## INCOME DISTRIBUTION DATA REVIEW – SPAIN

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

#### *1.1. OECD reporting:*

The OECD series for Spain starts back in the 1980's and is based on three different sources:

- The Continuous Survey of Household Budget ("*Encuesta Continua de Presupuestos Familiares*") for the years 1985, 1990 and 1995

- The European Community Household Panel (ECHP) for the years 1995 and 2000 (data remains comparable for these two years despite some slight changes in the methodology of the ECHP)

- The European Union Survey on Income and Living Conditions (EU-SILC) for the years 2004, 2006, 2007, 2008 and 2009.

Due to the change in source in 1995, data for 1985 and 1990 have been interpolated ("spliced", with the overlapping year 1995) and the OECD Datacube provides series for both the original and the adjusted values. However, there is a strict break in series due to the change in source to EU-SILC in 2004, with no overlapping year with two data sources available. Data prior to 2004 are strictly not comparable with data from the 2004 onwards. This break between 2000 and 2004 is shown in the Figures below. The figures also show the original ("unspliced") series.

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

Alternative sources are available for the computation of income distribution and poverty figures, both at the national and European level. At the national level, the following surveys are undertaken by the National Statistics Office (Instituto Nacional de la Estadistica):

- *The Living Conditions Survey (LCS)* (Encuesta de Condiciones de Vida (ECV)) It presents the same data than EU-SILC as it has been set up as the national survey underlying the EU-SILC User Database (UDB). This survey has been launched in 2005 (income year: 2004) and is the one used currently for official figures in Spain. Produced annually and household based, it has been preceded by the PHOGUE (see below) carried out during the 1994-2001 period. Both surveys have similar characteristics and objectives.

- *The European Union Households Panel (ECHP)* (Panel de hogares de la Unión Europea (PHOGUE)). This survey has been carrying out during the period 1994-2001. It has facilitated the European Commission having a sound statistical instrument available to follow up social cohesion in the relevant territory, the study of population needs and the impact of social and economic policies on households and persons, as well as for the design of new policies. Once the eight cycles have been completed, a global filtering of information and revision of the tables corresponding to the years 1996-1999 has been carried out. This survey is now replaced by the Living Conditions Survey (LCS) (=Encuesta de Condiciones de Vida (ECV)). In 2000 there were two ECHP samples, one with 5.132 and another with 15.614 households (c.f., http://webs.uvigo.es/microsimulacion/papers_pdf/Fuenmayor_Granell_PHOGUE-ECV_paper.pdf).

- *The Households Budget Survey (HBS)* (Encuesta de Presupuestos Familiares (EPF)) This survey has been launched in January 2006 to replace the previous survey called "Encuesta Continua de Presupuestos Familiares" (ECPF). This survey provides annual information on the nature and destination of consumption, as well as on a range of features relating to household living conditions. The survey provides estimates of annual consumption for the entire country and the Autonomous Communities, and of consumption in physical amounts of certain food items for the country as a whole.

- The *Household Budget Continuous Survey* (Encuesta Continua de Presupuestos Familiares (ECPF)) This survey, started by INE in January 1985, used to provide quarterly and annual information on the origin and amount of households incomes, and the way they are used in several consumption expenditures. This survey is available from 1985 to 2005.

At the European level, the following studies are available;

- *The Luxembourg Income Study (LIS)* Data on LIS are available for the years 1980, 1990, 1995, 2000 and 2004. The LIS is based on the Family Expenditure Survey for 1980 and 1990, on the PHOGUE for 1995 and 2000 and then on EU-SILC for 2004. As a result, OECD series are in based on the same sources as for the LIS for the years of availability.

The table below summarises the main characteristics of these several sources:

**Table 33.  Characteristics of datasets, Spain**

| Name | Household Budget Continuous Survey – (Encuesta Continua de Presupuestos Familiares) | Household Budget Survey (HBS) (=Encuesta de Presupuestos Familiares (EPF)) | European Union Households Panel (EUHP) (="Panel de hogares de la Unión Europea" (PHOGUE) | The Living Conditions Survey (LCS) (=Encuesta de Condiciones de Vida - ECV) | EU-SILC from EUROSTAT |
|---|---|---|---|---|---|
| Name of the responsible agency | National Statistical Office - Instituto Nacional de la Estadistica (INE) | National Statistical Office - Instituto Nacional de la Estadistica (INE) | National Statistical Office - Instituto Nacional de la Estadistica (INE) | National Statistical Office - Instituto Nacional de la Estadistica (INE) | Eurostat / National Statistical Office |
| Goal | To provide information on spending patterns for the Spanish retail price index | To provide information on consumption structure and living conditions | Producing comparable information across the Member States on income, work and employment, poverty and social exclusion, housing, health and many other diverse social indicators concerning living conditions of private households and persons | Systematic production of Community statistics on income and living conditions, that include transversal and longitudinal data that are comparable and updated on income, the level and composition of poverty and social exclusion, on a national and European level. | To study poverty, social exclusion and living conditions on the basis of indicators that can be compared at the European level. |
| Year | 1985-2005 | 2006-continuing | 1994-2001 | Since 2005 | Since 2005 (income year 2004) |
| Data | Annually | Annually | Annually | Annually | Annually. |

| | | | | | |
|---|---|---|---|---|---|
| collecting | | | | | Data are collected from April to June |
| Covered population | All households except those living in private institutions | All households except those living in private institutions | Private households in the whole national territory (with the exception of Ceuta and Melilla) | All private households in Spain and overseas territory | All private (non-group, non-institutional) households in Spain and overseas territories (Ceuta, Melilla, Canarias). |
| Sample size | The sample size is approximately 24,000 households per year. Each household remains in the sample for two consecutive years, with half of the sample renewed each year. | 24000 households per year | 7,206 households, 4,966 completed households (for 1994) | 13,026 interviewed households | The theoretical sample includes about 16,000 dwellings distributed in 2,000 census sections. The effective sample includes 13,026 interviewed households (wave 2005, survey year). |
| Sampling method | Two stage stratified sampling design | Two stage stratified sampling design | Two-stage sampling: first a sample area was selected, and then, within this area, a building object/housing unit was selected | The sample is rotating, with a quarter of the sample renewed each cycle (year). Each subsample is selected using a twostage design with first stage unit stratification is used. The first stage is formed by census sections (grouped into 6 strata according to size of municipalities within each of the 18 Autonomous Community) selected within each stratum with a probability proportional to their size, and the second stage by main family dwellings selected with equal probability (via random start systematic sampling). | Stratified survey First stage unit: area framework formed by the relation of existing census sections used in the 2003 Municipal Register of Inhabitants. Second stage unit: list of main family dwellings in each of the sections selected |
| Sampling unit | Households and individuals | Households and individuals | Households and individuals | Households and individuals | Households and Individuals |

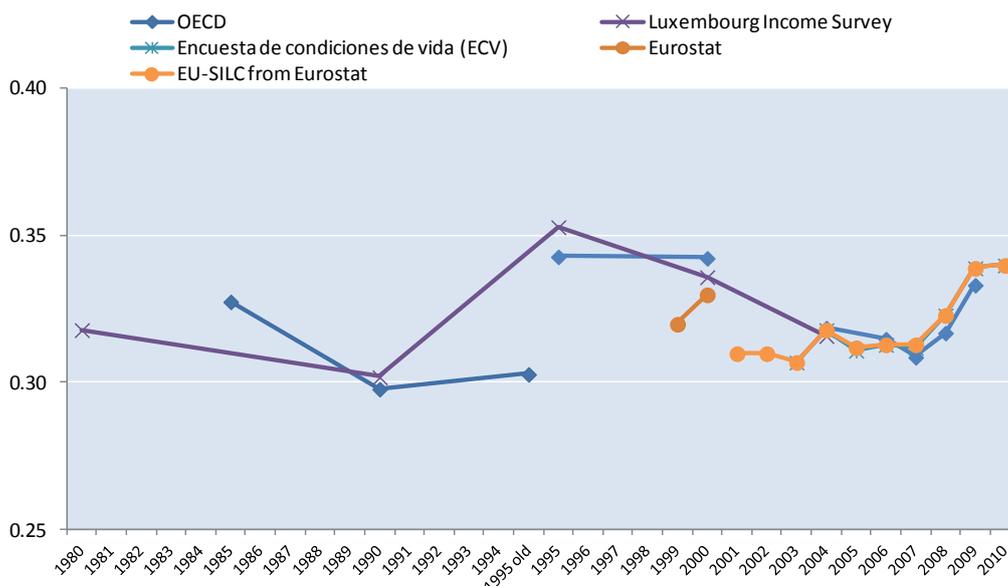| | | | | | |
|---|---|---|---|---|---|
| Response rates | 63% | n.a. | n.a. | 82% | n.a. |
| Imputation | Hot deck and deterministic | n.a. | None | n.a. | |
| Remark | | | | | Annual income of the year prior to the survey |
| Websource | http://www.ine.es | http://www.ine.es | http://www.lisdatacenter.org/ | http://www.lisdatacenter.org/ | http://www.lisdatacenter.org/wp-content/uploads/our-lis-documentation-by-es04-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*

Gini series are available from the Luxembourg Income Study, EU-SILC, and for the ECV.
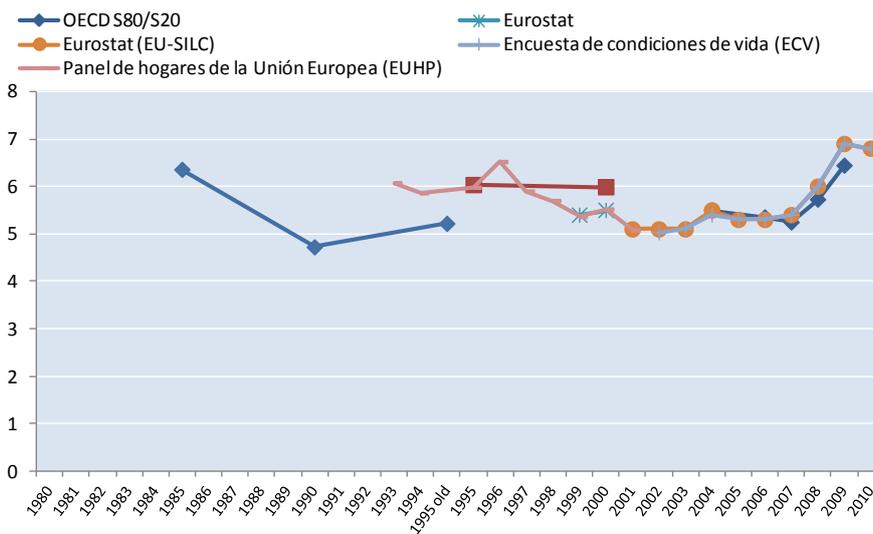
**Figure 56.    Gini coefficients, Spain (1980-2010)**

From 2004 to 2010, the OECD series tracks very closely the EU-SILC, unsurprisingly as the OECD one is based on EU-SILC. Figures from the ECV track also those two series, as this survey is the national basis for Eu-SILC. The LIS series displayed an almost similar trend than the OECD one, while the sources are not fully comparable.

Unsurprisingly, the S80/S20 ratio series display the same features, while one additional series from the EUHP-PHOGUE is included:

**Figure 57.     S80/S20 ratio, Spain (1980-2010)**



*2.1.2 Time series of poverty rates, poverty composition*

Time series on poverty rates are available from almost all the sources presented above. They are based on two standard poverty threshold: 50% and 60% of the median equivalised disposable income.

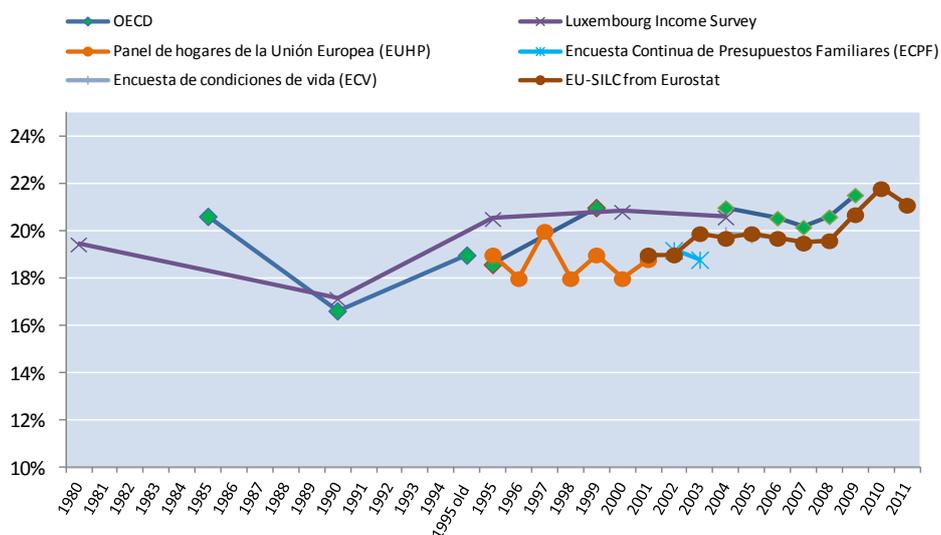**Figure 58.     Poverty rates with a poverty line of 60%, Spain (1980-2011)**

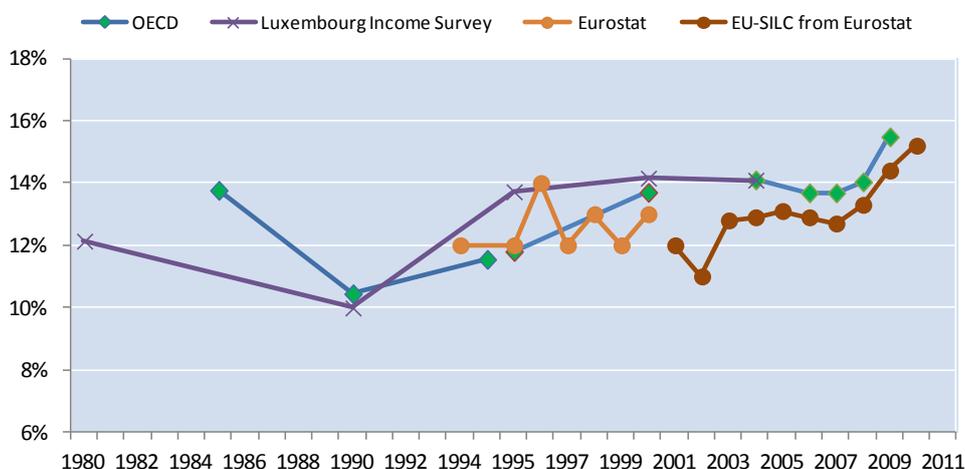**Figure 59.       Poverty rates with a poverty line of 50%, Spain (1980-2010)**
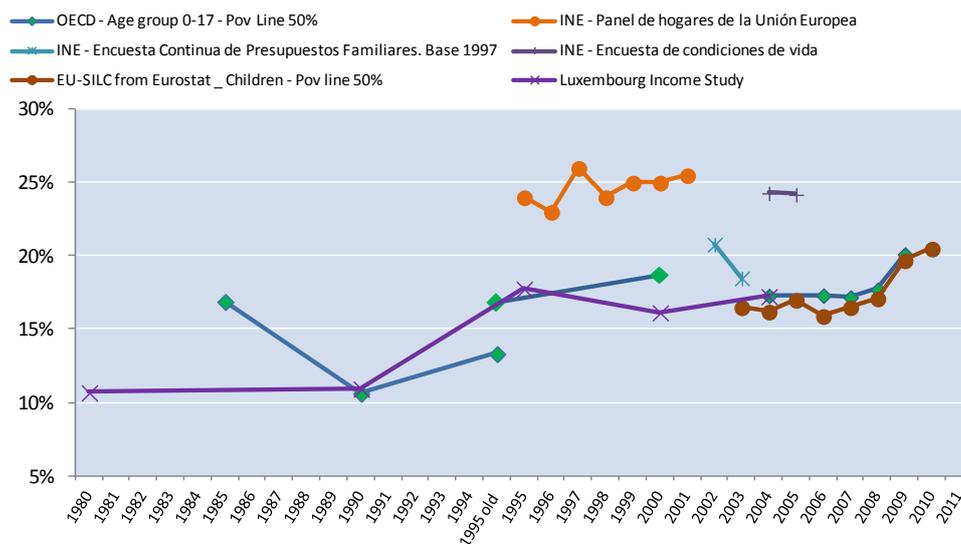


**Figure 60.       Poverty rates with a poverty line of 50%, Spain (1980-2010)**



For the 60% and 50% threshold, poverty rates display very similar trend and values, LIS series included. Regarding child poverty, discrepancies are more important between national and OECD sources despite the fact that the definition of the concept is supposed to be similar. Differences in equivalence scales and data treatment (e.g. with regard to negative incomes) may play a role.

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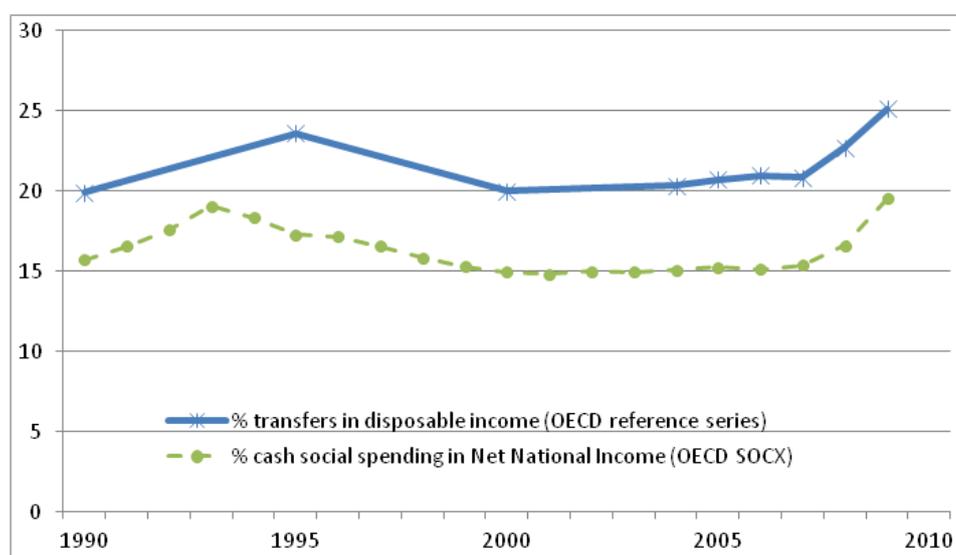
Table 2 shows shares of income components for the latest available year, according to the OECD benchmark series. Unfortunately, such information is not available for the other data sources described in table 1.

**Table 2. Shares of income components in total disposable income, OECD reference series**

| | Survey | Year | Unit | Average income | | | Average income | K | SE | TR | TA | HDI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | EH | ES | EO | Wages | Capital | Self Employment | Transfers | Taxes | Disposable income (HDI) |
| OECD reference suvery | | 2009 | natcur | 8723 | 4442 | 20 | 13185 | 567 | 1366 | 4144 | -2725 | 16537 |
| | | | % av HDI | 52.7% | | | 79.7% | 3.4% | 8.3% | 25.1% | -16.5% | |

Figure 6 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 a very similar trend throughout the period.

**Figure 6 Trends in shares of public social transfers**



**3. Metadata of data sources which could explain differences and inconsistencies**

Regarding income inequality indicators, the OECD time-series prior to 2004 can be compared with the LIS data series as both use a similar methodology and the same data source. For the years after 2004, OECD series broadly match with estimates published by Eurostat, based on EU-SILC. Regarding the comparison on poverty rates, figures for the total population compare well. Only child poverty rates are somewhat different and further investigation into methodological differences is needed to account for such differences.

**5. Summary evaluation**

All in all, there is a high degree of similarity between national, LIS, EU-SILC and OECD series. This comes from the integrated way in which the series are produced: the national sources are used to generate EU-SILC, which in turn is used to generate the OECD series. At each stage, few methodological changes occur, which leads to the similarities observed.