

INCOME DISTRIBUTION DATA REVIEW – PORTUGAL

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

1.1. OECD reporting:

OECD income data currently available for Portugal refer to income earned in the years 1979-80, 1990, 1995, 2000, 2004, 2005, 2006, 2007, 2008 and 2009. Over time, the OECD used two different types of data sources for reporting on income inequality and poverty in that country.

- From 1979 to 2004, OECD estimates were based on data from *Household Budget Survey* conducted by the National Statistical Office (Instituto Nacional de Estatística - INE).
- From 2004 onwards (income year: 2003), OECD estimates have been based on the *EU Survey on Income and Living Conditions* (EU-SILC).

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. Note that this break is shown in the Figures below between 2000 and 2004.

1.2. National reporting and reporting in other international agencies:

1.2.1 National reporting:

The following datasets are available for Portugal:

- The National Statistical Office has been computing the *Household Expenditure Survey*, labelled *Inquérito às Despesas das Famílias* in Portuguese, since 1960s. On the INE's website, only the two latest publications are available on-line in Portuguese language (2005/2006 and 2010/2011). The latest available publication is accessible on the following url: http://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_publicacoes&PUBLICACOESpub_boui=141619793&PUBLICACOESstema=00&PUBLICACOESmodo=2
- The National Statistical Office has also been computing the *Survey on Income and Living Conditions* called *Inquérito às Condições de Vida e Rendimento* since 2004 which is presenting EU-SILC data. Data are available on-line and present the different indicators estimated at the European level. Access is available on the following url: http://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_indicadores&indOcorrCod=0004206&contexto=bd&selTab=tab2

1.2.2 International reporting:

- Eurostat has been calculating on an annual basis indicators on inequalities and poverty for Portugal since 1995 (income year: 1994) onwards, based on the European Community Household Panel (ECHP). From 2004 (income year: 2003) onwards, Portugal has been included in the EU-SILC (*Statistics on Income and Living Conditions*) survey. The EU-SILC survey aims at studying poverty, social exclusion and living conditions on the basis of indicators that can be compared at the European level.

Two specificities in terms of definition and covered population are specified in the EU-SILC methodology for Portugal³⁹:

- The following specificity for “Household membership” is taken into account in Portugal: “Contrary to the EU-SILC concept, persons absent for long periods, but having household ties (persons working away from home) are not considered as household members if the absence is for more than 6 months (the income obtained from them is considered as a private transfer).
- Collective households and institutions are excluded from the covered population (represent 1% approx. of the total population residing in Portugal).

Please, note that Portugal is not a member of the *Luxembourg Income Survey* database.

The below table 1 presents the main characteristics of those datasets:

Table 29. Characteristics of datasets used for income reporting, Portugal

Name	Household Expenditure Survey - Inquérito às Despesas das Famílias	EU-SILC from Eurostat	Inquérito às Condições de Vida e Rendimento
Name of the responsible agency	National Statistics Office (Instituto Nacional de Estatística)	Eurostat	INE and Eurostat
Year	Income years: 1999, 2005 and 2009	Annually since 2004 (income year : 2003)	Same than for EU-SILC
Data collecting	Between March 1st 2010 and February 27th 2011 (in Região Autónoma da Madeira it began final March 2010) (wave 2010 – 2011);	Between April and November.	Same than for EU-SILC
Covered population	Unknown	The Master Sample for Portugal is designed on the Census of Population and Housing (Census/2001). It is constituted by almost 750000 private dwellings. Collective households and institutions are excluded (represent 1% approx. of the total population residing in Portugal).	Same than for EU-SILC
Sample size	16,815 (wave 2010 – 2011)	Achieved household sample size: 853 (year 2006); 1951 (year 2007) and 3208 (years 2008-2009). Achieved individual sample size: 2268 (year 2006), 5137 (year 2007) and 8423 (years 2008-2009).	Same than for EU-SILC
Method of data collection	Interviews (tbc)	Data collection is based on PAPI (Paper Assisted Personal Interview) and CAPI (Computer Assisted Personal Interview).	Same than for EU-SILC

³⁹ Eurostat, 2012, “2010 COMPARATIVE EU INTERMEDIATE QUALITY REPORT”, Version 3 – October 2012

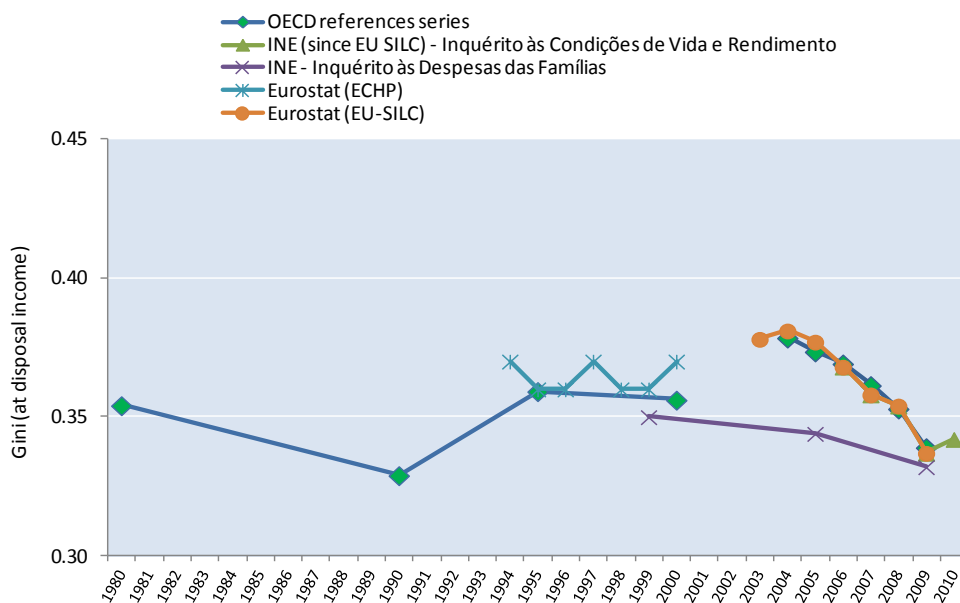
		Overtime, the CAPI mode of data collection has increased up to 96% versus 3.77 for PAPI (wave 2009).	
Sampling method	Representative stratified clustered sample of private dwellings with main residence in the national territory,	Stratified two-stage clustered sampling design. The primary sample unit (PSU) is the area of the Master sample (made of census enumeration areas).The secondary sample unit (SSU) is dwellings. All the households and therefore all the persons living in the same dwelling are interviewed.	Same than for EU-SILC
Sampling unit	Dwellings	Dwellings / Addresses	Same than for EU-SILC
Imputation of data	Unknown	Yes (through regression method only)	Same than for EU-SILC
Response rates	56% (wave 2010-2011) (Considering in the denominator only the eligible and contacted dwellings (14,032), the specific response rate rose to 68%).	Unknown	Unknown
Remark	Available only partially in English	Annual income of the year prior to the survey. Before 2004, Eurostat was compiling statistics for Portugal since 1994.	The national statistics office is calculating these data for the EU-SILC survey. There is therefore a perfect match between the EU-SILC and the INE website concerning income inequality and poverty rates indicators.
Websource	http://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_publicacoes&PUBLICACOESpub_boui=141619793&PUBLICACOESstema=00&PUBLICACOESmodo=2	http://epp.eurostat.ec.europa.eu/portal/page/portal/income_social_inclusion_living_conditions/introduction	

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

Time series on Gini coefficients are estimated from 1979/80 to 2010 by the OECD. According to the OECD income distribution database, income inequality among total population remained relatively stable in Portugal since 1975. It evolved from 0.35 in 1980 down to 0.33 in 1990 with an increase to the original level by the late 1990s. Since 2004, income inequalities continuously recorded a significant decline, by four points, according to OECD and Eurostat reporting. However, the National Statistical Office published the Gini coefficient for 2010 which recorded a slight increase to 0.34 reversing the previous downward trend. The different time-series on Gini coefficients are presented in Figure 1:

Figure 46. Trends in Gini coefficient (disposable income)

Please find below some more detailed explanations regarding inequalities and income distribution for each OECD-time series before and after the 2004 break:

- From 1980 to 2000, OECD data cannot be compared with any other time-series as on-line historical series were not available before that date. From 1994 to 2000, OECD data can be compared with Eurostat which compiled Gini coefficients from 1994 to 2000 and, over this period, OECD and Eurostat time-series were matching. The 1999 figure estimated at 0.35 by the National Statistical Office in *Inquérito às Despesas das Famílias* was also in line with both the OECD and Eurostat time-series.
- From 2004 onwards, OECD data can be compared with EU-SILC data and national statistics: *Inquérito às Despesas das Famílias* and *Inquérito às Condições de Vida e Rendimento*. The OECD points overlap both with the EU-SILC and the National Statistical figures coming from the *Inquérito às Condições de Vida e Rendimento*.

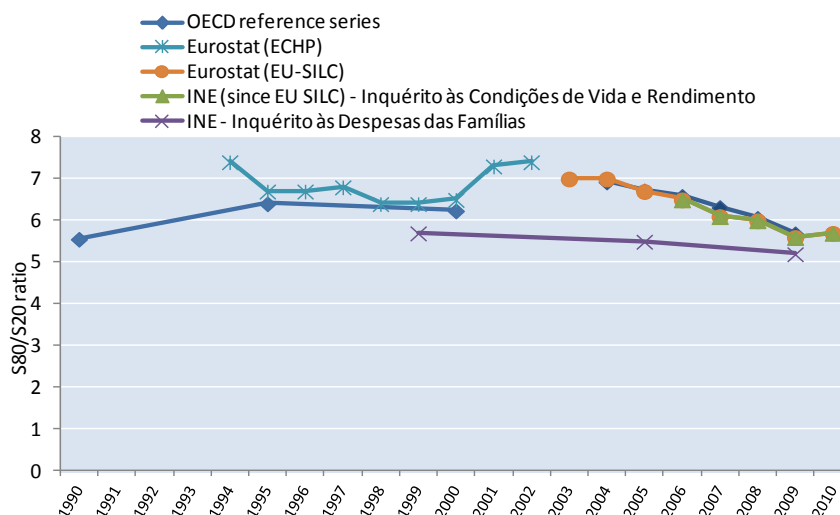
Over this period, inequalities continuously and significantly decreased from 2004 which was characterised by a historical high level of Gini coefficient of 0.38. This downward trend is then shared by the different available datasets as the different lines are showing a perfect similarity. In 2009, Gini coefficients were estimated at 0.33 with a broad consensus between the different time-series. This rate contributed to reflect the improvement in the asymmetry of the income distribution in Portugal over the last years. Therefore, this graph on Gini coefficients is showing a strict convergence of data over time between the different datasets.

The relative steadiness of Gini coefficients up to 2004 and its regular decline from then are also corroborated by the trend of the income quintile share ratio (S80/S20).

The OECD income quintile share ratio was estimated at 5.6 in 1990 and at 5.7 in 2009. In between, the income share ratio recorded up and down moves and it rose up to 6.9 in 2004, the same year that recorded the highest Gini coefficient in Portugal over the time period of reference. From 2004, this ratio has continuously decreased up to now. The latest available data, estimated for 2010, expressed that income

of the 20% top income group was 5.7 times the income of the 20% bottom income group, confirming the downward tendency of this indicator.

Figure 47. S80/S20 ratio



Between 1990 and 2000, S80/S20 ratios slightly increased from 5.6 to 6.2 according to the OECD estimates. Over the same decade, Eurostat calculated also this income quintile share ratio but recorded slightly higher ratios than the OECD: according to the European institution, the ratios moved down from 7.4 in 1994 to 6.5 in 2000. On the contrary, the National Statistics Office stated the 1999 S80/S20 ratio in its publication *Inquérito às Despesas das Famílias* for 1999 which was evaluated at 5.7, a ratio below the OECD and the Eurostat ones.

Between 2004 and 2010, this OECD income distribution indicator can be compared with *EU-SILC* and the national survey labelled *Inquérito às Despesas das Famílias*. Please, recall that the figures presented on the national statistics website (INE website) are also used for EU-SILC such that they are exactly the same. Graphically, the two point lines from EU-SILC and INE (*Inquérito às Condições de Vida e Rendimento*) are totally merging between 2004 and 2010. The OECD time-series is also perfectly matching with the EU-SILC ones. Therefore, these three data sets are showing a subsequent decline of the income distribution moving from 6.9 in 2004 (OECD estimates) down to 5.7 in 2009 (OECD estimates).

The *Inquérito às Despesas das Famílias* produced only two points of estimates for S80/S20 ratio in 2005 and 2009. The downward trend is similar than with the EU-SILC and the OECD but in a smaller proportion and the national survey ratio remained below the other datasets. The spread between the *Inquérito às Despesas das Famílias* and OECD/EU-SILC time-series have seemed to reduce over the last decade underlying a data convergence between the different available reporting for Portugal.

2.1.2 Time series of poverty rates

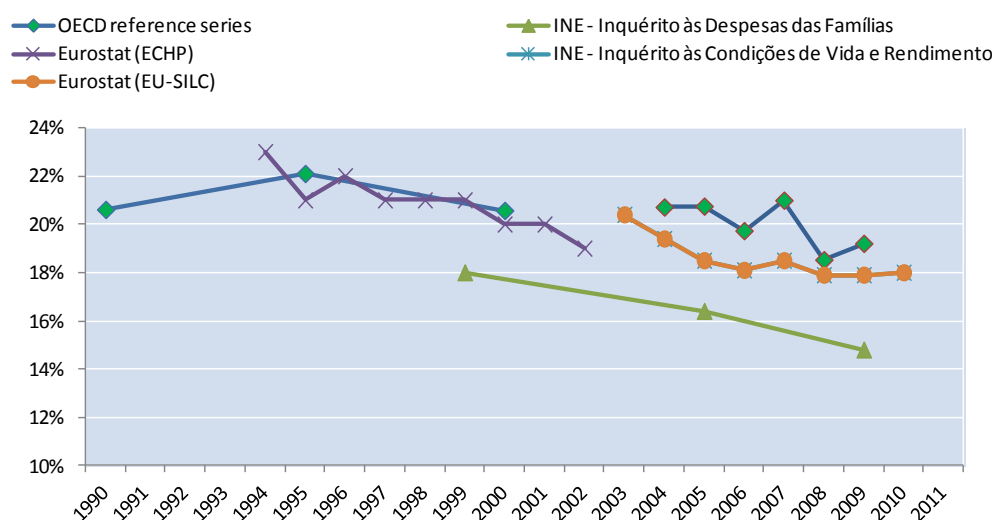
Time series on relative poverty rates are presented below with a 60% threshold (total population) and with a 50% threshold (total population and children).

According to the 2011 EU-SILC survey, the resident population in risk of poverty was 18.0% in 2010 (60% threshold) which is the latest available data. EU-SILC also presented that “the impact of social

transfers (excluding pensions) in the reducing of the risk of poverty has decreased from 8.5 percentage points (p.p.) to 7.3 p. p. in 2010⁴⁰ (INE Website - 2012).

You can find below the graph of relative poverty for Portugal with a 60% threshold. OECD time series on this indicator can be compared with Eurostat (before and after the launch of EU-SILC) and with the *Inquérito às Despesas das Famílias* from the national statistics office. As mentioned previously, the figures presented on the national statistics website (INE Website - *Inquérito às Condições de Vida e Rendimento*) are exactly the same than for the European survey.

Figure 48. Trends in poverty rates with a 60% threshold



With a concentrated scale, we can see graphically that the relative poverty rates with a 60% threshold subsequently slightly decreased over time.

From 1990 to 2000, the OECD time-series can be partially compared with the Eurostat estimates. According to the OECD, the at-risk of poverty rate decreased from 22.29% in 1975 down to 20.56% in 2000. Eurostat demonstrated a similar trend from 1994 with annual estimates: the at-risk of poverty rate decreased from 23% to 20% in 2000. The Eurostat and OECD figures are then perfectly matching over the period.

After 2004, the previous downward trend continued but in a smaller proportion. OECD estimates for relative poverty rates at 60% median decreased from 20.7% (2004) down to 19.2% in 2009 which is the latest available figure in the OECD database. These estimates can be compared with the EU-SILC and with the national study called *Inquérito às Despesas das Famílias*. As mentioned earlier, the other national study *Inquérito às Condições de Vida e Rendimento* is totally matching with the EU-SILC estimates and points are overlapping for shared years of reference (2007, 2008, 2009 and 2010).

While comparing with the other databases, the OECD estimates are showing higher poverty rates and a less regular decrease. Indeed, according to the OECD, the at-risk of poverty rates slightly declined from 20.70% in 2004 to 19.20% in 2009 while showing a new peak in 2007 at 20.99%. On the contrary, the

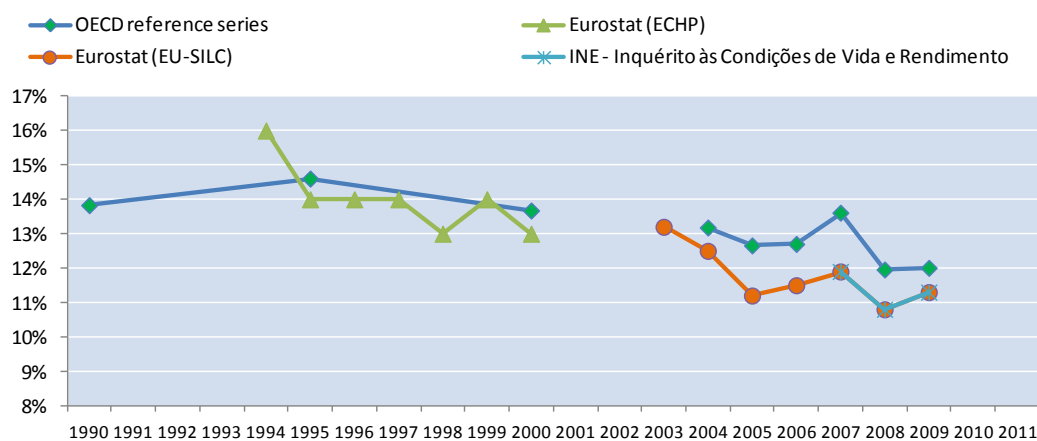
⁴⁰ INE, 13 July 2012, "At risk of poverty rate was 18% - 2011", Press Release in http://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_destaquas&DESTAQUESdest_boui=132815432&DESTAQUESTema=5414278&DESTAQUESmodo=2

European survey (and the *Inquérito às Condições de Vida e Rendimento*) have been recording the same trend but with lower relative poverty rates over the period: the at-risk of poverty rates indeed declined from 19.40% (2004) down to 18% in 2010 and the 2007 peak is barely readable on the graph (move from 18.10% to 18.50% between 2006 and 2007). Explanations may be based on the differences regarding the terms of references as defined between the two institutions. Indeed, the OECD reference series uses the square root of household size, whereas Eurostat uses 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).

With even more lower figures, the national study *Inquérito às Despesas das Famílias* estimated that the number of households living with less than 60% of the median income moved from 16.40% in 2005 down to 14.80% in 2009.

Figure 4 shows the evolution of the relative poverty rate with a 50% threshold. The evolution of the relative poverty trend with a 50% threshold is quite similar than the one with a 60% threshold.

Figure 49. Trends in poverty rates with a 50% threshold

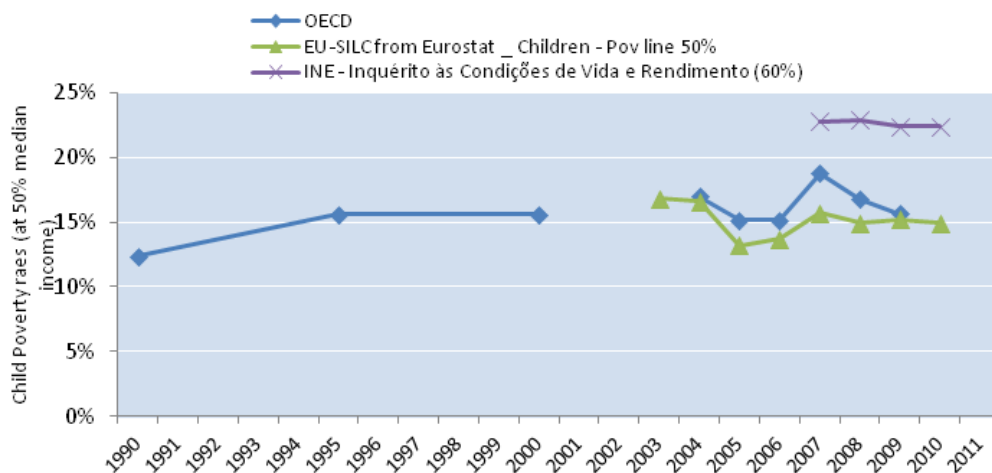


The OECD time series can be compared with the Eurostat estimates (before and after establishing EU-SILC). As mentioned previously, the point-lines of the national study *Inquérito às Condições de Vida e Rendimento* are exactly the same than the EU-SILC ones over the time period of consideration.

From 1975 to 2000, the number of households living with less than 60% of the median income decreased on an elusive manner, from 16.20% in 1975 to 13.67% in 2000. These estimates are matching well with the Eurostat ones.

From 2004 onwards, the OECD is showing a slight decrease of relative poverty rates as the EU SILC and the *Inquérito às Condições de Vida e Rendimento* from INE did but with fewer steadinesses. According to the OECD, relative poverty rates decreased from 13.18% in 2004 down to 12.01% in 2009 with a same peak in 2007 at 13.61%. In addition, OECD rates appear to be higher than the other datasets but by less than 1 percentage point.

Finally, the below graph dedicated to children poverty in Portugal is partially confirming the two trends described here-before.

Figure 50. Trends in Child Poverty rates (50% threshold)

From 1990 to 2000, the relative poverty rates for children increased from 12.37% to 15.57%. This trend cannot be confirmed by other estimates as no other datasets were available over this period of time.

From 2004 onwards, the OECD estimates can be compared with EU-SILC. Both lines are showing similar trends even though the OECD estimates are slightly higher than the EU-SILC ones. The 2007 peak is also relevant for children poverty rate which recorded an increase from 15.12% to 18.74% between 2006 and 2007. Over the time period, the relative poverty rates for children decreased from 17% in 2004 to 15.63% in 2009 (OECD estimates). On average, these rates are higher by 1 or 2 percentage points than the ones that are estimated at the European level.

Please, note that on the Portuguese national statistics website, relative poverty rates for children are only provided at a 60% threshold which is preventing from undertaking a comparison with the OECD data points.

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

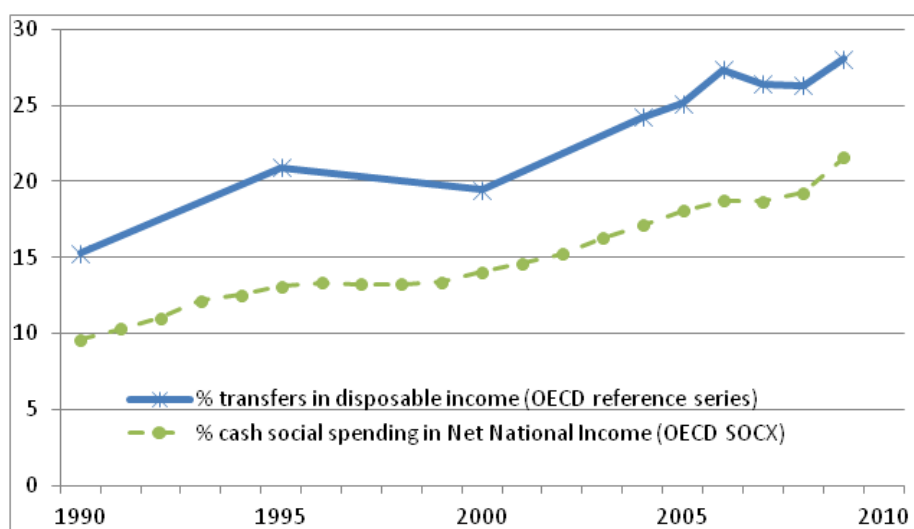
Table 2 shows shares of income components for the latest available year, according to the OECD benchmark series. Unfortunately, such information is not available for the other data sources described in table 1.

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

Survey	Year	Unit	Average income			K	SE	TR	TA	HDI	
			EH	ES	EO						
			Wages	Capital	Self Employment	Transfers	Taxes	Disposable income (HDI)			
OECD reference survey	2009	natcur	6398.31	3204.16	3.88	9,606	372.174	1380.003605	3293.55	-2952.2	11699.87117
		% av HDI	54.7%			82.1%	3.2%	11.8%	28.2%	-25.2%	

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 similar trend throughout the period.

Figure 6 Trends in shares of public social transfers



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

Definitions, methodology, data treatment

No major inconsistencies can be highlighted. However, the following points can be considered with room for improvement for better comparisons:

Differences between the OECD reference series and Eurostat / EU-SILC:

- The OECD time-series has been based on EU-SILC since 2004 (income year). Therefore, unsurprisingly, time-series on gini coefficients, income distribution indicators and poverty rates as published in the EU-SILC are matching well with the OECD since that date;
- That said, OECD and EU-SILC data are presenting divergences on the level of relative poverty rates, especially at the 60%-median which seem always lower for EU-SILC than for the OECD (up to 2 points differences). Explanations may be based on the differences regarding the terms of references as defined between the two institutions. Indeed, the OECD reference series uses the square root of household size, whereas Eurostat uses 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).
- Before the implementation of EU-SILC, Eurostat was calculating income inequality and poverty indicators over the period 1994 – 2003. Although not based on the same source (ECHIP for Eurostat, HBS for OECD), data and trends were still pretty similar with the OECD ones.

Differences between the OECD reference series and the Household Expenditure Survey (Inquérito às Despesas das Famílias - Instituto Nacional de Estatística):

- The Portuguese National Statistics Office conducts a Household Expenditure Survey which main results are compiled in the publication *Inquérito às Despesas das Família* which is available on-line. However, this documentation is published only in Portuguese language with the exception of the Executive Summary which is translated in English.
- Data are matching relatively well with the OECD ones while being continuously lower than the OECD ones for the the income quintile share ratios and the relative poverty rates.
- Variations in methodology and terms of references might explain these differences.

Differences between the OECD reference series and the Household Budget Survey (Instituto Nacional de Estatística):

- The OECD time-series on income inequalities and poverty rates were based on the *Household Budget Survey* from 1980 to 2000. Unfortunately, this survey is not accessible on-line on the National Statistical Office's website which is prejudicial for undertaking any data comparisons.

5. Summary evaluation

Over the reference period, the OECD time-series are matching pretty well with other national and European reporting. Despite slight differences regarding the figures, general patterns and trends are quite similar. This stems 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.

Differences in methodologies and terms of references among the sources may arise and explain the given discrepancies for the indicators studied in this Data Review.