INCOME DISTRIBUTION DATA REVIEW – ESTONIA

1. Available data sources used for reporting on income inequality and poverty

1.1. OECD reporting:

OECD income distribution and poverty indicators for Estonia are computed from the EU-SILC survey from the 2004 onwards. Until recently, the indicators have been provided directly by Statistics Estonia.

1.2. National reporting and reporting in other international agencies:

- Estonian Social Survey (ESS) using annual data from 'Statistics Estonia' since 2004.

- Eurostat's EU-SILC annual survey since 2000.

- LIS database, using surveys from the 'Estonian Social Survey' for 2000 and 2005.

The below table presents the main characteristics of those four datasets:

Table 7. Characteristics of datasets used for income reporting, Estonia

	OECD database	National survey (Income)	EU-SILC from Eurostat	LIS database
Name	EU-SILC 2005	Estonian Social Survey (ESS) - Estonian branch of a pan-European survey EU-SILC	EU-SILC	Estonian Social Survey (ESS) - Estonian branch of a pan-European survey EU-SILC
Name of the responsible agency	Eurostat	Statistics Estonia	Eurostat	Statistics Estonia
Year (survey and income/wage)	EU-SILC 2005-2009 surveys representing income for 2004-2008.		EU-SILC 2000-2010 representing income for 1999-2009	2000 and 2005 survey representing income for 1999 and 2004
Period over which income is assessed	Annual income for the all year		Annual income for the all year N-1	Annual income for the all year N-1
Covered population	Households are regarded as sampling units although selection was made using a sample of persons	all private households, except those in institutions	Households are regarded as sampling units although selection was made using a sample of persons aged over 14	All households in the national territory, with the exception of collective households and household of foreigners
Sample size	4972 households (in SILC 2010)	6969 households (2009)	4972 households (in SILC 2010)	4,169 households containing 9,643 individuals who completed the interview.
Sample procedure	one-stage stratified unequal probability sampling design, with systematic sampling of persons in each stratum.	stratified unproportional systematic sampling scheme	one-stage stratified unequal probability sampling design, with systematic sampling of persons in each stratum.	stratified unequal probability sampling of households
Response rate	About 87%	74.6% (2009)	About 87%	Household response rate was 81.16% and within the household the individual response rate was 98.15%.
Imputation of missing values		imputation of missing variables		All missing values of income variables were imputed.
Unit for data collection	Household	Household	Household	Household and individual
Break in series	No	No	No	No
Web source:	http://stats.oecd.org/Index.aspx?QueryId=26068	http://www.stat.ee	http://epp.eurostat.ec.europa.eu/portal/page/portal/income_social_inclusion_living_conditions/quality/national_quality_reports	http://www.lisdatacenter.org/wp-content/uploads/our-lis-documentation-by-be00-survey.pdf

2. Comparison of main results derived from sources used for OECD indicators with alternative sources

2.1   Income

2.1.1 Time series of Gini coefficients and other inequality indicators

According to the OECD income distribution database, income inequality among total population has decreased overall in Estonia in contrast to most other OECD countries, which have seen a steady increase. The OECD reference series shows a general decline from 0.349 in 2004 to 0.314 in 2009, although the trend has stabilized since 2007 (0.313).

From the three other series of Gini coefficients on disposable income in Estonia, the EU-SILC series and ESS series are almost identical, although the EU-SILC series covers a longer period with an unusually large increase in 2003 (0.374). All series seem to be converging since 2008. The LIS database, although limited to 2000 and 2005 shows a decline that is line with the general pattern.
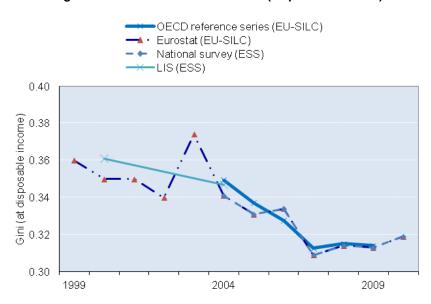
Figure 13.1 Trends in Gini coefficient (disposable income)

Also, when comparing the income quintile share ratio (S80/S20) from the OECD reference survey and the Eurostat EU-SILC, both series point to a general decline and reach similar levels in 2009 with a ratio of 5.1 for the OECD series and of 5 for the EU-SILC series.
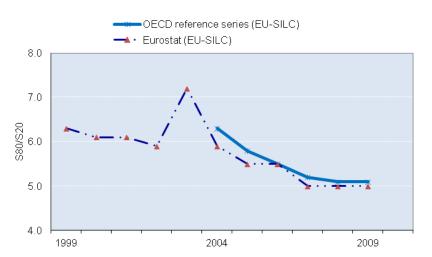
Figure 1.14 S80/S20

2.1.2 Time series of poverty rates

According to the OECD income distribution database, the share of the Estonian population living with less than 50% of the median equivalised income (3970 Euros per year in 2008) has declined from 14.2% in 2004 to 11.1% in 2009. The EU-SILC series, although not as significant, also shows a decline in poverty rates since 2007, reaching 9.4% in 2009.
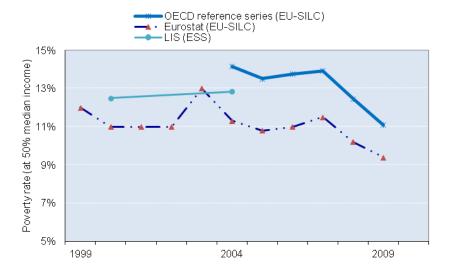
Figure 2.1 Trends in poverty rates (50% median)

As for child poverty, the OECD reference series and EU-SILC series show a decline, with OECD series suggesting a stronger decline, both series reaching 12.1% in 2008. By contrast, the LIS series, although limited to 2000/2005 shows an increase in child poverty rates. However, this is difficult to compare since the LIS series covers a period that does not overlap with the two other series.
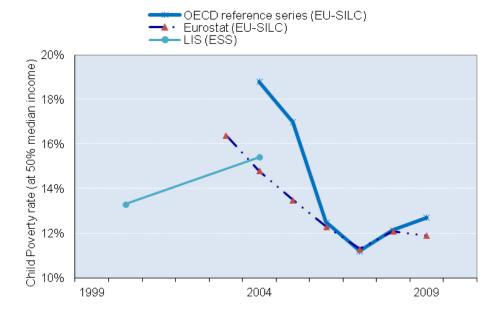
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Figure 2.2 Trends in Child poverty rates

2.2   *Wages*

See Part II of the present Quality Review

3. Consistency of income components shares with alternative data sources

3.1. *Comparison of main aggregates: earnings, self-employment income, capital income, transfers and direct taxes*

Table 2 shows shares of income components for the latest available year, according to the OECD benchmark series. Unfortunately, such information is not available for the other data sources described in table 1.

Table 8. Shares of income components in total disposable income, OECD reference series

Survey	Year	Unit	Wages	Capital	Self Employment	Transfers	Taxes	Disposable income (HDI)
OECD reference suvery	2008	natcur	7,458	161	119	1,642	-1,504	7,940
		% av HDI	94%	2%	2%	21%	-19%	

Figure 3 compares the trend in shares of public cash transfers in equivalised disposable income from the OECD reference series with the share of total cash social spending in net national income, reported from the OECD Social Expenditure database (OECD SOCX). OECD SOCX series include pensions, incapacity, family, unemployment, social assistance. Both series show very similar trends throughout the period.
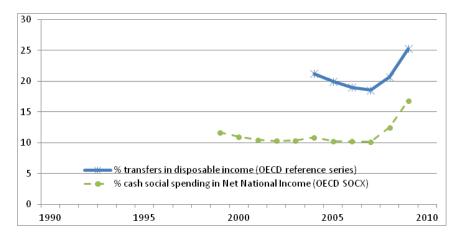
Figure 3. Trends in shares of public social transfers

4. Metadata of data sources which could explain differences and inconsistencies

Definitions, methodology, data treatment

Methodological differences between the OECD reference series and the other income series:

The OECD reference series (as well as the LIS series) use the square root of household size, whereas the EU-SILC series and ESS series use the OECD modified equivalence scale (1.0 to the first adult, 0.5 to the second and each subsequent person aged 14 and over, 0.3 to each child aged under 14).

5. Summary evaluation

While the levels and trends of the series are generally quite similar overall, the EU-SILC series gives frequently somewhat lower inequality and poverty estimates than the OECD reference series. This may be due to the different equivalence scales used (square foot of household size for the OECD series; OECD modified equivalence scale for EU-SILC).