



Working Paper Series

## **Chartbook of economic inequality**

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**ECINEQ WP 2014 - 324**

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### **Abstract**

The purpose of this Chartbook is to present a summary of evidence about long-run changes in economic inequality – primarily income, earnings, and wealth – for 25 countries covering more than one hundred years. There is a range of countries and they account for more than a third of the world's population: Argentina, Brazil, Australia, Canada, Finland, France, Germany, Iceland, India, Indonesia, Italy, Japan, Malaysia, Mauritius, Netherlands, New Zealand, Norway, Portugal, Singapore, South Africa, Spain, Sweden, Switzerland, the UK and the US. The results are presented in 25 charts, one for each country, together with a description of the sources. The underlying figures are available for download at [www.chartbookofeconomicinequality.com](http://www.chartbookofeconomicinequality.com).

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\*The assembly of the data for this chartbook has formed part of the Inequality project at the Institute for New Economic Thinking at the Oxford Martin School and have had the financial support of the INET grant (IN01100021). An earlier version of the Chartbook was circulated with the title "Chartbook of Economic Inequality: 25 Countries 1911-2010", INET Research Note series #15. For their help and advice, we thank Facundo Alvaredo, Hans Baumann, Andrea Brandolini, Leonardo Gasparini, Arthur B. Kennickell, Andrew Leigh, René Levy, Max Roser, Wiemer Salverda, Giovanni Vecchi, Daniel Waldenström, and Angela Wenham but they are not to be held in any way responsible for any errors or omissions.

### *Purpose*

The purpose of this Chartbook is to present a summary of evidence about long-run changes in economic inequality - primarily income, earnings, and wealth - for 25 countries covering more than one hundred years. There is a range of countries and they account for more than a third of the world's population: Argentina, Brazil, Australia, Canada, Finland, France, Germany, Iceland, India, Indonesia, Italy, Japan, Malaysia, Mauritius, Netherlands, New Zealand, Norway, Portugal, Singapore, South Africa, Spain, Sweden, Switzerland, the UK and the US. The results are presented in 25 charts, one for each country, together with a description of the sources. The underlying figures are available for download at [www.chartbookofeconomicinequality.com](http://www.chartbookofeconomicinequality.com).

We aim to provide for each country five indicators covering on an annual basis:

- Overall income inequality (shown in the charts by squares);
- Top income shares (shown by pyramids)
- Income (or consumption) based poverty measures (shown by stars);
- Dispersion of individual earnings (shown by diamonds);
- Top wealth shares (shown by circles).

This is ambitious and our charts fall a long way short of being complete, as is illustrated in Table 1, which shows the dates at which, for each country, the five indicators commence. In the past, more evidence was available about the upper part of the distribution, and our indicators cover the top income shares more fully. For the other indicators, coverage is more limited. In only about a quarter of the 125 cases, do the data start before 1945. In many cases data are not always available for every year and there are gaps in the series. These are joined within the graphs but it is worth noting that this may well miss important year-to-year variations. In some cases, particularly for wealth, we have located no time series at all. For the 125 cells in Table 1 there are 18 blanks.

Our emphasis is on *change over time*. We have therefore concentrated on comparability over time, and for this reason presented the evidence country by country.

### *What do the indicators show?*

For each of the five indicators, we have a "preferred" definition (or, in one case, a "standard" definition), but we have had to depart from this where no data are available on this basis. To aid the reader, we have in the charts marked by the symbol (\*) the series based on the preferred (or standard) definition. In a number of countries, this includes cases where the data are available for the preferred definition only for the later part of the period, and we have had to piece together series with different definitions. Where the series is not so identified, we have indicated the reason by italicising the relevant part of the description.

In the case of *overall income inequality*, our preferred definition is the distribution of equivalised (using a scale to allow for differences in household size and composition) household disposable income, defined as income from all sources, including transfer payments, minus direct taxes and social security contributions. The equivalence scale used in most cases is the “modified OECD scale”, which gives a weight of 1 to the first adult, of 0.5 to each additional adult, and of 0.3 to each child. This means that the income of a family of 2 adults and 2 children is divided by 2.1. In some cases, other scales are employed, such as the square root scale, where income is divided by the square root of the household size (2 in the example just given). The distribution is among persons: each individual appears in the distribution with the equivalised income of the household. No allowance is made for within-household inequality. In a number of cases, the definitions in the available statistics depart from this preferred version. For example, income may not be adjusted for household size and composition, or the distribution may relate to gross income, before the deduction of income and social security taxes. Because the income tax is usually progressive, inequality is typically higher for gross income than for disposable income.

The distribution is summarised in a single summary statistic, typically the Gini coefficient, which is not our preferred statistic but that most commonly published by statistical agencies. The explanation of the coefficient given by most agencies takes the form of geometry, but we prefer to describe it in terms of the mean difference. A Gini coefficient of  $G$  per cent means that, if we take any 2 households from the population at random, the expected difference is  $2G$  per cent of the mean. So that a rise in the Gini coefficient from 30 to 40 per cent implies that the expected difference has gone up from 60 to 80 per cent of the mean. Another useful way of thinking, suggested by Amartya Sen, is in terms of “distributionally adjusted” national income, which with the Gini coefficient is  $(100-G)$  per cent of national income. So that a rise in the Gini coefficient from 30 to 40 per cent is equivalent to reducing national income by 14 per cent ( $1/7$ ).

Much of the evidence about *top income shares* is derived from tax records, and our standard – although not necessarily preferred – definition is gross income for tax purposes before deduction of allowable outgoings. In some cases, income includes capital gains and losses, although where there is a choice (as for the United States and Sweden), we have omitted capital gains and losses. Transfer income is covered to varying degrees in different countries. Because the tax system is typically progressive, the top shares in disposable income are smaller: for example, in the UK in 2000 the share of the top 1 per cent in before tax income was 12.7 per cent, whereas the share in after tax income was 10.0 per cent. It is also worth noting that the measuring unit is typically not the household but the unit reporting income for tax purposes (the tax unit is typically formed by married couples and unmarried adults or adults only depending on the taxation regime of each country).

The evidence about top shares is presented in terms of the shares of, typically, the top 0.1 per cent and the top 1 per cent. These are readily interpreted: a share of 10 per cent for the top 1 per cent means that they receive 10 times their proportionate share of income. A share of 4 per cent for the top 0.1 per cent

means that they receive 40 times their proportionate share of income. Our preferred definition of *poverty* follows that adopted in the European Union (EU) agreed common social indicators: a relative measure set at 60 (or 50) per cent of the median equivalised disposable income in the country in question. In some cases, the figures presented relate to absolute poverty measures based on a poverty line fixed over time in terms of purchasing power. It should be stressed that the relative measure is not simply a measure of inequality. It would be quite possible for the EU measure to be reduced to zero without inequality being eliminated: a situation where no one receives less than 60 per cent of the median is quite consistent with considerable inequality.

Our preferred definition of *earnings dispersion* refers to the wage and salary received by those in employment and whose employment was not affected by absence. The indicator used in most cases is the ratio of earnings at the top decile (the person 10 per cent from the top) to the median earnings expressed as a percentage. This is a measure of how far the distribution of earnings is spread out at the top: a figure of 180 per cent means that those in the top 10 per cent of earnings receive 80 per cent or more in excess of median earnings.

The indicator of *wealth* is taken to be the net worth of either individuals (as in estate data) or of households (as in survey data). "Net" means that all liabilities (debts) have been subtracted from the total assets (real and financial); the figure for some households is negative (for example where the mortgage exceeds the value of the property). The summary indicator used in most cases is the share of the top 1 per cent. A figure of 25 per cent means that the top 1 per cent owns 25 times their proportionate share.

#### *Linking of series over time*

Discontinuities in statistical series on inequality are frequent. The US Census Bureau "selected measure of household income dispersion" covers the period from 1967 to the present, but there are no fewer than 19 footnotes indicating changes in the processing method. This is more than one every third year. Dealing with these is a matter for judgment. The rules we have followed are (a) to accept in general continuous published series, (b) to link assuming a proportional relationship series shown with overlapping observations in the same table (i.e. link at 1970 by multiplying the pre-1970 series by the ratio of 1970 new to 1970 old), and (c) to link in the same way overlapping series from other sources where there appears to be a sufficiently close definition (we recognise that this is a matter for judgment). Where these conditions are not satisfied, then we show multiple series. The proportionate linking means that the reader can rely on the year-to-year percentage changes, but means that the figures graphed here may differ from those in the original sources.

#### *Scaling*

In choosing the scaling of the graphs, we preferred the scale that guaranteed the clearest possible visualisation of the series. Therefore, we warn the reader that the scale of the graphs is not always comparable across countries.

### Sources

The sources are described for each country on the page following the chart. We have tried in all cases to check the figures against the original sources. The importance of such checking may be illustrated by reference to South Africa. In seeking data on the overall distribution, we had identified a series for the Gini coefficient covering the years from 1960 to 1987 in the World Income Inequality Database (WIID). Given the problems of securing long-term distributional data for that country, this appeared too good to be true. This proved to be the case. Investigation of the original source (Lachmann and Bercuson, 1992, Table 2) revealed that the title was "Gini coefficients assuming income equality within racial groups". The data showed the differences between races, which is an important part, but only part, of the story. These data do not measure overall inequality and are not used here.

In this exercise, we have made use of valuable building blocks. In particular the studies of top incomes, largely resulting from the project organised by Atkinson and Piketty (2007 and 2010), provide an anchor for the empirical analysis. This project gave rise to the [World Top Incomes Database](#) (referred to below as [WTID](#)), administered by Facundo Alvaredo. But we wish also to cover, as far as possible, the distribution as a whole, and to follow what happens to poverty as well as riches. The series that we present therefore show not only top income shares but also measures of overall inequality and measures of low incomes. Here we are able to draw on the collection of historical data assembled over the years by Atkinson and Brandolini (see for example, Brandolini, 2002).

The general sources on which we have drawn are:

Atkinson, A B, 2008, *The changing distribution of earnings in OECD countries*, Oxford University Press, Oxford.

Atkinson, A B and Piketty, T, editors, 2007, *Top incomes over the twentieth century*, Oxford University Press, Oxford.

Atkinson, A B and Piketty, T, editors, 2010, *Top incomes: a global perspective*, Oxford University Press, Oxford.

Brandolini, A, 2002, "A bird's eye view of long-run changes in income inequality", Bank of Italy Research Department, Rome.

Luxembourg Income Study (LIS) *Key Figures*, downloaded from [LIS website](#) 15 October 2010; it should be noted that the country coverage of LIS is being extended: in February 2014 the *Key Figures* covered 40 countries, including 17 of those included in this chartbook.

[World Top Incomes Data-Base \(WTID\)](#), created and administered by F. Alvaredo,

We owe a considerable debt to the many researchers who have contributed to these sources.

### Findings:

The main aim of the Chartbook is to allow readers to draw their own conclusions, but we have included below each chart a table summarising our answers to the following questions:

- Has the dispersion of earnings been increasing in recent decades?
- Has overall income inequality increased in recent years?
- Have there been periods when overall inequality fell in a sustained way?
- Has poverty been rising or falling over the past decades?
- The US and certain other countries have seen top income shares first fall and then rise, is there a U-shaped pattern of this kind?
- Has the concentration of wealth moved in the same way as income inequality?
- Are there other particularly note-worthy features?

These are only some of the questions that readers will want to ask, but they capture some of the issues in current debate. It is, for example, widely held that there is a general upward trend in income inequality. How far is this in fact the case? The answer will of course depend in part by our view as to what constitutes a “salient” rise. In the case of both the Gini coefficient and the share of the top 1 per cent, we take a 3 percentage point difference as salient.

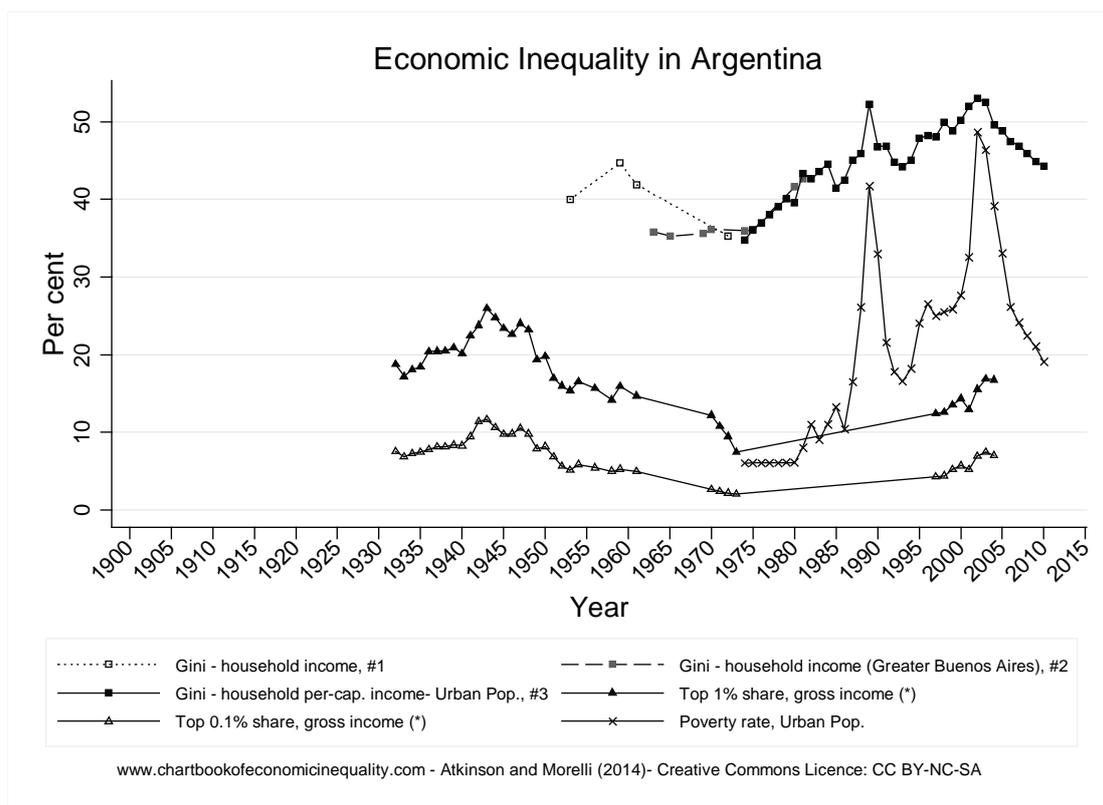
Table 1 Coverage of data (first year of data)

Country	Overall inequality	Top income shares	Poverty	Earnings	Wealth
Argentina	1953	1932	1980	-	-
Australia	1942	1921	1981	1975	-1915
Brazil	1960	1960	1984	2002	-
Canada	1959	1920	1976	1931	-
Finland	1920	1920	1971	1971	1909 (1800)
France	1956	1915	1970	1950	1911
Germany	1950	1911 (1891)	1962	1929	1973
Iceland	1992	1992	1986	1986	-
India	1951	1922	1983	1983	-
Indonesia	1964	1920	1976	-	-
Italy	1901 (1861)	1974	1977	1973	-
Japan	1923	1900 (1886)	1985	1980	1983
Malaysia	1957	1947	1970	-	-
Mauritius	1962	1933	1996	-	-
Netherlands	1959	1914	1977	1977	1905 (1894)
New Zealand	1951	1921	1982	1958	1956
Norway	1973	1900 (1875)	1979	1986	1912 (1789)
Portugal	1967	1936	1980	1982	-
Singapore	1966	1947	-	1965	-
South Africa	1960	1913	1970	1997	-
Spain	1964	1954	1973	2004	-
Sweden	1951	1911 (1903)	1975	1975	1908 (1800)
Switzerland	1950	1933	1982	1991	1915
UK	1938	1913 <sup>2</sup>	1961	1954	1923 (1740)
US	1918	1913	1948	1939	1916 (1774)

Note: In a few cases the actual initial year of the series (within the original sources) precedes the year 1900 and this is indicated within the table in italics and parenthesis. Series are not always continuous.

<sup>2</sup> It is worth noting that UK Top 0.1 % series starts in 1913 whereas top 0.05% and top 0.01% shares start in 1908.

### 1. Argentina



<i>Has the dispersion of earnings been increasing in recent decades?</i>	No evidence.
<i>Has overall inequality increased in recent years?</i>	No, the Gini coefficient has instead fallen by 8 percentage points since 2001.
<i>Have there been periods when overall inequality fell for a sustained period?</i>	Yes, in addition to the recent years, overall inequality and top shares fell from early 1950s to end of the 1970s.
<i>Has poverty been falling or rising in recent decades?</i>	Poverty has risen sharply during the 1980s and fallen from 1989 to 1993. It then rose dramatically till 2002 before falling sharply again till 2010.
<i>Has there been a U-pattern for top income shares over time?</i>	Yes, top gross income shares fell from 1943 to 1973, and have risen in recent decade.
<i>Has the distribution of wealth followed the same pattern as income?</i>	No evidence.
<i>Noteworthy features</i>	Rise in poverty rate before 1989 and 2002.

*Sources for the historical data series:*

Overall inequality: series 1: Gini coefficient for *household income* from national CONADE-CEPAL estimates from Altimir (1986, Cuadro 7); series 2: Gini coefficient for *household income* for *Greater Buenos Aires* from Altimir (1986, Cuadro 4, original figures); series 3: Gini coefficient for *household per capita income for the urban population* (Greater Buenos Aires from 1974 to 1992, 15 main cities from 1992 to 1998, 28 main cities from 1998 to 2003, now covers approximately 60 per cent of total population) from SEDLAC (Socio-Economic Database for Latin America and the Caribbean), a joint CEDLAS and World Bank project - see Gasparini and Cruces, 2008, and Gasparini, Cruces and Tornarolli, 2011), linked backwards at 1992 to the series from 1974 for Greater Buenos Aires (only).

Top income shares: Shares of top 1 and 0.1 per cent in total gross income Share of from [WTID](#), based on work of Alvaredo (2010).

Poverty: Percentage below of individuals below *national poverty line for urban population* (Greater Buenos Aires from 1974 to 1992, 15 main cities from 1992 to 1998, 28 main cities from 1998 to 2003, now covers approximately 60 per cent of total population), from SEDLAC (see above), linked backwards at 1992 as described above.

Individual earnings: no suitable data were found.

Wealth: no suitable data were found.

*References:*

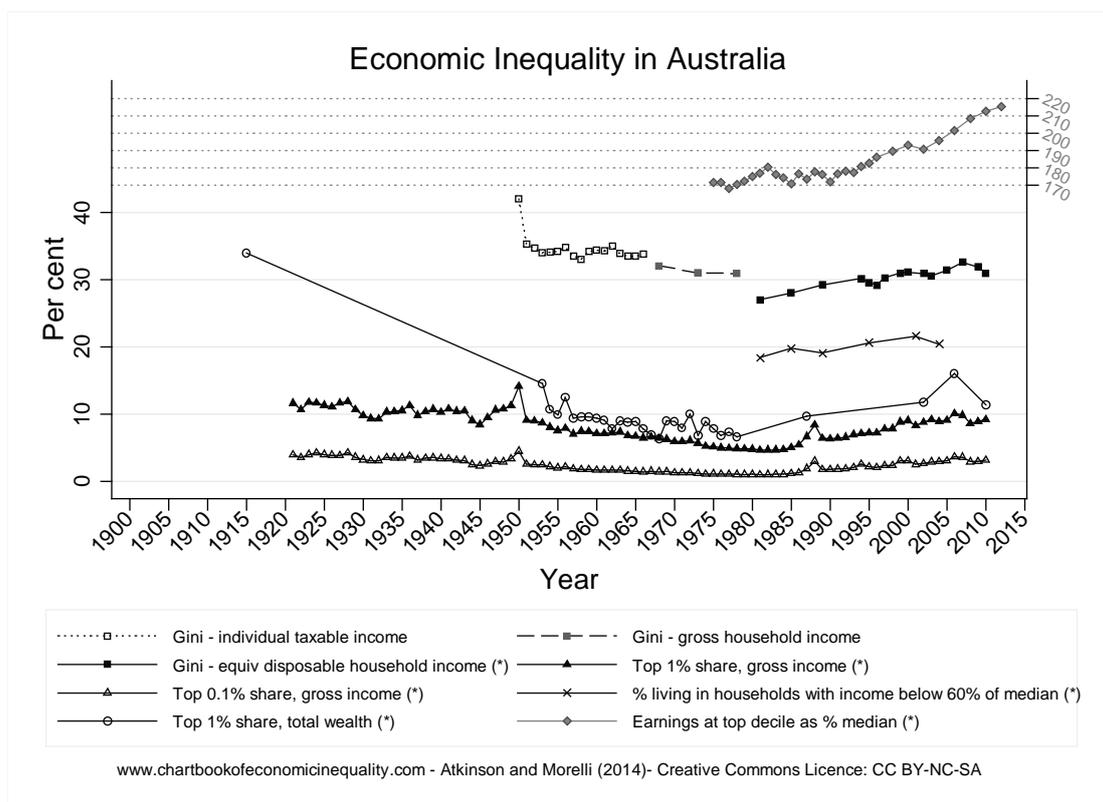
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Gasparini, L, Cruces, G and Tornarolli, R, 2011, "Recent trends in income inequality in Latin America", *Economía*, vol 11: 147-190.

## 2. Australia



<i>Has the dispersion of earnings been increasing in recent decades?</i>	Yes, top decile of earnings has increased from 175 per cent of median in 1975 to 215 per cent in 2012.
<i>Has overall inequality increased in recent years?</i>	Yes, Gini coefficient has increased by 5 percentage points since 1981.
<i>Have there been periods when overall inequality fell for a sustained period?</i>	Yes, overall inequality and top shares fell from early 1950s to end of the 1970s.
<i>Has poverty been falling or rising in recent decades?</i>	Risen since 1981.
<i>Has there been a U-pattern for top income shares over time?</i>	Yes, top gross income shares fell from 1921 to around 1980 and then began to rise, reaching pre-war levels before the 2007 crisis.
<i>Has the distribution of wealth followed the same pattern as income?</i>	Yes, the share in total wealth of the wealthiest 1% of the population dropped more than threefold from 1915 to the end of 1970s before rising again till the onset of 2007 crisis. However, the rise was not sufficient to return to pre-war levels of concentration.
<i>Additional noteworthy features</i>	Rising inequality on all (observable) dimensions for past thirty years.

*Sources for the historical data series:*

Overall inequality: Gini coefficient for *individual gross* income from Hancock (1971, Table 4); Gini coefficient of equivalised disposable household income from Table S.5, Household income and income distribution, 2011-12, [publication 6523.0 on website of Australian Bureau of Statistics](#), where we have taken account of the change in methodology in 2007-8 by calculating a figure for that year based on the change in the estimates obtained on the "former basis" (1.2 percentage points) from Table A7 of the 2007-8 report, and then subtracting the difference (1 percentage point) from the estimates for subsequent years (access the 2011-2012 [original data here](#)); linked at 1995 to series from [Luxembourg Income Study \(LIS\) Key Figures](#); Gini coefficient for *gross* household income calculated from Ingles (1981, Table 9).

Top income shares: Share of top 1 per cent in total gross income from [WTID](#), based on work of Atkinson and Leigh (2007).

Poverty: Percentage of individuals in households with equivalised (square root scale) disposable income below 60 per cent of the median from Luxembourg Income Study (LIS) [Key Figures](#).

Individual earnings: From May survey, *Employee Earnings and Hours* (all employees) taken from Atkinson (2008, Appendix A, Table A.5), updated from reports for 2006 (Table 5), 2008 (Table 6), 2010 (Table 8) and 2012 ([Table 1](#)) from [website of Australian Bureau of Statistics](#), linked backwards at 1998 to series back to 1975 given by OECD (Atkinson, 2008, Table A.3).

Wealth: Share of top 1 percent in total household wealth from Katic and Leigh (2013, Appendix Tables, Table A1 and A2): 1915 observation based on national wealth survey (tabulations), inheritance tax series used from 1953 to 1978 (when the inheritance tax was abolished), and more recent observations based on national wealth surveys (micro data).

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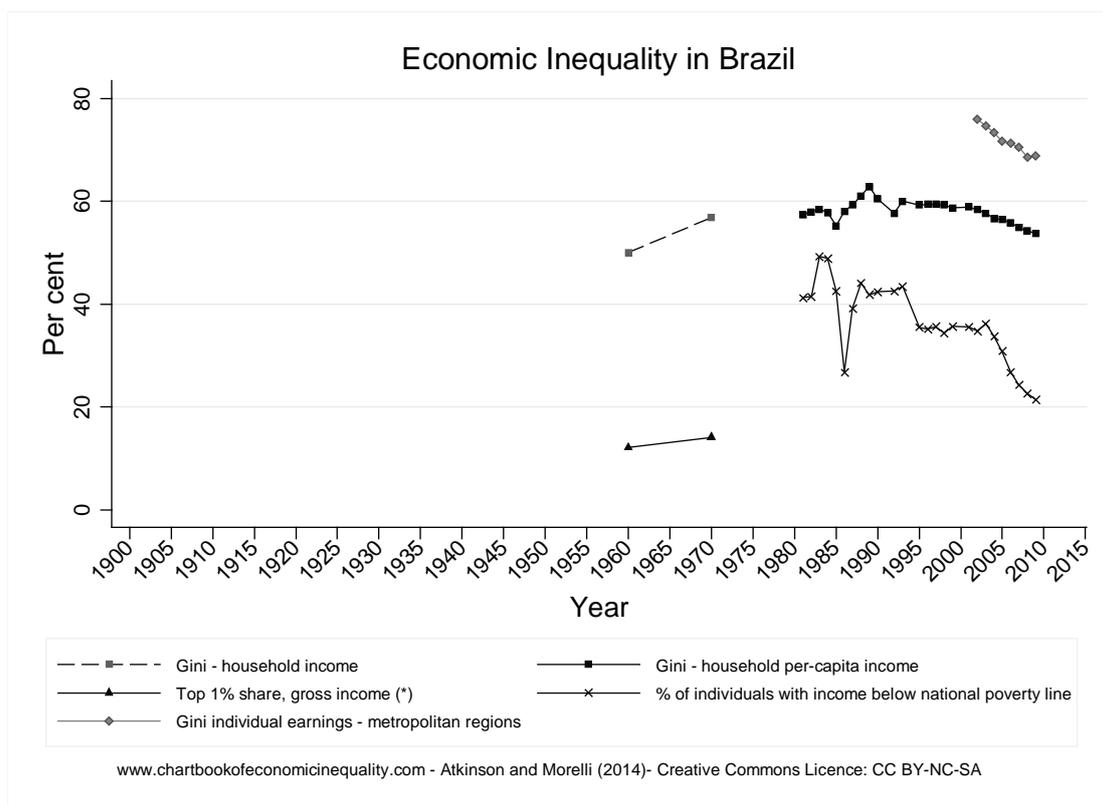
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### 3. Brazil



<i>Has the inequality of earnings been increasing in recent decades?</i>	No, earnings dispersion (Gini coefficient) has fallen in recent decade.
<i>Has overall inequality increased in recent years?</i>	No, the Gini coefficient has fallen by 5 percentage points between 2001 and 2009.
<i>Have there been periods when overall inequality fell for a sustained period?</i>	Yes, the recent decade.
<i>Has poverty been falling or rising in recent decades?</i>	Falling over past twenty years.
<i>Has there been a U-pattern for top income shares over time?</i>	Incomplete evidence
<i>Has the distribution of wealth followed the same pattern as income?</i>	No evidence
<i>Additional noteworthy features</i>	High level of overall income inequality.

*Sources for the historical data series:*

Overall inequality: Gini coefficient for household *per capita* income from SEDLAC (Socio-Economic Database for Latin America and the Caribbean), a joint CEDLAS and World Bank project - see Gasparini, Cruces and Tornarolli; Gini coefficient for *household income* for 1960 and 1970 from Langoni (1973a, Table 2; see also 1978), see also Fishlow (1972, Tables 1 and 5).

Top income shares: Share of top 1 per cent in total household income for 1960 and 1970 from Langoni (1978, Tabela 1.1 and 3.3).

Poverty: Percentage below of individuals below *national poverty line*, from SEDLAC (CEDLAS and the World Bank).

Individual earnings: Gini coefficient for labour earnings in *six main metropolitan regions*, persons aged 15-60, from Neri (2010, Table 2.3, June figures).

Wealth: no suitable data were found.

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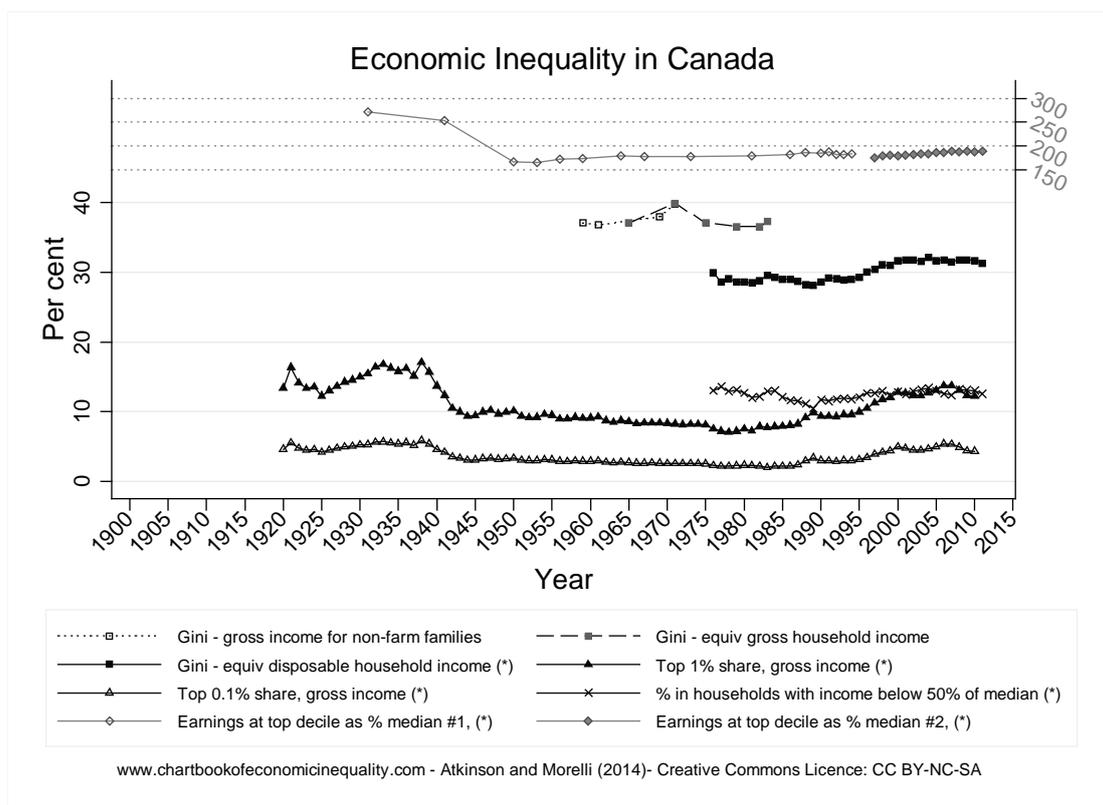
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4. Canada



<i>Has the inequality of earnings been increasing in recent decades?</i>	Yes, top decile of earnings has been rising relative to the median since early 1950s.
<i>Has overall inequality increased in recent years?</i>	Yes, Gini coefficient is around 3 percentage points higher than in 1989 but most of the increase took place in the 1990s.
<i>Have there been periods when overall inequality fell for a sustained period?</i>	Incomplete evidence
<i>Has poverty been falling or rising in recent decades?</i>	Poverty fell in the 1980's and then rose.
<i>Has there been a U-pattern for top income shares over time?</i>	Yes, top gross income shares fell from 1938 until the mid-1980s and then began to rise.
<i>Has the distribution of wealth followed the same pattern as income?</i>	No evidence
<i>Additional noteworthy features</i>	

*Sources for the historical data series:*

Overall inequality: Gini coefficient of equivalised (from 2010 square root scale) after-tax family unit income from [website of Statistics Canada](#), Table 202-0709; Gini coefficient for equivalised *gross* family income for 1965 to 1983 from Wolfson (1986, Table 3); Gini coefficient for *gross* family income *restricted to non-farm families* for 1959-1971 from Love (1979, Table A.3).

Top income shares: Share of top 1 per cent in total gross income from [WTID](#), based on work of Saez and Veall (2007) and Veall (2010).

Poverty: Percentage of individuals in households with equivalised after-tax annual income *below 50 per cent* of the median from website of Statistics Canada, [Table 202-0802](#).

Individual earnings: Series 1 from Atkinson (2008, Appendix C, Table C.4); Series 2 from OECD iLibrary, Employment and Labour Market Statistics, Gross earnings decile ratios.

Wealth: no suitable data were found.

*References:*

Atkinson, A B, 2008, *The changing distribution of earnings in OECD countries*, Oxford University Press, Oxford.

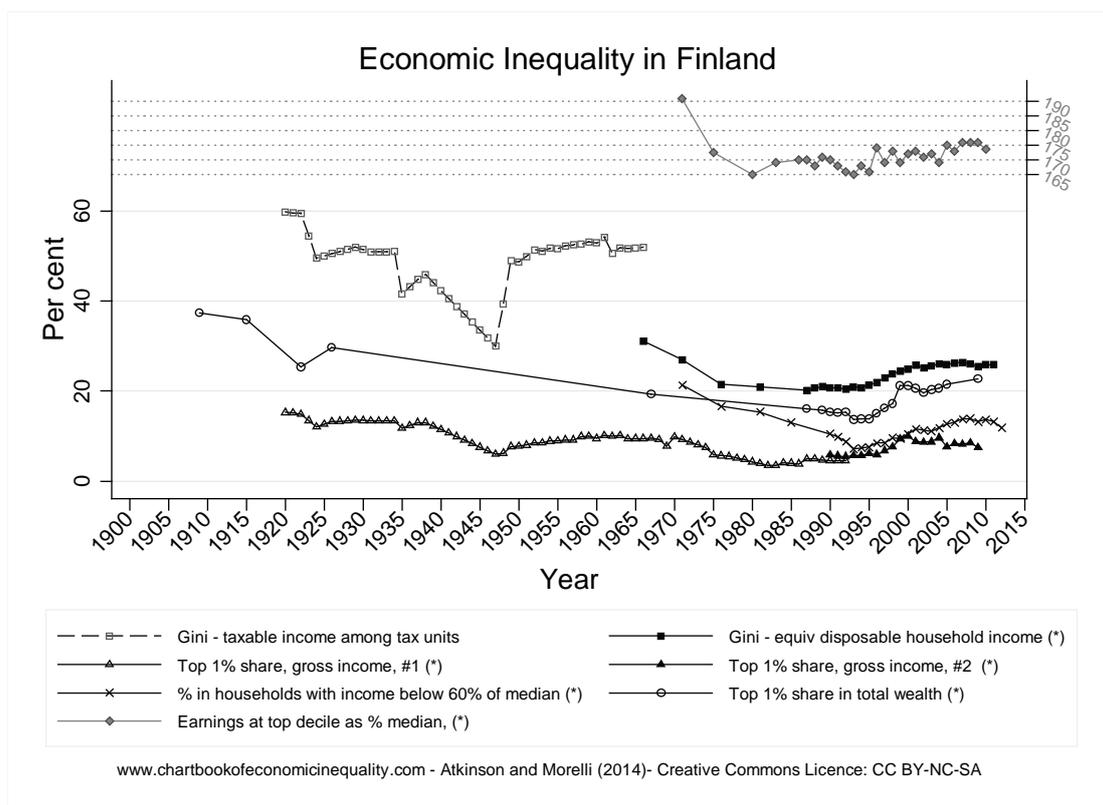
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Wolfson, M C, 1986, "Stasis Amid Change - Income Inequality in Canada 1965-1983", *Review of Income and Wealth*, vol 32: 337-69.

5. Finland



<i>Has the inequality of earnings been increasing in recent decades?</i>	Yes, top decile of earnings has risen from 165 per cent of median in 1980 to 176 per cent in 2008.
<i>Has overall inequality increased in recent years?</i>	Yes, Gini coefficient for disposable income now around 6 percentage points higher than in 1990.
<i>Have there been periods when overall inequality fell for a sustained period?</i>	Yes, overall inequality fell in early 1920s, in 1930s and from 1966 to end of 1970s.
<i>Has poverty been falling or rising in recent decades?</i>	Poverty fell from 1971 to early 1990s, since then increased and in 2010 remains double the 1993 rate.
<i>Has there been a U-pattern for top income shares over time?</i>	Not a classic U-shape: rise in share of top 1 per cent in 1950s.
<i>Has the distribution of wealth followed the same pattern as income?</i>	Long-term fall in the share of top 1 per cent over much of twentieth century, followed by rise starting in mid-1990s.
<i>Additional noteworthy features</i>	Substantial movements in all aspects of distribution.

*Sources for the historical data series:*

Overall inequality: Gini coefficient of equivalised (EU scale) household disposable cash<sup>3</sup> income from 1966 from [website of Statistics Finland](#), Income and Consumption, Income Distribution Statistics; it should be noted that the figures for 1966-1981, 1987-1992, and from 1993 are not fully comparable and that the figures prior to 2002 use the OECD equivalence scale; earlier series for distribution *among tax units* based on tax records from 1920 to 1966 from Jäntti et al (2010, Table 8A.1), see also Berglund et al (1998) and Eriksson and Jäntti (1998).

Top income shares: Share of top 1 per cent in total gross income from [WTID](#), based on work of Jäntti et al (2010); Series 1 is based on income tax records, Series 2 is based on the Income Distribution Survey.

Poverty: Percentage of individuals in households with equivalised (modified OECD scale) disposable income below 60 per cent of the median from [website of Statistics Finland, Statistics Database](#), Income Distribution Statistics, At risk of poverty indicators, linked backwards at 1990 to estimates by Riihelä, Sullström and Tuomala (2003, Table A.4.1) using OECD equivalence scale.

Individual earnings: From OECD iLibrary, Employment and Labour Market Statistics, Gross earnings decile ratios, linked at 1980 to earlier series from Atkinson (2008, Appendix F, Table F.3).

Wealth: Estimates by Roine and Waldenström (forthcoming).

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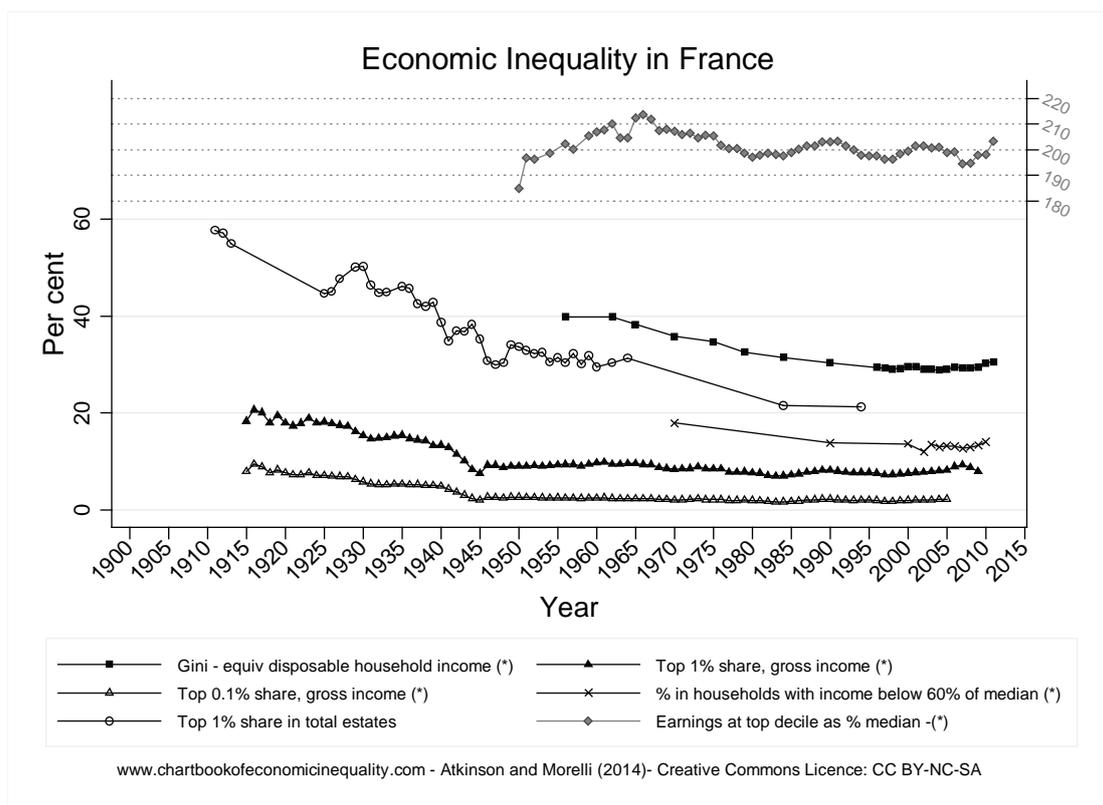
<sup>3</sup> From 2011 onwards Statistics Finland started to use households' disposable money income as the main concept (imputed income from owner-occupied dwellings and taxable realized capital gains are excluded). This was done in order to comply with *international recommendations and practices*. (See the [official explanation note](#).)

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6. France



<i>Has the top decile of earnings been increasing in recent decades?</i>	No, earnings dispersion shows no apparent trend.
<i>Has overall inequality increased in recent years?</i>	No, Gini coefficient relatively stable since 1990s.
<i>Have there been periods when overall inequality fell for a sustained period?</i>	Yes, overall inequality (as well as wealth inequality and poverty) fell from the 1960s to the 1990s.
<i>Has poverty been falling or rising in recent decades?</i>	Fell from 1970 to 2000.
<i>Has there been a U-pattern for top income shares over time?</i>	No, top gross income shares fell from 1916 to 1945 and then stable over post-war period.
<i>Has the distribution of wealth followed the same pattern as income?</i>	Yes, top wealth share fell in post-war period while little change in top income shares.
<i>Additional noteworthy features</i>	Overall stability of inequality in recent years.

*Sources for the historical data series:*

Overall inequality: Gini coefficient of equivalised (modified OECD scale) disposable household income from website of INSEE, Revenus-Salaires/Niveau de vie et indicateurs de l'inégalité from 2006 , earlier figures from Godefroy et al (2010, Table 1), here linked at 2005, and Legendre (2004, Table 2), linked backwards at 1970 to series on gross income (excluding certain categories of income) from Concialdi (1997, Table 11.11).

Top income shares: Share of top 1 per cent in total gross income from [WTID](#), based on work of Piketty (2001 and 2003) and Landais (2007).

Poverty: Percentage of individuals living in households with equivalised (EU scale) disposable income below 60 per cent of the median (urban France) [from website of INSEE](#), Revenus-Salaires/Pauvreté.

Individual earnings: From website of INSEE, *Revenus-Salaires, Distributions des revenus salariaux for 2002-2009*, earlier from *DADS exploitation exhaustive de 1950 à 2006* (estimations for 1981, 1983 and 1990).

Wealth: Share of top 1 per cent in total *estates* at death from Piketty, Postel-Vinay and Rosenthal (2004, Table A7).

*References:*

Concialdi, P, 1997, "Income distribution in France : The mid-1980s turning point" in P Gottschalk, B Gustafsson and E Palmer, editors, *Changing patterns in the distribution of economic welfare: An international perspective*, Cambridge University Press, Cambridge.

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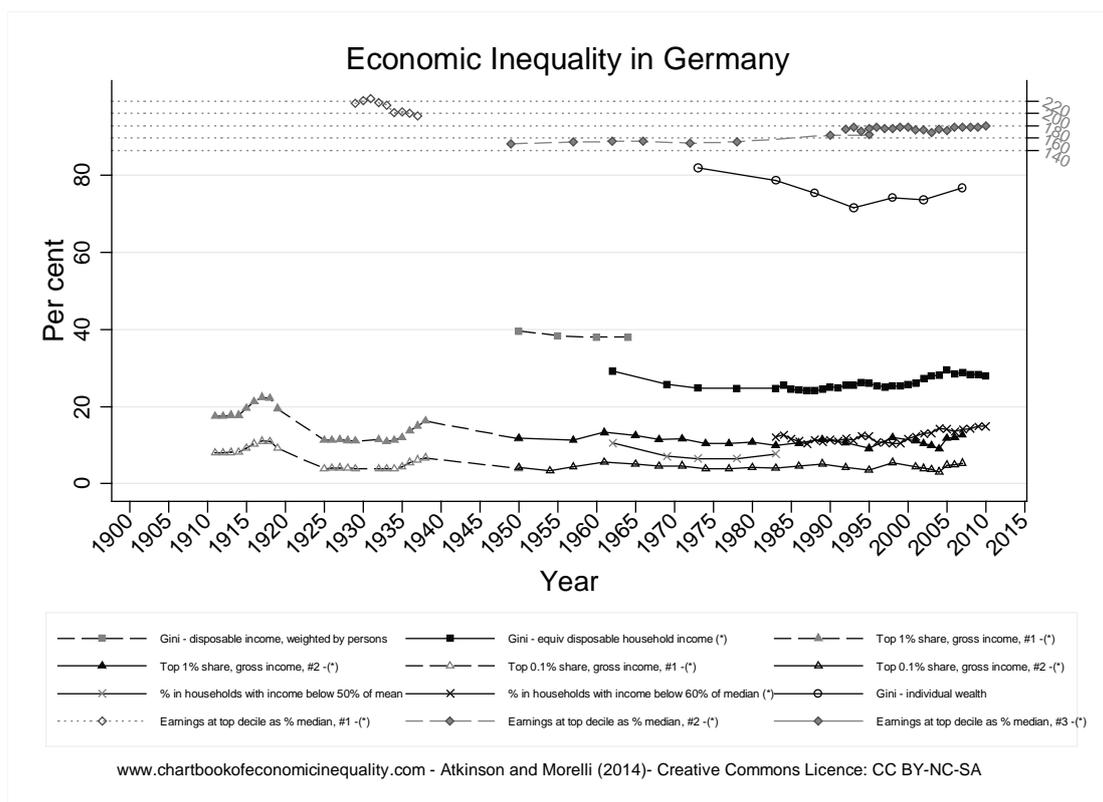
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7. Germany



<p><i>Has the dispersion of earnings been increasing in recent decades?</i></p>	<p>Yes, top decile has risen from 150 per cent of median in 1950s to 190 per cent at end of 2000s.</p>
<p><i>Has overall inequality increased in recent years?</i></p>	<p>Yes, the Gini coefficient in 2010 was 3 percentage points higher than in 1998.</p>
<p><i>Have there been periods when overall inequality fell for a sustained period?</i></p>	<p>Overall inequality (and poverty) fell over the 1960s and 1970s.</p>
<p><i>Has poverty been falling or rising in recent decades?</i></p>	<p>Poverty rate increased from 10 per cent to 15 per cent between 1998 and 2010.</p>
<p><i>Has there been a U-pattern for top income shares over time?</i></p>	<p>No, top gross income shares were relatively stable over post-war period.</p>
<p><i>Has the distribution of wealth followed the same pattern as income?</i></p>	<p>Yes, Gini coefficient of individual wealth fell 10 percentage points from 1973 to 1993 and then began to rise.</p>
<p><i>Additional noteworthy features</i></p>	

*Sources for the historical data series:*

Overall inequality: Gini coefficient of *unequalised* disposable income, series 1, from DIW (1973, page 224); Gini coefficient of equalised (modified OECD scale) disposable household income, series 2, for all persons in private households for all Germany (West Germany from 1984 to 1990) from SOEPmonitor 1984-2011, page 86, published [on the website of DIW Berlin](#); note that the data are based on information collected in the German Socio-Economic Panel on annual income (preceding year, so that the 2009 data are from the 2010 survey), linked backwards at 1983 to data from the EVS (Income and Expenditure Survey) for West Germany from Becker (1997, Tabelle 1) and Hauser and Becker (2001, page 89).

Top income shares: Series 1: shares of top 1 per cent and top 0.1 per cent in total gross income (excluding capital gains) covering Prussia before 1919, the German Reich from 1925 to 1938, and West Germany for 1950, from [WTID<sup>4</sup>](#) (based on work of Dell, 2007); Series 2 from 1950 for shares of top 1 per cent and top 0.1 per cent in total gross income (including capital gains) also from [WTID](#) covering West Germany until 1990 and thereafter Germany.

Poverty: percentage of individuals in households with equalised (original OECD scale) disposable household income below *50 per cent of the mean* for all persons of German nationality in private households for West Germany, from Becker (1997, Tabelle 2) ; percentage of individuals in households with equalised (modified OECD scale) disposable household income below 60 per cent of the median for all persons in private households for all Germany (West Germany from 1984 to 1990) from SOEPmonitor 1984-2011, page 94, published [on the website of DIW Berlin](#); note that the data are based on information collected in the German Socio-Economic Panel on annual income (preceding year, so that the 2009 data are from the 2010 survey).

Individual earnings: Series 1 covering the German Reich from Atkinson (2008, Appendix H, Table H.6); Series 2 covering West Germany from 1949 to 1991 and Germany till 1995 from Atkinson (2008, Appendix H, Table H.3); Series 3 from OECD iLibrary, Employment and Labour Market Statistics, Gross earnings decile ratios.

Wealth: Gini coefficient for individual wealth covering Germany from Frick, Grabka and Hauser (2010, Tabelle 2.6), linking the figure for 2007 at 2002/3 to the earlier series (estimates for 1973 to 1993 relate to West Germany).

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<sup>4</sup> The original work by Dell (2007) covered data up to 1998 which are not reported here in order to simplify the graph. Indeed, the two series are fairly similar during the overlapping period from 1950 to 1998.

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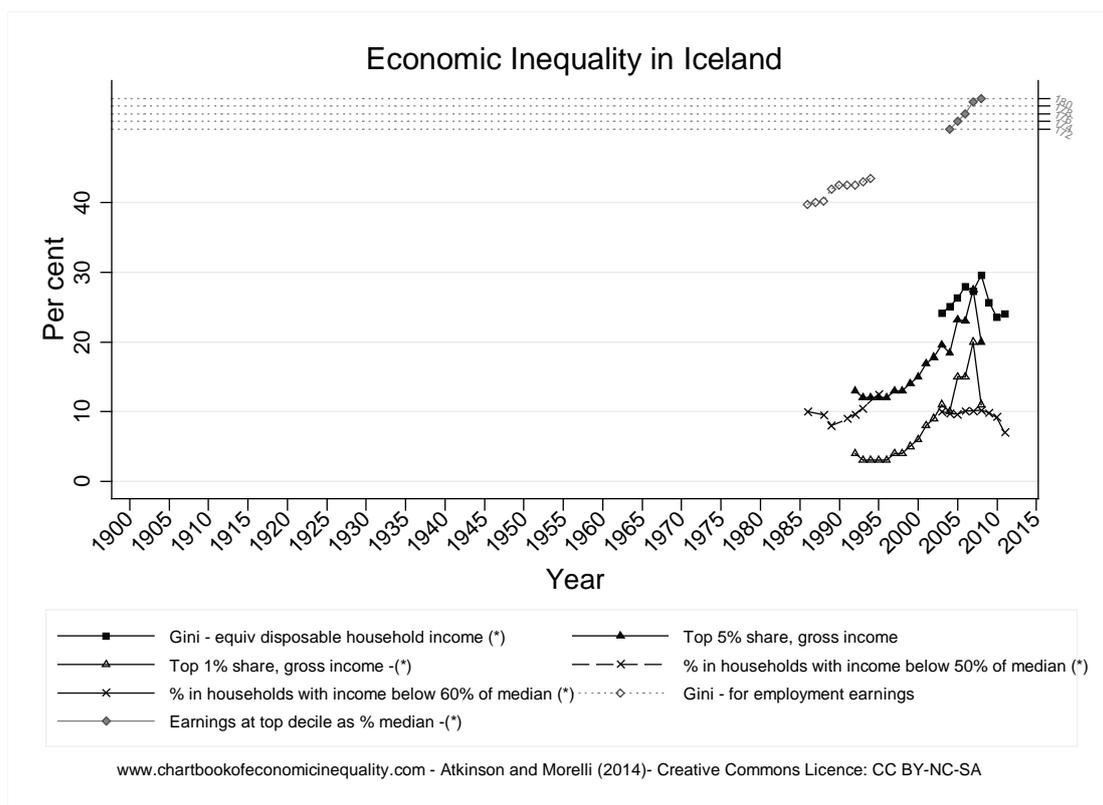
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Hauser, R and Becker, I, 2001, *Einkommensverteilung im Querschnitt und im Zeitverlauf 1973-1998*, Bundesministerium für Arbeit und Sozialordnung, Bonn.

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8. Iceland



<i>Has the top decile of earnings been increasing in recent decades?</i>	Yes, earnings dispersion appears to be on the rise since the 1980s. Evidence is however limited.
<i>Has overall inequality increased in recent years?</i>	Yes, the Gini coefficient has increased by 5.5 percentage points in the run-up of the crisis and then fell by 4 percentage points.
<i>Have there been periods when overall inequality fell for a sustained period?</i>	Limited evidence
<i>Has poverty been falling or rising in recent decades?</i>	Limited evidence
<i>Has there been a U-pattern for top income shares over time?</i>	Limited evidence
<i>Has the distribution of wealth followed the same pattern as income?</i>	No evidence.
<i>Additional noteworthy features</i>	Effect of financial bubble and crisis.

*Sources for the historical data series:*

Overall inequality: Gini coefficient for equivalised household disposable income from EU-SILC, [Eurostat website](#).

Top income shares: Shares of top 1 and 5 per cent in *equivalised disposable* income, including capital gains, after direct taxation and benefits, from Ólafsson and Kristjánsson (2010, Figure 6).

Poverty: Percentage of individuals living in households with equivalised (EU scale) disposable income below 60 per cent of the median from EU-SILC, [Eurostat website](#); for 1986-1995 (with 50 per cent of the median) from Ólafsson and Sigurðsson, (1996, Figure 2).

Individual earnings: Earnings at top decile from OECD iLibrary, Employment and Labour Market Statistics, Gross earnings decile ratios; Gini coefficient for employment earnings from Ólafsson, S and Sigurðsson (1996, Figure 2).

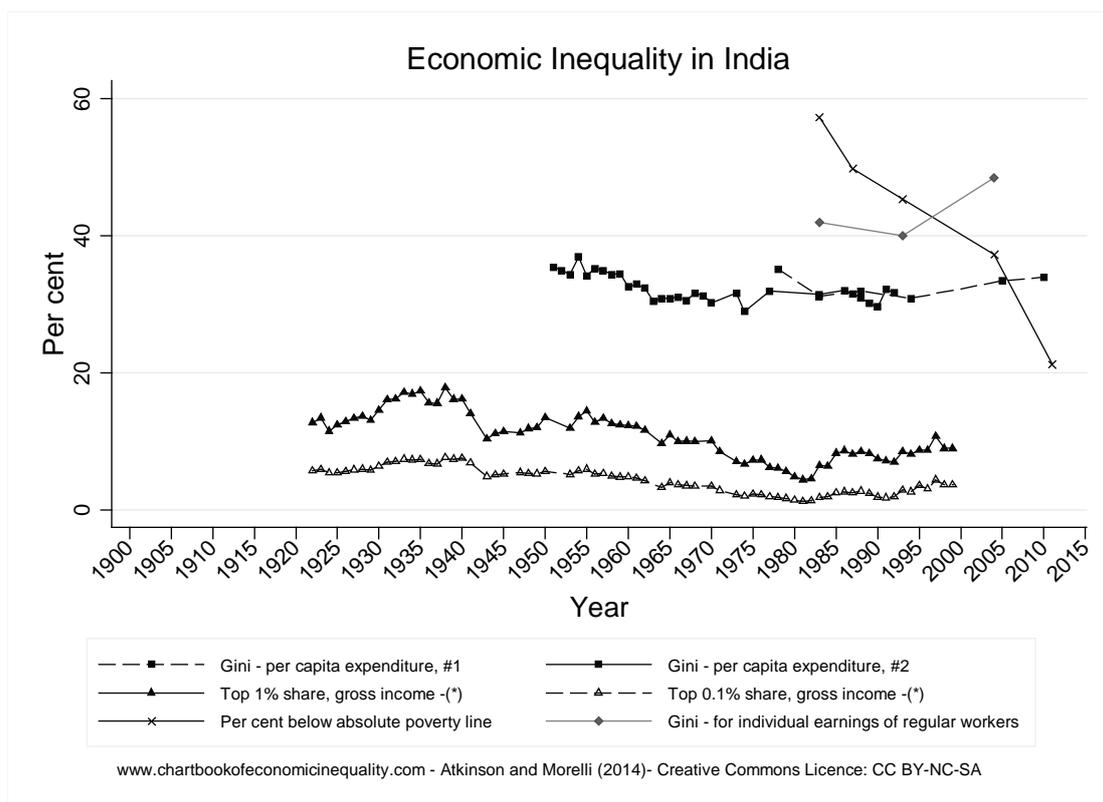
Wealth: no suitable data were found.

*References:*

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Ólafsson, S and Sigurðsson, A S, 1996, "Poverty in Iceland" in A Puide, editor, *Den nordiska fattigdomens utveckling och struktur*, Tema Nord, Copenhagen.

9. India



Has the dispersion of earnings been increasing in recent decades?	Yes, the Gini coefficient for individual earnings increased by 8 percentage points from 1993 to 2004.
Has overall inequality increased in recent years?	Yes, the Gini coefficient (from expenditure data) increased by 3 percentage points from 1994 to 2010.
Have there been periods when overall inequality fell for a sustained period?	Yes, some decline in overall inequality after Independence.
Has poverty been falling or rising in recent decades?	Falling at least since 1983. Note, however that we only observe measures of <i>absolute</i> poverty.
Has there been a U-pattern for top income shares over time?	Yes, top income shares fell from 1940 to 1980 and then rose; share of top 1 per cent doubled.
Has the distribution of wealth followed the same pattern as income?	No evidence
Additional noteworthy features	

*Sources for the historical data series:*

Overall inequality: Gini coefficient for *per capita expenditure*, series 1, from the World Bank [website, World Development Indicators](#); ; Gini coefficient for *per capita expenditure*, series 2 from World Income Inequality Database WIID2c, available on the [UNU-WIDER website](#).

Top income shares: Share of top 1 per cent and top 0.1 per cent in total gross income from [WTID](#), based on work of Banerjee and Piketty (2010).

Poverty: Percentage below *Planning Commission poverty line* (absolute) from [Government of India, Planning Commission](#) 2013, linked back at 1993 to [Majumdar](#) (2010, Table 4.2), percentage below *Planning Commission poverty line* (absolute).

Earnings: *Gini coefficient* of wages of regular workers from [Majumdar](#) (2010, Table 4.4).

Wealth: no suitable data were found.

*References:*

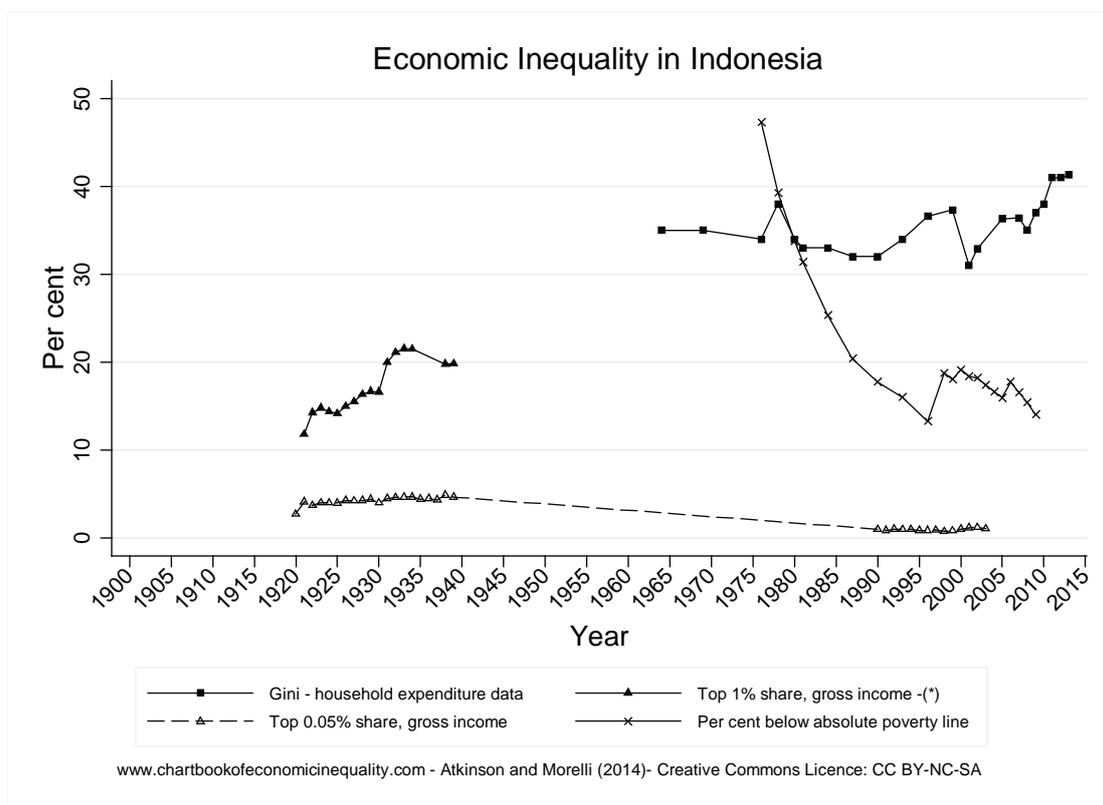
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10. Indonesia



<i>Has the dispersion of earnings been increasing in recent decades?</i>	No evidence
<i>Has overall inequality increased in recent years?</i>	Yes, the Gini coefficient (from expenditure data) has risen by 4 percentage points from 1987 to 2007.
<i>Have there been periods when overall inequality fell for a sustained period?</i>	Yes, the Gini coefficient fell from 1964 to 1987.
<i>Has poverty been falling or rising in recent decades?</i>	Falling. The share of individual living in <i>absolute</i> poverty went from 47 in mid-1970s to 14 percent in 2009.
<i>Has there been a U-pattern for top income shares over time?</i>	Insufficient evidence
<i>Has the distribution of wealth followed the same pattern as income?</i>	No evidence
<i>Additional noteworthy features</i>	

*Sources for the historical data series:*

Overall inequality: Gini coefficient for *household per capita expenditure* from the website of Badan Pusat Statistik ([Statistics Indonesia](#)), [consumption and expenditure/selected consumption indicators](#) since 2002; earlier observations from Booth (2000, Table 1), and Krongkaew and Ragayah (2006, Table 2).

Top income shares: Share of top 1 per cent and 0.05 per cent in total gross income from [WTID](#), based on work of Leigh and van der Eng (2010).

Poverty: Percentage with expenditure below *official absolute poverty line* (see Asra, 2000) for total population (rural and urban) from *Perkembangan Beberapa Indikator Utama Sosial-Ekonomi Indonesia* (Trends of the Selected Socio-Economic Indicators of Indonesia), October 2009, Table 5.4 (and total population figures from Table 2.1), linked backwards at 1999 and 1996, and linked backwards at 1980 to the estimates for 1976 and 1978 in Booth (1993, Table 5).

Individual earnings: no suitable data were found.

Wealth: no suitable data were found.

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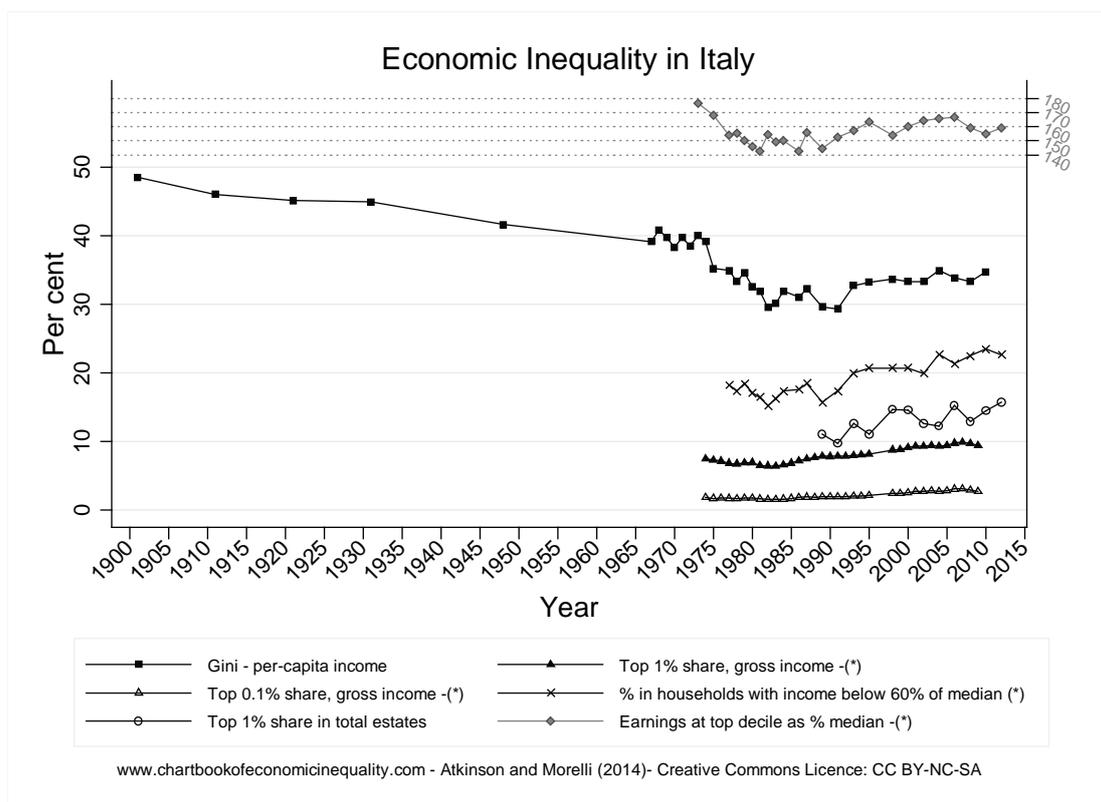
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11. Italy



<p><i>Has the dispersion of earnings been increasing in recent decades?</i></p>	<p>Yes, the top decile is now around 155 per cent of the median (it rose to 167 before the onset of the 2007 Great Recession), compared with 145 per cent at the start of the 1980s.</p>
<p><i>Has overall inequality increased in recent years?</i></p>	<p>The evidence is not clear. The Gini coefficient increased by approximately 4 percentage points from early 1980s to 2010. However, overall inequality was generally stable since early 1990s. There was a step up in the Gini coefficient around 1993 but this may in part reflect changes in the underlying survey.</p>
<p><i>Have there been periods when overall inequality fell for a sustained period?</i></p>	<p>Yes, Gini coefficient fell by some 10 percentage points in the 1970s.</p>
<p><i>Has poverty been falling or rising in recent decades?</i></p>	<p>Rising. The percentage of individuals living in households with (equivalised) disposable income below 60 per cent of the median went from around 15% in early 80s to around 23% in 2012.</p>
<p><i>Has there been a U-pattern for top income shares over time?</i></p>	<p>Yes, but the evidence is incomplete. The top gross income shares have fallen in the 1970s and risen since the early 1980s.</p>
<p><i>Has the distribution of wealth followed the same pattern as income?</i></p>	<p>Yes, to some extent. Top 1% wealth share rose in 1990s.</p>
<p><i>Additional noteworthy features</i></p>	<p>Some evidence of U-shaped pattern in post-war period. Steep rise in top wealth share from 1989 to 2000. Gini coefficient on household income relatively volatile over time.</p>

*Sources for the historical data series:*

Overall inequality: Gini coefficient of per-capita income among individuals computed by N. Amendola, A. Brandolini and G. Vecchi and taken from Vecchi (forthcoming) based on work from Brandolini (1999) and Brandolini and Vecchi (2011) and Vecchi (2011); income is deflated using a spacial index of the cost of living at the regional level based on the work of Amendola, Kiswani and Vecchi (2009).

Top income shares: Shares of top 1 and 0.1 per cent in total gross income from [WTID](#), based on work of Alvaredo and Pisano (2010).

Poverty: Percentage of individuals in households with equivalised (modified OECD scale) disposable income below 60 per cent of the median from Bank of Italy, data supplied by A Brandolini.

Individual earnings: From Atkinson (2008, Appendix K, Table K.4). Later figures provided by Andrea Brandolini.

Wealth: Share of top 1 per cent in wealth from Brandolini et al (2004, Table 6, adjusted figures) and Brandolini (forthcoming).

*References:*

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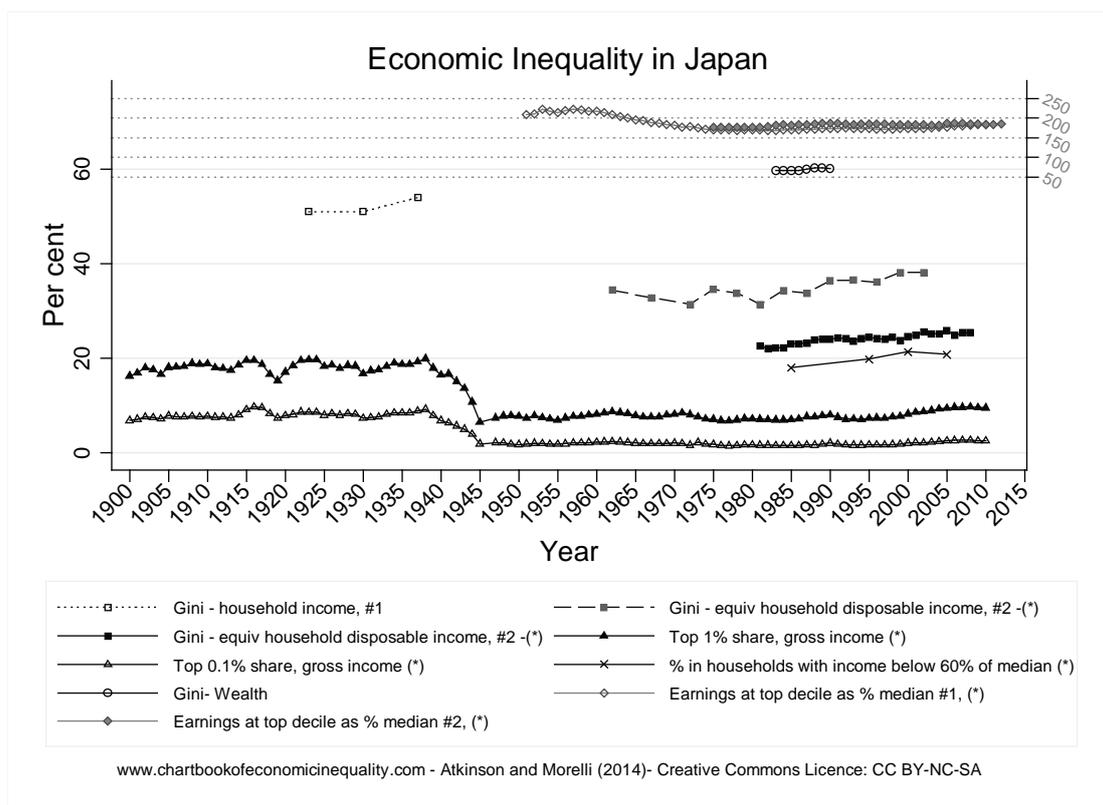
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Vecchi, G. (forthcoming) "*A History of Living Standards in Italy, 1861-2011*" Monograph for Oxford University Press. In preparation.

## 12. Japan



<p><i>Has the dispersion of earnings been increasing in recent decades?</i></p>	<p>No, the top decile as a percentage of the median was narrowing in the 1960s and 1970s. However the ratio shows little evident trend afterwards.</p>
<p><i>Has overall inequality increased in recent years?</i></p>	<p>Yes, the Gini coefficient shows an upward trend from 1980 to early 2000s, after which Gini appears to be relatively stable.</p>
<p><i>Have there been periods when overall inequality fell for a sustained period?</i></p>	<p>The evidence is incomplete. However, the substantial difference between available observations in 1938 and 1945, as well as the visible drop in top income shares, suggests that the Second World War was accompanied by substantial redistribution.</p>
<p><i>Has poverty been falling or rising in recent decades?</i></p>	<p>Rising from early 80s to 2000.</p>
<p><i>Has there been a U-pattern for top income shares over time?</i></p>	<p>No. Post-Second World War shares lower than before war and remained relatively stable. The recovery of top income shares since the end of the 1990s is evident but not salient.</p>
<p><i>Has the distribution of wealth followed the same pattern as income?</i></p>	<p>Insufficient evidence.</p>
<p><i>Additional noteworthy features</i></p>	<p>Difference before and after Second World War. Relative stability of earnings dispersion.</p>

*Sources for the historical data series:*

Overall inequality: series 1, Gini coefficient for *household income (pre-tax and transfers and not equivalised)* for the pre-second World War period from Minami (1998, Table 4) (source also cited by Hayami (1997, Table 7.2) and Moriguchi and Saez (2010, Figure 3.2)); Gini coefficient for redistributed (disposable) income, series 2, from the Income Redistribution Survey, from Tachibanaki (2005, Table 1.1); series 3, annual Gini coefficient for equivalised disposable household income from 1981 taken from the research of Lise et al. (2014) using data from the Family Income and Expenditure Survey (FIES).

Top income shares: Share of top 1 per cent in total gross income from [WTID](#), based on work of Moriguchi and Saez (2010).

Poverty: From website of OECD, Growing Unequal?

Individual earnings: Series 1 computed by Facundo Alvaredo based on work by Moriguchi and Saez (2010), Appendix 3C, covering all employees in the private sector who worked for the same employee throughout a calendar year, excluding temporary workers with job durations below one year, regular employees hired mid-year, government employees and retirees; Series 2 from OECD iLibrary, Employment and Labour Market Statistics, Gross earnings decile ratios;

Wealth: *Gini coefficient* for net worth for all population (home-owners and tenants) from Tachibanaki (2005, Table 1.10).

*References:*

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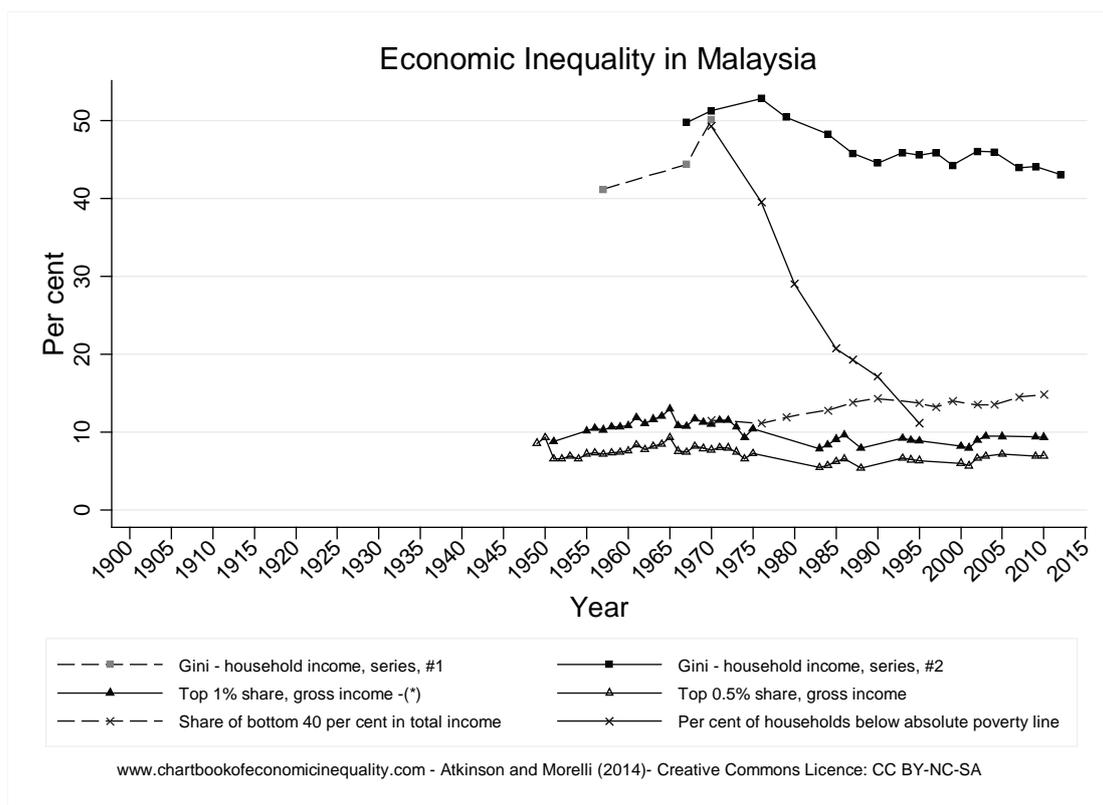
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### 13. Malaysia



<i>Has the dispersion of earnings been increasing in recent decades?</i>	No evidence.
<i>Has overall inequality increased in recent years?</i>	No, the Gini coefficient fell from mid-1970s up to 1990, remained relatively stable up to 2000 and started to fall again.
<i>Have there been periods when overall inequality fell for a sustained period?</i>	Yes, from 1976 to 1990 the Gini coefficient decreased by 8 percentage points.
<i>Has poverty been falling or rising in recent decades?</i>	Falling. Percentage of households below <i>absolute</i> poverty line fell from 49 to 11 percent from 1970 to 1995.
<i>Has there been a U-pattern for top income shares over time?</i>	Not very clear in the data. Top shares started to rise in 2000.
<i>Has the distribution of wealth followed the same pattern as income?</i>	No evidence.
<i>Additional noteworthy features</i>	

*Sources for the historical data series:*

Overall inequality: Gini coefficient for household income (*not equivalised*), series 1 from Snodgrass (1980, Tables 4.3, 4.6 and 4.7); series 2, from Department of Statistics Malaysia, Household Income and Basic Amenities Survey Report [2009](#) and [2012](#), from Ragayah (2008, Table 1), with 1967 observation from Krongkaew and Ragayah (2006, Table 2).

Top income shares: Shares of top 1 and 0.1 per cent in total gross income from [WTID](#), based on Atkinson (forthcoming).

Poverty: *Share of bottom 40 per cent* in total household income (not equivalised) from Ragayah (2008, Table 1); percentage of households below official absolute poverty line from Snodgrass (2002, Table 2-1).

Individual Earnings: No suitable data were found.

Wealth: No suitable data were found.

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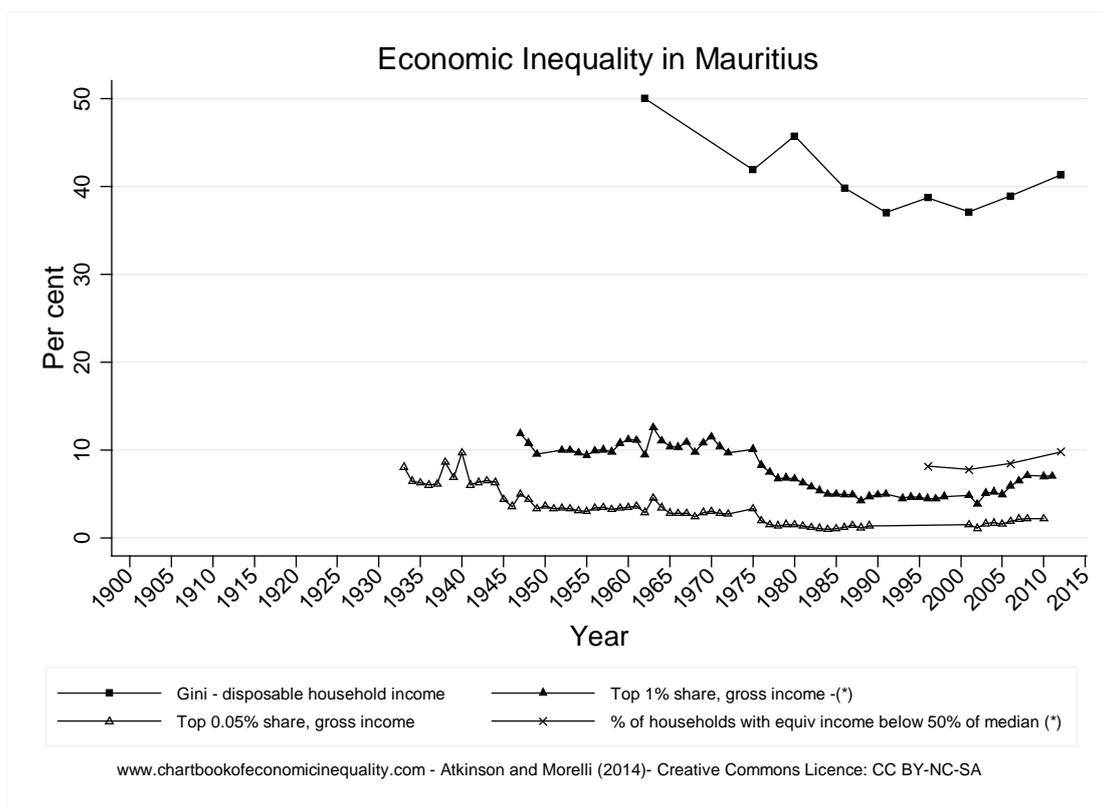
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14. Mauritius



<i>Has the dispersion of earnings been increasing in recent decades?</i>	No evidence.
<i>Has overall inequality increased in recent years?</i>	Yes, the Gini coefficient increased by 4 percentage points since 2001 after a period of sustained reduction in inequality.
<i>Have there been periods when overall inequality fell for a sustained period?</i>	Yes, the Gini coefficient fell by 13 percentage points between 1962 and 1991.
<i>Has poverty been falling or rising in recent decades?</i>	Insufficient evidence.
<i>Has there been a U-pattern for top income shares over time?</i>	Yes, top gross income shares were falling from mid-1970s to mid-1990s and rising in the most recent decade.
<i>Has the distribution of wealth followed the same pattern as income?</i>	No evidence
<i>Additional noteworthy features</i>	

*Sources for the historical data series:*

Overall inequality: Gini coefficient for monthly household disposable income (*not equivalised*) from report on [Household Budget Survey \(HBS\) 2012](#), Table 3, report on HBS 2006/07, Table 3, and report on HBS 2001/02, Table 5, linked to earlier series for 1975 to 1991 from WIID, and figure for 1962 given by Subramanian (2001, page 2).

Top income shares: Shares of top 1 and 0.1 per cent in total gross income from [WTID](#), based on work of Atkinson (2011).

Poverty: Proportion of households with equivalised income below *50 per cent* of the median from report on [Household Budget Survey \(HBS\) 2012](#), Table 7 and report on HBS 2006/07, Table 7.

Individual Earnings: To the best of our knowledge no data on earnings decile ratio are available for Mauritius.

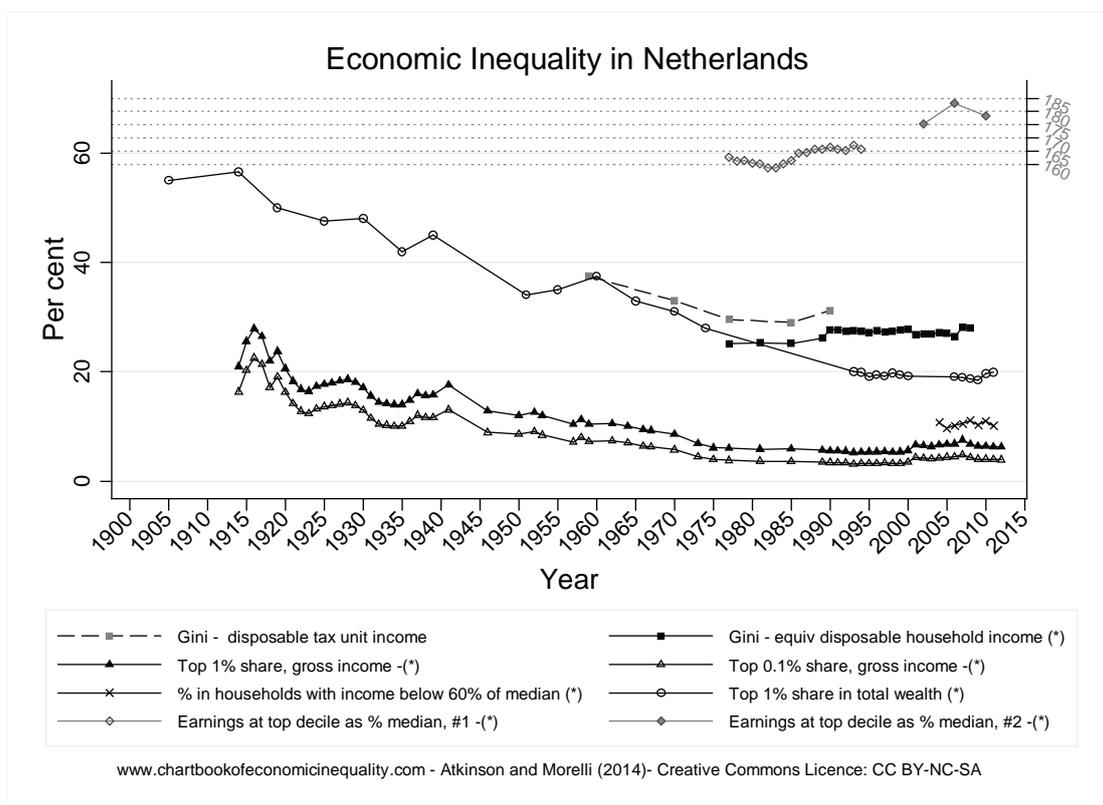
Wealth: To the best of our knowledge no data on wealth distribution are available for Mauritius.

*References:*

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15. Netherlands



<i>Has the dispersion of earnings been increasing in recent decades?</i>	Yes, the top decile has risen relative to median since mid-1980s. However, the evidence is incomplete.
<i>Has overall inequality increased in recent years?</i>	No, overall inequality has been relatively stable since 1990s.
<i>Have there been periods when overall inequality fell for a sustained period?</i>	Yes, the Gini coefficient fell from 1959 to mid-1980s.
<i>Has poverty been falling or rising in recent decades?</i>	Insufficient evidence.
<i>Has there been a U-pattern for top income shares over time?</i>	No. Top gross income shares declined since 1919 and remained relatively stable in recent years.
<i>Has the distribution of wealth followed the same pattern as income?</i>	The top 1 percent share in total wealth fell for most of the twentieth century and then levelled off.
<i>Additional noteworthy features</i>	Long period of falling inequality.

*Sources for the historical data series:*

Overall inequality: (supplied by Wiemer Salverda of the University of Amsterdam) Gini coefficient for equivalised (CBS scale) disposable household income by individuals for 1977 to 2009 from information supplied by the Central Bureau of Statistics (CBS), linked backwards at 2000 to allow for the revision to the series (the value for 2000 for the new series is 27.8 per cent and for the earlier series is 25.9 per cent); Gini coefficient for disposable income, *not equivalised, among tax units*, from Trimp (1996, Staat 2).

Top income shares: Shares of top 1 and 10 per cent in total gross income from [WTID](#), based on work of Salverda and Atkinson (2007), updated by Wiemer Salverda.

Poverty: Share of bottom 20 per cent in total (not equivalised) disposable income from *Sociaal-Economische Maandstatistiek* 2001/04, Table 2.6.7, for 1995-1999, and earlier data supplied by the CBS; Percentage of individuals living in households with equivalised (EU-scale) disposable income below 60 per cent of the median from EU-SILC, [Eurostat website](#).

Individual earnings: Series 1: from Atkinson (2008, Appendix L, Table L.3); Series 2: from OECD iLibrary, Employment and Labour Market Statistics, Gross earnings decile ratios.

Wealth: Share of top 1 per cent of households in total personal wealth from Roine and Waldenström (forthcoming), drawing on the work of Wilterdink (1984, page 269).

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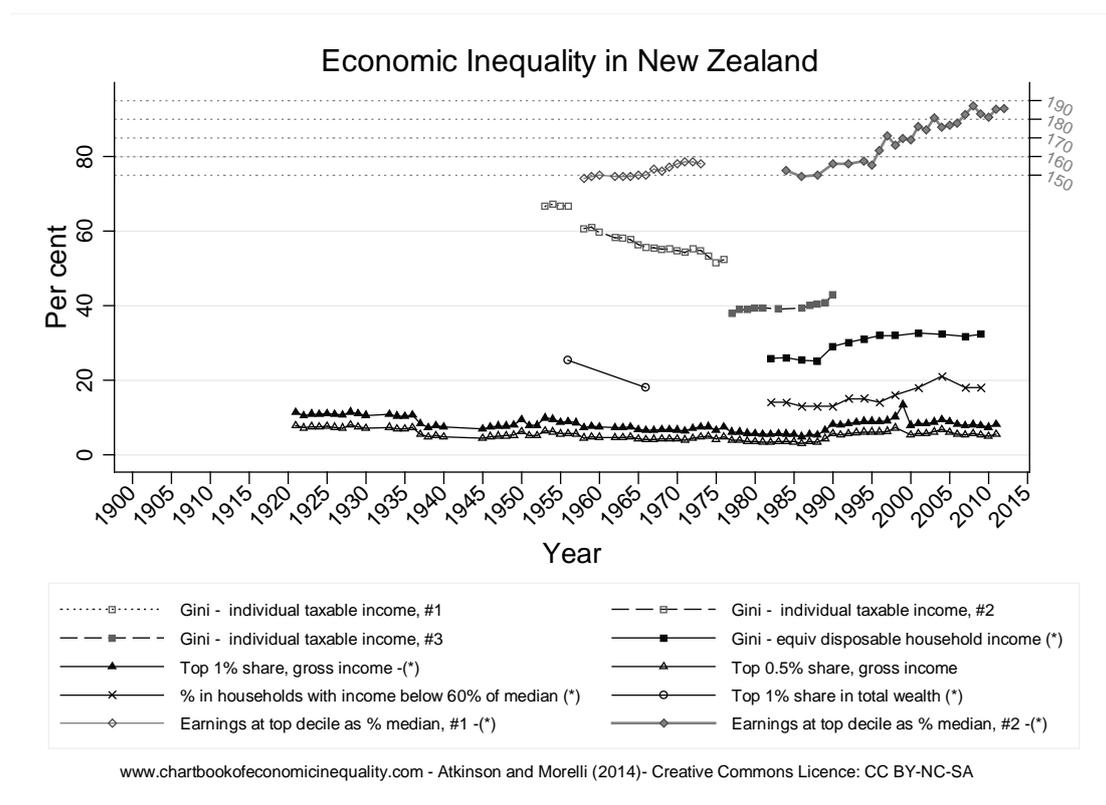
Roine, J and and Waldenström, D, forthcoming, "Long run trends in the distribution of income and wealth" in A B Atkinson and F Bourguignon, editors, *Handbook of Income Distribution*, volume 2, Elsevier, Amsterdam.

Salverda, W and Atkinson, A B, 2007, "Top incomes in the Netherlands over the twentieth century" in A B Atkinson and T Piketty, editors, *Top incomes over the twentieth century*, Oxford University Press, Oxford.

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Wilterdink, N, 1984, *Vermogensverhoudingen in Nederland*, De Arbeiderspers, Amsterdam.

16. New Zealand



<p><i>Has the dispersion of earnings been increasing in recent decades?</i></p>	<p>Yes, the top decile has risen from 143 per cent of median in 1986 to 186 per cent in 2012.</p>
<p><i>Has overall inequality increased in recent years?</i></p>	<p>No, the Gini coefficient has been relatively stable around 32 percent since 1996. However, it rose by 7 percentage points between 1988 and 1996.</p>
<p><i>Have there been periods when overall inequality fell for a sustained period?</i></p>	<p>Yes, from mid-1950s to mid-1970s.</p>
<p><i>Has poverty been falling or rising in recent decades?</i></p>	<p>Poverty has substantially increased from 1996 to 2004 before decreasing mildly till 2009.</p>
<p><i>Has there been a U-pattern for top income shares over time?</i></p>	<p>Yes, top gross income shares fell from mid-1950s to mid-1980s, then rose from mid-1980s to mid-1990s.</p>
<p><i>Has the distribution of wealth followed the same pattern as income?</i></p>	<p>Insufficient evidence.</p>
<p><i>Additional noteworthy features</i></p>	<p>U-shape over post-war period. Top income shares estimates for the years 1998, 1999 and 2000 are affected by changes in the income tax laws. Top shares series have a break in 1951 (change in tax units).</p>

*Sources for the historical data series:*

Overall inequality: Gini coefficient for *individual taxable income* from Easton (1983, Table 10.7 for series 1 (before the introduction of PAYE) and series 2 (after the introduction of PAYE) and from figures supplied by Professor S Chatterjee, Massey University, for series 3); Gini coefficient for equivalised (applying 1988 revised Jensen scale, described as close to the modified OECD scale) disposable household annual income before deduction of housing costs from Perry (2010, Table D.9).

Top income shares: The top income shares are from [WTID](#), based on work of Atkinson and Leigh (2008); top 0.5 percent is used in place of top 0.1 percent series as the latter lacks observations for recent years. Note that top income series have a break in 1951. Data refer to tax units before 1951 and to individuals from 1951 onwards.

Poverty: Percentage of individuals in households with equivalised (applying 1988 revised Jensen scale, described as close to the modified OECD scale) disposable income before housing costs below 60 per cent of the contemporary median from Perry (2010, Table F.2).

Individual earnings: Series 1 from Atkinson (2008, Appendix M, Table M.3), based on the work of Easton (1983); Series 2 from OECD iLibrary, Employment and Labour Market Statistics, Gross earnings decile ratios.

Wealth: share of top 1 per cent in total wealth (among adults) from Easton (1983, Table 7.3).

*References:*

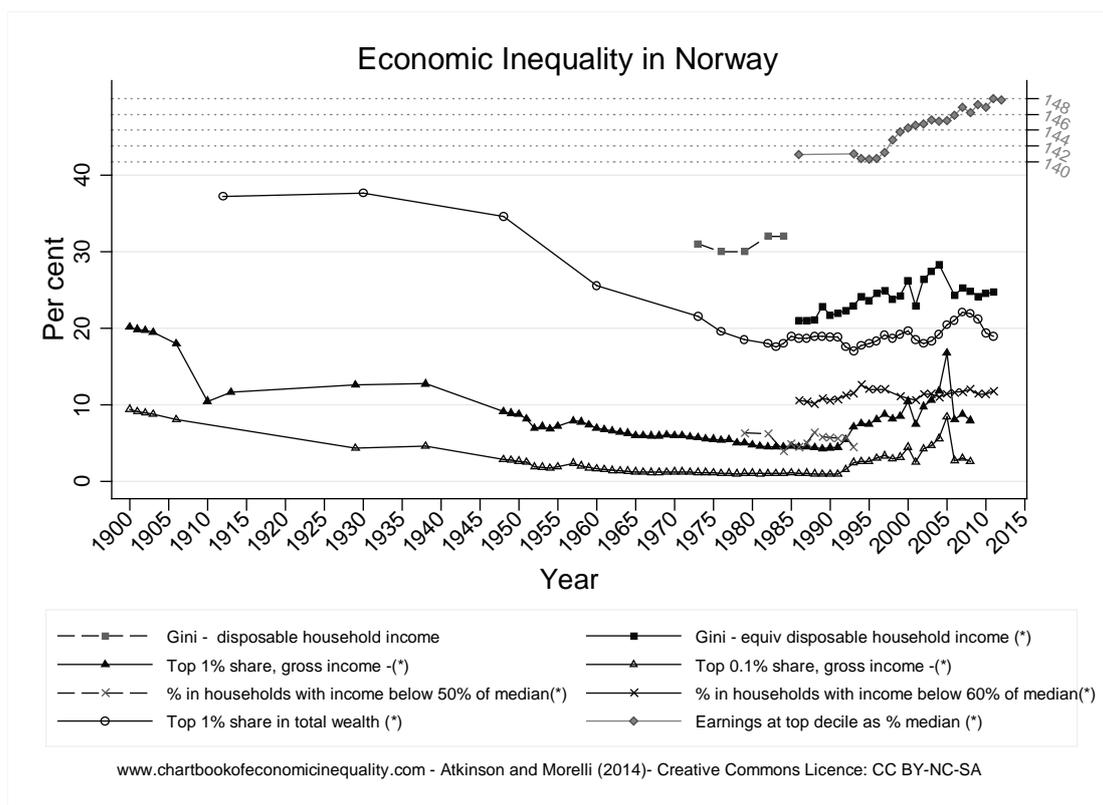
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17. Norway



<p><i>Has the dispersion of earnings been increasing in recent decades?</i></p>	<p>Yes, the top decile relative to the median was 8 percentage points higher in 2012 compared with early 1990s.</p>
<p><i>Has overall inequality increased in recent years?</i></p>	<p>Gini coefficient in 2011 is 4 percentage points higher than in 1986.</p>
<p><i>Have there been periods when overall inequality fell for a sustained period?</i></p>	<p>Incomplete evidence. Nonetheless, top income shares as well as top wealth share underwent substantial reduction over the post-war period.</p>
<p><i>Has poverty been falling or rising in recent decades?</i></p>	<p>No evident trend.</p>
<p><i>Has there been a U-pattern for top income shares over time?</i></p>	<p>Yes. Top gross income shares fell from 1938 to the 1980s; since 1990 have nearly doubled.</p>
<p><i>Has the distribution of wealth followed the same pattern as income?</i></p>	<p>Yes, the Top wealth shares have followed similar path to top incomes.</p>
<p><i>Additional noteworthy features</i></p>	<p>U-shape over post-war period. 2005 Gini and top shares observations were affected by the tax changes coming into effect in 2006.</p>

*Sources for the historical data series:*

Overall inequality: Gini for disposable (*non-equivalised*) household income from Bojer (1987, Tabell 5); Gini coefficient of equivalised (EU scale) disposable household income from 1986 from website of Statistics Norway, Income [Statistics for Households, Distribution of income](#), total population.

Top income shares: Share of top 1 and top 0.1 per cent in total gross income from [WTID](#), based on work of Aaberge and Atkinson (2010) updated by Aaberge, Atkinson and Modalsli (2013).

Poverty: Percentage of individuals in households with equivalised (EU-scale) disposable income below 60 per cent (*or before 1986 50 per cent*) of the contemporary median (including student households), website of Statistics Norway, since 2005 from Income [Statistics for Households, Particular Groups, Table 5 and from Rapportør 32/2013 by Ranjit Kaur \(ed.\) Tabell 3.2](#), 1996 to 2004 from Personal economy and housing conditions, Table 06801, linked backwards at 1994 to earlier series from Income Distribution Survey 2005, Table 5.

Individual earnings: Series 1 from Atkinson (2008, Appendix N, Table N.3), linked at 2002 to series from OECD iLibrary, Employment and Labour Market Statistics, Gross earnings decile ratios.

Wealth: Share of top 1 per cent of households in total personal wealth from Roine and Waldenström (forthcoming) drawing from Ohlsson, Roine and Waldenström (2008, Table 1).

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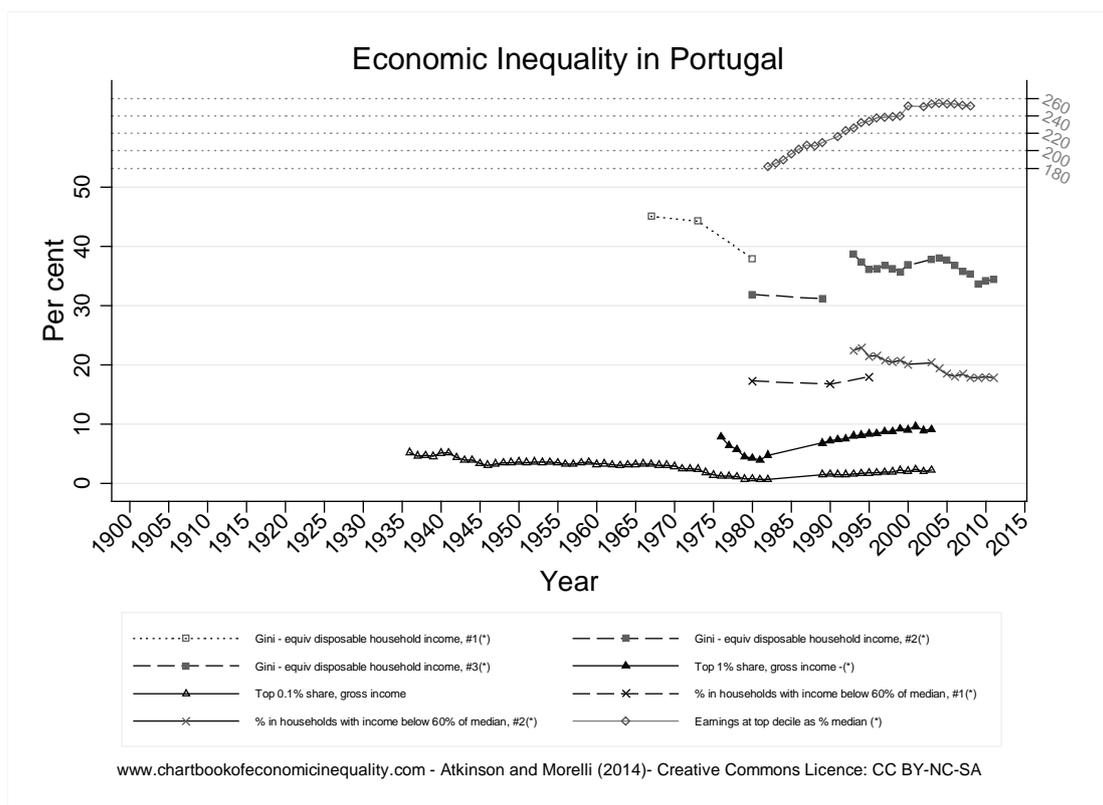
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18. Portugal



<p><i>Has the dispersion of earnings been increasing in recent decades?</i></p>	<p>Yes, the top decile of earnings has risen sharply from 182 per cent of median in 1982 to around 252 per cent in 2000. Nevertheless, is worth noting that earnings inequality was relatively stable or even decreasing since 2000.</p>
<p><i>Has overall inequality increased in recent years?</i></p>	<p>No, from 2004 to 2011 the Gini coefficient for household (equivalised) disposable income has dropped by 4 percentage points.</p>
<p><i>Have there been periods when overall inequality fell for a sustained period?</i></p>	<p>Yes, during the 1970s (Carnation revolution in 1974).</p>
<p><i>Has poverty been falling or rising in recent decades?</i></p>	<p>Yes, relative poverty rate fell by more than a fifth from 1994.</p>
<p><i>Has there been a U-pattern for top income shares over time?</i></p>	<p>Yes, top gross income shares more than doubled between beginning of 1980s and 2003.</p>
<p><i>Has the distribution of wealth followed the same pattern as income?</i></p>	<p>No evidence.</p>
<p><i>Additional noteworthy features</i></p>	<p>Divergent movements at top (inequality increasing) and bottom (poverty falling). Strong increase in earnings dispersion from 1982 to 2000.</p>

*Sources for the historical data series:*

Overall inequality: Gini coefficient of equivalised (modified OECD-scale) disposable household income from Rodrigues, Figueiras, and Junqueira, 2010, Quadro 4 (series 1), Quadro 6 (series 2), and Quadro 8 (series 3); the last of these is based on data from the European Community Household Panel and EU-SILC. Data from 2009 are from EU-SILC, downloaded from [Eurostat website](#), Income and Living Conditions in Europe.

Top income shares: Share of top 1 and top 0.1 per cent in total gross income from [WTID](#), based on work of Alvaredo (2010).

Poverty: Percentage of individuals living in households with equivalised (EU scale) disposable income below 60 per cent of the median, series 1 from Rodrigues, Figueiras and Junqueira, 2011a, Quadro 10, up to 2000, from 2002 taken from EU-SILC, [Eurostat website](#); series 2 for 1980, 1990 and 1995 from Rodrigues (2005).

Individual earnings: Series 1 from Atkinson (2008, Appendix P, Table P.3) with updated figures supplied by C F Rodrigues (since 2002).

Wealth: no suitable data were found.

*References:*

Alvaredo, F, 2010, "Top incomes and earnings in Portugal 1936-2005" in A B Atkinson and T Piketty, editors, *Top incomes: A global perspective*, Oxford University Press, Oxford.

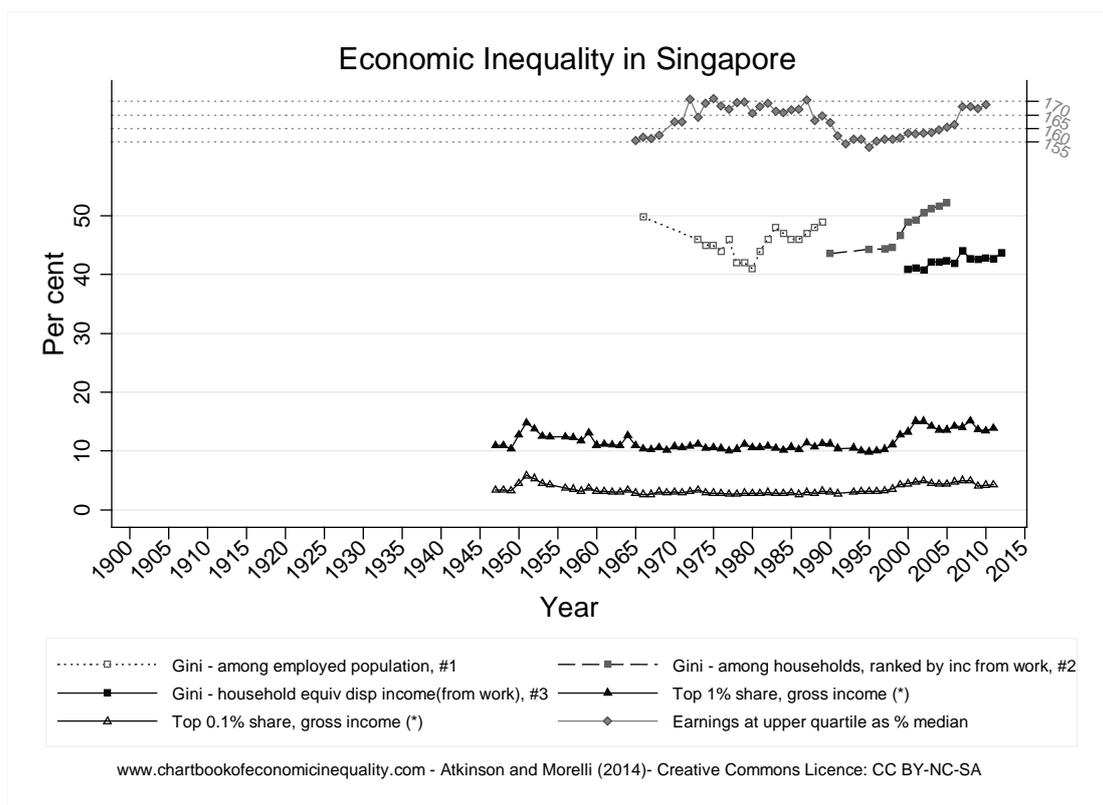
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19. Singapore



<i>Has the dispersion of earnings been increasing in recent decades?</i>	Yes, however there is little evidence of trend in top decile of earnings over 40 year period of rapid growth.
<i>Has overall inequality increased in recent years?</i>	Yes, the Gini coefficient increased in late 1990s up to mid-2000s.
<i>Have there been periods when overall inequality fell for a sustained period?</i>	Incomplete evidence.
<i>Has poverty been falling or rising in recent decades?</i>	No evidence.
<i>Has there been a U-pattern for top income shares over time?</i>	No. Top gross income shares were stable for fifty years, before and after independence, but rose by 50 per cent after 1997.
<i>Has the distribution of wealth followed the same pattern as income?</i>	No evidence.
<i>Additional noteworthy features</i>	Impact of 1997-98 Asian financial crisis.

*Sources for the historical data series:*

Overall inequality: Series 1 per capita monthly *income from work for employed population only* from Krongkaew and Ragayah (2006, Table 2); Series 2 per capita *monthly income from work* from Krongkaew and Ragayah (2006, Table 2); Series 3 household *income from work* per household member (based on modified OECD scale) including employer Central Provident Fund -CPF- contributions and after accounting for government transfers and taxes, from Statistics Singapore "[Key household incomes trend, 2012](#)", Chart 3. The series is linked at 2002 back to 2000 using Gini based on household *income from work* per household member including employer CPF contributions and after government transfers and taxes, from Statistics Singapore ([sheet T18 data from Key Household Incomes Trend, 2012](#), spreadsheet).

Top income shares: Shares of top 1 and 0.1 per cent in total gross income from [WTID](#), based on work of Atkinson (2010), updated using the Annual Reports of the Inland Revenue Authority, Appendix 5.

Poverty: no suitable data were found.

Individual earnings: Earnings at upper quintile as percentage of median from Central Pension Fund earnings data, as described in Atkinson (2010), updated from *Yearbook of Singapore Statistics*, Table 4.10. This source no longer contains earnings figures.

Wealth: no suitable data were found.

*References:*

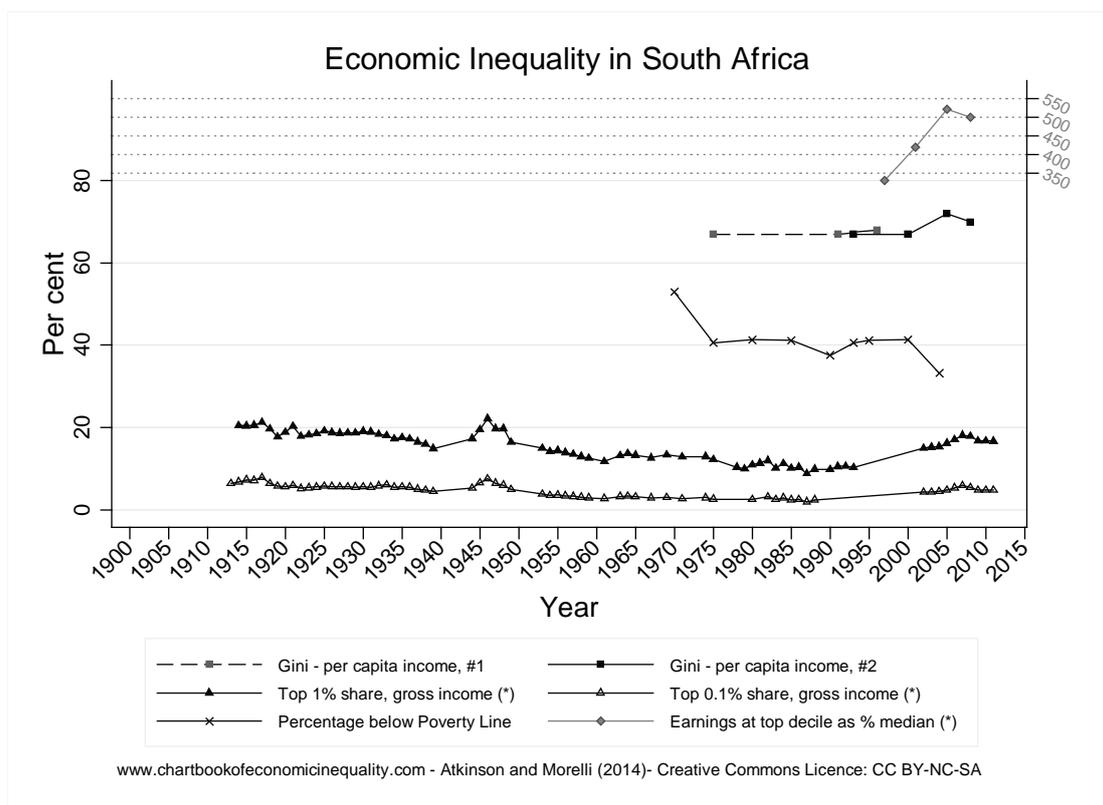
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Singapore Department of Statistics, 2013, *Key household income trends, 2002*, Occasional Paper on income statistics

20. South Africa



<i>Has the dispersion of earnings been increasing in recent decades?</i>	Yes, the top decile of earnings relative to the median increased from 1997 to 2008.
<i>Has overall inequality increased in recent years?</i>	Yes, the Gini coefficient in 2005 is 5 percentage points higher than in 1995. However, the Gini coefficient has dropped by 2 percentage points from 2005 to 2008.
<i>Have there been periods when overall inequality fell for a sustained period?</i>	Insufficient evidence.
<i>Has poverty been falling or rising in recent decades?</i>	Falling. The percentage of people living in households with per capita income below the national poverty line went from 53 in 1970 to 32 in 2004.
<i>Has there been a U-pattern for top income shares over time?</i>	Yes, top gross income shares fell up to the end of the 1980s; in recent years they have been rising.
<i>Has the distribution of wealth followed the same pattern as income?</i>	No evidence.
<i>Additional noteworthy features</i>	Break in the top shares series in 1990 (change in tax units, from married couples and single persons to individuals only).

*Sources for the historical data series:*

Overall inequality: Series 1: Gini coefficient of *per capita* income from Leibbrandt et al in Borat and Kanbur (2006, Table 3.1), where their estimates for 1996 and 2001 are linked to those for 1975, 1991 and 1996 of Whiteford and van Seventer (2000); series 2 from Leibbrandt et al (2010a, Table 5.17).

Top income shares: Shares of top 1 and top 0.1 per cent in total gross income from [WTID](#), based on work of Alvaredo and Atkinson (2010). It is worth noting that the top shares series have a break in 1990. Data refer to married couple and single adults before 1990 and to individuals from 1990.

Poverty: Series 1: Percentage of people (all races) living in households with per capita income *below R 3,000* (at 2000 prices) from van der Berg and Louw (2004, Table 5) from 1970 to 2000, linked at 1993 to series from Leibbrandt et al (2010, Table 1.3).

Individual earnings: Top decile as per cent of median from Leibbrandt et al (2010a, Table 5.19).

Wealth: no suitable data were found.

*References:*

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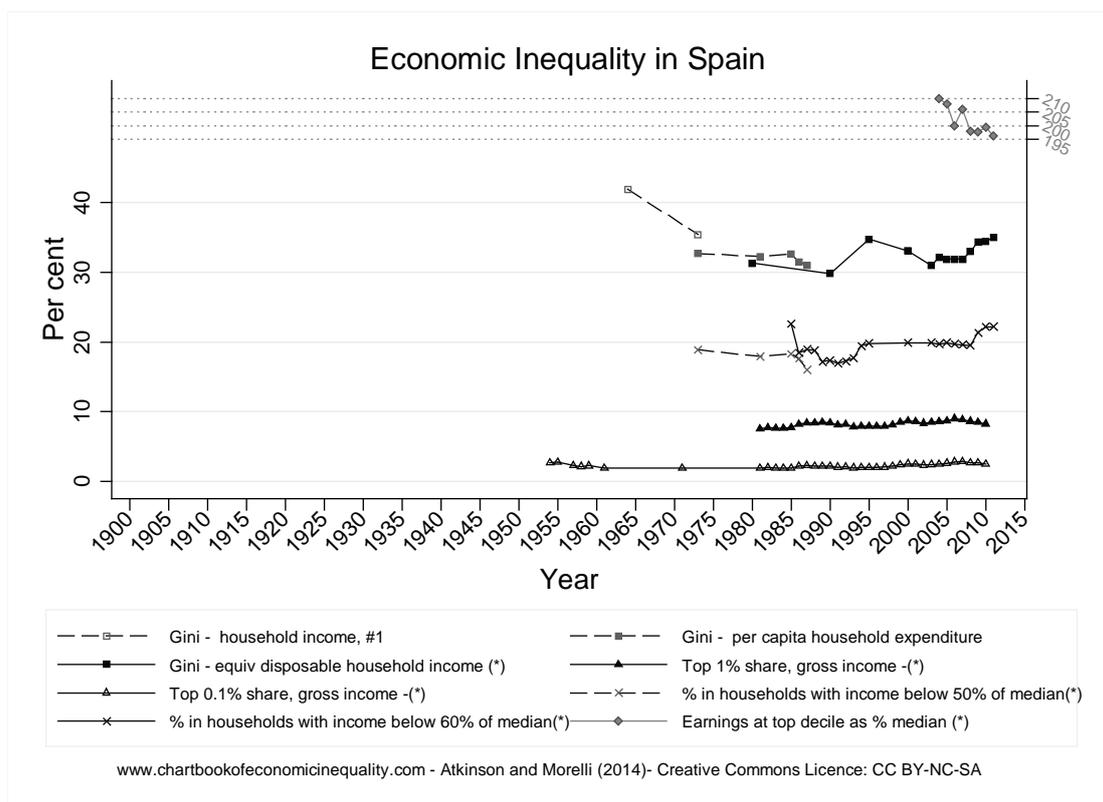
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21. Spain



<i>Has the top decile of earnings been increasing in recent decades?</i>	Insufficient evidence.
<i>Has overall inequality increased in recent years?</i>	Yes, the Gini coefficient for household disposable income increased by 4 percentage points from 2003 to 2011.
<i>Have there been periods when overall inequality fell for a sustained period?</i>	Some evidence of fall in inequality (as well as poverty) up to 1990s.
<i>Has poverty been falling or rising in recent decades?</i>	No evident trend.
<i>Has there been a U-pattern for top income shares over time?</i>	No. Recent increase in top income share is not salient.
<i>Has the distribution of wealth followed the same pattern as income?</i>	No evidence.
<i>Additional noteworthy features</i>	

*Sources for the historical data series:*

Overall inequality: Gini coefficient of household income, series 1, is from Family Budget surveys from United Nations (1981, page 297); series 2 relates to *per capita household expenditure* from Escribano (1990, cuadro 4); series 3 is from EU-SILC, downloaded from [Eurostat website](#), Income and Living Conditions in Europe, Table 5, linked at 2003 to the series related to equivalised (square root scale) disposable household income among individuals from Luxembourg Income Study (LIS) [website Key Figures](#).

Top income shares: Share of top 1 and 10 per cent in total gross income from [WTID](#), based on work of Alvaredo and Saez (2010).

Poverty: Series 1: Percentage of individuals living in households below poverty threshold, series 1 relates to those with *per capita household expenditure* below 50 per cent of the mean, from Escribano (1990, cuadro 5); series 2 relates to those with equivalised (EU scale) disposable income less than 60 per cent of the median from EU-SILC, downloaded from [Eurostat website](#), Europe 2020 indicators. Data are linked at 2003 with the series related to those with equivalised (square root scale) disposable income less than 60 per cent of the median from Luxembourg Income Study (LIS) [Key Figures](#). The data are further linked back at 1995 to the series related to those with equivalised (OECD scale) disposable income less than 60 per cent of the median from Cantó, del Rio and Gradin (2003, Tabla 2).

Individual earnings: From OECD iLibrary, Employment and Labour Market Statistics, Gross earnings decile ratio.

Wealth: no suitable data were found.

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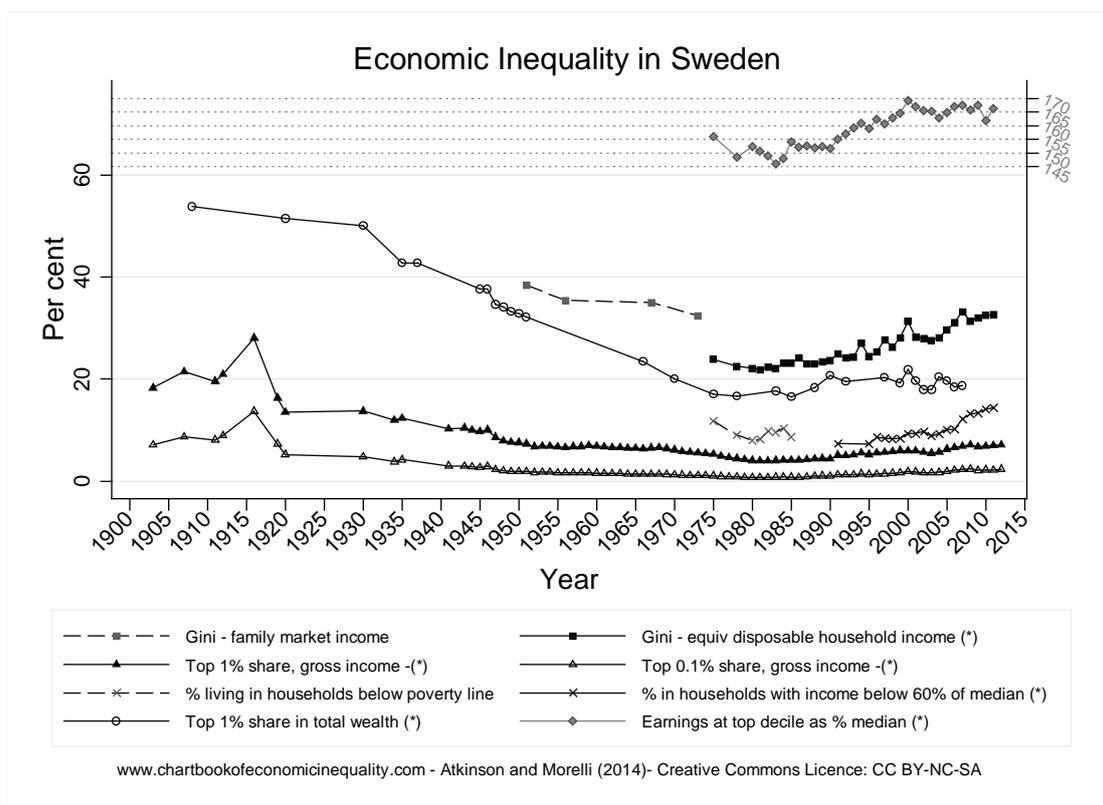
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22. Sweden



<i>Has the dispersion of earnings been increasing in recent decades?</i>	Yes, the top decile of earnings has risen from 146 per cent of median in 1983 to 166 per cent in 2011.
<i>Has overall inequality increased in recent years?</i>	Yes, the Gini coefficient for equivalised disposable income is 10 percentage points higher in 2011 than in 1982.
<i>Have there been periods when overall inequality fell for a sustained period?</i>	Yes, much of twentieth century up to 1980s.
<i>Has poverty been falling or rising in recent decades?</i>	Rising. Relative poverty rate has doubled since 1995.
<i>Has there been a U-pattern for top income shares over time?</i>	Yes, top gross income shares fell from 1916 to 1980 and then rose.
<i>Has the distribution of wealth followed the same pattern as income?</i>	Similar till the end of 1980s. Top wealth shares show a downward trend from 1923 to end of 1980s; now levelled off.
<i>Additional noteworthy features</i>	Increase in overall inequality: during 1990s the average Gini was 25.5 while in the first decade of the twenty first century the average of Gini rose to 30. Top shares series have a break in 1971 (change in tax unit definition).

*Sources for the historical data series:*

Overall inequality: Gini coefficient of equivalised disposable income from 1975 from the website of Statistics Sweden, [Distribution of income 1975-2011 \(older series\)](#), [Household finances](#), *Inkomstfördelningsundersökningen*, linked backwards at 1988 using ratio of 1989-rev to 1989 values; earlier series from 1951 to 1973 for *family market income* from Björklund and Palme (2000, Table 2) linking tax register data for 1951 and 1956 to data from the Swedish Level of Living Survey for 1967 and 1973.

Top income shares: Shares of top 0.1 and top 1 per cent in total gross income (of tax units) from [WTID](#), based on work of Roine and Waldenström (2010). It is worth noting that the concept of tax unit has changed from married couples (filing a joint tax return) to individuals (whether married or not filing tax returns separately) in 1971 (although there was an option to file separate returns from 1966).

Poverty: Percentage of individuals living in households with equivalised disposable income less than 60 per cent of the median from 1991 from Income Distribution Survey (IDS) 2008 in *Statistiska Meddelanden*, HE 21 SM 1001, Table 24, page 32, and IDS 2005, Table 22, page 29, and IDS 2003, Table 27, page 35, and since 2009 from [Statistics Sweden website, Household Finances](#) (as above); earlier figures for percentage of individuals living in households *below Swedish Welfare Board line* from Table 2.

Individual earnings: Based on series given in Atkinson (2008, Appendix Q, Table Q.5), from 2005 from OECD iLibrary, Employment and Labour Market Statistics, Gross earnings decile ratios.

Wealth: Share of top 1 per cent in total net marketable wealth at market values from Roine and Waldenström (forthcoming) drawing from Roine and Waldenström (2009, Table A1).

*References:*

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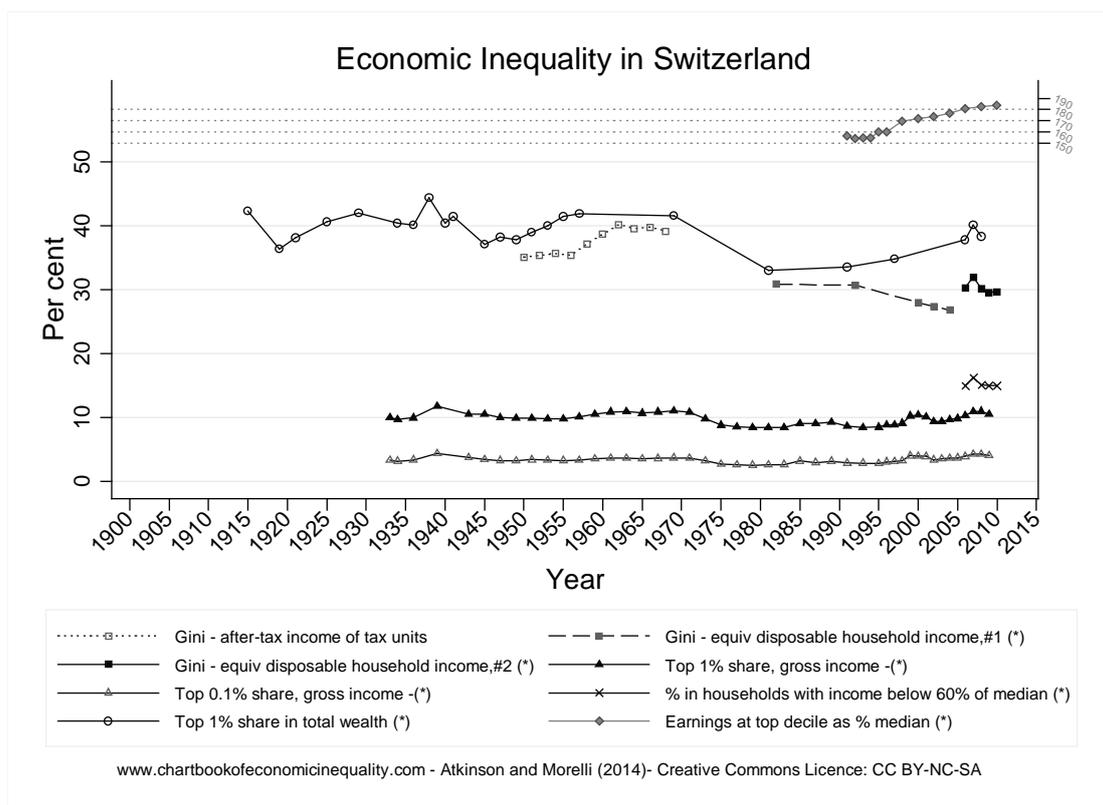
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23. Switzerland



<i>Has the top decile of earnings been increasing in recent decades?</i>	Yes, the top decile of earnings has increased from 155 per cent of median in 1994 to 184 per cent in 2010.
<i>Has overall inequality increased in recent years?</i>	No clear trend.
<i>Have there been periods when overall inequality fell for a sustained period?</i>	None evident.
<i>Has poverty been falling or rising in recent decades?</i>	Insufficient evidence.
<i>Has there been a U-pattern for top income shares over time?</i>	There is evidence of a mild U-pattern with top income shares decreasing during the 1970s before rising again since mid-90s. However, no great changes in top income shares were recorded over the period as a whole.
<i>Has the distribution of wealth followed the same pattern as income?</i>	Yes, but U-pattern was much more visible over the same period.
<i>Additional noteworthy features</i>	

Sources for the historical data series:

Overall inequality:; Gini coefficient of after tax incomes *averaged over 2 years of tax units* from Abele and Lüthi, 1977, Tableau 10) based on the estimates including non-taxpayers by Noth (1975, Tabelle 19), where the year identified is second of 2 year period; Gini coefficient of disposable equivalised household income taken from [LIS website \(Key figures\)](#), starting in 1982 and ending in 2004. Since 2006 data on Gini coefficient of disposable equivalised household income taken from EU-SILC, [Eurostat website](#).

Top income shares: Share of top 1 and 0.1 per cent in total gross income from an updated version of Atkinson, Piketty and Saez (2010, Table 13A.9), based on work of Dell, Piketty and Saez (2007). Data obtained from the [WTID](#) website.

Poverty: Percentage of individuals living in households with equivalised (modified OECD scale) disposable income less than 60 per cent of the median from EU-SILC data, [Eurostat website](#).

Individual earnings: Data up to 2004 from Atkinson (2008, Appendix R, Table R.4); data after 2004 from OECD I Library, Employment and Labour Market Statistics, Gross earnings decile ratios (note that the series is equivalent to that available on the Federal Statistical Office website, *Enquête Suisse sur la structure des salaires, Tableau des salaires nets: secteurs privé et public - Confédération* ).

Wealth: Share of top 1 per cent of households in total personal wealth from Roine and Waldenström, forthcoming.

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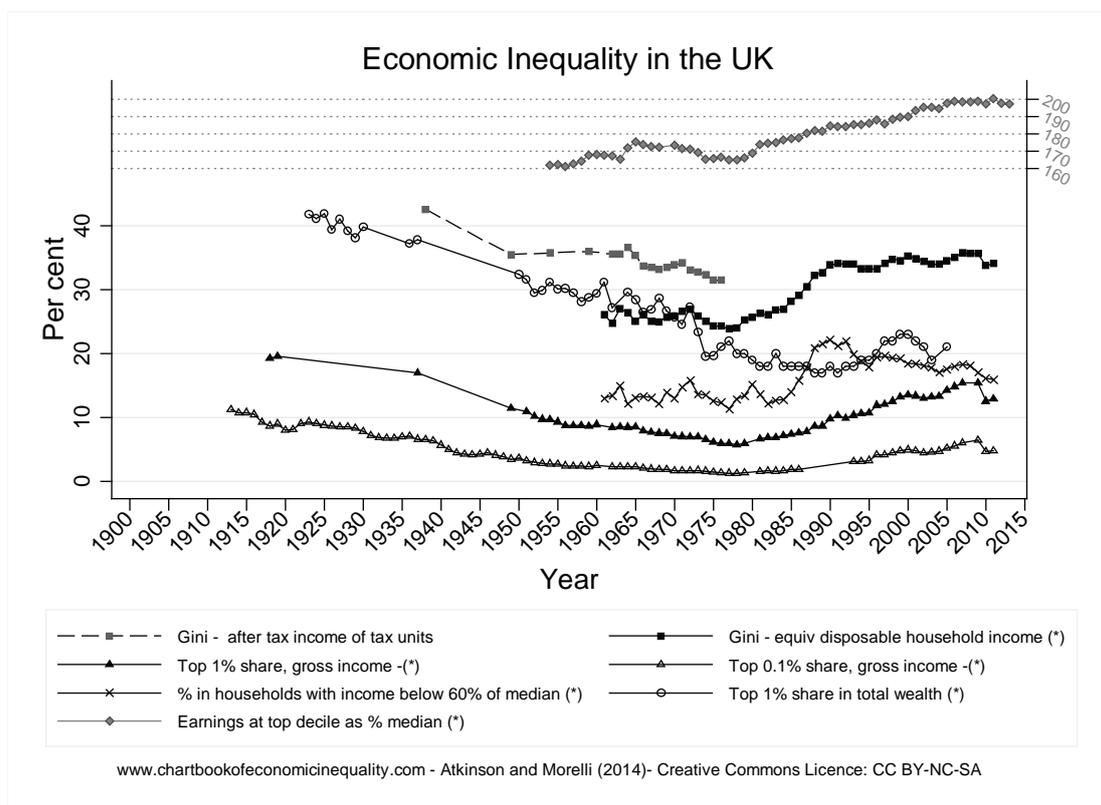
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24. United Kingdom



<p><i>Has the dispersion of earnings been increasing in recent decades?</i></p>	<p>Yes, the top decile of earnings has increased from 165 per cent of median in 1978 to 197 per cent in 2013.</p>
<p><i>Has overall inequality increased in recent years?</i></p>	<p>Yes, the Gini coefficient for equivalised disposable income is now around 10 percentage points higher than in 1980, but most of the increase took place in the 1980s.</p>
<p><i>Have there been periods when overall inequality fell for a sustained period?</i></p>	<p>Yes, during the Second World War and in late-1960s and 1970s.</p>
<p><i>Has poverty been falling or rising in recent decades?</i></p>	<p>Relative poverty rate in 1990 twice that in 1977; However, overall the poverty rate has been falling since the 1990s.</p>
<p><i>Has there been a U-pattern for top income shares over time?</i></p>	<p>Yes, top gross income shares fell from 1914 to the 1970s; since 1979 have more than doubled.</p>
<p><i>Has the distribution of wealth followed the same pattern as income?</i></p>	<p>Downward trend in top wealth shares from 1923 to end of 1980s; now levelled off.</p>
<p><i>Additional noteworthy features</i></p>	<p>Increase in income inequality and poverty in the 1980s proportionately much larger than increase in earnings dispersion. The top shares series have a break in 1990 (change in tax units from family to individual basis). The top income shares estimates for 2009-10 were affected by a significant bringing forward in that year in advance of the introduction of the 50 per cent top tax rate; the shares for the following years were correspondingly reduced.</p>

*Sources for the historical data series:*

Overall inequality: Gini coefficient of after tax income, *not equivalised, among tax units* ("Blue Book series") from Atkinson and Micklewright, 1992, Table BI1 (figure for 1938 from Royal Commission on the Distribution of Income and Wealth, 1979, page 23); Gini coefficient of equivalised (modified OECD scale) disposable household income for all persons in the United Kingdom (Great Britain up to 2001/2) from the [website of the Institute for Fiscal Studies](#); the data are from the Family Expenditure Survey from 1961 up to financial year 1993/4 (calendar years up to 1992), thereafter from the Family Resources Survey.

Top income shares: Share of top 0.1 per cent and top 1 per cent in total gross income from [WTID](#). UK experienced a change in the tax base as the taxation system moved from family to individual base in 1990.

Poverty: Percentage of individuals in households with equivalised (modified OECD-scale) disposable income below 60 per cent of the median in the United Kingdom (Great Britain up to 2001/2) from the [website of the Institute for Fiscal Studies](#) (before housing costs series); the data are from the Family Expenditure Survey from 1961 up to financial year 1993/4 (calendar years up to 1992), thereafter from the Family Resources Survey.

Individual earnings: Earnings data from [Annual Survey of Hours and Earnings](#), covering all full-time workers on adult rates whose pay for the survey period was not affected by absence, linked backwards to take account of changes in methodology in 2006 and 2004, linked backwards in 2000 to the data from the New Earnings Survey (NES) from Atkinson (2008, Table S.8), taking the series back to 1968 (when the NES began), linked backwards to the income tax data (Schedule E earnings) from Atkinson (2008, Table S.7).

Wealth: Share of top 1 per cent of individuals in total personal wealth, data up to 1975 from Atkinson, Gordon and Harrison (1989, Table 1) with adjustment for break in series in 1960, using coefficient from Table 3, covering Great Britain (England and Wales before 1938), data from 1976 from the HMRC website, Statistics on personal wealth, Table 13.5 (no estimates are made for 2004 or 2006).

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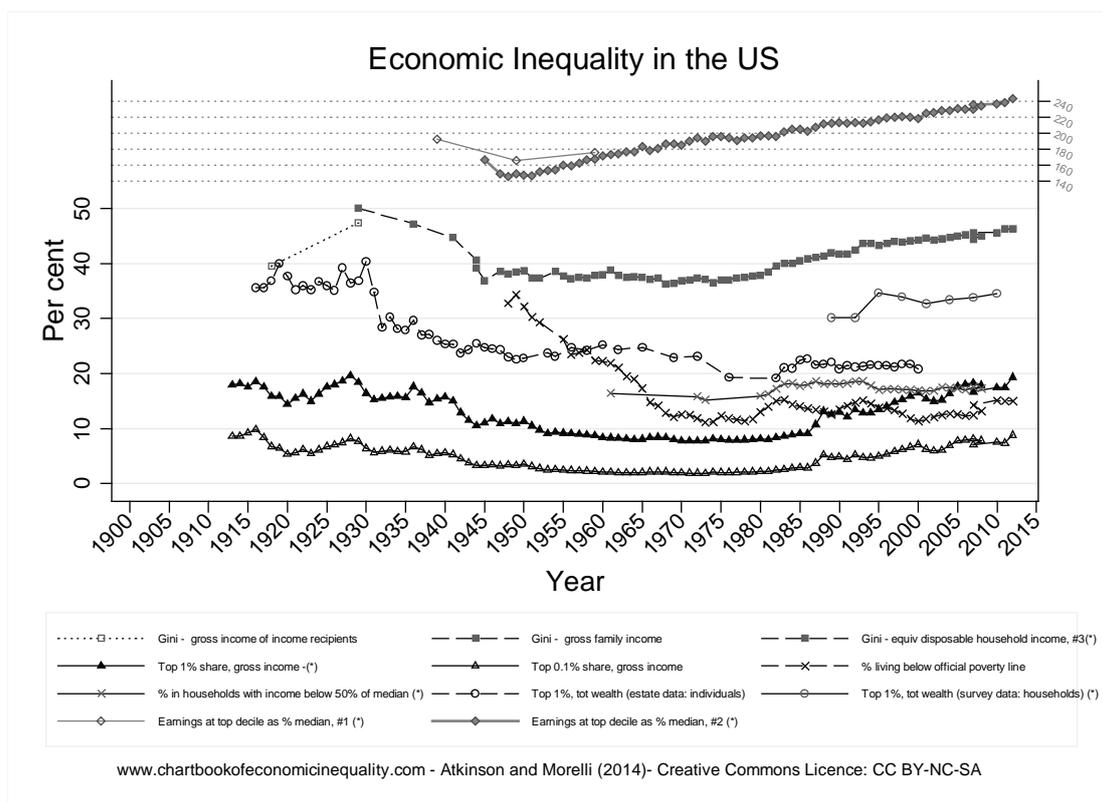
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25. United States



<i>Has the dispersion of earnings been increasing in recent decades?</i>	Yes, the top decile of earnings has risen from 150 per cent of median in 1950 to 244 per cent in 2012.
<i>Has overall inequality increased in recent years?</i>	Yes, the Gini coefficient for gross income now 7 percentage points higher than in 1980.
<i>Have there been periods when overall inequality fell for a sustained period?</i>	Yes, from 1929 to 1945.
<i>Has poverty been falling or rising in recent decades?</i>	Official poverty measure fell from 1948 to 1970s, since then cyclical variation about constant level.
<i>Has there been a U-pattern for top income shares over time?</i>	Yes, top gross income shares fell from 1928 to the 1970s; since mid-1970s have more than doubled.
<i>Has the distribution of wealth followed the same pattern as income?</i>	Top wealth shares generally decreased till 1980s and modest upward trend since.
<i>Additional noteworthy features</i>	Earnings dispersion widened during the period from 1950 to 1970 but overall income inequality did not increase.

*Sources for the historical data series:*

Overall inequality: Gini coefficient, series 1, for *gross income of income recipients* based on the NBER/Brookings synthetic estimates, calculated from the tabulations in Mitchell et al (1921, Table 25) and Leven, Moulton and Warburton (1934, Tables 27 and 29, excluding capital gains); Series 2 is the BEA synthetic series for *gross family* incomes from Brandolini (2002, Table A1), who calculated the Gini coefficients from the original tabulations (NB the figure for 1929 is 50.7 but is depicted as 50.0); Series 3 is the Gini coefficient for *gross equivalised household* income from the U.S. Bureau of the Census, [Income, Poverty, and Health Insurance Coverage in the United States: 2012](#), (Table A-3, Selected measures of equivalence-adjusted income dispersion), where we have assumed that half of the recorded change between 1992 and 1993 was due to the change in methods (and therefore added 1.15 percentage points to the values from 1992 back to 1967), this series is linked backwards at 1967 to the series from 1944 given by Budd (1970, Table 6).

Top income shares: The top income shares (excluding capital gains) are based on the work of Piketty and Saez (2003), and are taken from the website of Emmanuel Saez.

Poverty: The proportion of the population below *the official poverty line* before 1959 from Fisher (1986) and from 1959 from the U.S. Bureau of the Census website, Historical Poverty Tables, Table 2 and Table B1 from the U.S. Bureau of the Census, [Income, Poverty, and Health Insurance Coverage in the United States: 2012](#); Proportion living in households with disposable income *below 50 per cent* of the median from Meyer and Sullivan (2010, Appendix Table 7).

Individual earnings: Series 1 is based on the Census of Population data and is from Goldin and Margo (1992, Table 2); Series 2 is based on the Current Population Survey (CPS) from the OECD iLibrary, linked at 1973 to the estimates of Karoly (1992, Table 2B.2), and at 1963 to the estimates made in Atkinson (2008, Table T.10) from the CPS tabulations.

Wealth: The top wealth shares based on estate data are from Kopczuk and Saez (2004, Table B1); the household wealth shares from the Survey of Consumer Finances are from Kennickell (2009, Table 4, and 2011, Table 5).

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