

(Revised version: 4th September 2013)

INCOME DISTRIBUTION DATA REVIEW - TURKEY¹

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

1.1 *OECD reporting*

OECD income distribution and poverty indicators are calculated by the Turkish Statistical Office and come from two surveys:

- Household Income and Consumption Survey (from 1994 to 2005),
- Household Income and Living Conditions Survey (from 2007 onwards).

Data are currently available for 1987, 1994, 2004 and 2007 and 2009.

There was a change in survey weighting in 1994 but the OECD figures between the previous and the new method of calculation yielded very similar results for all indicators, including household income levels. There was a change of survey from 2007 onwards which means that data between 2004 and 2007 are not strictly comparable.

1.2 *National Reporting and Reporting in other international agencies:*

1.2.1 *National reporting:*

The Turkish Statistical Institute (TurkStat) started to produce statistics on income distribution with Household Income and Consumption Expenditure Survey in 1987 and carried on an independent survey on income distribution in 1994 and income distribution statistics' were produced from the household budget survey between 2002 and 2005. Since 2006, TURKSTAT started to conduct an "Income and Living Conditions Survey".

Other indicators on poverty are available in the poverty statistics section in the Turkish National Statistical Office's website. However, these data are not included in a yearly publication but are used in regular press releases.

1.2.2 *International reporting:*

Major poverty indicators were added in the "Income and Living Conditions Survey" from 2006 onwards and were calculated by the National Statistical Office. Before that, TurkStat was producing poverty studies with the World Bank. Since 2006, relative income poverty, which has international comparability, has been calculated based on the results of SILC for Turkey, urban, rural and SR Level 1.

¹ This revised version of the review benefited from valuable comments from Gullu Calik, Zuhul Daskiran, Duygu Özbakis from TURKSTAT.

Table 1. Characteristics of dataset, Turkey

Name	Household Income and Living Conditions Survey	Household Income and Consumption Survey
Name of the responsible agency	TurkStat	TurkStat
Year	Income and Living Conditions Survey has been implemented annually since 2006.	1987, 1994, 2002, 2003, 2004, 2005 and 2009
Data collecting frequency	Annually	
Covered population	The entire members of the households that live within the borders of the Republic of Turkey were included within the scope, except the population in aged homes, elderly houses, prisons, military barracks, private hospitals, hotels and child care centers. The immigrant population was also excluded from the scope.	
Sample size	16 565 households (2011 survey) 13026 households (2009 survey)	
Sampling method	Stratified, multi-staggered, clustered sampling. According to rotational design of SILC 75% of the sampling size is staying in the sample from one year to the other.	
Dissemination frequency	T+10 months	
Sampling unit	Household	
Response rate	2009 Figures: the non-response rate is 9 % in 2009. The same rate is 6,6% in urban areas, 3,1% in rural areas.	
Break in Series	SILC data are not available on line before 2006	Change in survey in 1994 Break in 2004 Data are not available on line before 2004 for some data
Websource	http://www.turkstat.gov.tr/VeriBilgi.do?alt_id=24	

2. Comparison of main results derived from sources used from OECD indicators (=benchmark) with alternatives 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 the total population followed a reversed u-shape pattern, between 1987 to 2004 with a spike in 1994. This assumption cannot be compared with national statistics office as historical data are no more available on-line.

From 2004, income inequalities have been decreasing among total population. According to TurkStat, the Gini coefficient is declining from 0.44 in 2002 to 0.38 in 2011. This general trend is confirmed both by OECD database and by TurkStat Office while figures show some discrepancies. In 2004, between OECD and TurkStat, the Gini coefficient is 0.03 higher for OECD (0.43) than for TurkStat (0.40). Interestingly, the Gini coefficient of non-equivalised incomes published by TurkStat matches the OECD reference series in 1994 but is lower in all further years. In later years the Gini coefficient of equalivalised incomes published by TurksStat matches the OECD series.

Considering data from the SILC, a time series on Gini coefficient is available on TurkStat from 2006 up to 2011 with a breakdown between urban and rural areas. Gini coefficients are slightly higher for urban areas than for rural ones after 2007. Please, note that TurkStat is producing Gini coefficients by household disposable incomes and by equivalised household disposable income. In the latest press release on Income and Living Conditions Survey (published on 17/09/2012), TurkStat is communicating on the Gini coefficients by equivalised household disposable incomes.

Figure 1. Trends in Gini coefficients (at disposal income), Turkey (1987 – 2011)

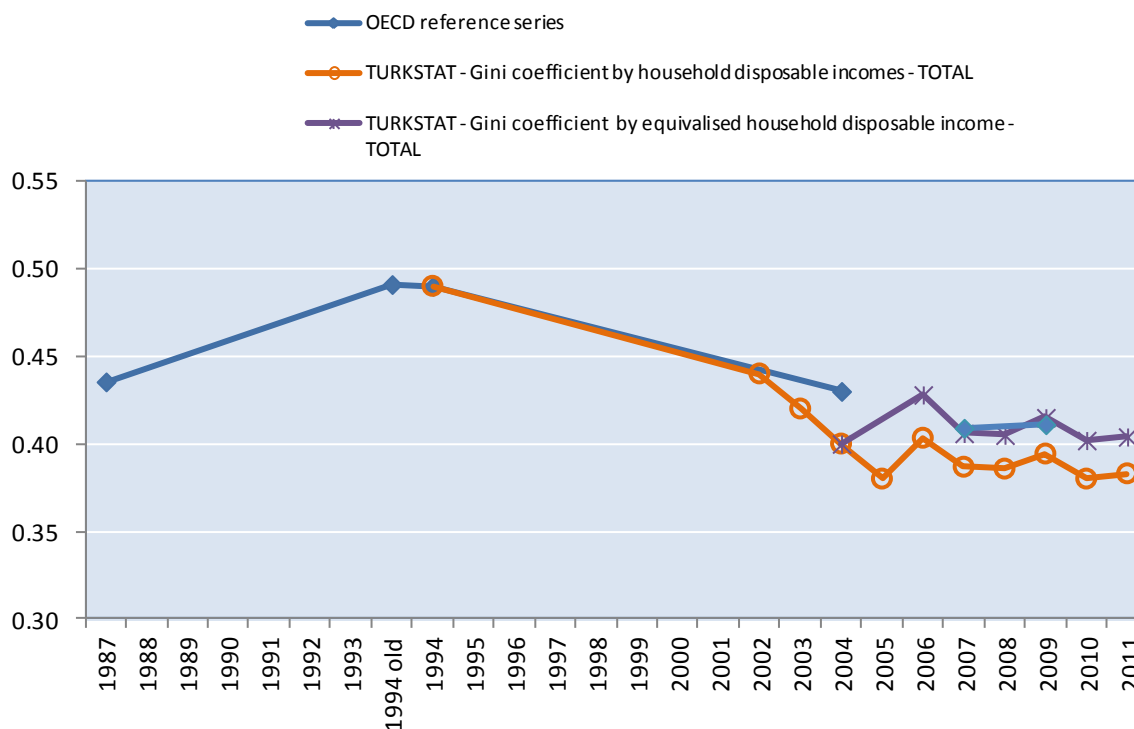
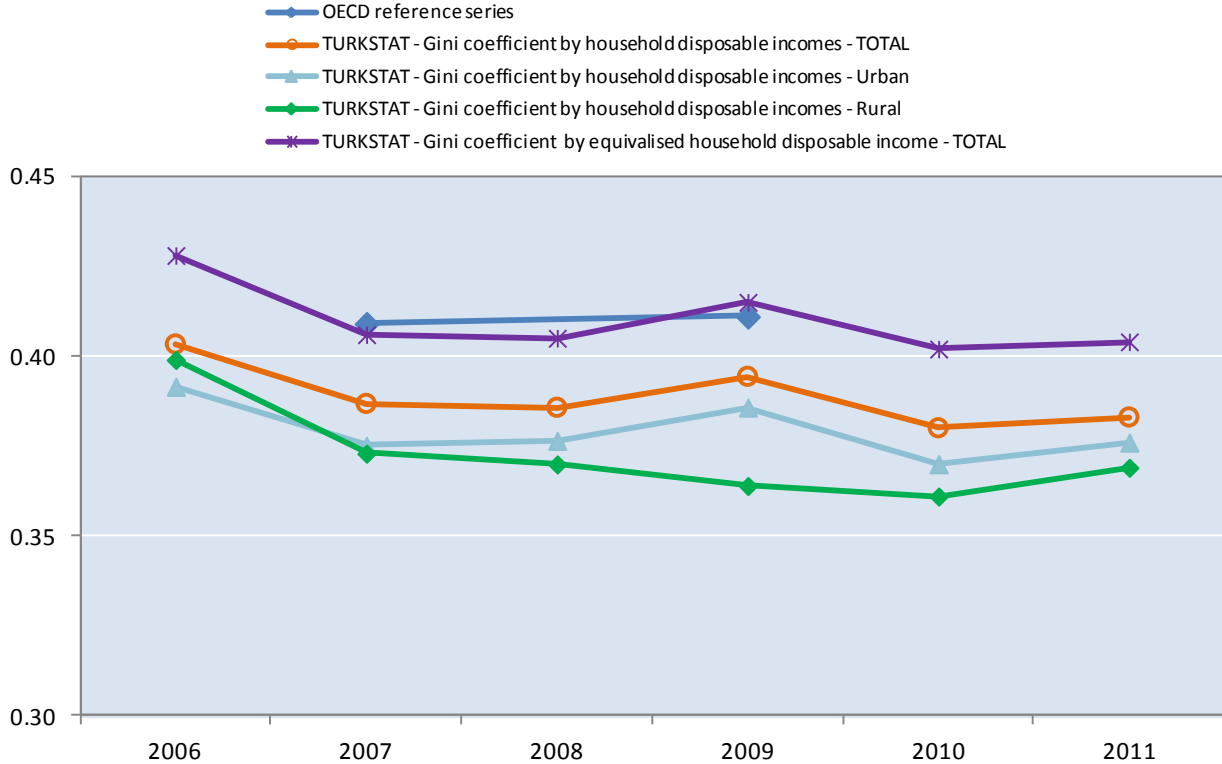


Figure 2. Trends in Gini coefficients (at disposal income; 2006 – 2011)

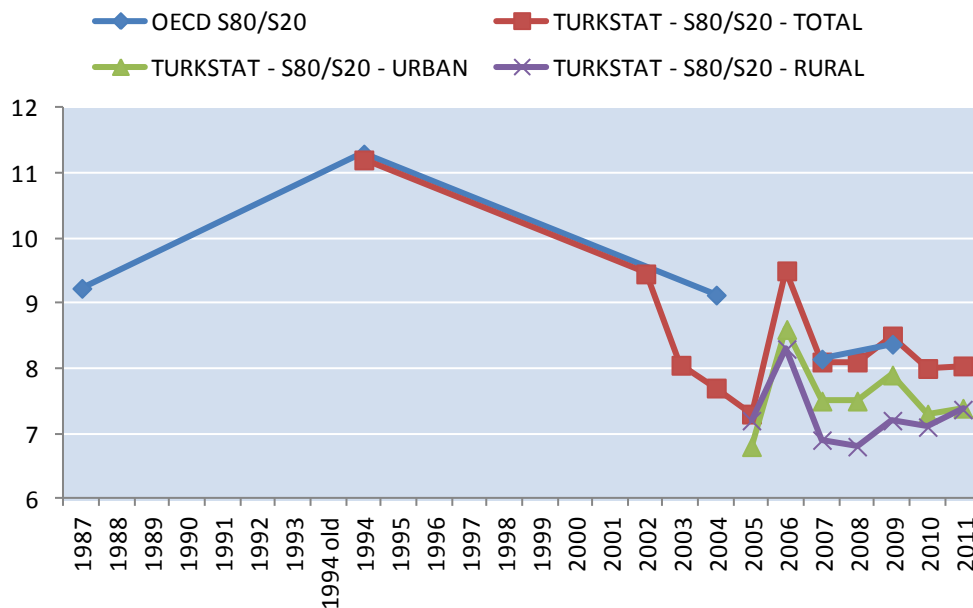


In addition, income quintile share ratios (S80/S20) are confirming the same trends pointed out in the above section. The data are available for 1987, 1994, 2004 and 2007 in the OECD reference series. In the Income and Living Conditions Survey from TurkStat, data are available from 1994 with a long-time series from 2004 to 2011 with a breakdown by rural and urban areas.

According to the OECD reference series, the income quintile share ratio remained unchanged from 1987 up to 2004 with an upward spike in 1994. OECD and TurkStat are presenting an identical figure for 2004. From 2004 onwards, the S80/S20 ratio is steadily declining from 9.13 in 2004 down to 8.14 in 2007. The TurkStat figures are more volatile but we can identify a similar trend with declining figures from 2004 onwards. It may be important to note that TurkStat figures on income quintile share ratio are lower than OECD figures in 2004 (9.12 versus 7.7) while being similar in 2007 (8.1 in both surveys). For 2010 and 2011, TurkStat's latest figures on S80/S20 indicators are estimated at 8.00 for both years.

In terms of geographical allocation, income quintile share ratios are slightly higher for urban areas than for rural ones over the estimated period (2004 – 2011).

Figure 3. Trends in S80/S20, Turkey (1987 – 2011)



2.1.2 Time series of poverty rates, poverty composition

According to the OECD income distribution database, the share of the Turkish population living with less than 50% or 60% of the median equivalised income has remained stable from 1994 to 2007. Over this period, around 16%-17% of the population was living in relative poverty with a poverty line of 50% whereas this figure was estimated around 24% with a poverty line of 60%.

The national statistics office calculates two-times series of poverty rates:

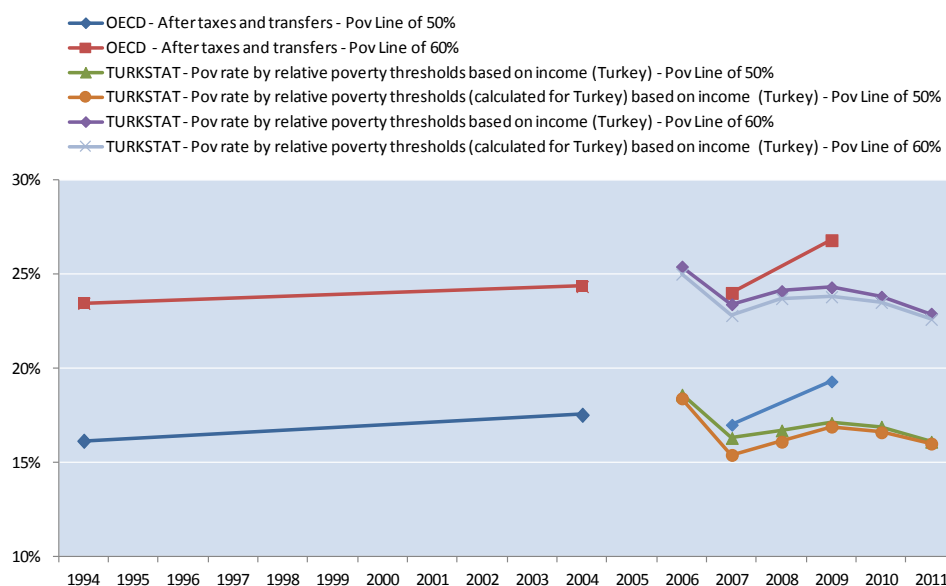
- One poverty rate calculated by relative poverty thresholds based on income (Turkey) with a poverty line at 40%, 50%, 60% or 70%.
- One poverty rate by relative poverty thresholds calculated for Turkey and based on income (Turkey) with a poverty line at 40%, 50%, 60% or 70%.

Both of these time-series are calculated for urban and rural areas.

In 2007, the only comparable year between the OECD reference series and the TurkStat databases, figures are similar to the TurkStat poverty rates which are calculated by relative poverty thresholds based on income (Turkey).

The latest figures on poverty are published in a TurkStat press release dating back from 17th September 2012. Figures report that: “16, 1% of total population is at-risk-of poverty according to poverty threshold calculated by 50% of equivalised household disposal median income¹”. This rate is estimated at 13.9% for urban areas and at 15.7% for rural ones by using poverty thresholds calculated separately for urban and rural areas.

Figure 4. Trends in Poverty rates, after taxes and transfers, Turkey (1994 – 2011)



There is no information readily available on child poverty for Turkey at the Turkish Statistical Office.

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. According to the Turkish Statistical Office, the share of salaries and wages in total income is more than other types of income as per 2004 and 2005. Looking at the income shares, 39.2% of annual disposable income of individuals comes from salaries and wages; 28.8% from self-employment incomes; 23% from transfer incomes and 5.6% from property income, interests and dividends. Similar ratios were noticed in 2004 with the following respective figures: 38.7%, 31.8%, 21.2% and 4.9%. For the OECD reference series, the conclusion is very similar, though the OECD data suggest a lower transfers share and a higher share of self-employment income.

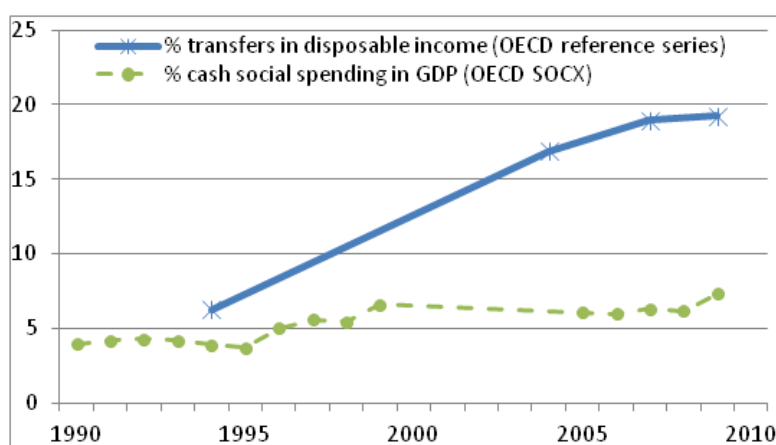
However, the below results are difficult to compare with other countries as taxes are not provided in both cases. Indeed, Turkey is one of the few OECD countries which report all incomes net of taxes.

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

Survey	Year		Wages (household leader)	Wages (spouse)	Wages (other members)	Total wages	Capital	Self - Employment	Transfers	Taxes	Daily Wage	Disposable Income
OECD Reference Survey	1987	Figures (YTL)	1314.01	138.26	452.47	1904.74	594.51	4562.92	601.3			7663.46
		In %				24.85	7.76	59.54	7.85			
OECD Reference Survey	1994	Figures (YTL)	1809.12	188.46	569.50	2567.08	1049.52	4002.43	510.89			8129.92
		In %				31.58	12.91	49.23	6.28	0.00	0.00	100.00
OECD Reference Survey	2004	Figures (YTL)	1861.59	248.27	596.20	2706.06	476.72	2368.62	1126.12			6677.52
		In %				40.52	7.14	35.47	16.86	0.00		100
OECD Reference Survey	2007	Figures (YTL)	2636	468	1105	4209	937	2029	1663			8752
		In %				48.09	10.71	23.18	19.00	0.00		100
TurkStat Survey	2004	Figures (YTL)	na	na	na	na	na	na	na	na		
		In %				38.7	4.9	31.8	21.2		3.5	100
TurkStat Survey	2005	Figures (YTL)	na	na	na	na	na	na	na	na		
		In %				39.2	5.7	28.8	23		3.3	100

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 GDP, reported from the OECD Social Expenditure database (OECD SOCX). OECD SOCX series include pensions, incapacity, family, unemployment, social assistance. Both series rather different trends throughout the period. The OECD series based on household incomes is recording a significant increase of public transfers throughout the period whereas the OECD Social Expenditure database (OECD SOCX) remained rather stable over the period.

Figure 6 Trends in shares of public social transfers



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

Differences and inconsistencies are only relevant when dealing with the comparison of the main aggregates of income components. In this category, differences may appear between the OECD reference series and the Turkish Statistical Office reference series, with the OECD reference data suggesting a lower share of public transfers in disposable income and a higher share of self-employment income. Slight differences regarding the means and the breakdown of the income components may explain the spread between the different data. For instance, the variable “daily wages” is a component of the disposal income for Turkstat which is not the case for the OECD reference series.

5. Summary evaluation

Generally speaking, the OECD reference series match with the Turkish series over the comparable time period. Figures related to the income distribution are broadly similar between the two time-series. The Gini coefficients are slightly higher for OECD than for TurkStat.

The break in 1994 does not really affect the comparison for two main reasons. First, data are similar or rather close between the previous OECD reference series (called 1994 old) and the new OECD reference series (called 1994). Second, the 1994 data from the Household Income and Consumption Survey (before 1994) are usually not available anymore on the Turkish National Statistical Office's website.

However, the major difficulty lies in the fact that the common period of reference between the different surveys is very limited. The OECD has very limited figures beyond 2004 and the TurkStat has scarce information on-line for figures before 2004. More precisely, for income distribution indicators, the time-series of comparison are starting in 2004 and for poverty indicators, they are starting only in 2007 (OECD data are available before 2007 but not for TurkStat²). Therefore, comparisons are difficult to assess for these reference series.

Finally, Turkey is one of the few OECD countries which report all incomes net of taxes which disallows analysis of the redistributive impact of taxes and benefits.

¹ TurkStat, Press release published on 17/09/2012,
<http://www.turkstat.gov.tr/PreHaberBultenleri.do?id=10902>

² However poverty indicators based on consumption are available from 2002 in Turkstat