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Appendix A. Stylized facts on the evolution of inequality for GINI Project countries

A.1 Inequality according to different data sources.

In the following series of graphs, we report the GINI for net disposable income using the OECD equivalence scale, but calculated from different data sources. The sources are OECD, LIS, RED, SWIID and Eurostat (ECHP and then EU-SILC).

Figure A.1 Australia
Figure A. 2 Austria

Figure A. 3 Belgium
Figure A. 4 Canada

Figure A. 5 Czech republic
Figure A. 8 France

Figure A. 9 Germany
Figure A. 12 Ireland

Figure A. 13 Italy
Figure A. 14 Luxembourg

Figure A. 15 Netherlands
Figure A. 16 Poland

Figure A. 17 Portugal
Figure A. 20 Sweden

Figure A. 21 United Kingdom
Figure A. 22 United States
A.2 Inequality according to different indicators.

In the following set of graphs we show a set of indicators (Gini, Varlog, P90-50 and P50-10 ratios) for earnings. The datasource is RED.

**Figure A. 23 Canada: P-Ratios**

**Figure A. 24 Canada. Var-Log and Gini**
Figure A. 25 Great Britain: P-Ratios

United Kingdom - p50/p10 & p90/p50 ratio

Figure A. 26 Great Britain: Var-Log and GINI

United Kingdom - Gini coeff. & var(log(w))
**Figure A. 27 Italy: P-Ratios**

![Italy - p50/p10 & p90/p50 ratio](image)

**Figure A. 28 Italy: Var-Log and Gini**

![Italy - Gini coeff. & var(log(w))](image)
Figure A. 29 Spain: P-Rations

Figure A. 30 Spain: Var-Log and GINI
Figure A. 31 Germany: P-Ratios

Figure A. 32 Germany: Var-Log and GINI
Figure A. 33 Sweden: P-Ratios

Figure A. 34 Sweden: Var-Log and Gini
Figure A. 35 US: P-Ratios

Figure A. 36 US: Var-Log and Gini
A.3. Different patterns of Inequality

Figure A.37 Canada: Var-log of different series

Figure A.38 Germany: Var-log of different series
Figure A. 39 Sweden: Var-log of different series

Figure A. 40 Italy: Var-log of different series
Figure A. 41 United Kingdom: Var-log of different series

Figure A. 42 USA: Var-log of different series
A.4. Top Income Shares and their evolution

The following table illustrates the income definition used for the calculation of top income shares in each country. Definitions are taken from the World Top Income Database.

Table A. 1 Income definition for the top share

<table>
<thead>
<tr>
<th>Country</th>
<th>Income definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Actual gross income; adjustment made to taxable income prior to 1957</td>
</tr>
<tr>
<td>Canada</td>
<td>Gross income, adjusted for the grossing up of dividend income</td>
</tr>
<tr>
<td>Denmark</td>
<td>Gross taxable income</td>
</tr>
<tr>
<td>France</td>
<td>Gross income, net of employee social security contributions</td>
</tr>
<tr>
<td>Japan</td>
<td>Gross income (significant capital income base erosion after 1946)</td>
</tr>
<tr>
<td>Italy</td>
<td>Gross income but excluding interest income</td>
</tr>
<tr>
<td>Portugal</td>
<td>Gross income</td>
</tr>
<tr>
<td>Spain</td>
<td>Gross income</td>
</tr>
<tr>
<td>Sweden</td>
<td>Gross income including transfers</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Prior to 1975 income net of certain deductions; from 1975 total income</td>
</tr>
<tr>
<td>United States</td>
<td>Gross income, adjusted for net income deductions</td>
</tr>
</tbody>
</table>

Figure A. 43 Top 0.1% country group 1

![Graph showing top 0.1% income share comparison between countries.](image)
Figure A. 44 Top 0.1% country group 2

Figure A. 45 Top 0.1% country group 3
Figure A.46 Top 1% country group 1

Figure A.47 Top 1% country group 2
Figure A. 48 Top 1% country group 3

Figure A. 49 Top 5% country group 1
Figure A. 50 Top 5% country group 2

![Graph showing absolute difference in top 5% income share 1971-2006 for countries AUS, FR, A, GBR, SWE, USA, and FRA.]

Figure A. 51 Top 5% country group 3

![Graph showing absolute difference in top 5% income share 1982-2004 for countries PRT, ITA, CAN, DNK, and ESP.]

These figures illustrate the changes in income inequality among the top 5% of earners across different countries and time periods.
Appendix B. Inter-linkages among different sources of inequality

There is a generalized impression that inequality is somehow related with problem such as poverty and the material deprivation. Our understanding of the relationship among these measures is rather limited. The same holds for the relationship between income and wealth inequality. In this section we limit ourselves to the presentation of the statistical correlation.

We start by plotting the association between income and wealth inequality. Both measures are affected by some biases: 1) income inequality does not keep into account in-kind benefits and imputed rents; 2) wealth inequality does not keep into account public pensions and human capital stocks. OECD (2008) shows that the inclusion of the in kind benefits has a progressive effect, while the effect of the inclusion of the items mentioned sub 2) are difficult to estimate, especially given that the institutional differences affect the incentives to accumulate wealth. One possible way to arrive to a less biased estimate of both and, also, to a potential association between the two variables (wealth and income) is the use of income net-worth as discussed by Weisbrod and Hansen (1968): it consists of transforming the net worth into a constant flow of income, using both an interest rate and life expectancy to discount. Unfortunately no data are available.

In the figures below we plot Gini of Wealth taken from OECD (2008) for a selection of countries against Gini of Income taken from LIS. Whenever the years of the survey do not match we correct for the trend of Income Gini using data from SWIID (Slot, 2009). Besides the US, which stands as a deeply unequal society; the evidence for Europe shows a negative correlation. In Chapter 3 we will provide also some analytical discussion of the possible causes.

In the same Appendix B we also plot the main associations between a set of common indicators: a) GDP per capita measured in purchasing power parity; b) poverty rate, measured as the share of persons with less than 60% of median equivalized income; c) GINI index of disposable income; d) measures of material deprivation and severe material deprivation, expressed as having at most four (respectively three) items of a bundle of fundamental goods (for a detailed definition see Eurostat). The source for the data is Eurostat.

GDP per capita is strongly and negatively associated with indicators of poverty and material deprivation, supporting the fundamental statement that growth is a necessary condition for poverty reduction. Inequality is positively associated with material deprivation, severe and not severe, and poverty. The association is weak for the first
measure and strong for the poverty rate, but in both cases data tend to be clustered, suggesting the possibility of "multiple equilibria", namely the potential coexistence of different distribution of incomes for a given growth rate.

*Figure B. 1 Income Inequality versus Wealth Inequality*

![GINI of Wealth vs GINI of Income](image)

*Source: GINI of Wealth is taken from OECD (2008), GINI of Income is taken SWIID data (Solt, 2009).*

*Figure B. 2 Gini of Wealth for selected countries in 2000. Source: UNU WIDER (2009)*

![Wealth GINI by Country, 2000](image)
Figure B. 3 Gini of Wealth for selected countries in 2011. Source: Global Wealth Report Credit Suisse 2011 (Shorrocks et al., 2011).

Figure B. 4 GDP per capita versus material deprivation for a selection of countries in 2005. Source: Eurostat
Figure B. 5 GDP per capita versus severe material deprivation for a selection of countries in 2005. Source: Eurostat

Figure B. 6 Gini versus material deprivation for a selection of countries in 2005. Source: Eurostat
Figure B. 7 Gini versus severe material deprivation for a selection of countries in 2005. Source: Eurostat

Figure B. 8 Gini versus poverty rate for a selection of countries in 2005. Source: Eurostat
Figure B. 9 GDP per capita versus poverty rate for a selection of countries in 2005. Source: Eurostat
Appendix C. Estimated coefficients from Mincerian regressions for wages

Figure C. 1 Australia: Estimated coefficients from a Mincerian regression. Source: LIS

Figure C. 2 Australia: Estimated coefficients from a Mincerian regression. Source: LIS
Figure C. 3 Austria: Estimated coefficients from a Mincerian regression. Source: LIS

Figure C. 4 Belgium: Estimated coefficients from a Mincerian regression. Source: LIS
Figure C. 5 Belgium: Estimated coefficients from a Mincerian regression. Source: LIS

Figure C. 6 Canada: Estimated coefficients from a Mincerian regression. Source: LIS
Figure C. 7 Denmark: Estimated coefficients from a Mincerian regression. Source: LIS

Figure C. 8 Finland: Estimated coefficients from a Mincerian regression. Source: LIS
Figure C. 9 France: Estimated coefficients from a Mincerian regression. Source: LIS

Figure C. 10 France: Estimated coefficients from a Mincerian regression. Source: LIS
Figure C. 11 Germany: Estimated coefficients from a Mincerian regression. Source: LIS

Figure C. 12 Hungary: Estimated coefficients from a Mincerian regression. Source: LIS
Figure C. 13 Ireland: Estimated coefficients from a Mincerian regression. Source: LIS

Figure C. 14 Italy: Estimated coefficients from a Mincerian regression. Source: LIS
Figure C. 15 Luxembourg: Estimated coefficients from a Mincerian regression. Source: LIS

Figure C. 16 The Netherlands: Estimated coefficients from a Mincerian regression. Source: LIS
Figure C. 17 Poland: Estimated coefficients from a Mincerian regression. Source: LIS

Figure C. 18 Slovenia: Estimated coefficients from a Mincerian regression. Source: LIS
Figure C. 19 Spain: Estimated coefficients from a Mincerian regression. Source: LIS

Figure C. 20 United Kingdom: Estimated coefficients from a Mincerian regression. Source: LIS
Figure C. 21 USA: Estimated coefficients from a Mincerian regression. Source: LIS

Figure C. 22 USA: Estimated coefficients from a Mincerian regression. Source: LIS
Information on the GINI project

Aims

The core objective of GINI is to deliver important new answers to questions of great interest to European societies: What are the social, cultural and political impacts that increasing inequalities in income, wealth and education may have? For the answers, GINI combines an interdisciplinary analysis that draws on economics, sociology, political science and health studies, with improved methodologies, uniform measurement, wide country coverage, a clear policy dimension and broad dissemination.

Methodologically, GINI aims to:

- exploit differences between and within 29 countries in inequality levels and trends for understanding the impacts and teasing out implications for policy and institutions,
- elaborate on the effects of both individual distributional positions and aggregate inequalities, and
- allow for feedback from impacts to inequality in a two-way causality approach.

The project operates in a framework of policy-oriented debate and international comparisons across all EU countries (except Cyprus and Malta), the USA, Japan, Canada and Australia.

Inequality Impacts and Analysis

Social impacts of inequality include educational access and achievement, individual employment opportunities and labour market behaviour, household joblessness, living standards and deprivation, family and household formation/breakdown, housing and intergenerational social mobility, individual health and life expectancy, and social cohesion versus polarisation. Underlying long-term trends, the economic cycle and the current financial and economic crisis will be incorporated. Politico-cultural impacts investigated are: Do increasing income/educational inequalities widen cultural and political ‘distances’, alienating people from politics, globalisation and European integration? Do they affect individuals’ participation and general social trust? Is acceptance of inequality and policies of redistribution affected by inequality itself? What effects do political systems (coalitions/winner-takes-all) have? Finally, it focuses on costs and benefits of policies limiting income inequality and its efficiency for mitigating other inequalities (health, housing, education and opportunity), and addresses the question what contributions policy making itself may have made to the growth of inequalities.

Support and Activities

The project receives EU research support to the amount of Euro 2.7 million. The work will result in four main reports and a final report, some 70 discussion papers and 29 country reports. The start of the project is 1 February 2010 for a three-year period. Detailed information can be found on the website.

www.gini-research.org