

Dimensions of (Global) Inequality

Wealth, Income & Relative Income Poverty Rates

Koen Caminada



TK Rondetafelgesprek AIQ
15 mei 2018
Den Haag

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Introduction

Koen Caminada, professor Empirical analysis of social and tax policy, Leiden University
Academic Director Institute of Tax Law and Economics



- Topics
- Distribution tax-benefits social security and pensions
 - Tax policy
 - Reform social and tax regulations
 - Poverty EU / OECD / LIS



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Outline

1. Introduction – setting the scene - must reads – research design - theory
 - Why income inequality and poverty matter?
 - Stiglitz, Deaton, Atkinson, Milanovic, Ravallion, Piketty & OECD
 - Testing scholarly claims & policy recommendations
2. Measuring issues – getting into empirics
3. Distribution of wealth
4. Distribution of (top) income
5. Levels and trends in poverty rates
6. Getting to work
 - Some related work – further reading
 - Databases & codebooks



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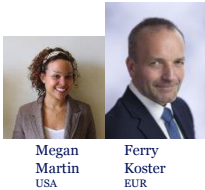
Empirics: global research team & data



Assembled Datasets (URL: www.economie.leidenuniv.nl)

- [Budget Incidence Fiscal Redistribution Dataset on Income Inequality](#) (2017)
- [Idem, on Relative Income Poverty Rates](#) (2018)
- [Social Assistance and Replacement Rates Dataset](#)
- [Unemployment Replacement Rates Dataset](#)
- [Sectoral Income Inequality Dataset](#)

Luxembourg Income Study
World Wealth & Income Database
ECHP-EU-Silc
Dutch Income Statistics



Megan Martin USA
Ferry Koster EUR

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Leiden LIS Budget Incidence Fiscal Redistribution Dataset

LIS information is still expanding!

- Countries: 47
- Time-series: 1967-2014
- We provide data and codebooks on:
 - o Income inequality & Poverty rates (by age groups et cetera)
 - o Fiscal redistribution (social benefits + income taxes and social contributions)
 - o Budget size and target efficiency (decomposition transfers and taxes)
 - o Decomposition income inequality & poverty (by income source)



Overview micro-data: 47 countries - 1967-2014

	Gross incomes		Mixed		Net incomes		Total	
	# obs	# datasets	# obs	# datasets	# obs	# datasets	# obs	# datasets
Anglo-Saxon	1,051,330	31					1,051,330	31
EU15	1,304,823	77	108,439	9	226,025	37	1,639,276	123
Europe - other	792,132	20			21,852	5	813,984	25
BRICS	472,136	7	17,108	1	104,349	7	593,593	15
Latin America	185,353	12	45,443	3	351,087	18	581,883	33
CEE	380,875	23	38,047	2	68,736	16	487,658	41
Middle East	50,851	9			11,849	1	62,700	10
South-East Asia	207,358	15					207,358	15
Total	4,444,858	194	209,037	15	783,898	84	5,437,782	293

1 Setting the scene - must reads – research design - theory



1

ERADICATE EXTREME POVERTY AND HUNGER

2

ACHIEVE UNIVERSAL PRIMARY EDUCATION

3

PROMOTE GENDER EQUALITY AND EMPOWER WOMEN

4

REDUCE CHILD MORTALITY

5

IMPROVE MATERNAL HEALTH

6

COMBAT HIV/AIDS, MALARIA AND OTHER DISEASES

7

ENSURE ENVIRONMENTAL SUSTAINABILITY

8

GLOBAL PARTNERSHIP FOR DEVELOPMENT

... while superrich (income & wealth)

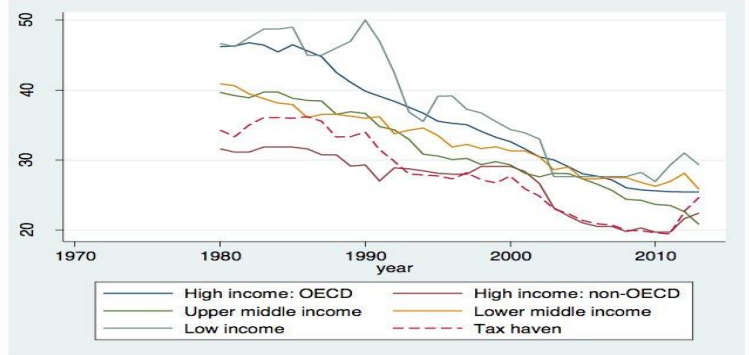


<u>Superrich</u>	<u>Similarities</u>
Donald Trump	Top incomes
Jacky May	Male (gender)
John de Mol	Family (inheritance)
Bill Gates	Mediocratic
Joop vd Ende	Political power?
	Influence tax policy?

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Tax race to the bottom: CIT rates over time across the globe

Figure 2: Corporate income tax rates, 1980–2013

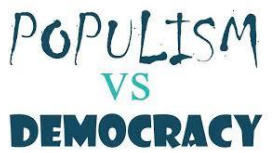


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Social cohesion versus Social tension / unrest

Alberto Alesina & Edward Glaeser, Richard Wilkinson, Dani Rodrik

- White America lives a largely segregated life
- Brexit / Catalonia
- Migration
- Ageing of the population
- Welfare states under solidarity constraints



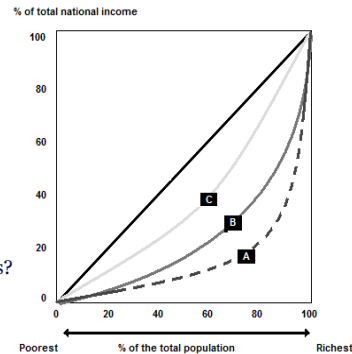
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Research design

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The distribution of *what*?

- Rich or poor: income or wealth?
- Pre-tax-pre-transfer-income or after T/B-systems?
- Individuals, households or equivalence scales?
- Top and bottom coding
- One moment in time or trends?
- What about poverty: absolute, relative, thresholds?
- Areas: global, within or between country differences?
- Global or local measurement?
- What if Lorenz curves intersect (no LD) ?



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Income (re-)distribution and inequality

Past decades:

- Much more and higher-quality of data
- Growing knowledge on trends and causes (in an international comparative perspective)



Research:

Income distribution (and changes) caused by many factors.
Each individual decision influences the distribution of income.

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Readings

Must read (most based on massive data collection)

- ❖ Anthony Atkinson (2015), *Inequality; What can be done?*
- ❖ Joseph Stiglitz (2015), *Rewriting the Rules of the American Economy. An Agenda for Growth and Shared Prosperity*
- ❖ Angus Deaton (2013), *The Great Escape*
- ❖ Branko Milanovic (2016), *Global inequality: A New Approach for the Age of Globalization*
- ❖ Thomas Piketty (2014), *Capital in the Twenty-First Century*
- ❖ OECD (2008), *Growing Unequal?*
- ❖ OECD (2011), *Divided We Stand: Why Inequality Keeps Rising*
- ❖ OECD (2015), *In It Together: Why Less Inequality Benefits All*

Testing claims

Literature on redistribution of income by taxes and transfers in a comparative setting

- Atkinson (2003)
- Atkinson & Brandolini (2001)
- Brady (2004)
- Brandolini & Smeeding (2007)
- Ervik (1998)
- Gottschalk & Smeeding (1997, 1998 and 2000)
- Kenworthy & Pontusson (2005)
- Kopi & Palme (1998)
- Lambert et al (2010)
- Mahler & Jesuit (2006 and 2017)
- Morillas (2009)
- O'Higinis et al (1990)
- Smeeding (2000, 2004 and 2008)
- OECD (2008, 2011 and 2015)
- Immervoll & Richardson (2011)
- Research team Reform of Social Legislation, Leiden University

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Our (new) findings

- Tax-benefit systems have **NOT** become less effective in redistribution since the mid-1990s.
- The claim that reduced redistribution is a main driver of widening income gaps since the mid-1990's **must be toned down**.

Based on:

Budget Incidence Fiscal Redistribution Database of Caminada & Wang (2017)
<http://www.lisdatacenter.org/resources/other-databases>

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Why inequality rises? (1)

Many possible factors, including:

- Technological progress and a resulting rise in the skill premium for labor
- Globalization: highly educated workers profit, low skilled labor not (as much)
- Good education may not be reachable for lower income groups
- Demographic factors: ageing (more pensioners who have relatively low incomes)
- Several institutional factors, which vary from country to country, are important. E.g. for China the urban-rural gap is important.
- Developments at the sectoral level
- Reduced government redistribution - became T/B-systems less redistributive?

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Why inequality matters? (2)

- A perfectly equal society is not desirable (no incentives). However, high inequality may undermine social stability.
- It deprives people of educational opportunities, human and physical capital accumulation.
- It may harm labor supply and productivity. Research shows that high and rising inequality is detrimental to economic growth and development.

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Why inequality matters? (3)

IMF (2015)

- If the income share of the top 20 percent increases by 1 percentage point, GDP growth is 0.08 percentage points lower.
- A 1 percentage point increase in the share of the bottom 20 percent is associated with 0.38 percentage point *higher* growth.

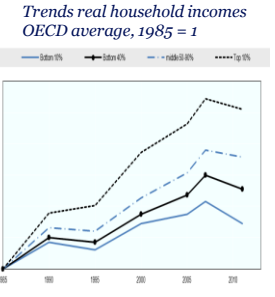
OECD (2014)

Rising inequality is estimated to have knocked down growth since 1990 by 9 points in the UK and by 6-7 points in the US, Italy and Sweden.

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OECD: In It Together - Why Less Inequality Benefits All?

- Overview of inequality trends, key findings and policy directions.
- Lowest incomes were increasingly left behind since 1985.
- Taxes and benefits cushioned the effect of the crisis.
- Risk income poverty shifted from the elderly to the young.
- Higher inequality drags down economic growth.
- Over half of jobs created since '95 were non-standard jobs.
- T/B- systems for efficient redistribution. **In many countries the effectiveness of T/B- systems to redistribute market income declined** → focus on T/B-systems for efficient redistribution.



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Rising income inequality and top incomes: big issue in international perspective?

Joseph Stiglitz
 Rewriting the Rules of the American Economy. An Agenda for Growth and Shared Prosperity (2015)



Angus Deaton
 Inequality is often a consequence of progress. On the one hand: many people escaped from poverty in lower income countries. Many lower income countries have been catching up with richer countries, because of higher growth. On the other hand: many people are left behind, not everyone profits from progress. (*The Great Escape*, 2013)

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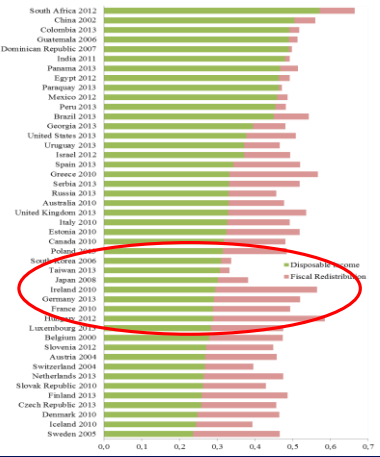
International perspective (LIS)



Anthony Atkinson
 Inequality is one of the most urgent social problems. But: we can do something about it (*Inequality; What can be done?* 2015)



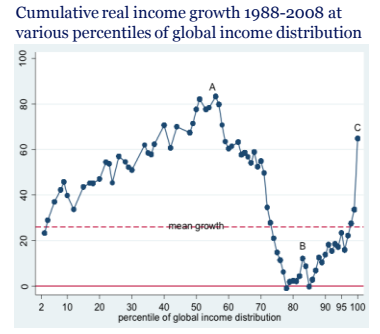
Branko Milanovic
 Global inequality: A New Approach for the Age of Globalization (2016)



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Lakner & Milanovic (2016): The Elephant

- Chart reveals most dramatic change in incomes.
- Real income gains realized at different percentiles of the global income distribution, 1988-2008.
- Income measured in 2005 international dollars
- Individuals ranked by real household per capita income.
- Result: large income gains by people around global median (point A) and the global top 1% (point C). However, absence of real income growth around 80-85th percentile of the global distribution (point B). **The squeezed middle.**



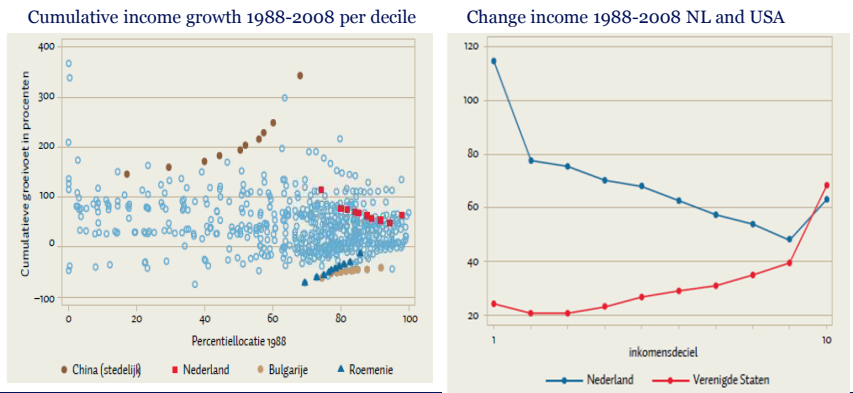
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The Elephant: Who are the people at these three key points?

- Point A = median: 9 out of 10 around global median are from China and India → Asian GDP per capita increased. People around global median are still poor by Western standards (per capita income: 5 to 15 international dollars per day).
- Point C = global top 1%: people from advanced economies. Threshold top 1% = 45,000 international dollars per person → translated into two partners and two children = after-tax income of \$180,000 (= before-tax > \$300,000).
- Point B: 7 out of 10 are from the 'old rich' OECD countries → lower halves of their countries' income distributions. Rich countries' income distributions start around 70th percentile (Denmark around 80th global percentile).
- Open to debate: success people at point A versus point B → effect of globalization?
→ **'losses' of European working class related to gains of Chinese?**

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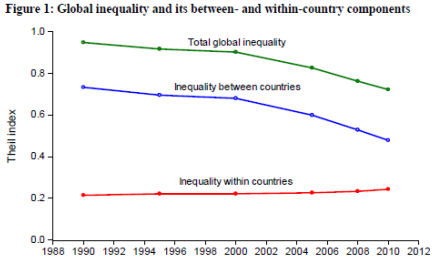
The Elephant: Where are the Dutch in global inequality?



Discover the world at Leiden University Source: Van Dijk & Van der Linde (2017; ESB)

However ... Martin Ravallion (2017)

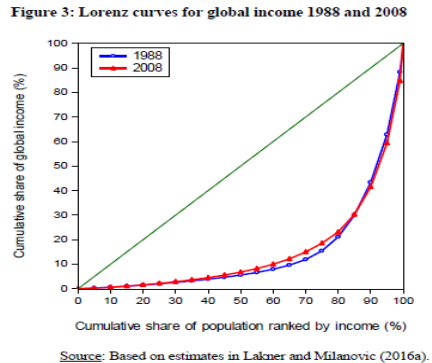
- Global inequality: falling inequality *between* countries alongside rising average inequality *within* countries.
- The fact that growth is positive for many is good news from the point of view of absolute *poverty*.
- Fundamental question: **why should we care about global inequality?**
- Instead: most citizens of the world care about *poverty*.



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However ... Martin Ravallion (2017)

- Global Lorenz curves intersect (no LD).
- No LD implies that the claim global inequality is changing is not robust to the choice of index.



Discover the world at Leiden University Source: Based on estimates in Lakner and Milanovic (2016a).

However, global percentile location deciles NL and USA

- 1988: position first decile both NL and USA at 74th global percentile
- 2008: Dutch first decile at 82nd global percentile, while USA at 76th
- Income growth 1988-2008
 - 1st decile: NL = +114% USA = +25%
 - 2nd decile: NL = +77% USA = +20%
 - 9th decile: NL = +50% USA = +40%
 - 10th decile: NL = +63% USA = +70%

Deciles	Netherlands		USA	
	1988	2008	1988	2008
1	74,3	81,9	74,3	75,7
2	80,1	86,5	82,6	85,0
3	82,0	88,5	86,6	88,5
4	84,2	89,8	90,2	91,2
5	85,3	90,7	92,5	93,6
6	87,8	91,9	94,3	95,8
7	89,2	93,6	96,2	96,9
8	91,7	94,7	97,7	98,0
9	94,4	96,4	99,1	99,2
10	98,0	98,6	100,0	100,0

Discover the world at Leiden University Source: Van Dijk & Van der Linde (2017: ESB)

Other claims Branko Milanovic

20th century tools can (not) be used to address 21st century income inequality

1945-1980: reduced income inequality in rich countries

1. Strong trade unions
2. Mass education
3. High taxes
4. Large government transfers

Claim Branko Milanovic: None of them will do the job in the 21st century.

High taxes and high social transfers were crucial to reduce income inequality; still are.

Test: LIS data, 47 countries, 1967-2013, 277 datasets → a global view

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The citizenship premium

Branco Milanovic: Over two-thirds of the variability in incomes across country-percentiles → the country where people live in.

Most studies addressing (earning) inequality → country-level developments.

- What about developments at the sectoral level?
- Due to larger wage differences between or within sectors?
 - Sectoral employment loss?
 - Differences across sectors, countries, and time?

Relevance
 Identification of heterogeneity of drivers market income inequality
 • Globalization / international trade
 • Skill-biased technological change

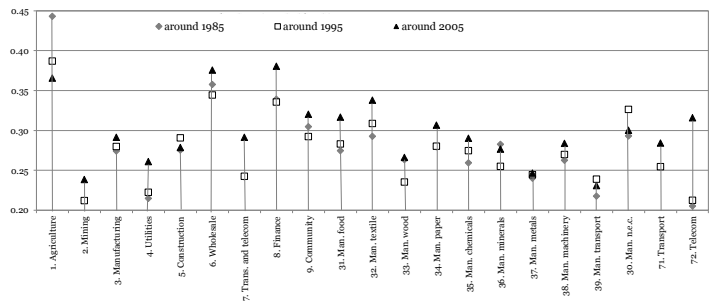
Sectoral dimension important for understanding earnings inequality at the country level.

Earnings inequality at the country level is a consequence of dispersion within sectors rather than differences in mean earnings between sectors. Within-sector inequality increased over time.

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Inequality within industries (Czech Rep, Den, Fin, Ger, Ire, Swe, UK and USA based on LIS)

High unequal earnings Agriculture, wholesale, finance
Low levels of earnings dispersion Mining, utilities, manufacturing of metals, transport



Discover the world at Leiden University Source: Thewissen, Wang & Van Vliet (2013)

What about developments at the sectoral level?

- Share of within-sector inequality dominates
- Inequality has increased in most sectors, levels differ
- Shift from manufacturing towards financial services
- Stable median earnings
- No clear country-level differences

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What about regions and institutions? China



	West	Middle	East
Mean income (yuan)	5,880	6,282	10,571
Gini	0.495	0.450	0.498
PL50	33%	25%	19%
PL60	41%	32%	24%

	Urban	Rural	All
Gini	0.319	0.415	0.505
PL50	0.3%	39%	25%
PL60	0.5%	49%	31%

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Big issue in international perspective?

Thomas Piketty

Tendency of returns on capital to exceed rate of growth threatens to generate extreme inequalities that undermine social values (*Capital in the Twenty-First Century*, 2014) ([video](#) 3:11)



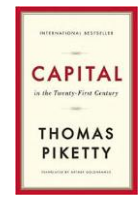
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Debate

Societal debate = normative → use best available data → fact finding → research team Leiden University

Notes:

- Piketty (2014) did *not* include the Netherlands and may other countries as China in his book.
- Great data collection – well-documented ☺ and he published in top journals ☺, but his explanation is based on interpretation ☹, expectations / forecasts ☹, policy recommendation ☹.



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2 Measuring issues

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Budget incidence approach

- Redistribution: pre-transfer-pre-tax inequality is compared to the post-transfer-post-tax inequality *keeping all other things equal*.
- Assumptions: unchanged household and labor market structures, disregarding any possible behavioral changes that the situation of absence of social transfers would involve.
- Despite this problem, analyses on statutory and budget incidence can be found for decades in literature.

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Decomposition income inequality

Income inequality and redistribution accounting framework

Income components	Income inequality and redistributive effect
Labor income + capital income + private transfers = Primary income	Income inequality before social transfers and taxes
+ Social security transfers = Gross income	-/- Redistributive effect of social transfers = Income inequality before taxes
-/- Income taxes and social security contributions = Disposable income	-/- Redistributive effect of taxes = Income inequality after social transfers and taxes

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Measuring income inequality

Global indices of inequality

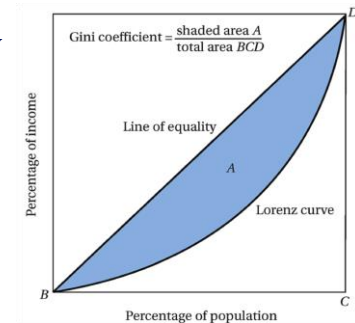
- Gini index
- Theil / Mean Log Deviation
- Atkinson index ($\alpha=0$, $\alpha=1$)

Local measures

- Deciles (10)
- Quartiles (4)
- Quintiles (5)
- Percentiles (100)
- Top-1%

Other

- S80/S20, mean, median



- Gini → value between 0 (all equal income) and 1 (all income goes to only one person)
- Calculation of Gini's for both pre-tax-pre-transfer income and post-tax-post-transfer income (effect of redistribution by T/B-system)

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Data and method income inequality

- Income inequality: Gini's
 - Gini primary income = Gini(pri)
 - Gini disposable income = Gini(dhi)



- Redistribution:
 - Overall redistribution = Gini(pri) – Gini(dhi)
 - Decomposition redistribution by transfers and taxes.
 - Decomposition redistribution by social programs: old-age benefits, disability benefits, survivor benefits, sickness benefits, family/children benefits, education benefits, unemployment benefits, housing benefits, other benefits and income taxes and social security contributions.
- Equivalence scale LIS
- LIS Top-and-Bottom-coding
- Target groups: total population, working-age population

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Trend fiscal redistribution total population (15 countries)

	Gini PI	Gini Dhi	Fiscal Red
Around 1985	0.431	0.280	0.152
Around 1997	0.453	0.281	0.172
Around 2012	0.479	0.297	0.182
Change 1985-2012	0.048	0.018	+0.030
Change 1985-1997	0.022	0.002	+0.020
Change 1997-2012	0.026	0.016	+0.010
<i>Share rise inequality offset by Fiscal Redistribution</i>			
1985-2012		63%	
1985-1997		93%	
1997-2012		37%	

Tax-benefit systems *effective at reducing inequality over time*. However, share of the rise in primary income inequality *offset* by fiscal redistribution *decreased over time*.

Discover the world at Leiden University Source: Caminada et al (2017)

Measuring monetary poverty in international perspective

No agreed-upon definition of (income) poverty

Poverty lines

- World Bank: \$ 1 dollar a day (\$1.90)
- USA: Absolute – Orshansky (basket)
- EU: Relative → poverty line (PL) 60 percent of median income (AROP)

International comparative research → apply poverty lines – % median income

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How to measure poverty?

Monetary poverty in an international setting → no agreed-upon definition how to measure poverty

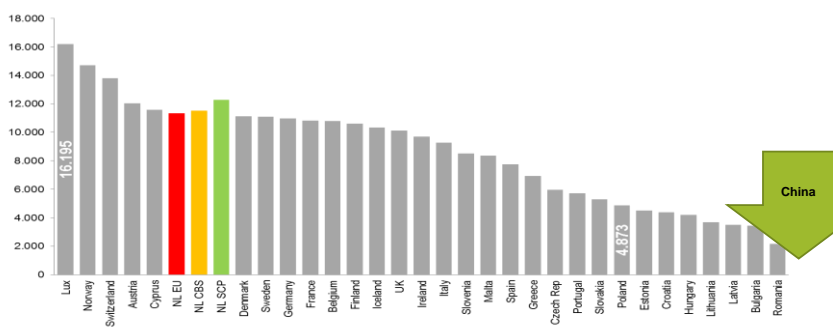
Research → apply poverty lines – % median income

How many people are at risk of poverty = below 60% of median income?

- China (PL60: 2.840 yuan) → 31% of population
- Netherlands (PL60: €11.326) → 11% of population

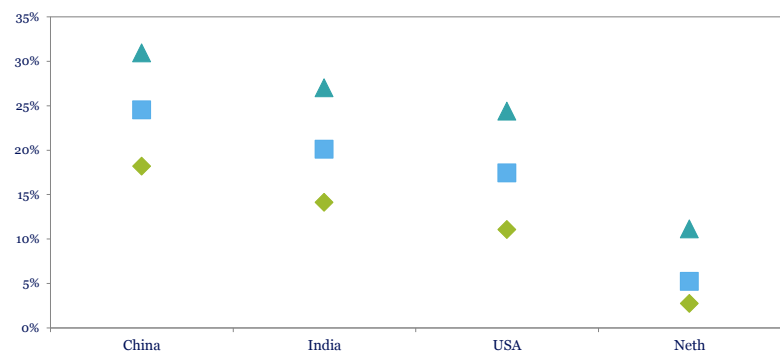
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Thresholds Monetary Poverty



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Poverty – thresholds PL40, PL50 and PL60



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Data and method relative income poverty rates

- **Poverty rates**
 - Relative poverty rate primary income = Pov(pri)
 - Relative poverty rate disposable income = Pov(dhi)
- **Redistribution = % of people lifted out of poverty**
 - Overall redistribution = Pov(pri) – Pov(dhi)
 - Decomposition redistribution by social benefits and income taxes.
 - Decomposition redistribution by social programs: old-age benefits, disability benefits, survivor benefits, sickness benefits, family/children benefits, education benefits, unemployment benefits, housing benefits, other benefits and income taxes and social security contributions.
- **Equivalence scale LIS**
- **LIS Top-and-Bottom-coding**
- **Target groups:** total population, working-age population, children & elderly



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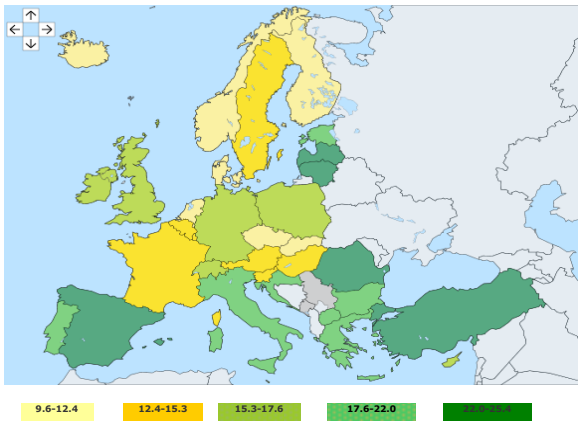
Relative Income Poverty Rates in 47 LIS-countries

Lifted out of poverty = Poverty primary income -/- poverty disposable income
 = redistribution of income via Tax/benefit-systems

	China	India	USA	Netherlands	Average 47 countries
Poverty PI	36%	31%	35%	32%	35%
Poverty Dpi	32%	27%	24%	12%	20%
Reduction	4%-p	4%-p	11%-p	20%-p	15%-p

Discover the world at Leiden University Source: Caminada, Goudswaard, Wang & Wang (forthcoming)

At-risk-of-poverty rate after social transfers 2015 (PL 60)



Poverty rate EU28:
 PL 40 = 6
 PL 50 = 11
 PL 60 = 17
 PL EU60 = 23
 Poverty line:
 PL EU = 60
 PL USA = 30
 PL China = ??
 Poverty rate USA 2013 (LIS):
 PL 40 = 11
 PL 50 = 17
 PL 60 = 24
 China PL60 = 32

Source: Eurostat, Leiden University

Country-grouping and indices: trends in several social indicators Europe-wide, 2005-2012

	EU-wide			Country-average		
	Level social indicator 2005	2012	Change	Level social indicator 2005	2012	Change
<i>Polarization Indicator</i>						
West-EU15 (10)	0.197	0.198	0%	0.190	0.188	-1%
CEE NMS-13 (8)	0.230	0.210	-8%**	0.197	0.193	-2%
West-EU15 + CEE NMS	0.219	0.212	-3%*	0.193	0.190	-1%**
European Countries (20)	0.219	0.212	-3%*	0.192	0.188	-2%**
<i>Gini coefficient</i>						
West-EU15 (10)	0.295	0.296	0%	0.274	0.276	1%
CEE NMS-13 (8)	0.384	0.328	-14%**	0.298	0.286	-4%
West-EU15 + CEE NMS	0.357	0.333	-7%**	0.284	0.280	-1%*
European Countries (20)	0.357	0.333	-7%**	0.283	0.275	-3%**
<i>Poverty rate (PL60)</i>						
West-EU15 (10)	0.151	0.172	14%**	0.136	0.143	5%**
CEE NMS-13 (8)	0.202	0.180	-11%	0.156	0.148	-5%
West-EU15 + CEE NMS	0.249	0.217	-13%**	0.145	0.145	0%
European Countries (20)	0.248	0.217	-12%**	0.141	0.140	-1%

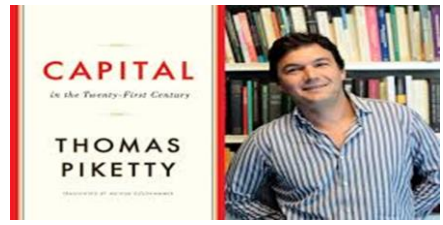
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Source: Wang, Caminada, Goudswaard Wang (2017)

3 Distribution of wealth

Wealth concentration - international perspective

Taxing the Wealthy
 A Global Wealth Tax above one million euro?

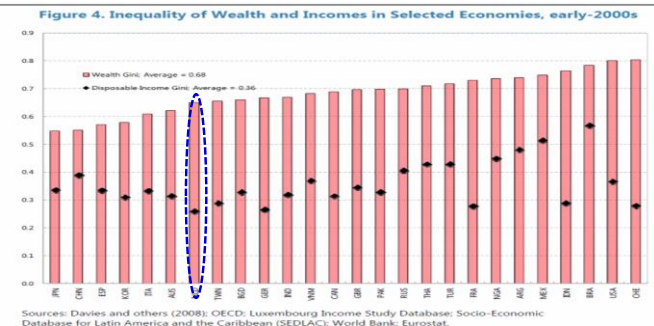


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Wealth distribution in international perspective (1)

- Hardly comparable data on private wealth inequality.
- IMF: Netherlands below-average; USA above-average.



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Wealth Distribution in international perspective (2)

- SHARE-data; used by Van Bavel → Dutch on top wealth inequality
- Netherlands → N=1.846 ; population aged 50 years and above

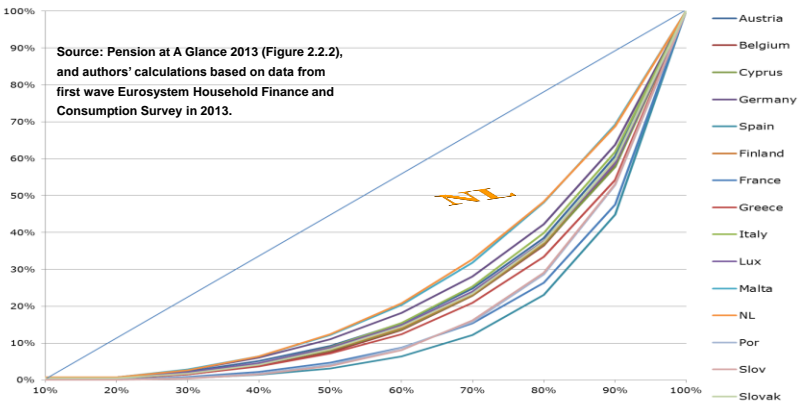
Table 4: Gini for net income (NI) & net worth (NW) (in 1.000 Euros, ppp-adjusted, weighted)

	G(NI)	G(NW)	$\frac{G(NW)}{G(NI)}$
AT	.36	.56	1.57
DE	.44	.63	1.44
SE	.46	.67	1.45
NL	.42	.69	1.57
ES	.51	.50	1.16
IT	.42	.56	1.32
FR	.45	.61	1.35
DK	.37	.63	1.71
GR	.47	.55	1.17
CH	.41	.69	1.67
BE	.45	.51	1.13
CZ	.38	.54	1.42
PL	.43	.75	1.71

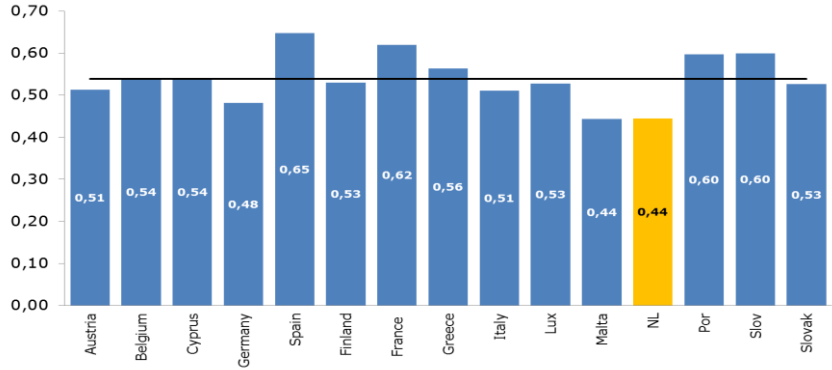
Source: Skopek, Buchholz & Blossfeld (2011)

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Distribution financial wealth 2013



Corresponding Gini's (Piketty's synthetic inequality index)



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Distribution of wealth in the Netherlands

Private wealth (Dutch Statistics)

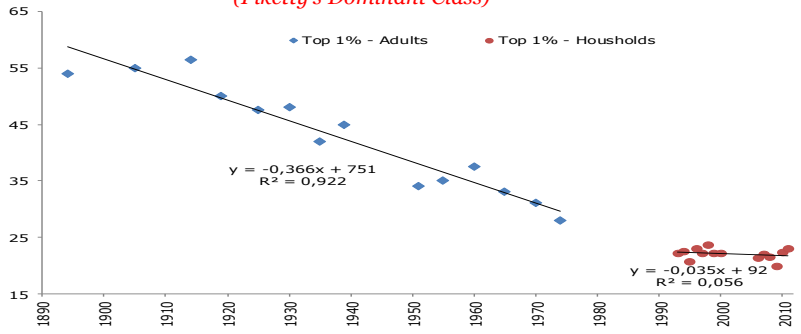
- Private wealth = balance of assets and debts (= 1.120 billion in 2014)
- Assets: bank deposits, stocks, real estate and business assets
- Debts: mortgages and consumer credit

Not (yet) included:

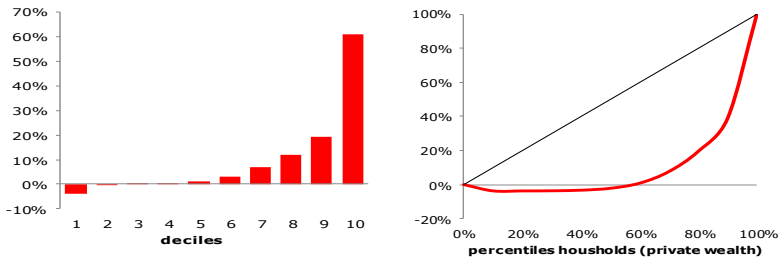
- Built-up pension rights (> 1.200 billion)
- Built-up credit savings and life mortgages (≈ 80 mld)
- Cash money, durables, jewelry and antique
- Debts to mail order companies

Growing wealth concentration in the Netherlands?

Private wealth distribution; share top percentile, 1894-2011
(Piketty's Dominant Class)



Shares of private wealth per decile and Lorenz curve of private wealth, 2012



Source: Caminada, Goudswaard & Knoef (2015)

How unequal is private wealth distributed?

- Top 1% households: 23% of total private wealth
- Top 10% → 61%; mainly pensioners (36%) and self-employed (29%)
- Bottom 60% of all households holds a cumulated private wealth of € 0.
- Lowest decile private wealth: especially employees and civil servants (76%). Negative net wealth of housing.

Private wealth unequally distributed → Gini of private wealth = 0.80.

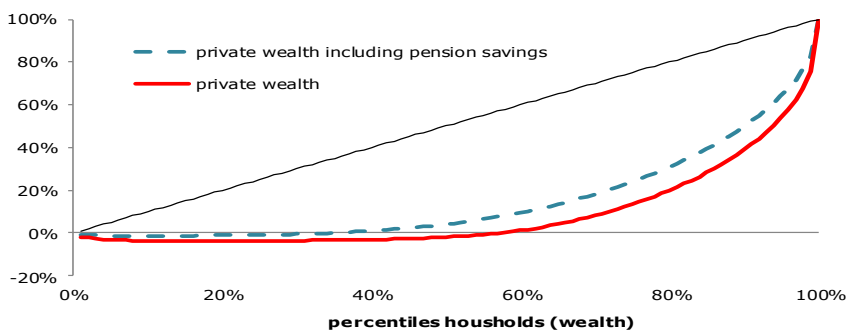
Effect of built-up pension rights

- Important for an international comparison
- Are pension savings comparable with private wealth → transfer, sell / salable and heritable?
- However: in both cases (delayed) consumption

Our approach: presentation of the distribution of wealth *with* and *without* pension savings

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Dutch Lorenz curves of wealth distribution, *with* and *without* built-up pension rights



Source: Caminada, Goudswaard & Knoef (2015)

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Concentration of Dutch Wealth

Wealth distribution in the Netherlands (with and without pension savings): 50/50

	Full distribution	Top		Bottom
	Gini coefficient	Share top 1%	Share top 10%	Positive cumulative wealth from
Private wealth	0.80	25%	61%	60 percentile
Idem + pension savings	0.68	17%	50%	35 percentile

Built-up pension rights mitigate inequality. Dutch total wealth inequality is smaller compared to inequality of private wealth.

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Thesis Thomas Piketty and The Netherlands

TABLE 7.2 Inequality of capital ownership across time and space

Share of different groups in total capital	Low inequality (never observed: ideal society?)	Medium inequality (= Scandinavia, 1970s-1980s)	Medium-high inequality (= Europe 2010)	High inequality (= US 2010)	Very high inequality (= Europe 1910)	Netherlands Caminada et al (2014)	Idem, including pension savings
Top 10% "upper class"	30%	50%	60%	70%	90%	61%	50%
- top 1%	10%	20%	25%	35%	50%	25%	17%
- next 9%	20%	30%	35%	35%	40%	37%	33%
The middle 40%	45%	40%	35%	25%	5%	41%	46%
The bottom 50%	25%	10%	5%	5%	5%	-2%	4%
Corresponding Gini (synthetic inequality index)	0.33	0.58	0.67	0.73	0.85	0.74	0.63

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Piketty and The Netherlands

- Data Dutch distribution of private wealth in line with data Piketty for Continental Europe.
- However, pension savings blur the picture. Including pension saving → The Netherlands is a look-alike of Nordic Countries.
- Dutch Wealth Tax: 1.2% above 25,000 euro

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Increasing capital income share and its effect on personal income inequality

What happens to equality if capital income rises?

Milanovic: Three kinds of societies

1. Socialist, where there is an equal per capita distribution of capital assets
2. Classical capitalist, where workers draw their entire income from labor and capitalists derive their entire income from capital
3. "New" capitalist, where every one receives income from both labor and capital

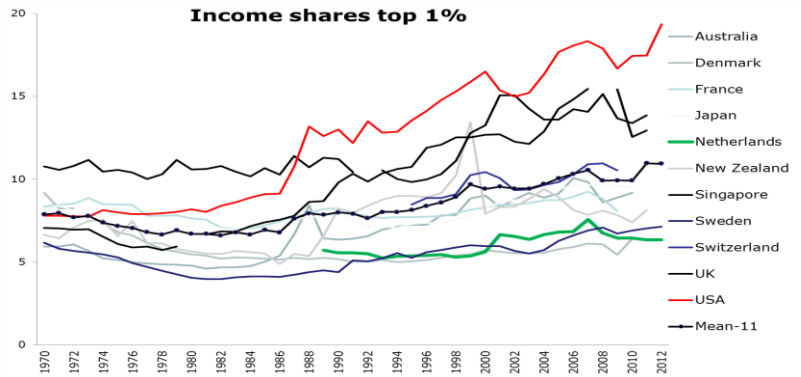
In the real (Dutch) world we are all new capitalists. Institutional setup matters to a large extent → pension 'capital' or 'wealth'

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4 Distribution of (top) income

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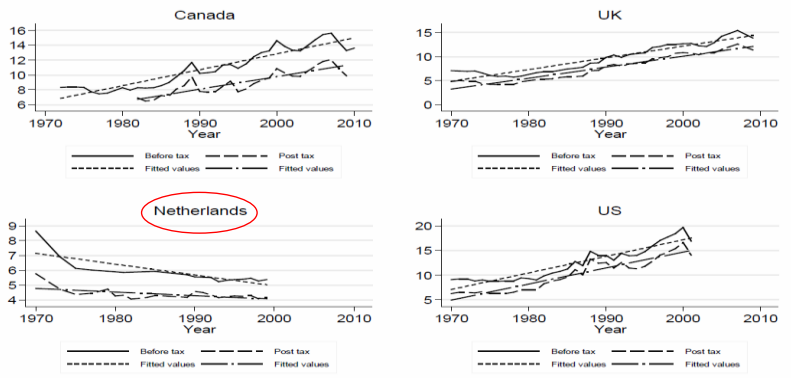
How strong are Piketty's trends?



Source: Caminada (2014), [World Top Income Database](#) (Piketty and others)

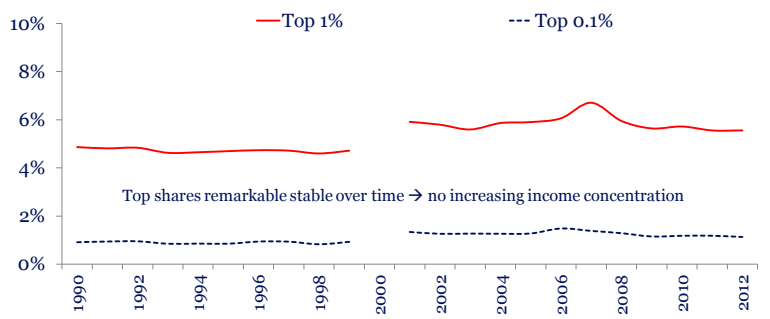
Share of top incomes increased in many countries, but not in the Netherlands

Pre and Post-Tax Top 1 Percent Shares for Selected Countries



Source: Morelli, Smeeding & Thompson (2014: p. 97)

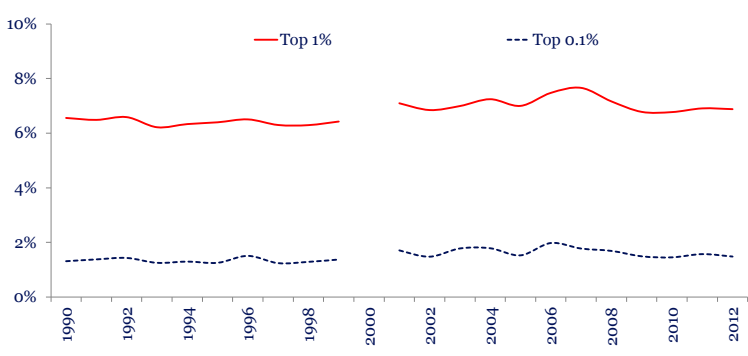
Dutch share top incomes 1990-2012



Source: Caminada, Goudswaard & Knoef (2015)

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Dutch share of taxes of top incomes 1990-2012



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Income shares top 1%

Country	Data availability	Levels			Change		
		1970	1990	2010's	1970-1990	1990-2010's	1970-2010's
Netherlands	1970-2012	8.6	5.6	6.3	-3.1	0.8	-2.3
Denmark	1970-2010	9.2	5.2	6.4	-4.0	1.2	-2.8
Sweden	1970-2012	6.2	4.4	7.1	-1.8	2.8	1.0
France	1970-2009	8.3	8.2	8.1	-0.1	-0.2	-0.3
New Zealand	1970-2011	6.6	8.2	8.1	1.6	-0.1	1.5
Singapore	1970-2012	10.8	8.4	8.2	-2.4	-0.2	-2.6
Australia	1970-2010	5.9	6.3	9.2	0.4	2.8	3.3
Japan	1970-2010	8.2	8.1	9.5	-0.1	1.5	1.3
Switzerland	1971-2009	10.8	8.6	10.5	-2.2	1.9	-0.3
UK	1970-2011	7.1	9.8	12.9	2.8	3.1	5.9
USA	1970-2012	7.8	13.0	19.3	5.2	6.4	11.5
Mean 11 countries		8.1	7.8	9.6	-0.3	1.8	1.5

Discover the world at Leiden University Source: Caminada (2014), World Top Income Database (Piketty and others)

Trend coefficients 1970-2012 from a simple OLS regression

Rank	Country	Data	# Obs.	Intercept	Coefficient	Adj R ²
1	USA	1970-2012	43	-586.3** (0.000)	0.301** (0.000)	0.937
2	UK	1970-2011	40	-457.3** (0.000)	0.235** (0.000)	0.878
3	Australia	1970-2010	41	-245.6** (0.000)	0.127** (0.000)	0.765
4	Singapore	1970-2012	41	-191.7** (0.000)	0.102** (0.000)	0.553
5	New Zealand	1970-2011	42	-143.6** (0.000)	0.076** (0.000)	0.296
6	Japan	1970-2010	41	-98.9** (0.000)	0.054** (0.000)	0.461
7	Sweden	1970-2012	43	-94.1** (0.000)	0.050** (0.000)	0.406
8	Switzerland	1971-2009	27	-59.8* (0.029)	0.035* (0.013)	0.192
9	France	1970-2009	40	-17.9 (0.228)	0.013 (0.082)	0.053
10	Netherlands	1970-2012	30	6.9 (0.789)	0.000 (0.977)	-0.036
11	Denmark	1970-2010	40	80.5** (0.000)	-0.038** (0.000)	0.194
Mean 11			43	-175.2** (0.000)	0.092** (0.000)	0.753

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How strong are Piketty's trends?

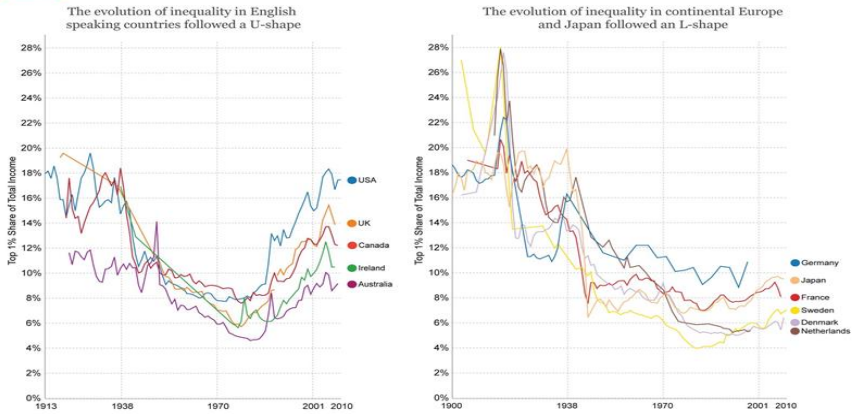
- USA and UK: top income shares rose sharply → over 0.23 percent each year in the period 1970-2012
- AUS, Singapore and NZ: significant positive trend more concentration at the top (< 0.13)
- Jap, Swe and Suisse: modest rise top income share (0.05)
- France and the Netherlands: neglectable
- Denmark: significant decline top income share!

Mean 11 countries: significant positive trend at rate 0.09 percent per year → At this rate it will take over 980 years before total income will be earned by the top 1% earners!

Gimmick: it might be wrong to think about a worldwide increase in income concentration among the top 1%

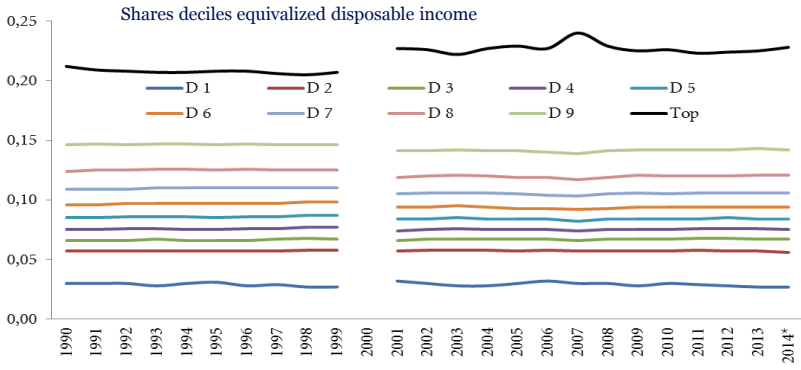
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Our World in Data Share of Total Income going to the Top 1%, 1900-2010



Data source: The World Top Incomes Database. The interactive data visualisation is available at OurWorldInData.org. There you find the raw data and more visualisations on this topic. Licensed under CC-BY-SA by the author Max Roser.

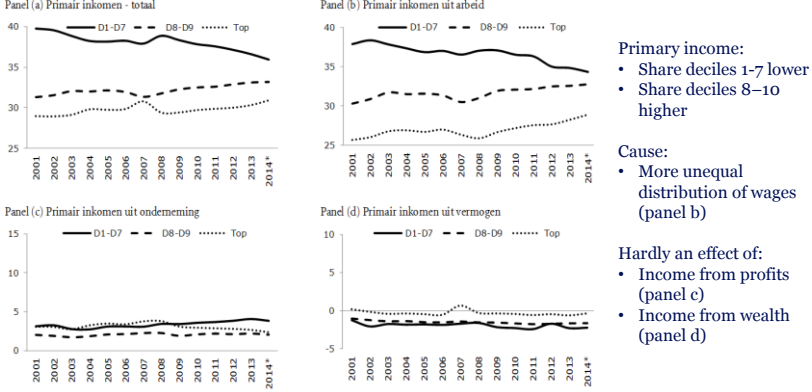
Rather stable Dutch income distribution, 1990-2014



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Source: Caminada, Goudswaard & Been (2017)

Deciles equivalized primary income, 2001-2014



Primary income:

- Share deciles 1-7 lower
- Share deciles 8-10 higher

Cause:

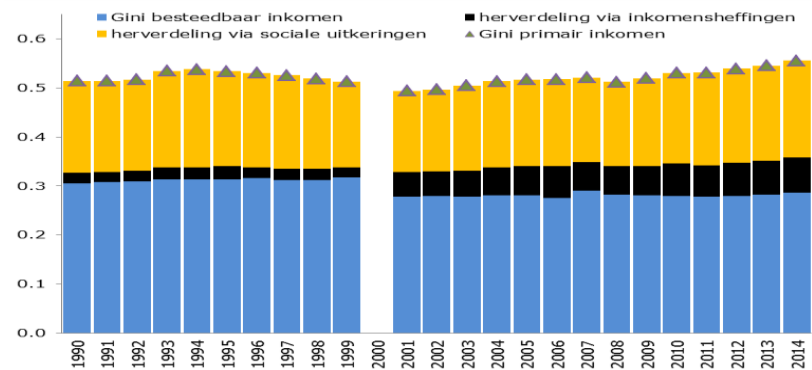
- More unequal distribution of wages (panel b)

Hardly an effect of:

- Income from profits (panel c)
- Income from wealth (panel d)

Discover the world at Leiden University | Source: Caminada, Goudswaard & Been (2017)

Empirics: Dutch income inequality and redistribution



Discover the world at Leiden University | Source: Caminada, Goudswaard & Been (2017)

Empirics: Dutch income inequality and redistribution of T/B-system → decomposition

	1990	2001	2014	Change 2001-2014
Gini primary income	0.514	0.494	0.556	0.062
reduction via social transfers	0.187	0.166	0.197	0.031
reduction via income taxes and social contributions	0.022	0.050	0.072	0.022
Gini disposable income	0.306	0.278	0.286	0.008
Redistribution T/B-system (Gini PI -/- Gini Dpi)	41%	44%	49%	5%-p

Shares (programs)

Public old-age pensions	32%	29%	33%
Supplementary pensions	20%	24%	25%
Income taxes and social contributions	8%	17%	18%
Welfare (safety net)	13%	7%	5%

Discover the world at Leiden University | Source: Caminada, Goudswaard & Been (2017)

Redistribution of income via T/B-systems → international

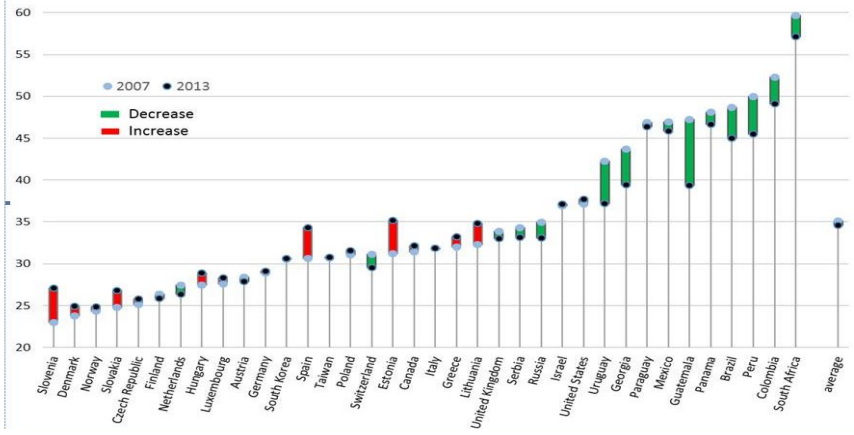
Income inequality before and after the Great Recession: 23-country-averages

	Around 2007	Around 2013	Change
Gini primary income (a)	0.472	0.477	0.005
Gini disposable income (b)	0.329	0.326	-0.003
Fiscal redistribution (a-b)	0.144	0.151	0.007

- Gini dhi decreased slightly and fiscal redistribution rose since 2007
- OECD (2016) : the economic recovery has *not* reduced income inequality, because redistribution *decreased* recently.
- Both: fiscal redistribution dampened the increase in market income inequality.

Discover the world at Leiden University | Source: Caminada, Wang, Goudswaard & Wang (2017)

Gini's eq. Dpi before and after the Great Recession



Do rising shares in top incomes affect income inequality as a whole?

Just for fun! → This blog fills a small gap in the literature.

Piketty (2014) and Atkinson (2007) claim: rise in top income shares main factor in increase overall income inequality over the decades in affluent counties.

However, by calculating overall income inequality (Gini's) top incomes are usually neglected → data do not allow for inclusion of very high top incomes.

Top-and-bottom coding

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Linking trend top income shares and Gini's for 19 affluent countries, 1970-2012

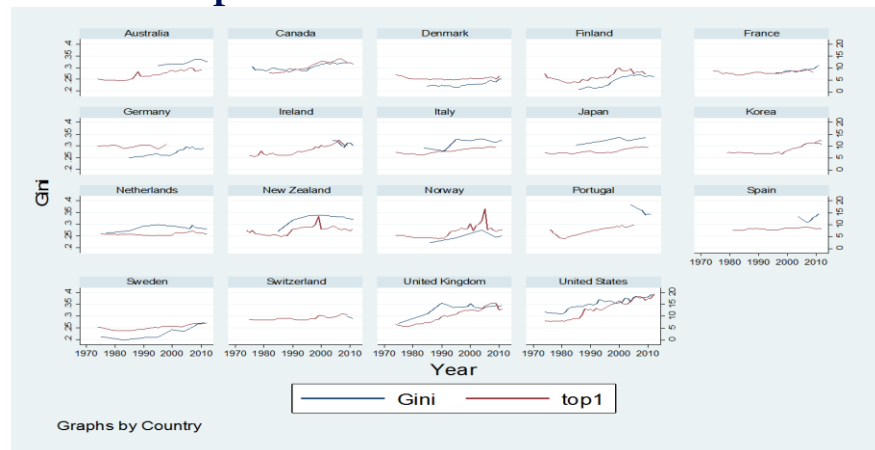
Did most countries witness similar trends in rising top income shares and income inequality as a whole?

Has this rise in income inequality among the total population been driven over the decades by (or positively related to) the rise in shares in top incomes?

Data:

- World Top Income Database assembled by Thomas Piketty, Tony Atkinson and others
- Gini coefficient from OECD Income Distribution Database

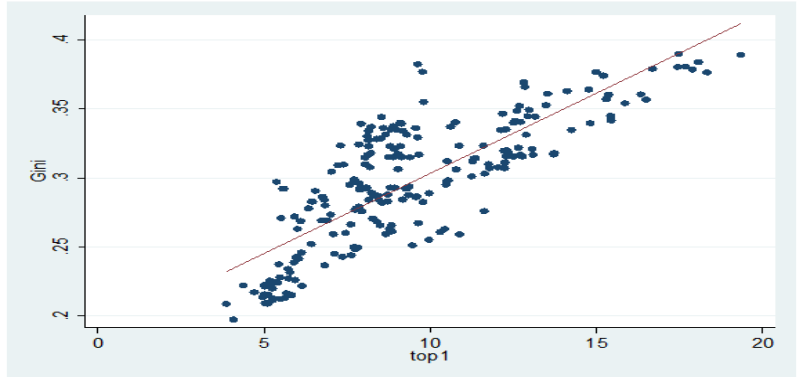
Trends top 1% income shares and Gini's



Graphs by Country

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Correlation top income shares and Gini's
(all observations across countries and years are pooled together)



Discover the world at Leiden University Source: Wang & Caminada (2015)

Simple ordinary least square estimation

Table 1 The relationship between top income shares (1% and 5%) and the Gini coefficient of total population from a simple OLS regression

	OLS Gini	OLS Gini	OLS Fixed effect Gini	OLS Fixed effect Gini
top1	0.012*** [0.000]		0.007*** [0.000]	
top5		0.008*** [0.000]		0.005*** [0.000]
Constant	0.188*** [0.000]	0.114*** [0.000]	0.232*** [0.000]	0.177*** [0.000]
No. of observations	223	217	223	217
Adjusted R-sq	0.658	0.711	0.549	0.572

Notes: OLS regression; p values in parentheses. ** Significant at 0.01 level; * significant at 0.05 level

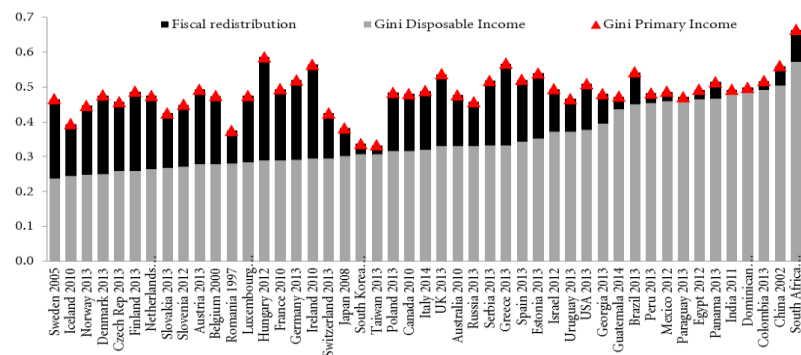
Discover the world at Leiden University Source: Wang & Caminada (2015)

Conclusion

- ❑ Strong positive relationship between top income shares and income inequality.
- ❑ Interestingly, overall income inequality is more sensitive to top 1 percent income shares, compared to top 5 percent income shares.
- ❑ However, this positive relationship represents an average or general pattern →
- ❑ Exceptions such as Denmark and the Netherlands where the rise in top income shares did not lead to higher income inequality among the whole population.

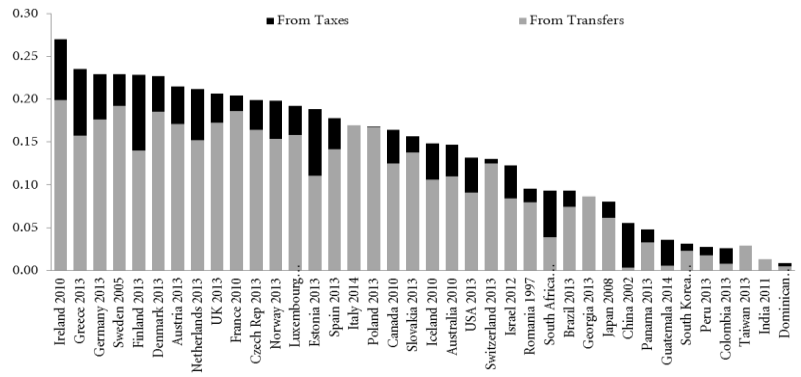
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Disposable and primary income inequality across LIS countries around 2011-2013



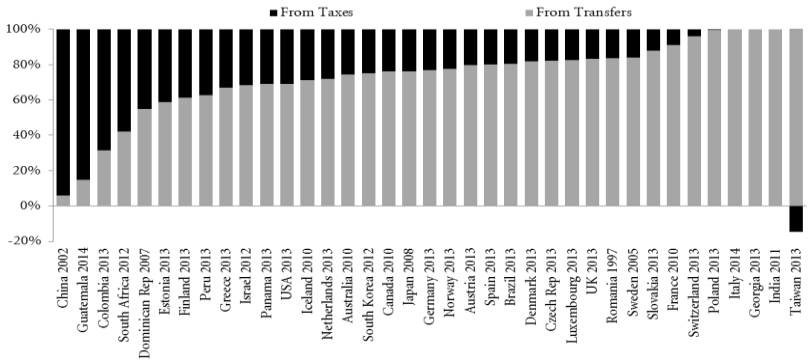
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Fiscal redistribution across LIS countries around 2011-2013



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Relative redistributive effect of taxes and transfers across countries around 2011-2013



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Further decomposition fiscal redistribution

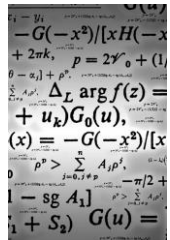
+/- Transfers

- Old-age/disability/survivor transfers
- Sickness transfers
- Family/children transfers
- Education transfers
- Unemployment transfers
- Housing transfers
- General/food/medical assistance transfers
- Other transfers

-/-Taxes

- Income taxes and social security contributions

Database:
 - 47 countries
 - 9 waves: 1967-2014
 - 293 datasets



$$G = 2 \int_0^1 [x - L(x)] dx$$

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Disentangling approach

Sequential accounting decomposition



• The total redistributive effect can be disentangled in several partial effects:

$$L_{Bk} = G_{pri} - G_{pri+Bk} \quad L_{Tl} = G_{pri+B} - G_{pri+B-Tl}$$

- L_{Bk} : partial redistributive effect of transfer B_k
- L_{Tl} : partial redistributive effect of tax T_l .
- Transfers are by far the most important contributors to income inequality reduction (across time and space).

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Partial effects of social programs in reducing income inequality (Gini's)

Order: A partial redistributive effect of a specific social transfer is highest (smallest) when added as the first (last) social program to pre-transfer-pre-tax income distribution.

We first consider every specific social transfer as the first program to be added to primary income and then the last program following all other transfer programs. Consequently, we can get two Ginis: $Gini_{pri+Bk}$ $Gini_{gross-Bk}$. The redistributive effect of specific transfer programs can be presented as:

$$LG_{BK} = ((Gini_{pri} - Gini_{pri+Bk}) + (Gini_{gross-Bk} - Gini_{gross}))/2$$

Residual is rather small in most cases (<1 or 2%)

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Decomposition fiscal redistribution around 2013 (country-average-26)

	Gini	Share
(a) Gini primary income	0.496	
(b) Gini disposable income	0.331	
Overall redistribution (a-b)	0.165 (-33%)	100%
<i>Transfers</i>		
Old-age/Disability/Survivor transfers	0.128	78%
Sickness transfers	0.089	54%
Family/Children transfers	0.002	1%
Education transfers	0.013	8%
Unemployment transfers	0.002	1%
Housing transfers	0.010	6%
General/food/medical assistance transfers	0.004	3%
Other transfers	0.005	3%
	0.003	2%
Income taxes and social security contributions	0.038	23%
Residual	-0.001	-1%

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Decomposition of disposable income inequality for 8 countries 1985-2013: averages by periods

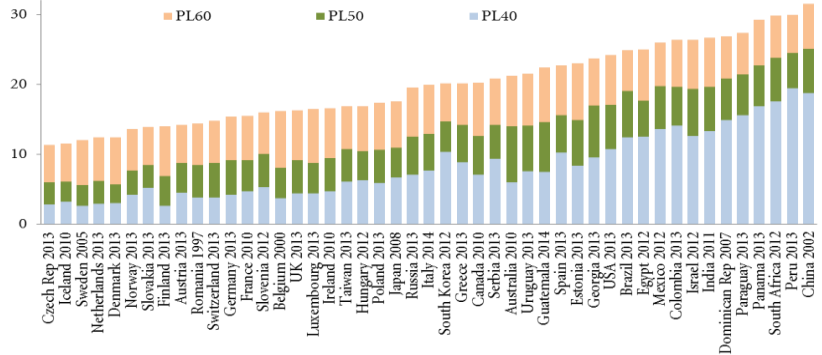
	Gini 1985	Gini 1995	Gini 2013	Change 1985-2013
(a) Gini primary income	0.447	0.460	0.485	0.039
(b) Gini disposable income	0.289	0.286	0.310	0.021
Overall redistribution (a-b)	0.158	0.174	0.176	0.018
<i>Transfers</i>				
Old-age/Disability/Survivor transfers	75%	78%	78%	3%
Sickness transfers	47%	52%	56%	9%
Family/Children transfers	1%	1%	0%	-1%
Education transfers	7%	8%	7%	0%
Unemployment transfers	6%	2%	1%	-5%
Housing transfers	5%	7%	6%	1%
General/food/medical assistance transfers	1%	3%	2%	2%
Other transfers	2%	3%	3%	0%
	7%	3%	2%	-5%
Income taxes and social security contributions	25%	22%	24%	-1%
Residual	0%	0%	-2%	-2%

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5 Levels and trends in poverty rates

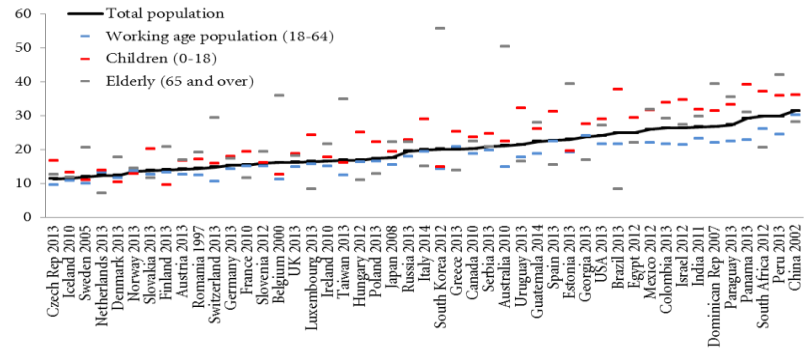
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Disposable income poverty across 47 LIS countries: applying different thresholds (PL40, PL50 and PL60)



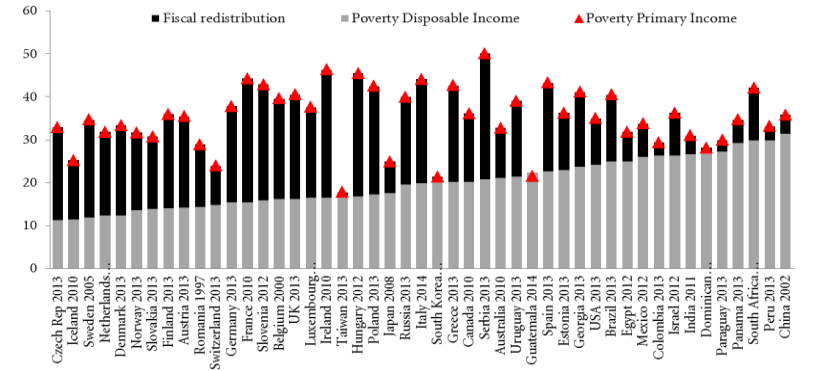
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Disposable income poverty (PL60) across 47 LIS countries among different age groups (most recent data year)



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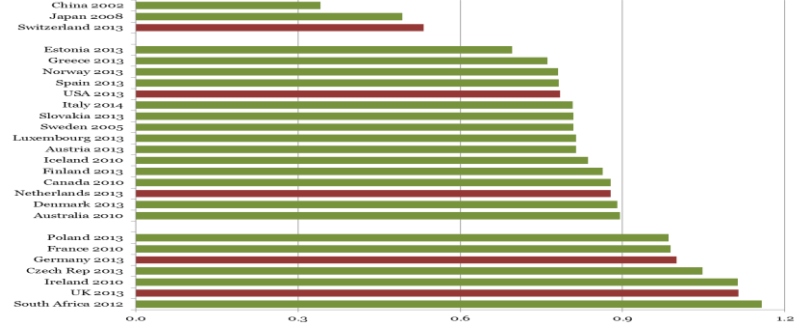
Disposable and primary income poverty rates (PL60) across LIS countries (most recent data year)



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And the winner is ...?

Indicator of Public Policy Effectiveness on Poverty Alleviation: poverty reduction per percentage point social spending of gross income



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Trend in fiscal redistribution among working-age and total population in 15 countries

	Total population (PL60)			Working-age population (PL60)		
	Poverty Pri	Poverty Dhi	Fiscal Red	Poverty Pri	Poverty Dhi	Fiscal Red
Around 1985	28.5	15.8	12.7	20.6	12.7	7.9
Around 1997	31.9	16.0	16.0	23.1	13.2	9.8
Around 2012	34.5	16.8	17.8	24.7	14.7	10.0
Change 1985-2012	6.1	1.0	5.1	4.1	2.0	2.1
Change 1985-1997	3.5	0.2	3.3	2.4	0.5	1.9
Change 1997-2012	2.6	0.8	1.8	1.6	1.5	0.2
	<i>Share rise poverty offset by Fiscal Redistribution</i>			<i>Share rise poverty offset by Fiscal Redistribution</i>		
1985-2012	84%			52%		
1985-1997	94%			79%		
1997-2012	70%			10%		

Tax-benefit systems *increasingly effective at reducing income poverty over time*. Share of the rise in primary income poverty *offset* by fiscal redistribution *rather high*.

Poverty of primary income and disposable income (PL60) and fiscal redistribution, before and after the Great Recession (mean 23 countries)

	Total population			Working-age			Children			Elderly		
	Pov Pri	Pov Dhi	FR	Pov Pri	Pov Dhi	FR	Pov Pri	Pov Dhi	FR	Pov Pri	Pov Dhi	FR
Around 2007	32.0	19.1	12.9	23.2	15.7	7.5	27.0	22.3	4.7	75.5	26.8	48.8
Around 2013	33.8	18.8	15.0	24.6	16.4	8.1	28.1	22.1	6.0	75.1	22.2	52.9
Change	1.7	-0.4	2.1	1.4	0.7	0.7	1.1	-0.1	1.2	-0.5	-4.6	4.1
- from social transfers	1.9			0.6			1.0			3.2		
- from income taxes	0.2			0.1			0.2			0.9		

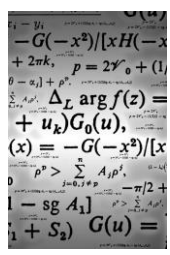
Further decomposition fiscal redistribution

- +/- Transfers**
- Old-age/disability/survivor transfers
 - Sickness transfers
 - Family/children transfers
 - Education transfers
 - Unemployment transfers
 - Housing transfers
 - General/food/medical assistance transfers
 - Other transfers

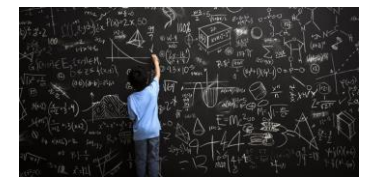
- /-Taxes**
- Income taxes and social security contributions

Database:
 - 47 countries
 - 9 waves: 1967-2014
 - 293 datasets

$$G = 2 \int_0^1 [x - L(x)] dx$$



Disentangling approach



Sequential accounting decomposition

• The total redistributive effect can be disentangled in several partial effects:

$$L_{BK} = pov_{pri} - pov_{pri+B_k} \quad L_{TI} = pov_{pri+B} - pov_{pri+B-T_l}$$

- L_{BK} : partial redistributive effect of transfer B_k
- L_{TI} : partial redistributive effect of tax T_l .
- Transfers are by far the most important contributors to income poverty reduction (across time and space).

Partial effects of social programs in reducing income poverty rates

Order: It should be noted that the results to be obtained will be affected by the ordering effect. For example, the partial redistributive effect of a specific social transfer will **not** be the same when computed as the first (last) social program.

We first consider every specific social transfer as the **first** program to be added to primary income and then the **last** program following all other transfer programs. Consequently, we can get two poverty rates. The redistributive effect of specific transfer programs can be presented as:

$$LG_{BK} = ((Pov_{pri} - Pov_{pri+Bk}) + (Pov_{gross-Bk} - Pov_{gross}))/2$$

Residual is rather small in most cases (<2%)

Decomposition fiscal redistribution around 2013 (country-average-26)

	Poverty (PL60)	Share
(a) Poverty primary income	35.7	
(b) Poverty disposable income	18.8	
Overall redistribution (a-b)	16.9 (=47%)	100%
<i>Transfers</i>	19.8	117%
Old-age/Disability/Survivor transfers	13.6	80%
Sickness transfers	0.3	2%
Family/Children transfers	2.3	14%
Education transfers	0.3	2%
Unemployment transfers	1.5	9%
Housing transfers	0.6	3%
General/food/medical assistance transfers	0.7	4%
Other transfers	0.5	3%
Income taxes and social security contributions	-2.9	-17%
Residual	0.0	0%

Decomposition of poverty and redistributive effect of social transfers and income taxes (around 2013)

US Dataset	Gross / net	Poverty rates (PL60)			Redistribution	Absolute Fiscal Redistribution via Programs												
		Primary Income (a)	Gross Income (b)	Disposable Income (c)		Absolute (a-b)	Relative (a-b)/100	Sickness	Old-age/Disability/Survivor	Family/Children	Education	Unemployment	Housing	General/food/medical assistance	Other transfers	Income taxes	Residual	
panel a: US English speaking countries																		
Australia 2010	Gross	32.8	20.3	21.2	11.6	35%	5.9	0.0	4.0	0.1	0.9	0.3	0.0	1.4	-0.8	-0.1		
Ireland 2010	Gross	46.4	16.1	16.6	29.8	64%	11.9	1.0	6.5	0.3	7.5	1.5	0.4	0.8	-0.4	0.4		
United Kingdom 2013	Gross	40.5	14.0	16.3	24.2	60%	14.8	0.0	5.5	0.1	0.4	3.1	1.6	1.3	-2.3	-0.4		
United States 2013	Gross	34.9	21.5	24.1	10.8	31%	9.8	0.1	2.1	0.4	0.4	0.1	0.8	-0.4	-2.6	0.0		
panel b: US Continental European countries																		
Austria 2013	Gross	35.4	11.4	14.2	21.2	60%	18.6	0.4	2.7	0.2	2.0	0.2	0.3	0.0	-2.8	-0.2		
France 2010	Mix	44.3	15.3	15.5	28.8	65%	20.4		3.6	0.0	2.6	1.8		0.6	-0.2	0.0		
Germany 2013	Gross	37.8	11.7	15.4	22.4	59%	20.7		2.4	0.3	2.2	0.2	0.2	0.0	-3.7	0.0		
Luxembourg 2013	Gross	37.6	10.7	16.4	21.1	56%	17.8	0.1	5.8	0.2	1.5	0.2	0.6	0.4	-5.7	0.3		
Switzerland 2013	Gross	23.9	5.3	14.8	9.1	38%	15.0	0.0	1.0					1.8	-9.5	0.0		
panel c: US Nordic countries																		
Denmark 2013	Gross	33.4	4.9	12.4	21.0	63%	20.7		0.9	1.6	1.3	0.6	2.6	0.7	-7.5	0.2		
Finland 2013	Gross	36.0	9.9	14.0	22.0	63%	17.8	0.0	2.0	0.7	3.0	1.2	0.5	1.0	-4.1	0.0		
Iceland 2010	Gross	25.2	7.1	11.5	13.7	54%	12.2	0.1	2.1	0.0	2.1	1.4	0.1	0.0	-4.4	0.1		
Netherlands 2013	Gross	31.8	6.3	12.4	19.5	61%	19.0	0.4	1.0	0.5	1.7	1.2	1.7	0.7	-6.1	-0.7		
Norway 2013	Gross	31.7	9.6	13.6	18.1	57%	17.1	1.3	1.6	0.3	0.6	0.2	0.3	0.6	-4.0	-0.1		
panel d: US Southern European countries																		
Greece 2013	Gross	42.7	14.9	20.1	22.5	53%	25.5	0.0	1.2	0.0	0.7	0.0		0.3	-5.2	0.1		
Spain 2013	Gross	43.3	20.3	22.7	20.6	48%	17.1	0.3	0.2	0.2	4.7	0.0		0.3	-2.4	0.0		

Decomposition of poverty and redistributive effect of social transfers and income taxes (around 2013)

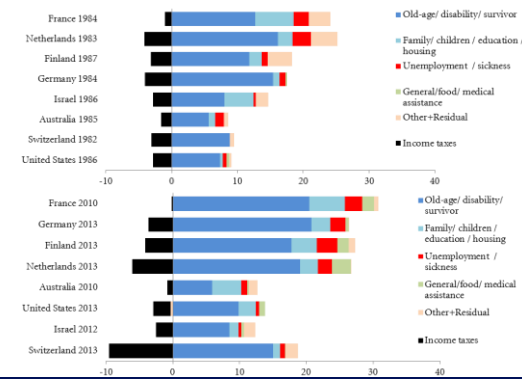
US Dataset	Gross / net	Poverty rates (PL60)			Redistribution	Absolute Fiscal Redistribution via Programs												
		Primary Income (a)	Gross Income (b)	Disposable Income (c)		Absolute (a-b)	Relative (a-b)/100	Sickness	Old-age/Disability/Survivor	Family/Children	Education	Unemployment	Housing	General/food/medical assistance	Other transfers	Income taxes	Residual	
panel e: US Central Eastern European countries																		
Czech Republic 2013	Gross	32.9	10.4	11.3	21.5	65%	19.6		1.4		0.3	0.3	0.2	0.8	-1.0	-0.1		
Estonia 2013	Gross	36.3	20.6	23.0	13.3	37%	13.1	0.2	1.6	0.1	0.5			0.0	0.0	-2.4	0.1	
Poland 2013	Gross	42.5	16.6	17.3	25.2	59%	22.1		1.8	0.2	0.6	0.1	0.8	0.3	-0.7	0.1		
Slovakia 2013	Gross	30.7	11.5	13.8	16.9	55%	15.8	0.2	2.3	0.0	0.2			0.7	-2.3	0.1		
panel f: US BRICS																		
Brazil 2013	Gross	40.5	23.8	24.9	15.6	39%	13.9				0.7		1.6	0.5	-1.1	0.0		
South Africa 2012	Gross	42.1	27.4	29.8	12.3	29%	8.1		6.4				0.2	2.5	0.0			
panel g: Latin America																		
Guatemala 2014	Gross	21.5	19.6	22.3	-0.8	-4%	0.6			0.0			0.6	0.6	-2.7	0.0		
Panama 2013	Gross	34.6	27.6	29.2	5.4	16%	4.3		0.3	1.9			0.0	0.5	0.0	-1.6	0.0	
Peru 2013	Gross	33.2	29.5	29.9	3.3	10%	1.8		0.3	0.1			0.0	1.3	0.0	-0.4	0.0	
panel h: US others																		
Israel 2012	Gross	36.2	23.9	26.4	9.9	27%	8.5		1.3		0.4		0.4	1.6	-2.5	0.1		
Mean		35.7	15.8	18.8	16.9	47%	14.3	0.3	2.4	0.3	1.6	0.6	0.7	0.5	-3.0	0.0		
N T		26	26	26	26	26	26	15	24	21	22	20	20	26	26	26		
Mean (rescaling)		35.7	15.8	18.8	16.9	47%	13.6	0.3	2.3	0.3	1.5	0.6	0.7	0.5	-2.9	0.0		

Decomposition of disposable income poverty (PL60) for 8 countries 1985-2013 (averages by periods)

	Poverty 1985	Poverty 1995	Poverty 2013	Change 1985-2013
(a) Poverty primary income	29.1	31.7	34.7	5.6
(b) Poverty disposable income	16.1	15.9	18.0	1.9
Overall redistribution (a-b)	13.1 (=45%)	15.8	16.8 (=48%)	3.7
<i>Transfers</i>	15.6	19.2	20.5	4.9
Old-age/Disability/Survivor transfers	9.9	12.8	14.3	4.4
Sickness transfers	0.2	0.3	0.1	-0.1
Family/Children transfers	1.9	2.2	2.1	0.2
Education transfers	0.6	0.4	0.3	-0.3
Unemployment transfers	1.0	1.8	1.5	0.5
Housing transfers	0.1	0.7	0.7	0.6
General/food/medical assistance transfers	0.2	0.4	0.6	0.4
Other transfers	1.6	0.6	0.8	-0.8
Income taxes and social security contributions	-2.6	-3.5	-3.6	-1.0
Residual	0.1	0.0	-0.1	-0.2

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Decomposition of anti-poverty effect T/B-systems for 8 countries around 1985 and around 2013



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Summing-up

Levels latest data year available (rank)	Poverty primary income PL60	Poverty disposable income PL60	Fiscal redistribution	Budget size transfers	Efficiency transfers
EU15	39.1 (8)	16.0 (1)	23.1 (8)	25.8% (8)	-0.026 (4)
CEE	37.1 (6)	16.1 (2)	21.0 (7)	23.2% (7)	-0.032 (3)
Europe - other	34.4 (4)	16.9 (3)	17.5 (6)	20.8% (6)	-0.037 (2)
South-East Asia	21.3 (1)	18.2 (4)	3.2 (1)	9.8% (2)	0.030 (6)
Anglo-Saxon	34.6 (5)	21.8 (5)	12.8 (5)	15.0% (5)	-0.158 (1)
Middle East	34.0 (3)	25.7 (6)	8.4 (3)	12.2% (3)	-0.015 (5)
Latin America	31.2 (2)	26.2 (7)	5.0 (2)	8.9% (1)	0.073 (7)
BRICS	37.9 (7)	26.5 (8)	11.4 (4)	14.6% (4)	0.172 (8)
Mean-47	35.2	19.9	15.3	18.5%	0.006

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6 Getting to work

Many issues to be solved

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Future research – UN Millennium Goals

- ❑ The distribution of *what*?
- ❑ Global inequality – it is all about China (and India), isn't?
- ❑ The Elephant and the squeezed middle revisited.
- ❑ Wealth inequality in an international perspective – a lot to be done.
- ❑ Income distribution: English speaking countries versus Europe.
- ❑ Reduced redistribution as main driver of widening income gaps?
- ❑ Key-figures versus micro data sets and Lorenz Dominance.
- ❑ Why should we care about global inequality? Poverty!

- Measuring
- Explanations (hypotheses)
- Testing - empirics

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Some related work – downloads via www.economie.leidenuniv.nl

1. Caminada et al (2017), Income inequality and fiscal redistribution in 47 LIS-countries, 1967-2014, *LIS WP Series #724*.
2. Wang et al (2017), Income polarization in 31 European countries and Europe wide, 2004-2012, *Cambridge Journal of Economics*. doi: 10.1093/cje/bex065
3. Caminada & Martin (2016), A cross-Atlantic descriptive policy analysis of differences in anti-poverty approaches in Europe and the United States, in: Skidmore (red.), *Poverty in America*, Westphalia Press.
4. Knoef et al (2016), Measuring retirement savings adequacy: developing a multi-pillar approach in the Netherlands, *Journal of Pension Economics and Finance*.
5. Wang et al (2014), Income redistribution in 20 countries over time, *Int. Journal of Social Welfare* 23(3).
6. Wang et al (2012), The redistributive effect of social transfer programs and taxes, *Int. Social Security Review* 65(3).
7. Caminada et al (2012), Social income transfers and poverty, *Int. Journal of Social Welfare* 21(2).
8. Caminada et al (2010), Patterns of welfare state indicators in the EU, *Journal of Common Market Studies* 48(3).
9. Caminada & Goudswaard (2001), International trends in income inequality and social policy, *Int. Tax and Public Finance* 8(4).
10. Leiden Law Blog
 - Wang & Caminada (2015), Do rising shares in top incomes affect income inequality as a whole?
 - Caminada (2015), How strong are Piketty's trends?
 - Caminada (2014), Facts & Figures: Income inequality and fiscal redistribution in 29 countries.

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Databases & codebooks

1. [Leiden LIS Budget Incidence Fiscal Redistribution Dataset on Income Inequality \(2017\)](#)
2. [Idem, on Relative Income Poverty Rates \(2018\)](#)
3. [Social Assistance and Minimum Income Levels and Replacement Rates Dataset](#)
4. [Unemployment Replacement Rates Dataset](#)
5. [Sectoral Income Inequality Dataset](#)

Website: [Leiden Law School / Economics / Data](#)



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