*(Revised version: 12ᵗʰ February 2013)*

**INCOME DISTRIBUTION DATA REVIEW – NORWAY [39]**

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

*1.1. OECD reporting:*

   OECD Income Distribution Data for Norway are computed by Statistics Norway and are based on the Income Distribution Survey.

   In the OECD database, income inequality and poverty rates are currently available for the following years: 1986, 1995, 2000, 2004, 2008, 2009 and 2010. No breaks in series occur.

*1.2. National reporting and reporting in other international agencies:*

- *EUROSTAT* has been computing indicators on inequalities and poverty for Norway from 2003 (income year 2002) onwards.

- Norway has been included in the *EU-SILC (Statistics on Income and Living Conditions)* survey since 2003 onwards (income year 2002). EU-SILC is a multi-dimensional instrument focused on the income and the living conditions of different types of households. It is collecting, on an annual basis, timely and comparable multidimensional micro-data on income, material deprivation, housing condition, labour, education, health and subjective well-being.

-  The *Luxembourg Income Study Database (LIS) includes Norway for the years 1979, 1986, 1991, 1995, 2000 and 2004. It is based on the Microcensus survey that is presented in more details in the below table.*

- *Statistics Norway* is the official national survey in Norway and has been conducting the *Income Distribution Survey* annually from 1986 to 2004 based on a representative sample survey collected from various Living Condition Surveys and Household Budget Surveys. Since 2005, *Statistics Norway* produces a totally register-based household income statistics.

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

---

[39] This revised version of the review benefited from valuable comments from Jon Epland from Statistics Norway.

**Table 26. Characteristics of datasets used for income reporting, Norway**

| | OECD reference series income distribution database | LIS database | Statistics Norway | Eurostat |
|---|---|---|---|---|
| Name | Income Distribution Survey | Income Distribution Survey | Income statistics for households | EU-SILC |
| Name of the responsible agency | Statistics Norway; Division for Income and Wage Statistics | Statistics Norway; Division for Income and Wage Statistics | Division for Income and Wage Statistics | Eurostat |
| Year (survey and income/wage) | 1990-2010 (data missing for 1991, 1993, 1997, 1999, 2001, 2003 income years) | 1986, 1991, 1995, 2000, 2004 | 1986-2010 | 2003-2010 survey years representing income for years 2002-2009. |
| Period over which income is assessed | Annual income | During second quarter two years after the income year of 2004. | Annual income | Annual income N-1 |
| Covered population | | All persons residing in Norway and resident in private households as of 31st December of the fiscal year. | All persons residing in Norway and resident in private households as of 31st December of the fiscal year. | |
| Sample size | total resident population per 31 December (4.7mil.) | 13131 households containing 33989 individuals. | | Achieved sample size: 5227 households |
| Sample procedure | Cross-sectional | Cross-sectional | | systematic one-stage random sampling design |
| Response rate | | | | 43.83% |
| Imputation of missing values | No missing income data | Not applicable | | |
| Unit for data collection | Household | Individual | Individual | Individual aged 16+ |
| | | | | |
| Break in series | No | No | No | No |
| Web source: | http://www.oecd.org/els/socialpoliciesanddata/incomedistributionandpovertydatafiguresmethodsandconcepts.htm | http://www.lisdatacenter.org/wp-content/uploads/our-lis-documentation-by-no04-survey.pdf | http://www.ssb.no/iffor_en/ | http://epp.eurostat.ec.europa.eu/portal/page/portal/income_social_inclusion_living_conditions/quality/national_quality_reports |

**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*

The below figure shows the evolution of Gini coefficients for Norway from 1990 to 2010, as reported by the OECD, LIS, Statistics Norway and the EU-SILC.

**Figure 45.1 Trends in Gini coefficient (disposable income)**
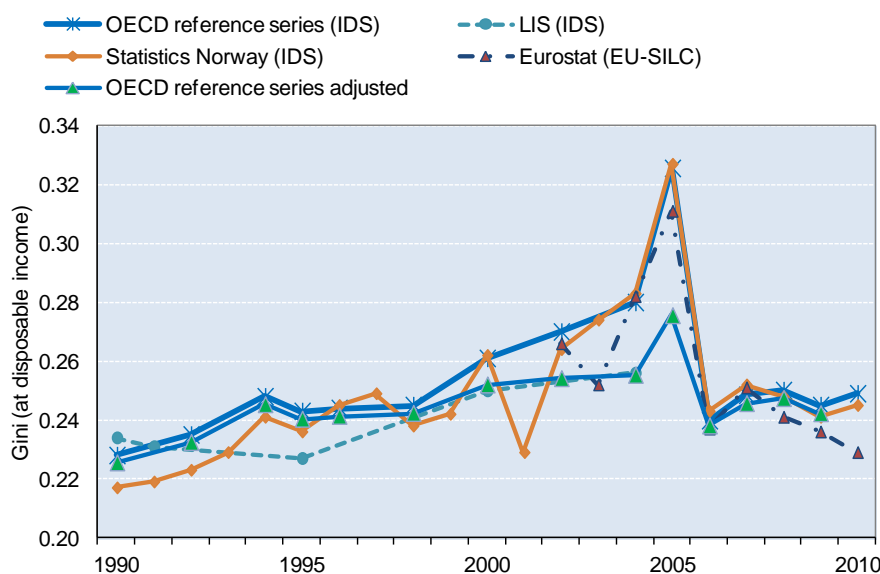


According to the OECD reference series, income inequality in Norway rose steadily from 1990 to 2004 from 0.228 to 0.280. Year 2005 then witnessed a single large increase by some 4 points, reaching 0.326, before a further single impressive decline to 0.240 in 2006, thus reaching levels similar to the 1990s.

The fluctuations in the years 2004-2006 can be explained by an increase between 2002-2005 in dividends at the top of the income ladder, which were then corrected in 2006 by the introduction of higher taxes on dividends. This is related to tax reform.

During the first half of the 2000s income from dividends increased enormously in Norway. If looking at the macro amounts received by households (in billion NOK) they increased from 13,2 in 2001 to 99,4 in 2005, to fall to 7,4 in 2006. Since dividends are extremely unequally distributed (90% is received by the top 2% of households), taxes on this kind of income were increased - starting from income year 2006. (Dividends were tax-free income for the share holders 2002-2005, but the companies were taxed on their profit). From 2006 dividends are taxable income for the individual share holder as well. The tax reform of 2006 was announced well in advance so that the companies and share holders had plenty of time to adjust (i.e. they more or less paid out as much dividends as they could in the years 2002-05, and almost nothing in 2006). Things are gradually getting back to normal in the years after 2006 (i.e. 25 billion NOK were received in dividends in 2008) (information received by Jon Epland, Statistics Norway).

To adjust for these movements, Statistics Norway provided an "adjusted" series of Gini coefficients to the OECD which is based on top coding. As can be seen, this resulted in a smaller shock to the Gini coefficients although the hook can still be seen.

The other series show similar levels and trends as the OECD reference series. The series from Statistics Norway is almost identical to the OECD series: they use the same source but they use different equivalence scale (see section 4). The LIS series and EU-SILC series show lower levels of income inequality, but the trends remain quite similar.

Also, when comparing the income quintile share ratio (S80/S20) from the OECD series with the series from the EU-SILC and Statistics Norway, it is visible that there is much more fluctuation in the levels and trends of the latter two, particularly marked during the 2004-2006 period. The OECD series is overall quite

265

steady, rising slightly over the whole period from 3.5 points in 1995 to 3.7 points in 2010. The trends of the OECD series are similar to the Statistics Norway series over the last three year.

**Figure 1.2 S80/S20**
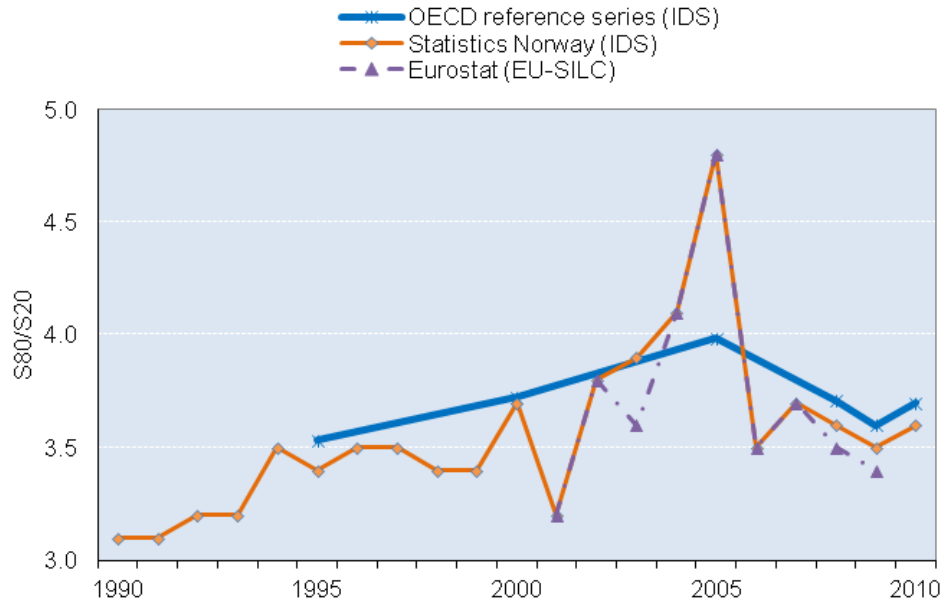


Looking at the P90/P10 Index, data is available for the OECD, Statistics Norway and LIS. The three series show similar trends between 1990 and 2010, all ranging between 2.5 and 3 points, with only minor variations. However, the OECD reference series is consistently higher than the Statistics Norway series, reaching 2.97 points in 2008, as opposed to 2.8 points for the Statistics Norway series.

**Figure 1.3 P90/P10**
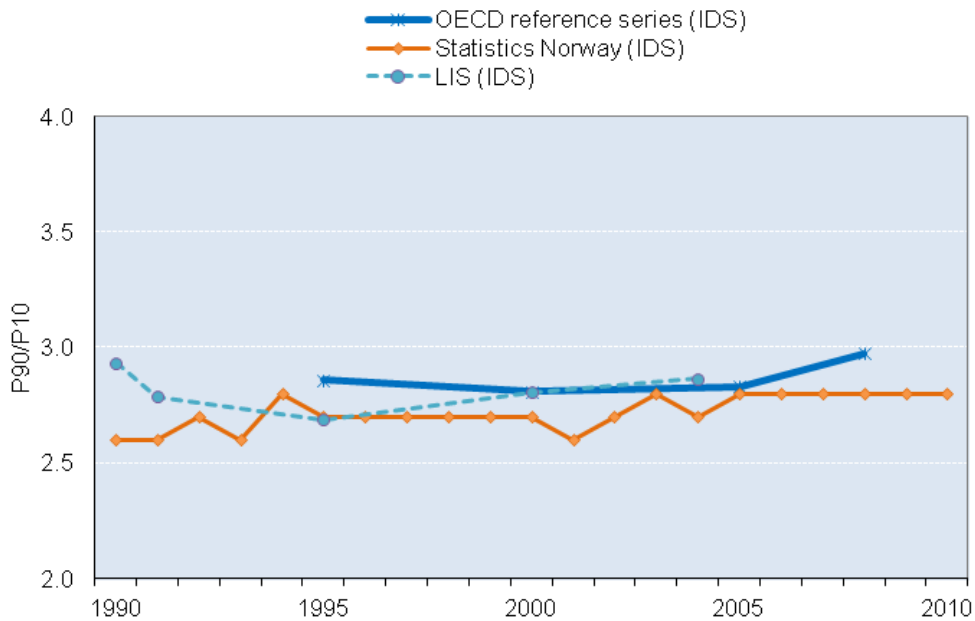
*2.1.2 Time series of poverty rates*

The OECD data between 1990 and 2004 can be compared only with the LIS series. There are some discrepancies between 1992 and 1998 but not thereafter.

According to the OECD income distribution database, the share of the Norwegian population living with less than 50% of the median equivalised income (163.711 Kroners per year in 2008) has increased from 6.8% in 2004 to 7.8% in 2008, before dropping to 7.5% in 2010.

The EU-SILC series contrasts with the OECD series for the early 2000s but not thereafter. The Statistics Norway series, while lower than the OECD series, shows an increase in poverty rates between 2004 (6.5%) and 2008 (7%) before declining again in 2009 to 6.6%.

**Figure 2.1 Trends in poverty rates**
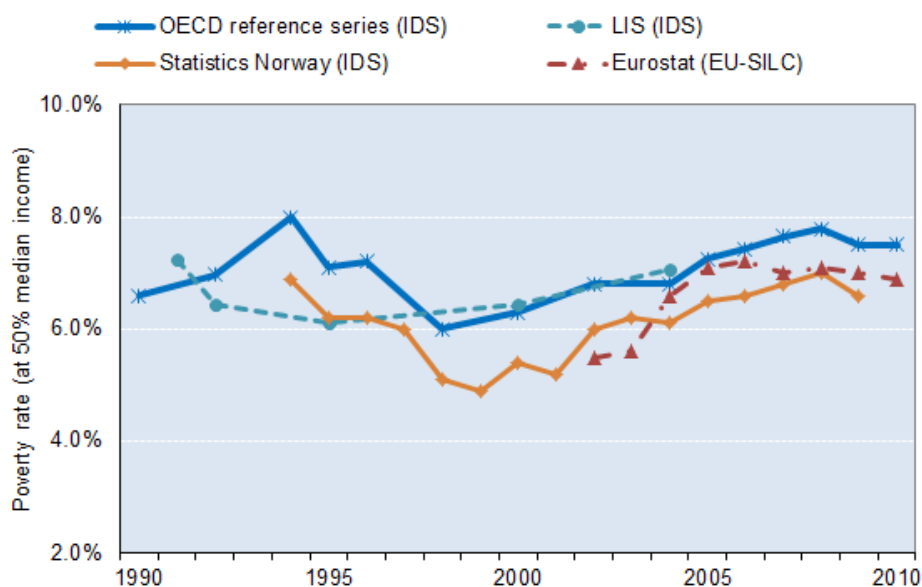


As for child poverty, the series show different levels with some exceptions (about 1 to 2 points), although all data seem to indicate a trend increase over the last decade. Indeed, the OECD series increased from 3.6% in 2000 to 5.1% in 2010. The EU-SILC series increased from 4.2% in 2002 to 6.6% in 2009. The LIS series increased from 3.6% in 2000 to 5.3% in 2004. The Statistics Norway series shows lower levels of child poverty rates, with 4.6% in 2010, following a decline since 2008 (5%).

**Figure 2.2 Trends in Child poverty rates**
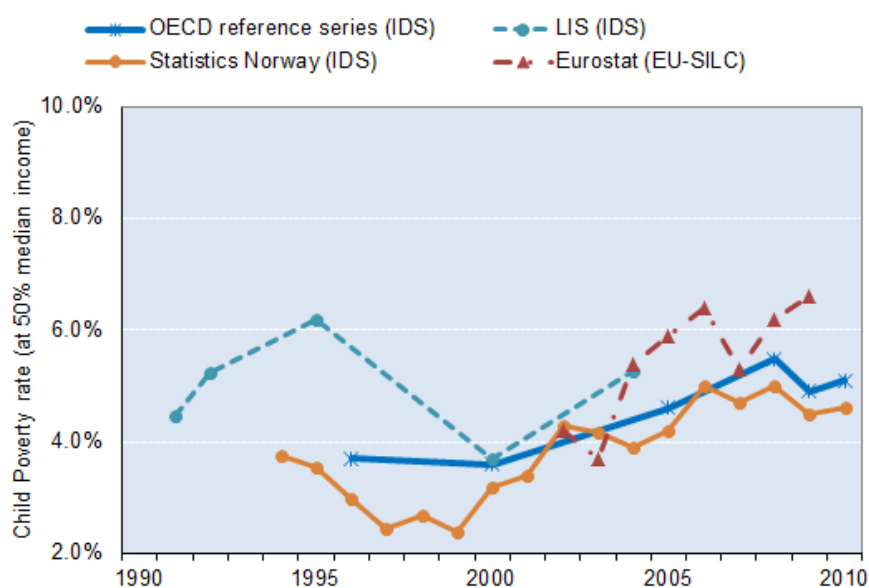


## 2.2      Wages

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. Except for the share of capital income, the shares of income components match well with comparable calculations from EU-SILC. The discrepancy in the share of capital income could be explained by the fact that it is difficult to capture households with large amount of property income in a relatively small sample survey such as EU-SILC.

**Table 27. 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 | 294,939 | 40,149 | 25,342 | 77,682 | -110,488 | 327,423 |
|  |  | % av HDI | 90% | 12% | 8% | 24% | -34% |  |
|  |  |  |  |  |  |  |  |  |
| EU-SILC (OECD-ELS) | 2008 | natcur | 302,072 | 22,368 | 27,195 | 76,916 | -110,814 | 327,737 |
|  |  | % av HDI | 92% | 7% | 8% | 23% | -34% |  |

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 similar trends throughout the period, except for the period between 2004 and 2008 where SOCX data suggest a decline, in contrast to the income micro

data. The difference would be explained by the fact that OECD income data include sickness payment as part of transfer income in 2008 and onwards. Before 2008, this income item was part of wages in household income statistics. Using the 'old' definition of transfers (where sickness benefits are part of wages), we find very much the same trend as in NNI, i.e. a small reduction from 2006 to 2008, and then an increase due to the crisis and an increase in unemployment benefits.
( http://www.ssb.no/english/subjects/05/01/iffor_en/tab-2012-12-18-03-en.html )

**Figure 3. Trends in shares of public social transfers**
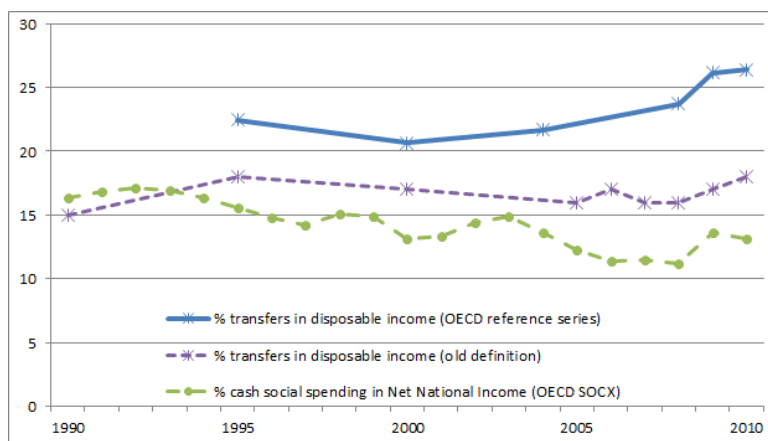


## 4. Metadata of data sources which could explain differences and inconsistencies

*Definitions, methodology, data treatment*

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

Equivalence scale: The OECD reference series, as well as the LIS series, use the square root of household size, whereas the EU-SILC series and Statistics Norway 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).

Classification of sick pay by government: public sick pay would be classified as part of transfers (TR) in the current OECD series, whereas the OECD Terms of References suggest that public sick pay should be classified in wages (EH).

## 5. Summary evaluation

Broadly speaking, the different data sources of indicators for Norway follow similar trends throughout the covered period. OECD and Statistics Norway data generally match. The exception being poverty rates, where the OECD series show a different trend to LIS data in the early 1990s and a different trend to Eurostat data in the early 2000s. Yet, there is convergence of series in the last two years, thus closing the gap with the other series.

The minor remaining discrepancies between the different series can be explained by the different methodology, with the OECD and LIS series using a square root equivalence scale, and the EU-SILC series and Statistics Norway using an OECD modified equivalence scale.