- to go for an interview to a different address in the same local area (if an interviewer knew the correct address of the persons enumerated in the Household List);
- to interview all households and individuals living in the selected address (the same as in urban areas).

2.1.3. Stratification and sub-stratification criteria

The stratification was made depending on a degree of urbanization of the area. Riga (the capital city), six largest towns, other towns and rural areas form four strata. The code of administrative territories was used for stratification. The stratum is identified in the variable DB050.

2.1.4. Sample size and allocation criteria

According to Regulation (EC) No 1553/2005 of the European Parliament and of the Council of 7 September 2005 amending Regulation (EC) No 1177/2003 concerning Community statistics on income and living conditions (EU-SILC), Annex II in Latvia the minimum effective sample size was 3 750 households. The total gross sample size (number of households) was made according to the non-response rate and effective sample size for at-risk-of-poverty rate after social transfers. The non-response rate was estimated by using the results of the EU-SILC survey in the previous years. In 2005 there were 5 692 addresses selected. To compensate the non-response of the 2005 survey, it was decided to select 5 856 addresses in 2006 and 6 550 in 2007 (a new rotational group was increased).

2.1.5. Sample selections schemes

In the first stage Population Census counting areas (PSUs) were selected by a systematic sampling with inclusion probabilities proportional to their population size.

A simple random sampling without replacement was used to select addresses (SSUs) in sampled PSUs. A non-proportional allocation was used to select SSUs.

2.1.6. Sample distribution over time

A sample distribution over time was not used because the EU-SILC survey is organized on an annual basis. The number of households successfully interviewed in each month of fieldwork (2005-2007) is shown below in Table 2.1.

Table 2.1. **Number of successful interviews (households) by the date of interview**

Month	2005	2006	2007	Total
February	-	-	17	17
March	-	52	380	432
April	-	522	184	706
May	977	626	238	1 841
June	1 095	756	173	2 024
July	179	725	445	1 349
August	103	45	560	708
September	293	523	561	1 377
October	-	253	139	392
November	-	2	5	7
Not specified	-	18	191	209
TOTAL	**2 647**	**3 522**	**2 893**	**9 062**

2.1.7. Renewal of sample: rotational groups

A rotational sampling design was used for the EU-SILC survey. Initially the sample (in 2005) consisted of four equal rotational groups (sub-samples). To provide a cross-sectional component it was foreseen to drop one group and add the new one in the next years of the survey. Unfortunately it was not possible to evaluate properly the gross sample size for all sub-samples. The calculated gross sample size for all groups was not sufficient to provide the minimum effective net sample size for the longitudinal component in the next years. Therefore, a part of successfully interviewed households of the sub-sample included only for the 1st year of the survey was included also into the sample in the following years.

2.1.8. Weightings

The longitudinal data sets contains information on individuals (and their households) traced from the original sample households in 2005, 2006 and 2007 (rotational groups 3, 4 and 5).

2.1.8.1. Design factor

Longitudinal weights were made from base weights RB060, which were calculated from design weights. The design weights (DB080) for addresses were calculated according to the sample design:

$$DB080 = \frac{1}{prob\_adr};$$

$$prob\_adr = \frac{hhpsupop \cdot psustrat \cdot adrpsus}{hhstrpop \cdot adrp\sup},$$

*where **prob_adr** - inclusion probabilities of addresses;*

> ***hhpsupop*** - a number of households in each strata's each PSU of all population;

> ***psustrat*** - a number of the PSUs in each strata of sample;

> ***adrpsus*** - a number of addresses in each strata's each PSU of sample;

> ***hhstrpop*** - a number of households in each strata of all population;

> ***adrpsup*** - a number of addresses in each strata's each PSU of population.

The inclusion probability of the household and the individual is equal to the inclusion probability of the address. The design weights were adjusted for outliers (extremely high design weights) at the address level.

2.1.8.2. Non-response adjustments

Base weights were corrected by non-response in the primary sampling units. The 2006 and 2007 data were adjusted for returnees. New household members with RB110 = 3 (moved into from outside sample) and former household members with RB110 = 5, 6 or 7 (moved out, died, not registered in the previous wave and did not live in household anymore) had RB060 = 0. The newly born (household members with RB110 = 4) received the weight of their mother. For each year, each rotational group with adjusted design weights was calibrated on the corresponding year's population.

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

For each year, each rotational group with adjusted design weights was calibrated on the corresponding year's population. Weights were calibrated (in the household level) on the basis of demographic data by breaking them down by a degree of urbanization (four groups - strata), 12 age groups (0-15; 16-20; 21-25; 26-30; 31-35; 36-40; 41-45; 46-50; 51-55; 56-60; 61-65; 66+), sex and 6 regions of Latvia (NUTS 3). GREG calibration was used.

2.1.8.4. Final longitudinal weights

Calibrated weights are base weights RB060. For each rotational group, for each wave, the sums of weights RB060 are equal to the size of the longitudinal population in the scope at each wave from the start of the panel.

The longitudinal part of 2005 and 2006 are the third and the fourth rotational groups, but for 2006 and 2007 – the third, the fourth and the fifth rotational groups. Only they were selected for longitudinal weighting. So weights have a formula RB062 = k * RB060, where k is calculated as

a proportion - number of households in the corresponding rotational group against the total number of households in all three longitudinal rotational groups.

2.1.8.5. Final household cross-sectional weight

The final cross-sectional weights DB090 were calculated as a product of the design factor, non-response adjustment factor and calibration factor:

$$DB090 = nonr\_w \cdot g \,,$$

where **g** - g-weights of the regression estimator.

2.1.9. Substitutions

No substitution was used.

2.2. SAMPLING ERRORS

The following tables report the mean, the number of observations (before and after imputation) and the standard error for different income components.

Estimates and their standard errors were computed with cross-sectional weights DB090 at the household level and PB050 at the personal level.

Table 2.2. **Mean, number of observations and standard errors of different income components, 2004 (EU-SILC 2005)**

	Income components	Mean, LVL [1]	Number of observations		Standard error, LVL [1]
			Before imputation	After imputation	
HY020	Total disposable household income	3 098	2 624	2 629	75
HY022	Total disposable household income before social transfer other than old-age and survivor's benefits	2 951	2 590	2 598	75
HY023	Total disposable household income before social transfers including old-age and survivor's benefits	2 669	2 294	2 306	81
	Net income components at the household level				
HY040N	Income from rental of a property or land	314	41	42	56
HY050N	Family/Children related allowances	223	838	838	10
HY060N	Social exclusion not elsewhere classified	108	226	230	16
HY070N	Housing allowances	62	115	124	5
HY080N	Regular inter-household cash transfer received	552	289	305	47
HY090N	Interest, dividends, profit from capital investments in unincorporated business	976	65	66	568
HY110N	Income received by people aged under 16	145	31	31	30
HY120N	Regular taxes on wealth	21	1 197	1 337	1
HY130N	Regular inter-household cash transfer paid	450	272	283	41
HY145N	Repayments/receipts for tax adjustment	-39	308	309	4
	Net income components at the personal level				
PY010N	Employee cash or near cash income	1 905	2 703	2 709	47
PY021N	Company car	159	73	73	22
PY035N	Contributions to individual private pension plans	118	38	38	16
PY050N	Cash benefits or losses from self-employment	1 828	282	282	230
PY080N	Pension from individual private plans	0	0	0	0
PY090N	Unemployment benefits	445	154	154	62
PY100N	Old-age benefits	938	1 665	1 665	16
PY110N	Survivor` benefits	574	73	73	50
PY120N	Sickness benefits	138	269	269	15
PY130N	Disability benefits	705	175	175	21
PY140N	Education-related allowances	167	123	124	26

[1] Zeros are not included in calculations.

Table 2.3. **Mean, number of observations and standard errors of different income components, 2005 (EU-SILC 2006)**

	Income components	Mean, LVL [1]	Number of observations		Standard error, LVL [1]
			Before imputation	After imputation	
HY020	Total disposable household income	4 064	3 488	3 499	95
HY022	Total disposable household income before social transfer other than old-age and survivor's benefits	3 866	3 454	3 466	91
HY023	Total disposable household income before social transfers including old-age and survivor's benefits	3 541	3 090	3 102	97
	Net income components at the household level				
HY040N	Income from rental of a property or land	650	44	44	165
HY050N	Family/Children related allowances	319	1 111	1 111	30
HY060N	Social exclusion not elsewhere classified	123	189	193	24
HY070N	Housing allowances	81	158	160	6
HY080N	Regular inter-household cash transfer received	735	390	395	62
HY090N	Interest, dividends, profit from capital investments in unincorporated business	1 840	66	73	520
HY110N	Income received by people aged under 16	113	54	54	36
HY120N	Regular taxes on wealth	25	1 738	1 803	2
HY130N	Regular inter-household cash transfer paid	528	375	385	52
HY145N	Repayments/receipts for tax adjustment	-51	390	395	6
	Net income components at the personal level				
PY010N	Employee cash or near cash income	2 404	3 729	3 731	53
PY021N	Company car	309	59	59	48
PY035N	Contributions to individual private pension plans	115	59	62	25
PY050N	Cash benefits or losses from self-employment	1 822	351	353	145
PY080N	Pension from individual private plans	0	0	0	0
PY090N	Unemployment benefits	582	166	166	115
PY100N	Old-age benefits	1 000	2 354	2 354	15
PY110N	Survivor` benefits	584	88	88	56
PY120N	Sickness benefits	222	316	316	36
PY130N	Disability benefits	745	251	251	24
PY140N	Education-related allowances	231	136	136	37

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[1] Zeros are not included in calculations.

Table 2.4. **Mean, number of observations and standard errors of different income components, 2006 (EU-SILC 2007)**

	Income components	Mean, LVL [1]	Number of observations		Standard errors, LVL [1]
			Before imputation	After imputation	
HY010	Total household gross income	6 419	2 591	2 870	173
HY020	Total disposable household income	5 169	2 879	2 879	129
HY022	Total disposable household income before social transfer other than old-age and survivor's benefits	4 879	2 856	2 856	128
HY023	Total disposable household income before social transfers including old-age and survivor's benefits	4 469	2 560	2 560	133
	Net income components at the household level				
HY030N	Imputed rent	516	2 733	2 733	16
HY040N	Income from rental of a property or land	664	36	36	310
HY050N	Family/Children related allowances	378	965	965	27
HY060N	Social exclusion not elsewhere classified	146	187	187	14
HY070N	Housing allowances	100	108	108	11
HY080N	Regular inter-household cash transfer received	360	345	345	19
HY090N	Interest, dividends, profit from capital investments in unincorporated business	1 255	30	30	594
HY100N	Interest repayments on mortgage	773	0	49	106
HY110N	Income received by people aged under 16	224	25	25	72
HY120N	Regular taxes on wealth	26	1 409	1 526	2
HY130N	Regular inter-household cash transfer paid	358	265	265	22
HY140N	Tax on income and social contributions	1 555	1 697	1 983	59
	Net income components at the personal level				
PY010N	Employee cash or near cash income	2 726	3 448	3 448	65
PY020N	Non-Cash employee income	357	213	213	39
PY021N	Company car	486	55	55	105
PY035N	Contributions to individual private pension plans	119	66	67	10
PY050N	Cash benefits or losses from self-employment	2 608	254	254	255
PY070N	Value of goods produced for own consumption	308	1 090	1 090	15
PY080N	Pension from individual private plans	305	3	3	470
PY090N	Unemployment benefits	397	310	311	36
PY100N	Old-age benefits	1 216	1 925	1 925	20
PY110N	Survivor` benefits	700	107	107	42
PY120N	Sickness benefits	254	468	468	27
PY130N	Disability benefits	777	236	236	30
PY140N	Education-related allowances	248	101	102	40

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[1] Zeros are not included in calculations.

	Income components	Mean, LVL [1]	Number of observations		Standard error, LVL [1]
			Before imputation	After imputation	
	Gross income components at the household level				
HY030G	Imputed rent	657	2 733	2 733	20
HY040G	Income from rental of a property or land	664	36	36	310
HY050G	Family/Children related allowances	378	965	965	27
HY060G	Social exclusion not elsewhere classified	146	187	187	14
HY070G	Housing allowances	100	108	108	11
HY080G	Regular inter-household cash transfer received	360	345	345	19
HY090G	Interest, dividends, profit from capital investments in unincorporated business	1 328	30	30	653
HY100G	Interest repayments on mortgage	773	0	49	106
HY110G	Income received by people aged under 16	257	25	25	91
HY120G	Regular taxes on wealth	26	1 409	1 526	2
HY130G	Regular inter-household cash transfer paid	358	265	265	22
HY140G	Tax on income and social contributions	1 555	1 697	1 983	59
	Gross income components at the personal level				
PY010G	Employee cash or near cash income	3 544	3 448	3 450	90
PY020G	Non-Cash employee income	357	213	213	39
PY021G	Company car	486	55	55	105
PY035G	Contributions to individual private pension plans	119	67	67	10
PY050G	Cash benefits or losses from self-employment	2 947	254	254	285
PY070G	Value of goods produced for own consumption	308	1 090	1 090	15
PY080G	Pension from individual private plans	305	3	3	470
PY090G	Unemployment benefits	397	310	311	36
PY100G	Old-age benefits	1 233	1 925	1 925	23
PY110G	Survivor` benefits	700	107	107	42
PY120G	Sickness benefits	319	468	468	35
PY130G	Disability benefits	784	236	236	31
PY140G	Education-related allowances	248	101	102	40

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[1] Zeros are not included in calculations.

Table 2.5. **Mean, number of observations (before and after imputations) and standard errors of the equivalised disposable income 2004 (EU-SILC 2005), weighted**

Equivalised disposable income	Mean, LVL	Number of observations		Standard error, LVL
		Before imputation	After imputation	
By household size				
1 household member	1 702	872	888	76
2 household members	2 178	2 122	2 134	76
3 household members	2 040	1 338	1 341	72
4 and more household members	1 914	1 045	1 045	71
By age groups				
<25	1 949	883	885	59
25-34	2 477	629	629	110
35-44	2 499	887	897	104
45-54	1 909	903	912	67
55-64	1 885	764	774	64
65+	1 535	1 311	1 311	60
By sex				
Male	2 106	2 284	2 306	59
Female	1 941	3 093	3 102	40

Table 2.6. **Mean, number of observations (before and after imputations) and standard errors of the equivalised disposable income 2005 (EU-SILC 2006), weighted**

Equivalised disposable income	Mean, LVL	Number of observations		Standard error, LVL
		Before imputation	After imputation	
By household size				
1 household member	1 938	1 050	1 067	87
2 household members	2 727	2 890	2 921	86
3 household members	2 650	1 775	1 775	82
4 and more household members	2 409	1 494	1 498	78
By age groups				
<25	2 548	1 159	1 166	64
25-34	3 488	830	832	114
35-44	2 803	1 120	1 127	125
45-54	2 483	1 158	1 174	60
55-64	2 252	1 076	1 091	76
65+	1 872	1 866	1 871	61
By sex				
Male	2 648	3 009	3 039	66
Female	2 443	4 200	4 222	40

Table 2.7. **Mean, number of observations (before and after imputations) and the standard errors of the equivalised disposable income 2006 (EU-SILC 2007), weighted**

Equivalised disposable income	Mean, LVL	Number of observations		Standard error, LVL
		Before imputation	After imputation	
By household size				
1 household member	2 290	909	920	120
2 household members	3 407	2 255	2 261	92
3 household members	3 379	1 488	1 488	95
4 and more household members	3 245	1 210	1 210	92
By age groups				
<25	3 118	932	932	82
25-34	4 168	633	633	142
35-44	3 686	899	901	111
45-54	3 249	930	935	99
55-64	2 943	879	887	75
65+	2 437	1 589	1 591	76
By sex				
Male	3 395	2 408	2 419	67
Female	3 090	3 454	3 460	53

2.3. NON-SAMPLING ERRORS

2.3.1. Sampling frame and coverage errors

Two sampling frames were built for each sampling stage. At the first stage counting areas from the list of the Population Census 2000 were used as a sampling frame. All territory of Latvia was divided in small areas (smaller than NUTS4) during the Population Census 2000. The list contained information about the number of households in each counting area.

At the second stage sampling frame was built from the Population Register, statistical register of dwellings and statistical register of households.

The second stage sampling frame was built by using a copy of the Population Register. Both statistical registers of dwellings and households were updated by using the Population Register.

2.3.2. Measurement and processing errors

The measurement errors can arise from the questionnaire (effects of the design, content and wording), from the data collection method (effects of the modes of interviewing), from interviewers (effects of the interviewer on the response to a question) and from respondents (effects of the respondent on the interpretation of items). As it was impossible to avoid such errors completely, several steps were taken by the CSB to reduce them as much as possible.

Like as in the EU-SILC 2005 operation 3 types of questionnaires were developed for the EU-SILC 2006 and 2007 operations: the Household Register (to collect demographic information about all household members), the Household Questionnaire (to collect all information related to household – dwelling costs, housing conditions, income components received at the household level etc.), the Personal Questionnaire (to collect all needed information for each household member aged 16 and over in the previous calendar year) and the Household List (an additional document to record all the necessary information about household members for tracing purposes and for linkage with data from administrative registers). The Blaise CAPI applications (since 2006) as well as the paper questionnaires of the EU-SILC survey were available in Latvian and in Russian (the language of the largest ethnic minority in Latvia).

The CSB interviewers carried out the fieldwork of the EU-SILC survey. For the field staff was organised an intensive training session. The aims of the training were to introduce the fieldwork stuff with methodology of the EU-SILC survey, to instruct interviewers for accurate fieldwork execution of the survey. In 2006 a special emphasis was put on training to work with laptop computers and using Blaise data entry application. Several tests (including a practical interview to fill the EU-SILC questionnaires) were developed to check interviewers' knowledge after the training session.

To increase response rates several steps were made to introduce Latvian residents with the EU-SILC survey before starting the fieldwork. A press release was prepared; several publications were made in national and regional newspapers to provide publicity of the EU-SILC survey. An introduction letter with a EU-SILC booklet were sent to selected addresses to establish the first contact with a household before the interview.

Measurement errors were detected by analysing Interviewer's reports, by organizing discussions with interviewers after the fieldwork execution and by logical checks and verification of the received data.

In 2006 and 2007 the processing system of the EU-SILC data became less time consuming as it had been in 2005. It was related with the introduction of CAPI by using *Blaise* software. It has to be noted that the year of 2006 was the first year when laptops were used in social surveys of the CSB and the EU-SILC was one of the first surveys where the CAPI system was used for carrying out the survey. Overall, the interviewers adopted computer skills very fast but in several cases they needed additional explanations about marking answers by using CAPI.

Although laptops were given to all interviewers, a part of them made interviews by using paper questionnaires.

A remarkable number of logical checks as well as a part of personal data from the previous year of the survey were introduced into the program. Nevertheless, it has to be noted that the program had one defect in 2006: time registration was not considered completely in cases when household data were corrected, revised or supplemented for several times and in cases when the interview was made by using PAPI. This problem was solved in 2007.

There were several factors, which might give the negative impact to the quality of the EU-SILC 2007 data:

- the EU-SILC 2007 Questionnaires contain the largest number of questions than ever before. Questions about net income and about gross income were asked to respondents. It was done in that way because a possibility to use administrative data for making cross-sectional database of the EU-SILC 2007 before the fieldwork was unclear.
- interviewers had a high workload;
- the interviewers' stuff was changing very frequently, there were problems to train newcomers;
- there was a chronic lack of interviewers, especially in Riga and neighboured areas;
- interviewers were hesitating to use the opportunity to agree on the meeting time by phone;
- the training of interviewers lost its effectiveness if the fieldwork lasted till autumn (in 2007 the training was carried out in the middle of February).

The interviewers complained also about the length of the questionnaire covering too much information. Several advantages of using laptops were mentioned: easier interviewing, many mistakes were avoided, laptops increased the respect among respondents, interviewing with laptops was more prestige and also more convenient. Disadvantages of laptop usage were: recharging during the interviews was very difficult (respondents were not willing to allow recharging PC); it was heavy to carry laptops all the time.

2.3.3. Non-response errors

2.3.3.1. Achieved sample size

Table 2.8. **Sample size and accepted interviews**

	Total	DB075 = 3	DB075 = 4	DB075 = 5
2005				
Accepted household interviews	**2 647**	1 162	1 485	-
Personal interview accepted:				
Number of persons 16 years and older	**5 296**	2 378	2 918	-
Sample persons	**5 296**	2 378	2 918	-
Co-residents	**0**	0	0	-
2006				
Accepted household interviews	**3 522**	942	1 151	1 429
Personal interview accepted:				
Number of persons 16 years and older	**7 399**	2 006	2 415	2 978
Sample persons	**7 263**	1 945	2 340	2 978
Co-residents	**136**	61	75	0
2007				
Accepted household interviews	**2 893**	762	965	1 166
Personal interview accepted:				
Number of persons 16 years and older	**6 062**	1 622	2 026	2 414
Sample persons	**5 889**	1 569	1 954	2 366
Co-residents	**173**	53	72	48

2.3.3.2. Unit non-response

Table 2.9. **Household response rate: Comparison of result codes between wave 2 and wave 1 (R3 & R4)**

			Sample outcome in wave 2 - *2006*											Total
			DB130=11											
			DB135=1	DB135=2	DB120=22	DB130=22	DB130=23	DB130=24	DB130=21	DB120=21	NC	DB110=10	DB130=23	
Sample outcome in wave 1 - *2005*	DB130=11	DB135=1	2 064	4	1	86	8	14	174	3	283	0	8	**2 645**
		DB135=2	1	0	0	0	0	0	0	0	0	0	0	**1**
	DB120=21													**0**
	DB120=22													**0**
	DB120=23													**0**
	DB130=21													**0**
	DB130=22													**0**
	DB130=23													**0**
	DB130=24													**0**
	Total		2 065	4	1	86	8	14	174	3	283	0	8	**2 646**
New households in wave 2 - *2006*	DB110=8		28	0	0	0	0	0	2	0	NA	NA	0	**30**
	DB110=9		0	0	0	0	0	0	0	0	NA	NA	0	**0**
Total			**2 093**	**4**	**1**	**86**	**8**	**14**	**176**	**3**	**283**	**0**	**8**	**2 676**

Wave response rate = 0.784
Refusal rate = 0.066
Non-contact and others = 0.147
Longitudinal follow-up rate = 0.826
Follow-up ratio = 0.836
Achieved sample size ratio = 0.791

Table 2.10. **Household response rate: Comparison of result codes between wave 3 and wave 2 (R3, R4 & R5)**

			Sample outcome in wave 3 - *2007*										Total
			DB130=11										
			DB135=1	DB135=2	DB120=22	DB130=22	DB130=23	DB130=24	DB130=21	DB120=21	NC	DB110=10	DB130=23	
Sample outcome in wave 2 - *2006*	DB130=11	DB135=1	2 872	7	0	127	18	20	161	4	200	0	5	3 414
		DB135=2	2	0	0	0	0	0	1	0	1	0	0	4
	DB120=21		0	0	0	0	0	0	0	0	0	0	0	0
	DB120=22		0	0	0	0	0	0	0	0	0	0	0	0
	DB120=23		0	0	0	0	0	0	0	0	0	0	0	0
	DB130=21		0	0	0	0	0	0	0	0	0	0	0	0
	DB130=22		0	0	0	0	0	0	0	0	0	0	0	0
	DB130=23		0	0	0	0	0	0	0	0	0	0	0	0
	DB130=24		0	0	0	0	0	0	0	0	0	0	0	0
	Total		2 874	7	0	127	18	20	162	4	201	0	5	3 418
New households in wave 3 - *2007*	DB110=8		19	0	0	2	1	1	3	0	NA	NA	1	27
	DB110=9		0	0	0	0	0	0	0	0	NA	NA	0	0
Total			2 893	7	0	129	19	21	165	4	201	0	6	3 445

Wave response rate = 0.841
Refusal rate = 0.048
Non-contact and others = 0.068
Longitudinal follow-up rate = 0.892
Follow-up ratio = 0.899
Achieved sample size ratio = 0.847

Table 2.11. **Personal Interview outcome in wave 2 – 2006 (R3 & R4)**

	2006										Total
	RB250 = 11, 12, 13	Not completed because of									
		RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33	HHnc	Pn	PI	
Sample persons forwarded from last wave											
[1] RB110 = 1-2	4 180	0	0	23	33	6	0				**4 242**
[2] RB110 = 6											**0**
[3] RB110 = -1											**0**
[4] RB120 = 2											**0**
[5] RB120 = 3											**0**
[6] RB120 = 4											**0**
[7] DB135 = 2 or -1, or DB120 = 21-23 or -1, or DB130 = 21-24 or –1											**0**
[8] DB110 = 3-6											**0**
New sample persons											
[9] Reached age 16	103	0	0	0	1	0	0	0	0	0	**104**
[10] Sample additions	0	0	0	0	0	0	0				**0**
Non-sample persons 16+											
[11] 2006 from 2005	0	0	0	0	0	0	0	0	0	0	**0**
Sample persons not forwarded from last wave (excluded died or not eligible according to tracing rules)											
[13] From 2005											**0**
SUM OF ROWS:											
1+3+6+7+9+10	4 283	0	0	23	34	6	0	0	0	0	**4 346**
1+3+6+7+9+10+13	4 283	0	0	23	34	6	0	0	0	0	**4 346**
1+3+6+7+9+10+11	4 283	0	0	23	34	6	0	0	0	0	**4 346**

Wave response rate of sample persons = 0.986

Longitudinal follow-up rate = 0.986

Rate $(_{RB250=21})$ = -

Rate $(_{RB250=22})$ = -

Rate $(_{RB250=23})$ = 0.005

Rate $(_{RB250=31})$ = 0.008

Rate $(_{RB250=32})$ = 0.001

Rate $(_{RB250=33})$ = -

Table 2.12. **Personal Interview outcome in wave 2 – 2007 (R3, R4 & R5)**

	2007										Total
	RB250 = 11, 12, 13	Not completed because of						HHnc	Pn	PI	
		RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33				
Sample persons forwarded from last wave											
[1] RB110 = 1-2	5 749	3	0	31	40	14	0				**5 837**
[2] RB110 = 6											**66**
[3] RB110 = -1											**0**
[4] RB120 = 2											**3**
[5] RB120 = 3											**39**
[6] RB120 = 4											**66**
[7] DB135 = 2 or -1, or DB120 = 21-23 or -1, or DB130 = 21-24 or –1											**0**
[8] DB110 = 3-6											**0**
New sample persons											
[9] Reached age 16	129	0	0	1	0	6	0	0	0	0	**136**
[10] Sample additions	0	0	0	0	0	0	0				**0**
Non-sample persons 16+											
[11] 2007 from 2006	85	0	0	0	4	1	0	0	0	0	**90**
Sample persons not forwarded from last wave (excluded died or not eligible according to tracing rules)											
[13] From 2006											**0**
SUM OF ROWS:											
1+3+6+7+9+10	5 878	3	0	32	40	20	0	0	0	0	**6 039**
1+3+6+7+9+10+13	5 878	3	0	32	40	20	0	0	0	0	**6 039**
1+3+6+7+9+10+11	5 963	3	0	32	44	21	0	0	0	0	**6 129**

Wave response rate of sample persons = 0.973
Longitudinal follow-up rate = 0.973
Rate $(_{RB250=21})$ = 0.000
Rate $(_{RB250=22})$ = -
Rate $(_{RB250=23})$ = 0.005
Rate $(_{RB250=31})$ = 0.007
Rate $(_{RB250=32})$ = 0.003
Rate $(_{RB250=33})$ = -

2.3.3.3. Distribution of households by household status (DB110), by the record of contact at the address (DB120), by the household questionnaire result (DB130) and by the household interview acceptance (DB135)

Table 2.13. **Distribution of households by DB110**

		Total	DB110										
			1	2	3	4	5	6	7	8	9	10	11
2005	Total	**3 618**	0	0	0	0	0	0	0	0	3 618	0	0
	%	**100**	0	0	0	0	0	0	0	0	100.0	0	0
2006	Total	**5 043**	2 270	95	4	21	24	0	234	30	2 365	0	0
	%	**100**	45.0	1.9	0.1	0.4	0.5	0	4.6	0.6	46.9	0	0
2007	Total	**3 566**	3 156	63	8	7	27	3	156	40	0	0	106
	%	**100**	88.5	1.8	0.2	0.2	0.8	0.1	4.4	1.1	0	0	3.0

Table 2.14. **Distribution of households by DB120**

		Total	DB120				
			11	21	22	23	Missing (-1)
2005	Total	**3 618**	3 328	24	96	153	17
	%	**100**	92.0	0.7	2.7	4.2	0.5
2006	Total	**2 490**	2 140	15	57	168	110
	%	**100**	85.9	0.6	2.3	6.7	4.4
2007	Total	**103**	78	4	0	6	15
	%	**100**	75.7	3.9	0	5.8	14.6

Table 2.15. **Distribution of households by DB130**

		Total	DB130					
			11	21	22	23	24	Missing (-1)
2005	Total	**3 328**	2 648	306	334	19	21	0
	%	**100**	79.6	9.2	10.0	0.6	0.6	0
2006	Total	**4 410**	3 526	454	350	29	48	3
	%	**100**	80.0	10.3	7.9	0.7	1.1	0.1
2007	Total	**3 234**	2 900	165	129	19	21	0
	%	**100**	89.7	5.1	4.0	0.6	0.6	0

Table 2.16. **Distribution of households by DB135**

		Total	DB135		
			1	2	Missing (-1)
2005	Total	**2 648**	2 647	1	0
	%	**100**	100.0	0.0	0
2006	Total	**3 526**	3 522	4	0
	%	**100**	99.9	0.1	0
2007	Total	**2 900**	2 893	7	0
	%	**100**	99.8	0.2	0

2.3.3.4. Distribution of persons by membership status (RB110)

Table 2.17. **Distribution of persons by membership status (RB110)**

		Total	Current household members				No current household members			Missing (-1)
			RB110				RB120 = 2	RB100		
			1	2	3	4	to 4	6	7	
2005	Total	**6 613**	6 613	0	0	0	0	0	0	0
	%	**100**	100.0	0	0	0	0	0	0	0
2006	Total	**9 188**	8 715	39	184	42	112	48	7	0
	%	**100**	94.9	0.4	2.0	0.5	1.2	0.5	0.1	0
2007	Total	**7 548**	7 100	29	116	42	137	68	1	0
	%	**100**	94.1	0.4	1.5	0.6	1.8	0.9	0.0	0

Table 2.18. **Distribution of persons moving out by RB120**

		Total	RB110 = 5				
			RB120 = 1		RB120 = 2	RB120 = 3	RB120 = 4
			This person is a current household member of the household in this wave	This person is not a current household member			
2006	Total	**153**	39	2	5	45	62
	%	**100**	25.5	1.3	3.3	29.4	40.5
2007	Total	**192**	26	29	4	46	87
	%	**100**	13.5	15.1	2.1	24.0	45.3

2.3.3.5. Item non-response

The following tables provide an overview of non-response on the household and individual level. For every income component the total number of households/persons having received the component and the breakdown with regard to the completeness of information are given.

Table 2.19 **Information on item non-response on the household level in 2005**

		Households having received an amount		Full information		Partial information		Missing information	
		Total	%	Total	%	Total	%	Total	%
HY020	Total disposable household income	2 629	99.3	2 332	88.7	292	11.1	5	0.2
HY022	Total disposable household income before social transfers other than old-age and survivor's benefits	2 598	98.1	2 321	89.3	269	10.4	8	0.3
HY023	Total disposable household income before social transfers including old-age and survivor's benefits	2 306	87.1	2 030	88.0	264	11.4	12	0.5
HY040N	Income from rental of a property or land	42	1.6	41	97.6	0	0	1	2.4
HY050N	Family/Children related allowances	838	31.7	838	100.0	0	0	0	0
HY060N	Social exclusion not elsewhere classified	230	8.7	226	98.3	0	0	4	1.7
HY070N	Housing allowances	124	4.7	115	92.7	0	0	9	7.3
HY080N	Regular inter-household cash transfer received	305	11.5	289	94.8	0	0	16	5.2
HY090N	Interest, dividends, profit from capital investments in unincorporated business	66	2.5	64	97.0	1	1.5	1	1.5
HY110N	Income received by people aged under 16	31	1.2	31	100.0	0	0	0	0
HY120N	Regular taxes on wealth	1 337	50.5	1 197	89.5	0	0	140	10.5
HY130N	Regular inter-household cash transfer paid	283	10.7	272	96.1	0	0	11	3.9
HY145N	Repayments/receipts for tax adjustment	309	11.7	307	99.4	1	0.3	1	0.3

Table 2.20. **Information on item non-response on the household level in 2006**

		Households having received an amount		Full information		Partial information		Missing information	
		Total	%	Total	%	Total	%	Total	%
HY020	Total disposable household income	3 499	99.3	1 645	47.0	1 843	52.7	11	0.3
HY022	Total disposable household income before social transfers other than old-age and survivor's benefits	3 466	98.4	1 625	46.9	1 829	52.8	12	0.3
HY023	Total disposable household income before social transfers including old-age and survivor's benefits	3 102	88.1	2 055	66.2	1 035	33.4	12	0.4
HY040N	Income from rental of a property or land	44	1.2	44	100.0	0	0	0	0
HY050N	Family/Children related allowances	1 111	31.5	1 105	99.5	6	0.5	0	0
HY060N	Social exclusion not elsewhere classified	193	5.5	189	97.9	0	0	4	2.1
HY070N	Housing allowances	160	4.5	158	98.8	0	0	2	1.3
HY080N	Regular inter-household cash transfer received	395	11.2	390	98.7	0	0	5	1.3
HY090N	Interest, dividends, profit from capital investments in unincorporated business	73	2.1	65	89.0	1	1.4	7	9.6
HY110N	Income received by people aged under 16	54	1.5	54	100.0	0	0	0	0
HY120N	Regular taxes on wealth	1 803	51.2	1 738	96.4	0	0	65	3.6
HY130N	Regular inter-household cash transfer paid	385	10.9	375	97.4	0	0	10	2.6
HY145N	Repayments/receipts for tax adjustment	395	11.2	388	98.2	2	0.5	5	1.3

Table 2.21. **Information on item non-response on the household level in 2007**

		Households having received an amount		Full information		Partial information		Missing information	
		Total	%	Total	%	Total	%	Total	%
HY010	Total household gross income	2 870	99.2	50	1.7	2 541	88.5	279	9.7
HY020	Total disposable household income	2 879	99.5	59	2.0	2 578	89.5	242	8.4
HY022	Total disposable household income before social transfers other than old-age and survivor's benefits	2 856	98.7	1	0.0	2 602	91.1	253	8.9
HY023	Total disposable household income before social transfers including old-age and survivor's benefits	2 560	88.5	1	0.0	2 371	92.6	188	7.3
HY040G	Income from rental of a property or land	36	1.2	35	97.2	0	0	1	2.8
HY040N	Income from rental of a property or land	36	1.2	35	97.2	0	0	1	2.8
HY050G	Family/Children related allowances	965	33.4	400	41.5	351	36.4	214	22.2
HY050N	Family/Children related allowances	965	33.4	400	41.5	351	36.4	214	22.2
HY060G	Social exclusion not elsewhere classified	187	6.5	98	52.4	21	11.2	68	36.4
HY060N	Social exclusion not elsewhere classified	187	6.5	98	52.4	21	11.2	68	36.4
HY070G	Housing allowances	108	3.7	93	86.1	0	0	15	13.9
HY070N	Housing allowances	108	3.7	93	86.1	0	0	15	13.9
HY080G	Regular inter-household cash transfer received	345	11.9	309	89.6	0	0	36	10.4
HY080N	Regular inter-household cash transfer received	345	11.9	309	89.6	0	0	36	10.4
HY090G	Interest, dividends, profit from capital investments in unincorporated business	30	1.0	22	73.3	0	0	8	26.7
HY090N	Interest, dividends, profit from capital investments in unincorporated business	30	1.0	22	73.3	0	0	8	26.7
HY100G	Interest repayments on mortgage	49	1.7	0	0	0	0	49	100.0
HY100N	Interest repayments on mortgage	49	1.7	0	0	0	0	49	100.0
HY110G	Income received by people aged under 16	25	0.9	20	80.0	0	0	5	20.0
HY110N	Income received by people aged under 16	25	0.9	20	80.0	0	0	5	20.0
HY120G	Regular taxes on wealth	1 526	52.7	1 409	92.3	0	0	117	7.7
HY120N	Regular taxes on wealth	1 526	52.7	1 409	92.3	0	0	117	7.7
HY130G	Regular inter-household cash transfer paid	265	9.2	233	87.9	0	0	32	12.1
HY130N	Regular inter-household cash transfer paid	265	9.2	233	87.9	0	0	32	12.1
HY140G	Tax on income and social contributions	1 983	68.5	35	1.8	1 662	83.8	286	14.4
HY140N	Tax on income and social contributions	1 983	68.5	35	1.8	1 662	83.8	286	14.4

Table 2.22. **Information on item non-response on the individual level 2005**

		Persons having received an amount		Full information		Partial information		Missing information	
		Total	%	Total	%	Total	%	Total	%
PY010N	Employee cash or near cash income	2 709	50.1	2 672	98.6	5	0.2	32	1.2
PY021N	Company car	73	1.3	0	0	0	0	73	100.0
PY035N	Contributions to individual private pension plans	38	0.7	23	60.5	0	0	15	39.5
PY050N	Cash benefits or losses from self-employment	282	5.2	270	95.7	0	0	12	4.3
PY080N	Pension from individual private plans	0	0	0	0	0	0	0	0
PY090N	Unemployment benefits	154	2.8	144	93.5	5	3.2	5	3.2
PY100N	Old-age benefits	1 665	30.8	1 661	99.8	3	0.2	1	0.1
PY110N	Survivor's benefits	73	1.3	73	100.0	0	0	0	0
PY120N	Sickness benefits	269	5.0	267	99.3	0	0	2	0.7
PY130N	Disability benefits	175	3.2	175	100.0	0	0	0	0
PY140N	Education-related allowances	124	2.3	124	100.0	0	0	0	0

Table 2.23. **Information on item non-response on the individual level 2006**

		Persons having received an amount		Full information		Partial information		Missing information	
		Total	%	Total	%	Total	%	Total	%
PY010N	Employee cash or near cash income	3 731	50.4	3 662	98.2	16	0.4	53	1.4
PY021N	Company car	59	0.8	0	0	0	0	59	100.0
PY035N	Contributions to individual private pension plans	62	0.8	57	91.9	0	0	5	8.1
PY050N	Cash benefits or losses from self-employment	353	4.8	343	97.2	0	0	10	2.8
PY080N	Pension from individual private plans	0	0	0	0	0	0	0	0
PY090N	Unemployment benefits	166	2.2	152	91.6	6	3.6	8	4.8
PY100N	Old-age benefits	2 354	31.8	188	8.0	2 094	89.0	72	3.1
PY110N	Survivor's benefits	88	1.2	88	100.0	0	0	0	0
PY120N	Sickness benefits	316	4.3	301	95.3	0	0	15	4.7
PY130N	Disability benefits	251	3.4	249	99.2	0	0	2	0.8
PY140N	Education-related allowances	136	1.8	134	98.5	0	0	2	1.5

Table 2.24. **Information on item non-response on the individual level 2007**

		Persons having received an amount		Full information		Partial information		Missing information	
		Total	%	Total	%	Total	%	Total	%
PY010G	Employee cash or near cash income	3 452	56.9	115	3.3	2 630	76.2	707	20.5
PY010N	Employee cash or near cash income	3 452	56.9	2 719	78.8	26	0.8	707	20.5
PY020G	Non-Cash employee income	213	3.5	99	46.5	25	11.7	89	41.8
PY020N	Non-Cash employee income	213	3.5	99	46.5	25	11.7	89	41.8
PY021G	Company car	55	0.9	0	0	0	0	55	100.0
PY021N	Company car	55	0.9	0	0	0	0	55	100.0
PY035G	Contributions to individual private pension plans	67	1.1	58	86.6	0	0	9	13.4
PY035N	Contributions to individual private pension plans	67	1.1	58	86.6	0	0	9	13.4
PY050G	Cash benefits or losses from self-employment	254	4.2	210	82.7	22	8.7	22	8.7
PY050N	Cash benefits or losses from self-employment	254	4.2	231	90.9	1	0.4	22	8.7
PY070G	Value of goods produced for own consumption	1 090	18.0	0	0	0	0	1 090	100.0
PY070N	Value of goods produced for own consumption	1 090	18.0	0	0	0	0	1 090	100.0
PY080G	Pension from individual private plans	3	0.0	3	100.0	0	0	0	0
PY080N	Pension from individual private plans	3	0.0	3	100.0	0	0	0	0
PY090G	Unemployment benefits	311	5.1	14	4.5	69	22.2	228	73.3
PY090N	Unemployment benefits	311	5.1	14	4.5	69	22.2	228	73.3
PY100G	Old-age benefits	1 925	31.8	28	1.5	1 553	80.7	344	17.9
PY100N	Old-age benefits	1 925	31.8	27	1.4	1 728	89.8	170	8.8
PY110G	Survivor's benefits	107	1.8	3	2.8	39	36.4	65	60.7
PY110N	Survivor's benefits	107	1.8	3	2.8	39	36.4	65	60.7
PY120G	Sickness benefits	468	7.7	16	3.4	70	15.0	382	81.6
PY120N	Sickness benefits	468	7.7	17	3.6	97	20.7	354	75.6
PY130G	Disability benefits	236	3.9	15	6.4	137	58.1	84	35.6
PY130N	Disability benefits	236	3.9	16	6.8	153	64.8	67	28.4
PY140G	Education-related allowances	102	1.7	93	91.2	0	0	9	8.8
PY140N	Education-related allowances	102	1.7	93	91.2	0	0	9	8.8

2.4. MODE OF DATA COLLECTION

In Latvia all persons aged 16 and over at the end of the income reference period were selected for a personal interview.

Table 2.25. **Distribution of household members by RB250**
HOUSEHOLD MEMBERS 16+ (RB245 = 1 to 3)

		Total	RB250=11	RB250=12	RB250=13	RB250=14	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
2005	Total	**5 515**	5 408	0	0	0	8	1	33	64	1	0
	%	**100**	98.1	0	0	0	0.1	0.0	0.6	1.2	0.0	0
2006	Total	**7 508**	6 527	0	872	0	0	0	36	59	14	0
	%	**100**	86.9	0	11.6	0	0	0	0.5	0.8	0.2	0
2007	Total	**6 165**	0	0	6 062	0	3	0	33	45	22	0
	%	**100**	0	0	98.3	0	0.0	0	0.5	0.7	0.4	0

Table 2.26. **Distribution of household members by RB250**
SAMPLE PERSONS 16+ (RB245 = 1 to 3 and RB100 = 1)

		Total	RB250=11	RB250=12	RB250=13	RB250=14	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
2005	Total	**5 515**	5 408	0	0	0	8	1	33	64	1	0
	%	**100**	98.1	0	0	0	0.1	0.0	0.6	1.2	0.0	0
2006	Total	**7 367**	6 391	0	872	0	0	0	35	58	11	0
	%	**100**	86.8	0	11.8	0	0	0	0.5	0.8	0.1	0
2007	Total	**5 984**	0	0	5889	0	3	0	32	40	20	0
	%	**100**	0	0	98.4	0	0.1	0	0.5	0.7	0.3	0

Table 2.27. **Distribution of household members by RB250**

CO-RESIDENTS 16+ (RB245 = 1 to 3 and RB100 = 2)

		Total	RB250=11	RB250=12	RB250=13	RB250=14	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
2005	Total	**0**	0	0	0	0	0	0	0	0	0	0
	%	**0**	0	0	0	0	0	0	0	0	0	0
2006	Total	**141**	136	0	0	0	0	0	1	1	3	0
	%	**100**	96.5	0	0	0	0	0	0.7	0.7	2.1	0
2007	Total	**181**	0	0	173	0	0	0	1	5	2	0
	%	**100**	0	0	95.6	0	0	0	0.6	2.8	1.1	0

Table 2.28. **Distribution of household members by RB260**

HOUSEHOLD MEMBERS 16+ (RB245 = 1 to 3) and RB250 = 11 or 13

		Total	Rb260=1	RB260=2	RB260=3	RB260=4	RB260=5	Missing (-1)
2005	Total	**5 408**	5 037	0	0	54	317	0
	%	**100**	93.1	0	0	1.0	5.9	0
2006	Total	**7 399**	848	5 730	310	7	499	5
	%	**100**	11.5	77.4	4.2	0.1	6.7	0.1
2007	Total	**6 062**	541	4 703	455	3	352	8
	%	**100**	8.9	77.6	7.5	0.0	5.8	0.1

Table 2.29. **Distribution of household members by RB260**

SAMPLE PERSONS 16+ (RB245 = 1 to 3 and RB100 = 1) and RB250 = 11 or 13

		Total	Rb260=1	RB260=2	RB260=3	RB260=4	RB260=5	Missing (-1)
2005	Total	**5 408**	5 037	0	0	54	317	0
	%	**100**	93.1	0	0	1.0	5.9	0
2006	Total	**7 263**	822	5 644	307	7	478	5
	%	**100**	11.3	77.7	4.2	0.1	6.6	0.1
2007	Total	**5 889**	532	4 569	442	2	336	8
	%	**100**	9.0	77.6	7.5	0.0	5.7	0.1

Table 2.30. **Distribution of household members by RB260**

CO-RESIDENTS 16+ (RB245 = 1 to 3 and RB100 = 2) and RB250 = 11 or 13

		Total	Rb260=1	RB260=2	RB260=3	RB260=4	RB260=5	Missing (-1)
2005	Total	**0**	0	0	0	0	0	0
	%	**0**	0	0	0	0	0	0
2006	Total	**136**	26	86	3	0	21	0
	%	**100**	19.1	63.2	2.2	0	15.4	0
2007	Total	**173**	9	134	13	1	16	0
	%	**100**	5.2	77.5	7.5	0.6	9.2	0

2.5. IMPUTATION PROCEDURE

Data were imputed on the household and personal level. A hot-deck method was used for both imputations. The main principle of the hot deck method is to use the current data (donors) to provide imputed values for records with missing values. Homogenous groups for households and persons were made. Households and items on the personal level were imputed as a random unit of filled units from the group.

Households were grouped by the type of dwelling, year of construction of the building and the number of rooms available to the household.

Grouping on the individual level for the 2005 and 2007 surveys was by the following variables: sex, marital status, main activity status during the income reference period; for the 2006 survey: sex, living district.

2.6. IMPUTED RENT

Imputed rent (HY030G/HY030N) for 2005 and 2006 was not calculated as it was mandatory only from 2007.

Using the experience gained from the calculation of imputed rent for the Household Budget Survey (HBS) it was decided to use a log-linear regression model for the calculation of imputed rent also for the EU-SILC 2007. The following variables were used for the calculation of imputed rent:

- tenure discount;

- urban / rural area;

- region;

- area of dwelling in square metres.

2.7. COMPANY CARS

According to the Latvian situation a method based on a system analysis model was chosen for the calculation of income from the use company car for personal purposes. Components for calculating monetary value of this non-cash employee income were included in the questionnaires and collected directly from respondents: the class of car, the year of the car make, the total amount of kilometres driven by the company car in the previous calendar year, the annual amount of kilometres driven by the vehicle for private use, the occupation of the company car user, coverage of the car related costs made by the employer: fuel, technical inspection of the car, tire purchase (i.e. whether the employer disbursed bills for fuel purchasing, car's technical inspection, tire purchase), restrictions of the use of the company car (i.e. whether the employer created restrictions to employees for the use of the company car for personal purposes).

3. COMPARABILITY

3.1. BASIC CONCEPTS AND DEFINITIONS

Overall, there are no differences between national interpretations of the EU-SILC basic definitions and concepts and common standards set up in Commission regulations and doc. EU-SILC 065. There were no changes in basic concepts and definitions from the first wave.

3.2. COMPONENTS OF INCOME

Classification of income components in national EU-SILC survey was made according to the description of doc. EU-SILC 065 with the exception of income from self-employment (see 3.2.6). As Latvia had a derogation to collect gross income components from 2007, only net income components were collected in 2005 and 2006.

3.2.1. Differences between the national definitions and standard EU-SILC definitions, and an assessment of the differences mentioned

3.2.1.1. Total household gross income
As Latvia had a derogation to collect gross income components from 2007, the total household gross income was not recorded in 2005 and 2006. There were no divergences from common standards for 2007.

3.2.1.2. Total disposable household income
There were no divergences from common standards.

3.2.1.3. Total disposable household income, before social transfers other than old-age and survivor's benefits
There were no divergences from common standards, but, as we provided income components of gross series for the first time in 2007, the total disposable household income, before social transfers other than old-age and survivor's benefits was calculated from variable HY020 using only net income components (as it was done before 2007).

3.2.1.4. Total disposable household income, before social transfers including old age and survivor's benefits
There were no divergences from common standards, but, as we provided income components of gross series for the first time in 2007, the total disposable household income, before social transfers

including old age and survivor's benefits was calculated from variable HY020 using only net income components (as it was done before 2007).

3.2.1.5. Imputed rent

Imputed rent (HY030G/HY030N) for 2005 and 2006 was not calculated as it was mandatory only from 2007.

Using the experience gained from the calculation of imputed rent for the HBS it was decided to use a log-linear regression model for the calculation of imputed rent also for the EU-SILC 2007. The following variables were used for the calculation of imputed rent:

- tenure discount;

- urban / rural area;

- region;

- area of dwelling in square metres.

3.2.1.6. Income from rental property and land

There were no divergences from common standards.

3.2.1.7. Family/children-related allowances

There were no divergences from common standards.

3.2.1.8. Social exclusion payments not elsewhere classified

There were no divergences from common standards.

3.2.1.9. Housing allowances

There were no divergences from common standards.

3.2.1.10. Regular inter-household cash transfers received

There were no divergences from common standards.

3.2.1.11. Interest, dividends, profit from capital investments in unincorporated business

There were no divergences from common standards.

3.2.1.12. Interest paid on mortgages

Interest paid on mortgages for 2005 and 2006 was not calculated as it was mandatory only from 2007.

There were no divergences from common standards. Interest paid on mortgages was not asked directly to the household respondent, but it was calculated from the answers to the questions about:

- the average payment per month;
- the average mortgage interest rate;
- the year, when the dwelling was purchased;
- duration of mortgage loan.

3.2.1.13. Income received by people aged under 16

There were no divergences from common standards. Basically there were included wages and salaries received during holidays or out of school time.

3.2.1.14. Regular taxes on wealth

There were no divergences from common standards. Taxes on land and real estate were included in this variable.

3.2.1.15. Regular inter-household transfers paid

There were no divergences from common standards.

3.2.1.16. Tax on income and social contributions

There were no divergences from common standards.

3.2.1.17. Repayments/receipts for tax adjustments

There were no divergences from common standards. From 2007 repayments/receipts for tax adjustments were included in variable HY140.

3.2.1.18. Cash or near-cash employee income

There were no divergences from common standards.

3.2.1.19. Non-cash employee income

There were no divergences from common standards.

Only non-cash employee income from the use of the company car for personal purposes was collected in 2005 and 2006. According to the Latvian situation a method based on a system analysis model was chosen for the calculation of employee non-cash income from the use of the company car for personal purposes. Components for calculating monetary value of this non-cash employee income were included in the questionnaires and collected directly from respondents: the class of the car, the year of the car make, the total amount of kilometres driven by the company car in the

previous calendar year, the annual amount of kilometres driven by the vehicle for private use, the occupation of the company car user, coverage of the car related costs made by the employer: fuel, technical inspection of the car, tire purchase (i.e. whether the employer paid bills for fuel purchasing, technical inspection of the car, tire purchase), restrictions of the use of the company car (i.e. whether the employer created restrictions to employees for the use of the company car for personal purposes).

3.2.1.20. Employers' social contributions

The value was not recorded for 2005 and 2006, as it was mandatory to collect this variable only from 2007. There were no divergences from common standards for 2007.

3.2.1.21. Cash profits or losses from self-employment (including royalties)

For **2005** income (or losses) from self-employment were collected in 2 components: 1) income from agricultural production and 2) income from the rest self-employment (except income from agricultural production).

Income from agricultural self-employment was collected in the same way as in the HBS. A household member responsible for agricultural production was asked to calculate all income components and expenditures the household had had during the income reference period. Thus, all self-employment income from agricultural production was counted to the responsible household member and the amount of self-employment income was agricultural profit minus expenditures related to the production. There were cases when expenditures had been greater than the profit and this resulted in minus values.

The second income component (from the rest self-employment except agricultural production) was asked to each household member aged 16 years and more in the Personal Questionnaire. Respondents were asked to tell the amount of income they had gained from self-employment for their own use during the income reference period.

For **2006** the net income and losses from self-employment were collected in 2 components: 1) net income or losses from agricultural production and 2) net income or losses from the rest self-employment activities (except income from agricultural production). Both net income components were asked to each household member in the age of 16 years and over (in the income reference period) in the Personal Questionnaire. Respondents were asked to tell the net amount of self-employment income they had had for personal use (incl. making private savings) or losses from

self-employment activities during the income reference period. There were additional questions about the net self-employment income from agricultural production included in the Household Questionnaire. In the Household Questionnaire income from agricultural self-employment was collected in the same way as in the HBS. A household member responsible for agricultural production was asked to calculate all income components and expenditures related to agricultural production the household had had during the income reference period. Thus, all self-employment income from agricultural production was counted to the responsible household member and the amount of self-employment income was agricultural profit minus expenditures related to the production.

Comparison results of the collected agricultural self-employment income values in the Personal Questionnaires from all household members eligible for a personal interview and values collected in the Household Questionnaire from the household respondent responsible for the agricultural production did not show significant differences. As the income values collected in the Personal Questionnaires corresponded to the common EU-SILC methodology then it was decided to use values collected in the Personal Questionnaires.

Only net income components were collected in 2005 and 2006. The gross value was not collected, as it was mandatory to collect this variable from 2007.

For **2007** the net income and losses from self-employment were collected in 2 components: 1) net income or losses from agricultural production and 2) net income or losses from the rest self-employment activities (except income from agricultural production). Both net income components were asked to each household member in the age of 16 years and over (in the income reference period) in the Personal Questionnaire. Respondents were asked to tell the net amount of self-employment income they had had for personal use (incl. making private savings) or losses from self-employment activities during the income reference period. There were also questions about the paid taxes to evaluate the gross income.

3.2.1.22. *Value of goods produced for own consumption*

The value was not recorded in 2005 and 2006. This component was mandatory from 2007.

The value of goods produced for own consumption for 2007 was calculated using the information from the HBS. A household member responsible for agricultural production was asked to tick from the list of products those, which the household had produced for own consumption during the income reference period. This question was asked only to those households, which had used land

for certain types of agricultural activities. Depending on the size of the household and consumed products, the value of goods produced for own consumption was calculated. The value of goods produced for own consumption by the household as a whole was recorded to the responsible household member.

3.2.1.23. Unemployment benefits

There were no divergences from common standards. Only the net income component was collected in 2005 and 2006.

3.2.1.24. Old-age benefits

There were no divergences from common standards. Only the net old-age benefit components were collected in 2005 and 2006.

3.2.1.25. Survivors' benefits

There were no divergences from common standards. Only net survivors' benefits were collected in 2005 and 2006.

3.2.1.26. Sickness benefits

There were no divergences from common standards. Only net sickness benefits were collected in 2005 and 2006.

3.2.1.27. Disability benefits

There were no divergences from common standards. Only net disability benefits were collected in 2005 and 2006.

3.2.1.28. Education related benefits

There were no divergences from common standards. Only net education related benefits were collected in 2005 and 2006.

3.2.2. The source of collecting income variables

Interviews were used for collecting income variables. The EU-SILC income target variables were split into more differentiated sub-components. The sub-components were defined according to the Latvian regulations and benefit system. These components were surveyed in the questionnaire.

Household income variables (such as imputed rent, income from rental property and land, family/ children related allowances, housing allowances etc.) were collected from a household respondent,

which was responsible for issues related to dwelling and the whole household. An exception was income from interest, dividends/ profit from capital investment. This variable together with all personal income variables (such as employee income, self-employment income, education related allowances, unemployment benefits etc.) were collected from each household member eligible for a personal interview.

Since 2006 Latvia started to use administrative records from the State Social Insurance Agency (SSIA) in the EU-SILC survey. These data were used for old-age benefits. Initially old-age benefits were collected from personal interviews. After the fieldwork the CSB received data from the SSIA. Both data sources (data from respondents and data from the SSIA) were checked and validated. In the result it was decided to use data from the SSIA in the EU-SILC 2006.

After the EU-SILC 2007 fieldwork the CSB of Latvia received the data from the SSIA and data from the State Revenue Service (SRS) were also available. Both data sources (data from respondents and data from the SSIA and the SRS) were checked and validated. In the result it was decided to use data from the SSIA and to some extent from the SRS in the EU-SILC. It was decided to substitute pensions and state social benefits collected during the EU-SILC 2007 (both net and gross income components were collected) with data from the SSIA, but there had been still some minor benefits administrated by local municipalities or pensions paid by other countries and service pensions, which were not administrated by the SSIA, etc. Thus imputation factor to a large extent shows the difference between the collected data and data from the administrative registers (recorded value in the data files).

The exception was net employee cash or near cash income (PY010N), which was available from the SRS as well, but it was decided to use information from the questionnaires. Gross employee cash or near cash income (PY010G) was obtained by counting up the net employee cash or near cash income from the questionnaires with paid taxes on income and social contribution from the SRS. The obtained gross employee cash or near cash income was compared with the gross employee cash or near cash income from the questionnaires, thus obtaining an imputation factor, which was recorded in PY010G_F.

3.2.3. The form in which income target variables at component level were obtained

Only net income amounts (after deducting income taxes and social insurance contributions) were collected in 2005 and 2006. Both (net and gross) income components were collected in 2007.

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

See 3.2.2.

3.3. TRACING RULES

For the second and the third waves tracing rules were applied for a longitudinal component according to the description of the document EU-SILC 065. To identify the residence of a person moving from one address to another address, the information from the Household List (an additional document to record personal data about the household member for tracing purposes) of the previous wave and the Population Register was used.

There were no divergences from common standards

4. COHERENCE

In this section will be compared the EU-SILC data with various external data sources: the Household Budget Survey (HBS), the Labour Force Survey (LFS), wage statistics and social protection statistics.

The HBS is a continuous survey of households, which has been carried out since 1995 (comparable data since 2002). The annual net sample size is approximately 4 thousand households. The HBS is designed to collect information on consumption expenditure of households (information on income is collected to divide households in quintile groups). The HBS was the source of Laeken indicators until introduction of the EU-SILC (in 2005).

The LFS is a continuous survey, which has been carried out according to a common EU methodology since 1995. The annual sample size is about 30 thousand person aged 15 - 74. The LFS is the main source for labour market information.

4.1. COMPARISON OF INCOME TARGET VARIABLES AND THE NUMBER OF PERSONS WHO RECEIVE INCOME FROM EACH 'INCOME COMPONENT' WITH EXTERNAL SOURCES

In the EU-SILC the average monthly employee cash or near cash income (PY010) in 2006 was 260 LVL (in 2005 – 214 LVL, in 2004 – 169 LVL). In wage statistics this figure was lower – 216 LVL (in 2005 – 176 LVL, in 2004 – 150 LVL). Data of the EU-SILC survey were calculated for a respondent, who had received employee cash or near cash income (PY010) and who had been working as an employee at least one month during the income reference period (PL210). The acquired results show that the EU-SILC data by 20 % exceeded enterprise statistical data on the average labour income amount in 2006 (by 22% in 2005, by 13% in 2004). The higher estimates from the EU-SILC are due to the fact that in the EU-SILC average wages and salaries are calculated for persons receiving income, whereas in wage statistics the unit of enumeration is the job. Thus, in the EU-SILC all employee's income is counted into one variable (income from the main job, second, third etc.), whereas in wage statistics, wages from the second, third etc. job are counted separately. It should be also taken into account that wage statistics is based on information provided by employers and in certain cases it corresponds to a part of wages from which have been deducted taxes (information about informal employee income might be left behind).

Tables 4.1.-4.3. present the number of persons receiving income components in the EU-SILC, the HBS and in additional external sources. It should be taken into account that in the HBS a part of income components are obtained only at the household level and for this reason comparisons are

made only among those income components, which are obtained in the same way as in the EU-SILC. Besides, definitions of income components can vary between sources and for that reason only the components for which sufficiently comparable definitions are presented in the tables below.

Table 4.1. **Number of persons receiving several income components in 2004 (in thousands)**

EU-SILC target variable	EU-SILC	HBS	Other sources
Employee cash or near cash income (PY010)	991.8	939.0	877.8[1]
Old-age benefits (PY100)	508.6	492.7	481.7[2]
Survivor's benefits (PY110)	21.1	23.4	28.8[2]
Disability benefits (PY130)	64.1	-	74.6[2]

[1] Wage statistics
[2] At the end of year. Social protection statistics (the State Social Insurance Agency) data

Table 4.2. **Number of persons receiving several income components in 2005 (in thousands)**

EU-SILC target variable	EU-SILC	HBS	Other sources
Employee cash or near cash income (PY010)	1 045.7	969.3	906.6[1]
Old-age benefits (PY100)	513.4	492.8	475.6[2]
Survivor's benefits (PY110)	16.3	19.6	27.6[2]
Disability benefits (PY130)	64.7	66.7	73.6[2]

[1] Wage statistics
[2] At the end of year. Social protection statistics (the State Social Insurance Agency) data

Table 4.3. **Number of persons receiving several income components in 2006 (in thousands)**

EU-SILC target variable	EU-SILC	HBS	Other sources
Employee cash or near cash income (PY010)	1 176.3	995.0	949.0[1]
Old-age benefits (PY100)	495.5	478.1	472.1[2]
Survivor's benefits (PY110)	24.8	21.6	25.9[2]
Disability benefits (PY130)	71.3	62.4	66.7[2]

[1] Wage statistics
[2] At the end of year. Social protection statistics (the State Social Insurance Agency) data

In the EU-SILC the number of people receiving employee income is higher than in wage statistics. It is not unexpected that unofficial work relationships are not included in wage statistics.