# Dutch Income (Re)Distribution, trends 1977-2019

**UnivLeiden/Statistics Netherlands**
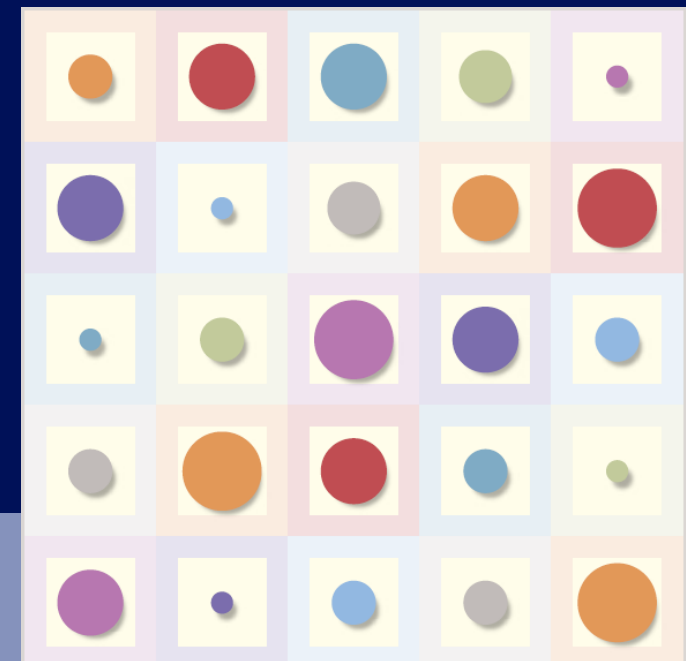
Koen Caminada

BE-PARADIS workshop
19 May 2022
Leuven, Belgium

Universiteit Leiden
The Netherlands

Discover the world at Leiden University

## INKOMEN VERDEELD
### TRENDS 1977–2019

ONDER REDACTIE VAN

Koen Caminada, Egbert Jongen (UNIVERSITEIT LEIDEN)
Wim Bos, Marion van den Brakel, Ferdy Otten (CBS)

# Introduction

Koen Caminada, professor Empirical analysis of social and tax policy, Leiden University

Institute of Tax Law and Economics. Leiden Law School

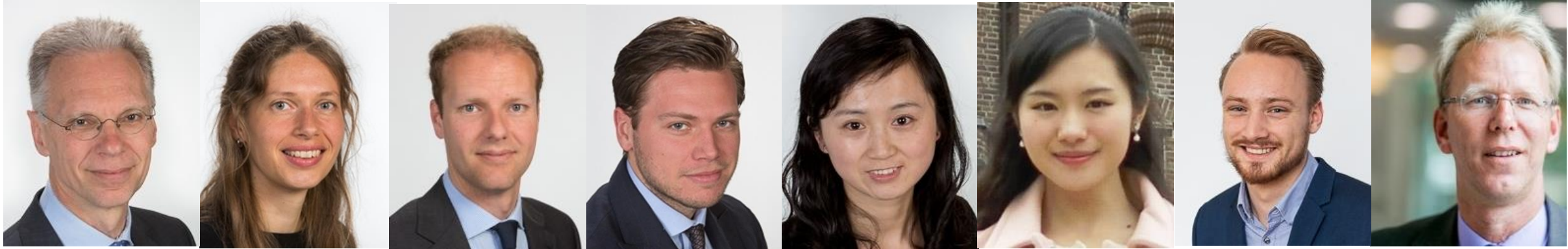Vice-dean Faculty Governance & Global Affairs, Campus The Hague

Topics
- [ ] Income distribution & redistribution
- [ ] Distribution tax-benefits social security and pensions
- [ ] Tax policy
- [ ] Reform social and tax regulations
- [ ] Poverty EU / OECD / LIS

Assembled Datasets
- [ ] Global
- [ ] Dutch Income Statistics

# Empirics: global research team & data



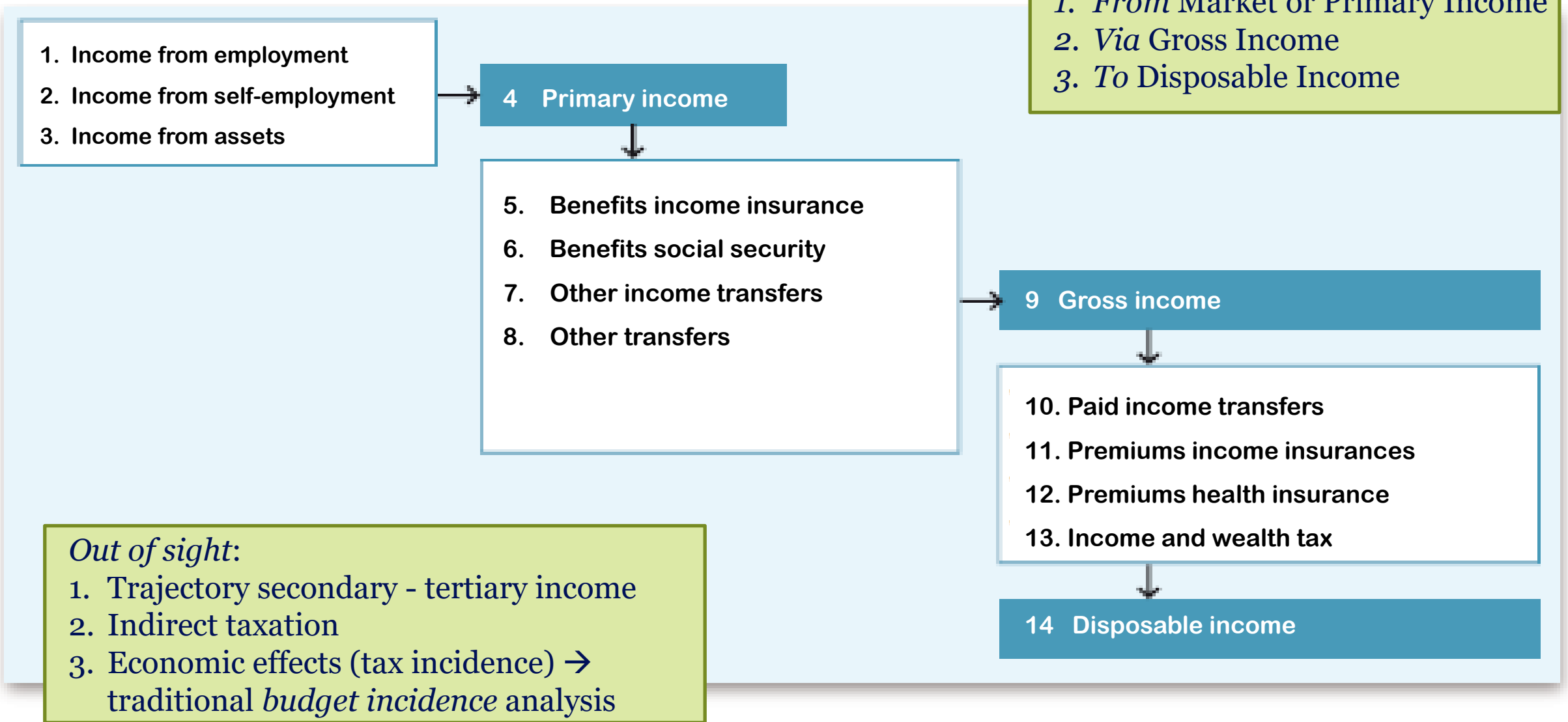| Kees Goudswaard | Marike Knoef | Olaf van Vliet | Jim Been | Jinxian Wang | Chen Wang | Heike Vethaak | Koen Caminada |
| Leiden | Leiden | Leiden | Leiden | Beijing | Shanghai | Leiden | Leiden |

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

- Budget Incidence Fiscal Redistribution Dataset on Income Inequality (2017)
- Idem, on Relative Income Poverty Rates (2019)
- 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

# Setting the scene
## Composition of household income & T/B-system

1. *From* Market or Primary Income
2. *Via* Gross Income
3. *To* Disposable Income

**Income box:**
1. Income from employment
2. Income from self-employment
3. Income from assets

→ **4 Primary income**

5. Benefits income insurance
6. Benefits social security
7. Other income transfers
8. Other transfers

→ **9 Gross income**

10. Paid income transfers
11. Premiums income insurances
12. Premiums health insurance
13. Income and wealth tax

**14 Disposable income**

*Out of sight*:
1. Trajectory secondary - tertiary income
2. Indirect taxation
3. Economic effects (tax incidence) →
   traditional *budget incidence* analysis

## *Setting the scene*
## Less broad scope than DINA studies (National Accounts)

Figure 9: Pre- and post-tax income, taxes and transfers, by income decile
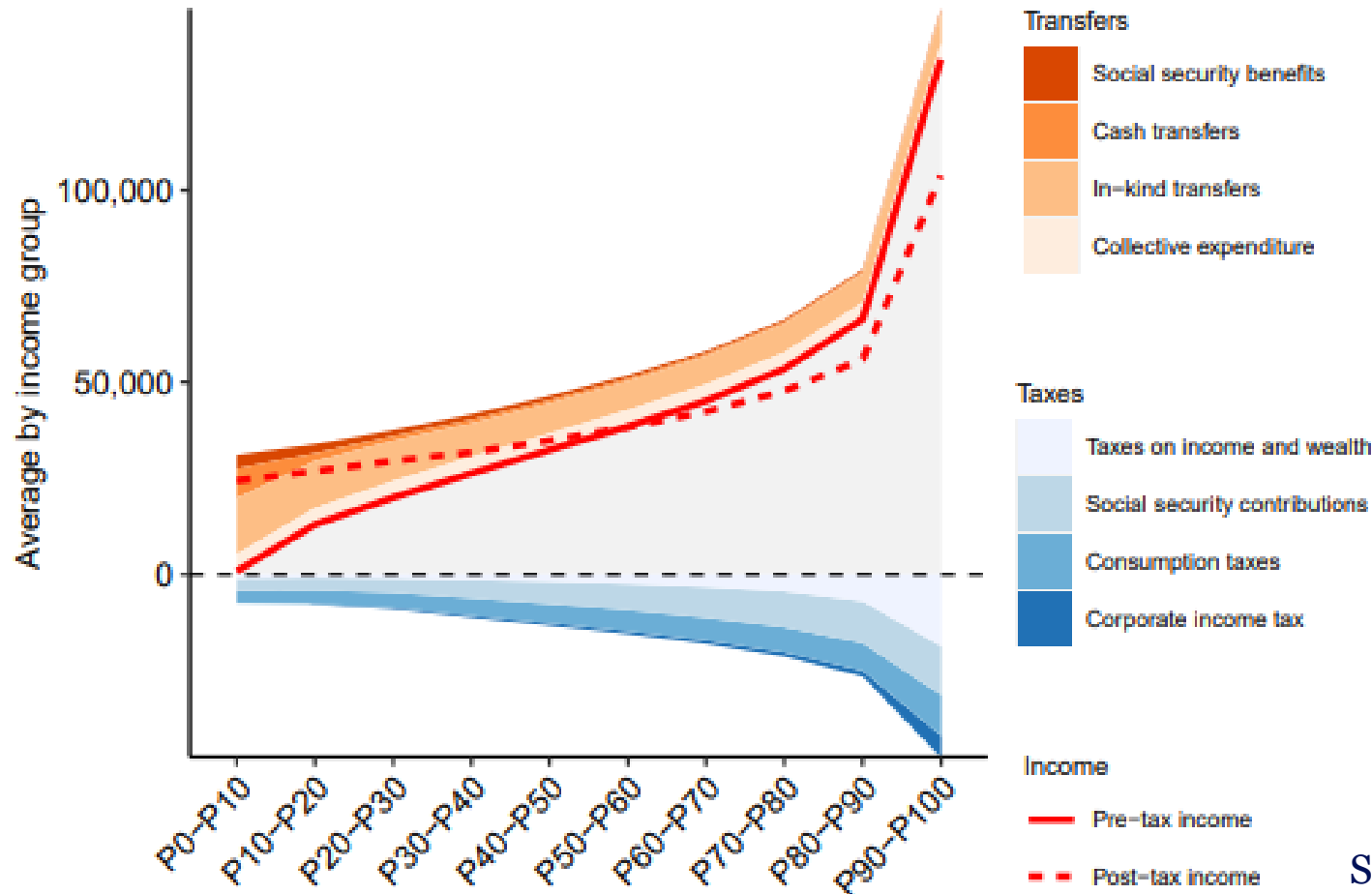


Income
- National Accounts including
- Profits firms
- Wealth (unrealized)

Transfers
- Social security benefits
- Cash transfers
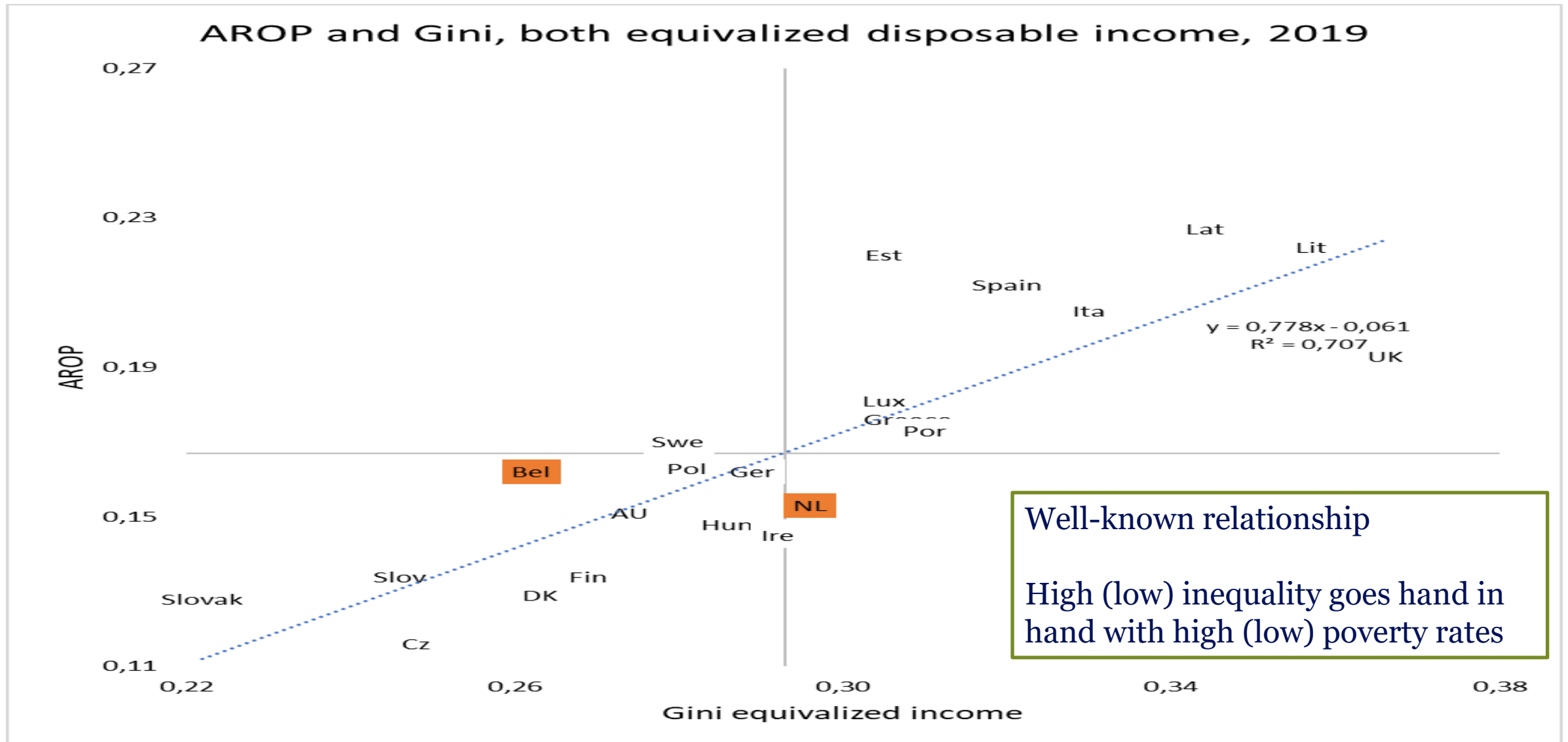- In-kind transfers
- Collective expenditure

Taxes
- Taxes on income and wealth
- Social security contributions
- Consumption taxes
- Corporate income taxes

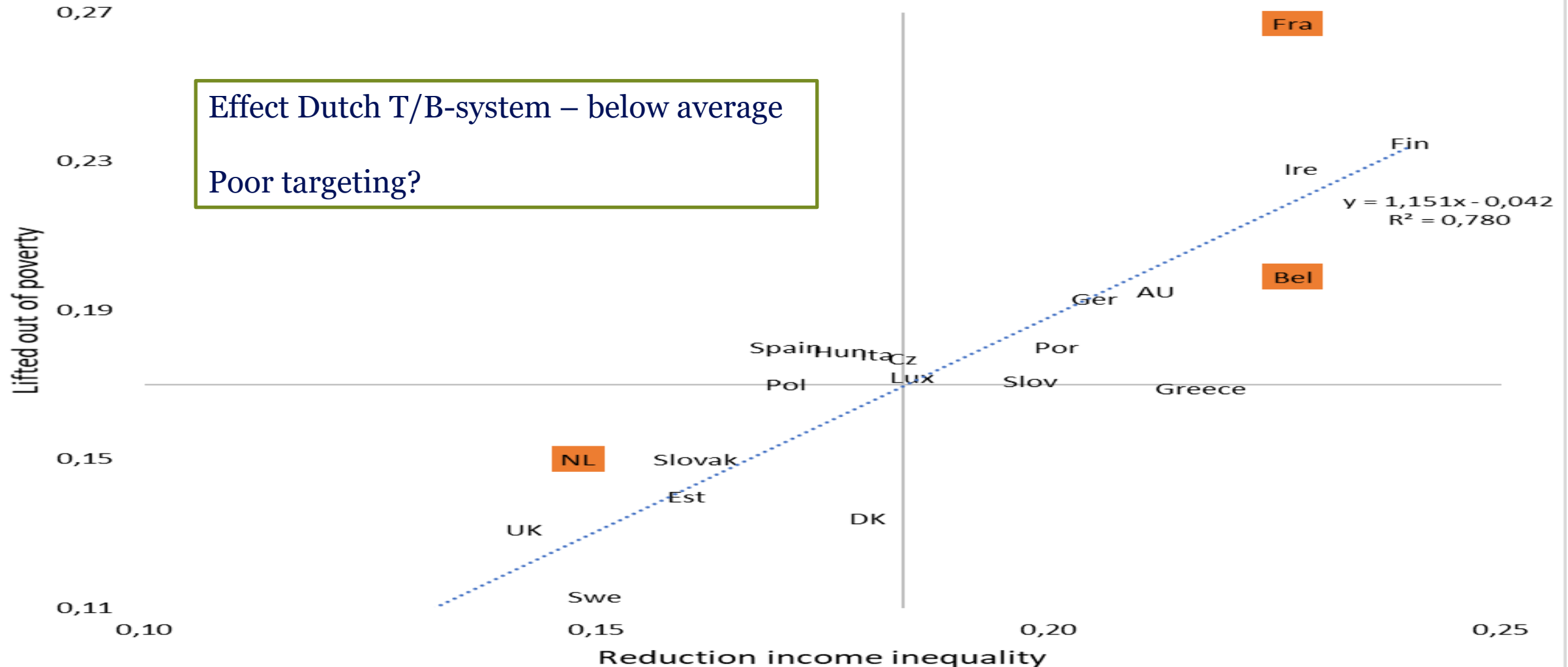Source: Dutch Bureau of Economic Argumentation / CPB (2022)

# Setting the scene
# Income inequality and AROP in an international perspective



AROP and Gini, both equivalized disposable income, 2019

$y = 0,778x - 0,061$
$R^2 = 0,707$

Well-known relationship

High (low) inequality goes hand in hand with high (low) poverty rates

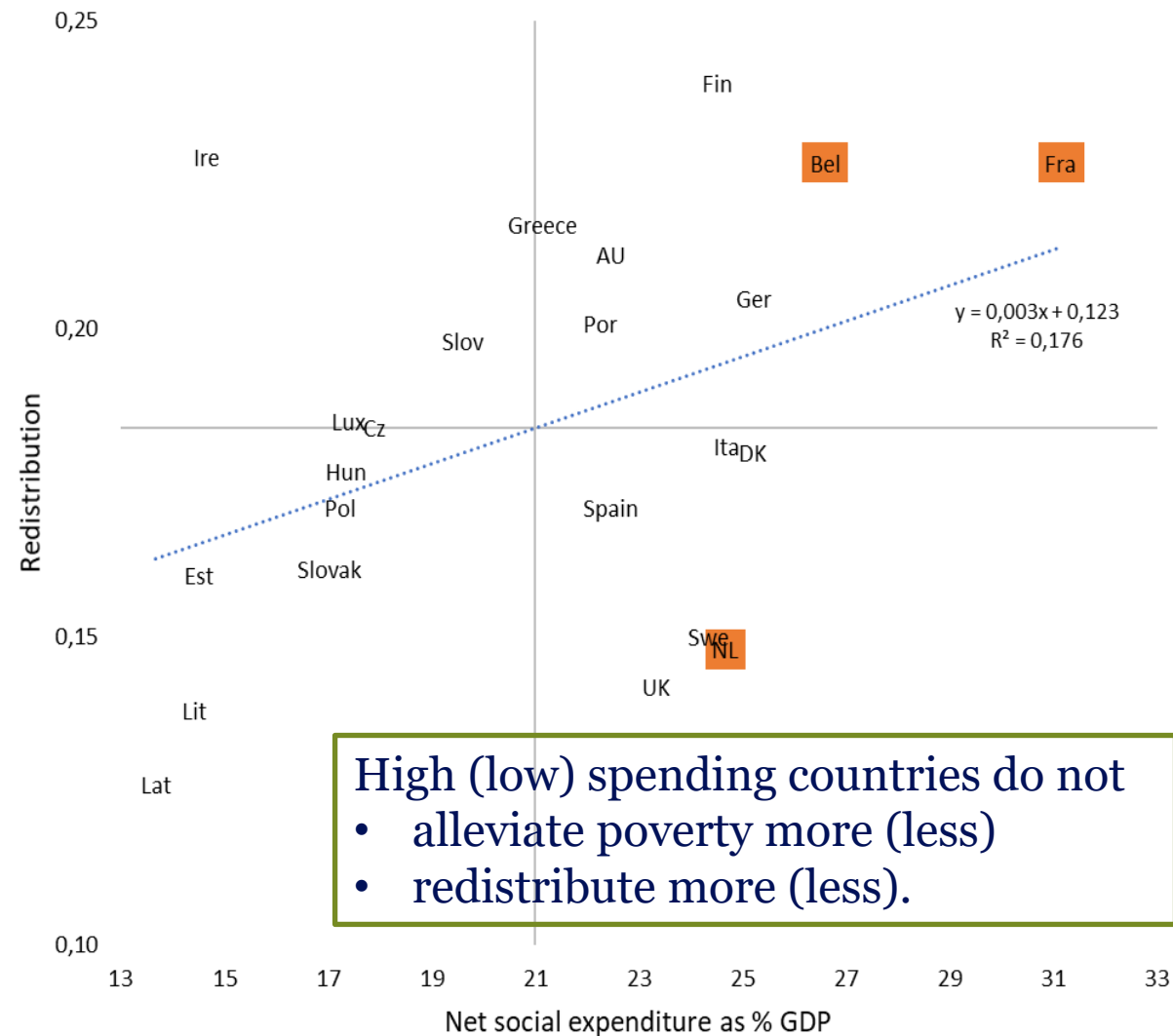# Redistribution (T/B-systems) in an international perspective

# Poor targeting of Dutch T/B-system in an international setting



Lifted out of poverty via income taxes and social benefits versus net social expenditures, 2019

$y = 0,004x + 0,084$
$R^2 = 0,207$
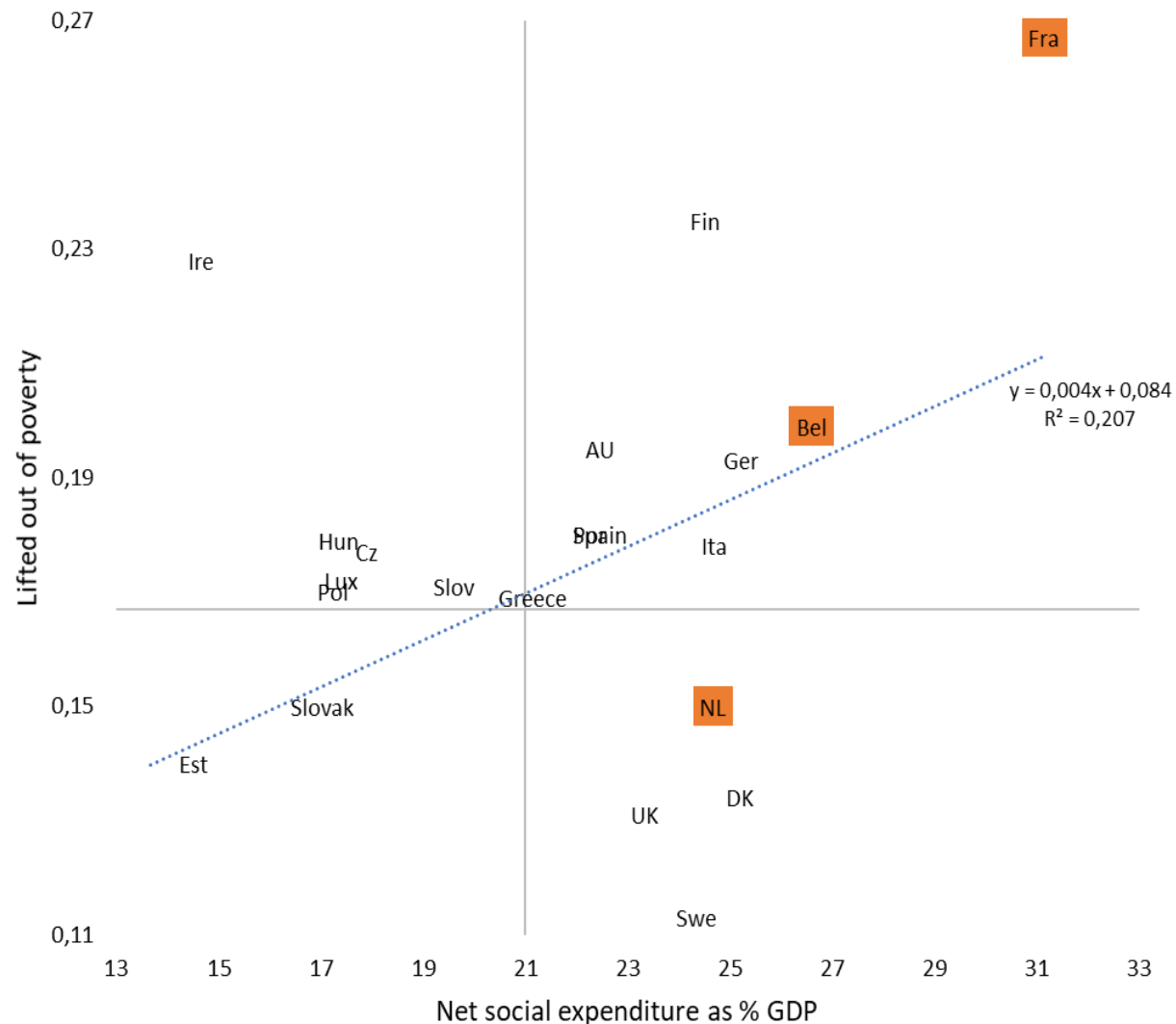
Redistribution of income via income taxes and social benefits versus net social expenditures, 2019
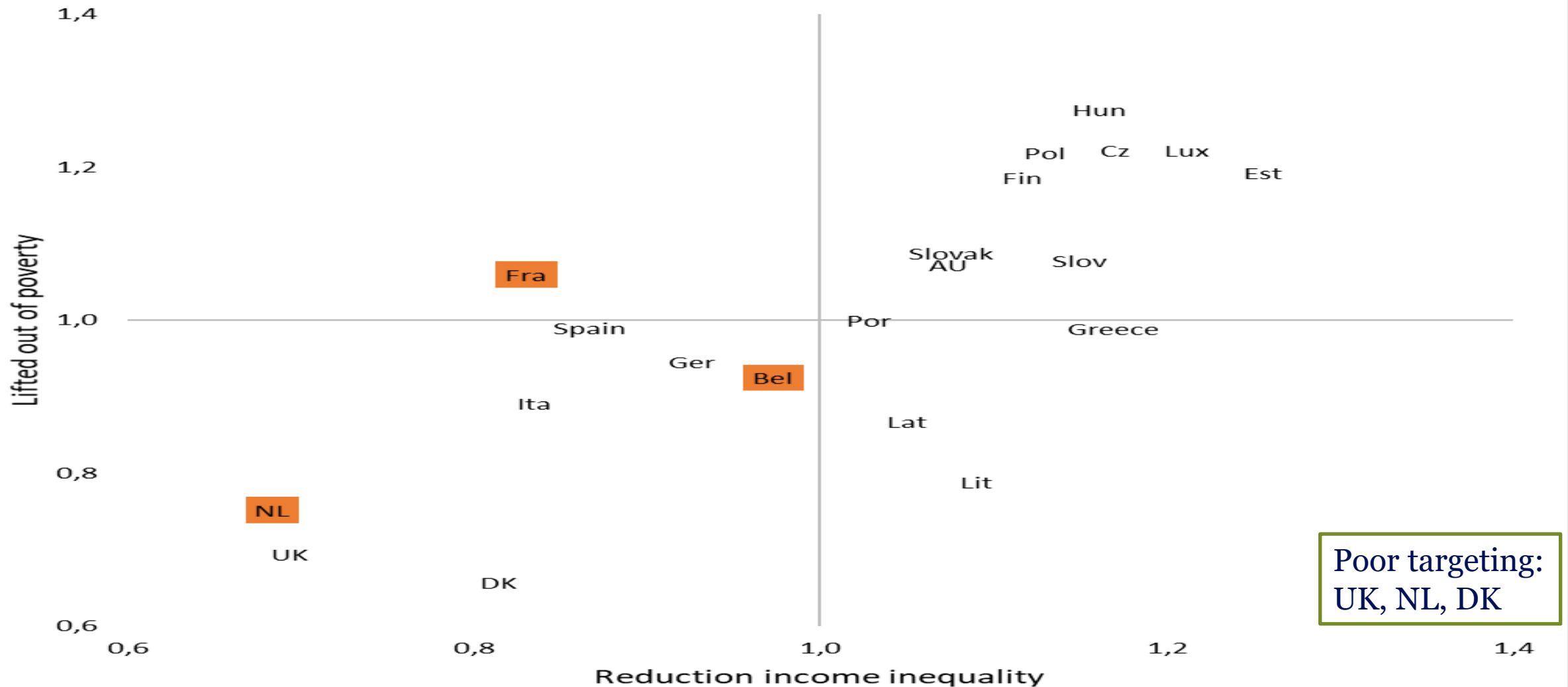
$y = 0,003x + 0,123$
$R^2 = 0,176$

High (low) spending countries do not
- alleviate poverty more (less)
- redistribute more (less).

# Universalism versus Targeting of T/B-systems



Public Policy Index (EU-23=1): Reduction income inequality and Lifted out of poverty per 1% GDP social spending, 2019

Poor targeting: UK, NL, DK

# Todays Topic

- Repair breaks time-series Dutch Income Statistics since 1977

- Massive project

- Research team from Statistics Netherlands (7) & LeidenUniv (5)

- Populaire publication - release 14th of October 2021



Wim Bos

Egbert Jongen

Ferdy Otten

Koen Caminada

Marion van den Brakel

Heike Vethaak

Kai Gidding

Koos Arts

Jim Been

Kees Goudswaard

Jeroen Nieuweboer

Noortje Pouwels-Urlings

# Deliverables – Open Access

- Book Dutch Income (Re) Distribution, trends 1977-2019 (pdf)

- Supplement Figures and Tables (xls)

- Presentation Main Findings (ppt)

- CBS Web publication (link)

- Data, data, data

- Website

[Website: click here](#)

# Popular publication - release October 14th 2021

| Chapter | Leiden University | Statistics Netherlands (CBS) |
| --- | --- | --- |
| 1. Preface | Koen Caminada & Egbert Jongen | Wim Bos, Marion van den Brakel & Ferdy Otten |
| 2. Decomposition of income | Koen Caminada, Jim Been, Kees Goudswaard & Heike Vethaak | Jeroen Nieuweboer |
| 3. Income inequality and redistribution | Koen Caminada, Kees Goudswaard, Heike Vethaak & Jim Been | Marion van den Brakel |
| 4. Distribution of the tax burden | Koen Caminada, Jim Been, Heike Vethaak & Egbert Jongen | Kai Gidding |
| 5. Trends in dynamic purchasing power | | Kai Gidding |
| 6. Low incomes and poverty | Koen Caminada & Kees Goudswaard | Ferdy Otten & Koos Arts |
| 7. Top incomes | Egbert Jongen & Koen Caminada | Noortje Pouwels-Urlings |
| 8. Longitudinal income inequality | | Wim Bos |

*Nota Revision Dutch Income Statistics, 1977-2011* (no part of the book), via www.cbs.nl

# Trajectory revision Dutch Income Statistics

o 2009 → income records converted from ASCII to SPSS-files

o 2018 → CBS stores records – central storage in Data Service Centrum

o 2018 → data users: long and consistent time series

Cooperation and agreement Statistics Netherlands & Leiden University

Secondary objectives

o Storage of data records

o Make revised records accessible for (longitudinal) research

Income records; break in series 2001 & 2011

| | | | |
|---|---|---|---|
| LU (sample) | 1977 1981 1985 | | A-series |
| IPO (panel sample) | 1989 - 2000 | 2000-2014 | B-series |
| IIV (complete) | | 2011 - present | C-series |
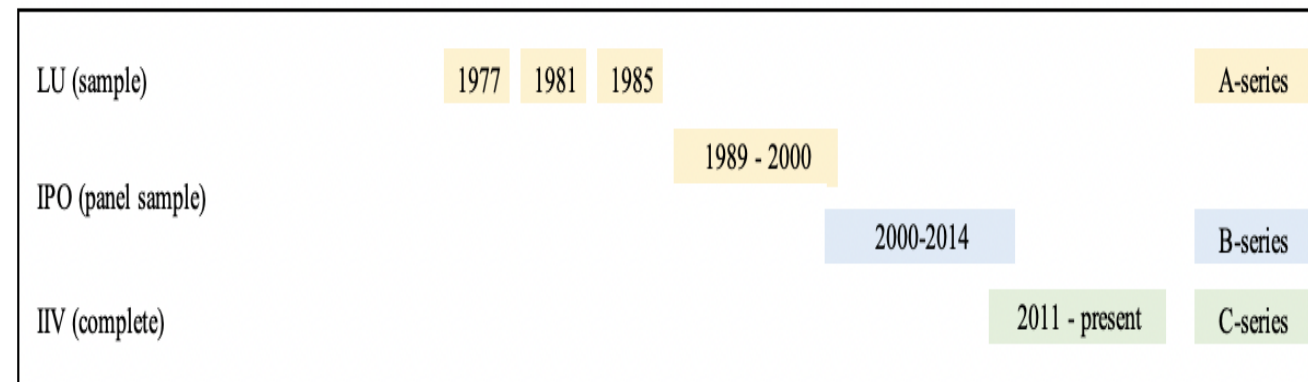
# Revision Income Statistics

Aim: align outcomes 1977-2011 with series starting from 2011

o Define and determine income variables in order to have consistency to series from 2011 onwards

    o Lack of social premium variables 1977-2000

    o Values "Imputed Rents" 1977-2011 comparable to series from 2011 onwards

o Similar classifications of population groups (socio-economic status and primary source of household income)

o Identical names for variables in all records

# Composition of income households

| | | Quantity x 1.000 | Amount Mln euro |
|---|---|---|---|
| 1 | **Income from wages** | **5.240** | **244.047** |
| 1.1.1 | Wages employee | 4.759 | 156.929 |
| 1.1.2 | Wages civil servants | 873 | 27.722 |
| 1.1.3 | Wages major shareholder (DGA) | 237 | 9.330 |
| 1.2 | Social security contributions employer | 5.009 | 45.886 |
| 2 | **Profit from enterprise** | **1.062** | **27.292** |
| 3 | **Property income (3.1-3.2)** | **6.797** | **20.947** |
| 3.1 | Asset income | 5.912 | 37.798 |
| 3.2 | Interest paid | 5.291 | 16.850 |
| 4 | **Primary income (1+2+3)** | **7.401** | **292.286** |
| 5 | **Benefits from income insurance** | **3.756** | **79.930** |
| 5.1.1 | Unemployement benefits | 528 | 2.991 |
| 5.1.2 | Illness, disability benefits | 776 | 8.661 |
| 5.1.3.1 | Benefits state pension (AOW) | 2.236 | 29.974 |
| 5.1.3.2 | Benefits General Survivors (ANW) | 30 | 261 |
| 5.1.3.3 | Pension benefits | 2.751 | 35.887 |
| 6 | **Social security benefits** | **2.659** | **10.754** |
| 6.1 | Welfare benefits etc. | 752 | 6.447 |
| 6.3 | Benefits connected to children | 716 | 444 |
| 6.4 | Scholarship benefits | 486 | 765 |
| 7 | **Received committed transfers** | **1.357** | **3.059** |
| 8 | **Received income transfer** | **48** | **434** |

| | | Quantity x 1.000 | Amount Mln euro |
|---|---|---|---|
| 9 | **Gross income (4+5+6+7+8)** | **7.818** | **386.463** |
| 10 | **Paid income transfer** | **67** | **502** |
| 11 | **Premium income insurance** | **7.267** | **62.285** |
| 11.1 | Premium unemployment | 5.164 | 7.094 |
| 11.2 | Premium illness | 361 | 726 |
| 11.3 | Premium disability | 5.240 | 14.204 |
| 11.4.1 | Premium social insurance pension | 4.218 | 23.510 |
| 11.4.2 | Premium pension private sector | 437 | 745 |
| 11.4.3 | Premium social insurance AOW, Anw | 7.064 | 16.471 |
| 12 | **Premium health insurance** | **7.824** | **39.182** |
| 12.1 | Premium social insurance ZFW, Zvw | 7.824 | 28.536 |
| 12.2 | Premium private health insurance / Zvw | 4.007 | 4.726 |
| 12.3 | Premium social insurance AWBZ | 7.143 | 10.646 |
| 13 | **Tax on income and assets** | **7.256** | **43.962** |
| 14 | **Disposable income (9-10-11-12-13)** | **7.824** | **240.532** |

# Overestimation or underestimation income inequality?

Theory: Haig-Simon definition of income versus Dutch law

- Capital gains
- Imputed rent homeowners
- Et cetera

Statistical conventions

- UN, Canberra Group, Handbook on Household Income Statistics →
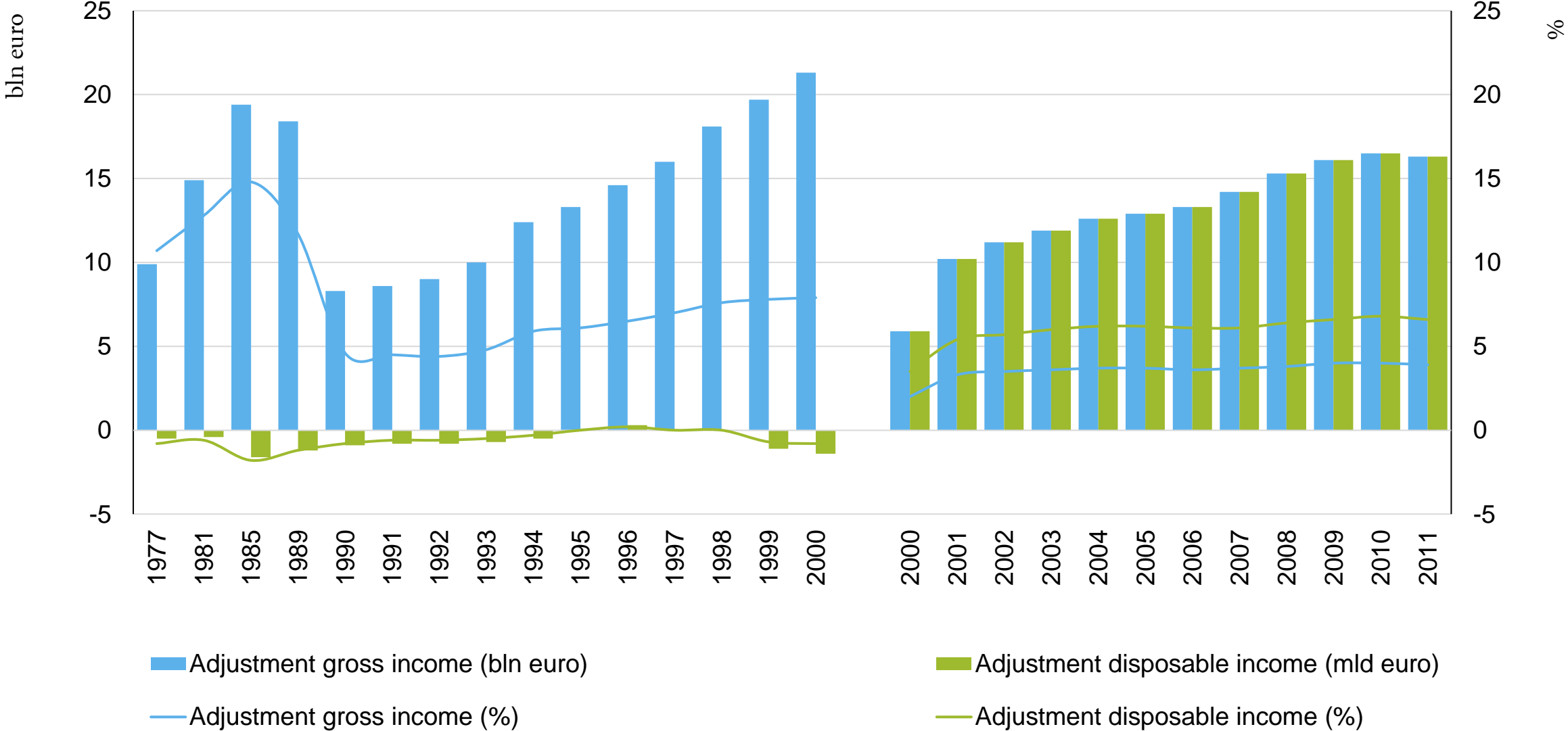  http://www.unece.org/index.php?id=28894.

Remaining break IPO and IIV

- Difference in population (year-end and beginning of year respectively)
- Truncating high amounts in IPO up to and including 2011, e.g. for income from Substantial Interest (Aanmerkelijk Belang)

Things that can not be repaired.

Estimate truncating high amounts in IPO → income inequality in series before 2011 may be slightly higher than we measure now → modest changes in income inequality between 1977 and 2011 may be slightly overestimated.

# 1.4.2 Adjustments of gross and disposable income



Adjustment gross income (bln euro)

Adjustment gross income (%)

Adjustment disposable income (mld euro)

Adjustment disposable income (%)

# 1.4.3 Average gross and disposable household income, before and after revision
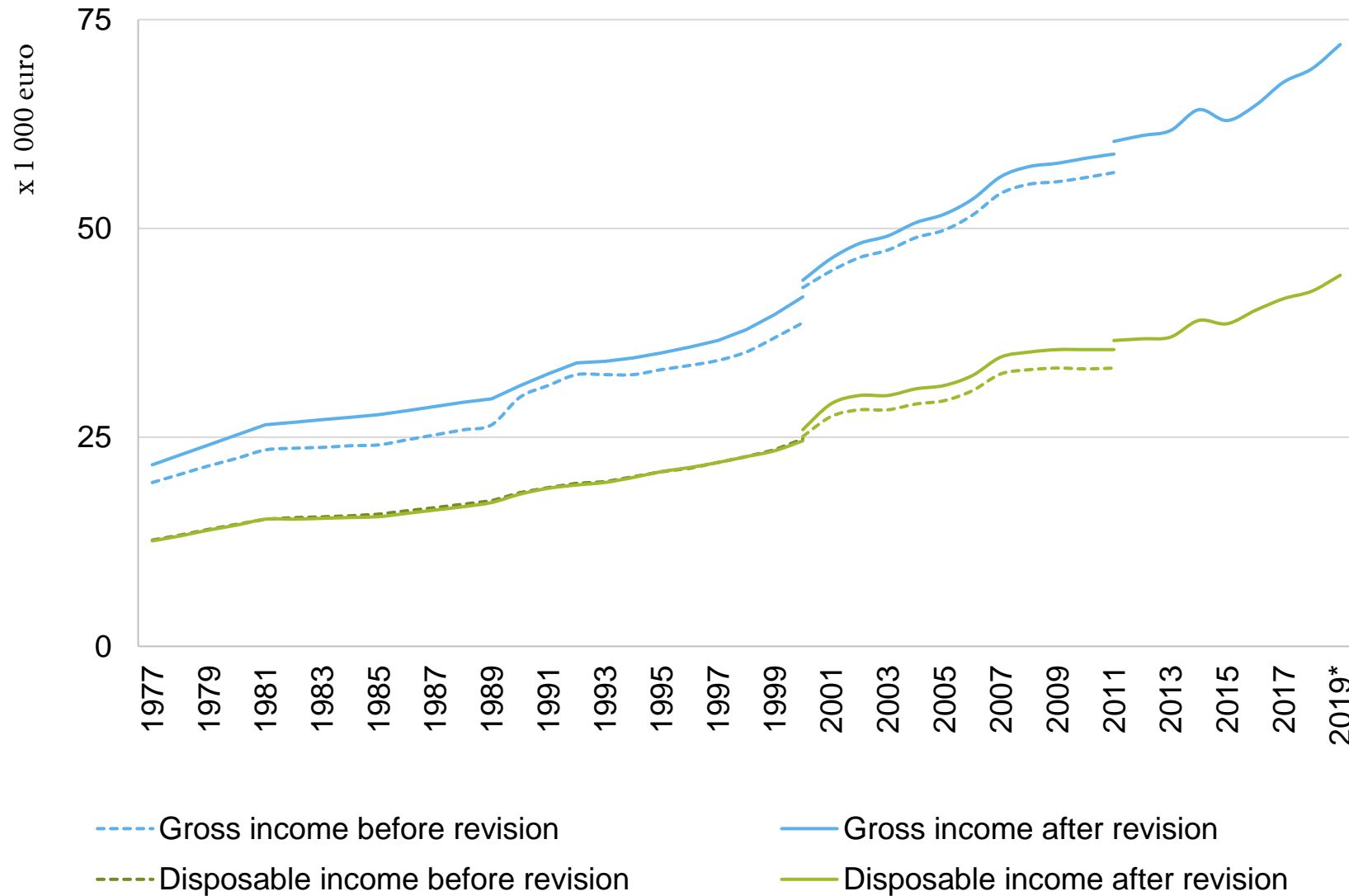


Results

Δ Real equivalized income 1985-2019*:

o Disposable income:
  1,38 - 1,65% per year

o Gross income:
  1,82 - 2,20% per year

Purchasing power one person household: +58%

x 1 000 euro

- - - Gross income before revision    —— Gross income after revision
- - - Disposable income before revision    —— Disposable income after revision

# 1.5.1 CBS Equivalence scales, 1977-2019 (one person household = 1.00)

| | 1977-2000 | 2001-2017 | From 2018 onwards |
|---|---|---|---|
| 1 Adult with 1 child | 1,33 | 1,33 | 1,32 |
| 2 Adults | 1,38 | 1,37 | 1,40 |
| 1 Adult with 2 children | 1,52 | 1,51 | 1,52 |
| 2 Adults with 1 child | 1,70 | 1,67 | 1,69 |
| 3 Adults | 1,73 | 1,73 | 1,78 |
| 2 Adults with 2 children | 1,90 | 1,88 | 1,91 |

- Equivalize → economies of scale; expenditures of households depend on their size and composition
- Divide household income by equivalence factor that expresses the size of the economies of scale that arises because of shared households
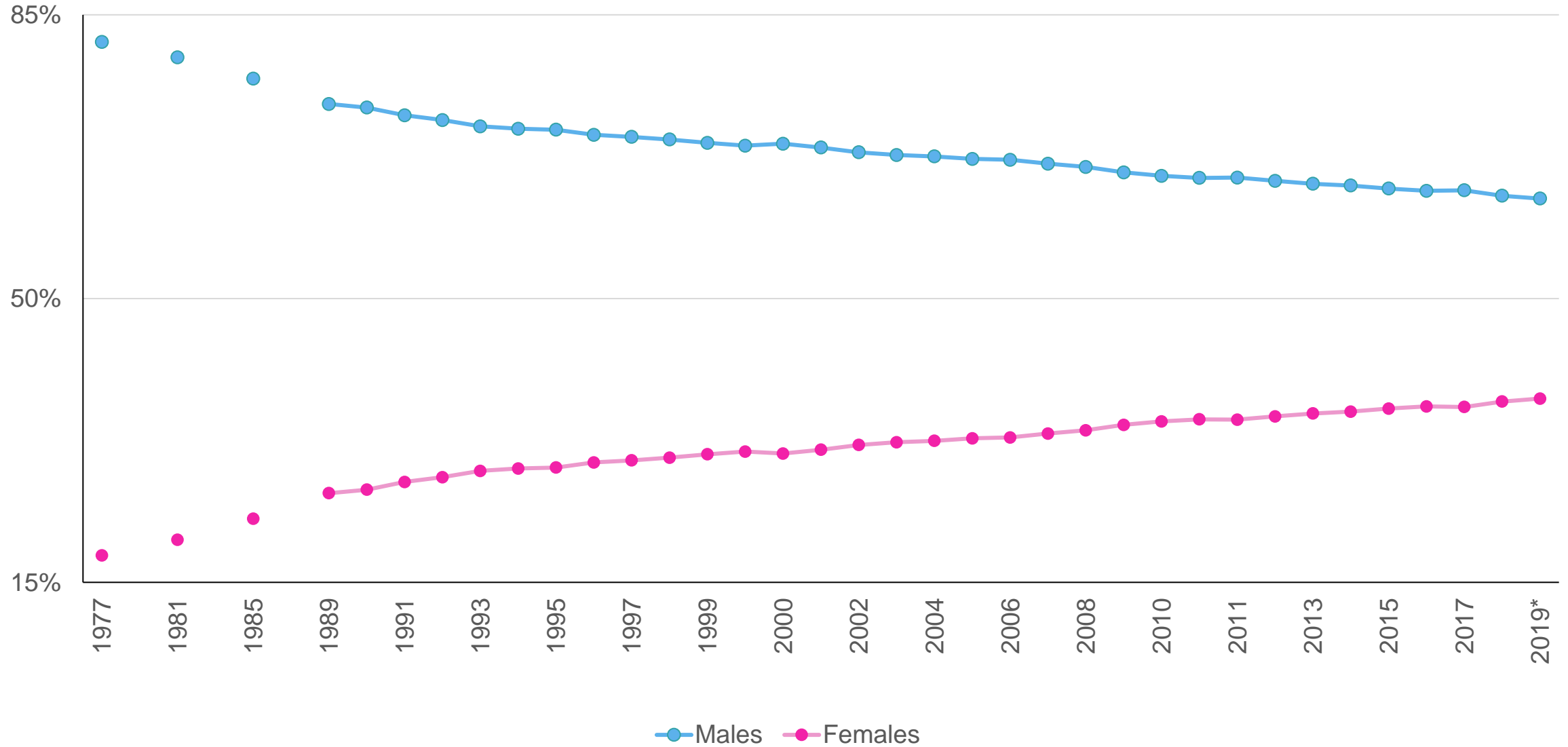- Numeraire: one person household = 1.00

# 2.4.4 Trend composition of groups 1977-2019* (%)

| | A-series | | | B-series | | C-series | |
|---|---|---|---|---|---|---|---|
| | **1977** | **1989** | **2000** | **2000** | **2011** | **2011** | **2019** |
| **Households sorted by primary soure of income** | | | | | | | |
| Employee | 63 | 54 | 58 | 58 | 55 | 54 | 53 |
| Pensions+assets | 21 | 24 | 24 | 24 | 26 | 27 | 27 |
| Self-employed | 7 | 6 | 7 | 7 | 8 | 8 | 9 |
| Social security benefits | 3 | 7 | 5 | 5 | 5 | 5 | 5 |
| Disabled | 5 | 5 | 4 | 4 | 3 | 4 | 3 |
| Unemployment | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Student | 0 | 2 | 1 | 1 | 2 | 1 | 1 |
| **Households sorted by configuration** | | | | | | | |
| One person household | 19 | 31 | 35 | 33 | 36 | 36 | 38 |
| Couple without children | 26 | 25 | 29 | 29 | 29 | 29 | 28 |
| Couple, with children | 46 | 36 | 29 | 30 | 27 | 28 | 26 |
| One parent household | 6 | 7 | 7 | 6 | 7 | 7 | 7 |
| Multiple person household, misc. | 3 | 1 | 1 | 2 | 1 | 1 | 1 |
| **Persons sorted by migration background** | | | | | | | |
| Netherlands | | 81 | 83 | 83 | 80 | 80 | 77 |
| Non-western country, 1st generation | | 3 | 7 | 7 | 8 | 8 | 9 |
| Misc. western country, 1st generation | | 3 | 4 | 4 | 5 | 5 | 6 |
| Misc. western country, 2nd generation | | 5 | 5 | 5 | 5 | 5 | 5 |
| Non-western country, 2nd generation | | 0 | 1 | 1 | 2 | 2 | 3 |
| Unknown | | 7 | 0 | 0 | 0 | 0 | 0 |

# 2.4.7 Sole earners, 1977-2019* (%)



Legend:
- Man no children, no partner
- Man no children, with partner
- Male with child, with partner
- Male with child, without partner
- Woman no children, no partner
- Woman no children, with partner
- Woman with child, with partner
- Woman with children, no partner
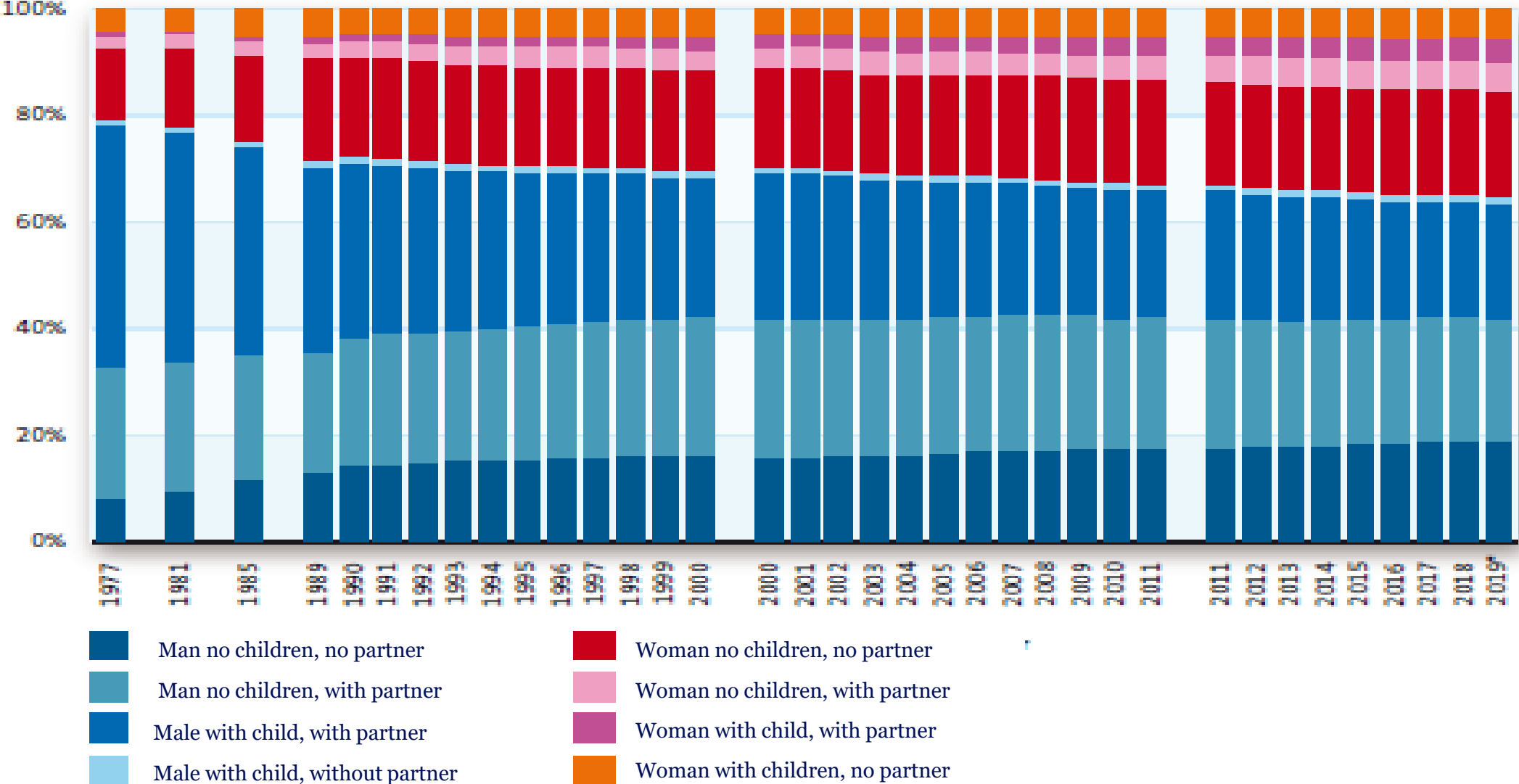
# 2.4.2 Income share gross income, male and female, 1977-2019* (%)



Males ● Females ●

# 2.3.1 Composition of percentiles 2019* (%)



Legend: Employee, Pension + assets, Self-employed, Unemployment, Disabled, Welfare, Student
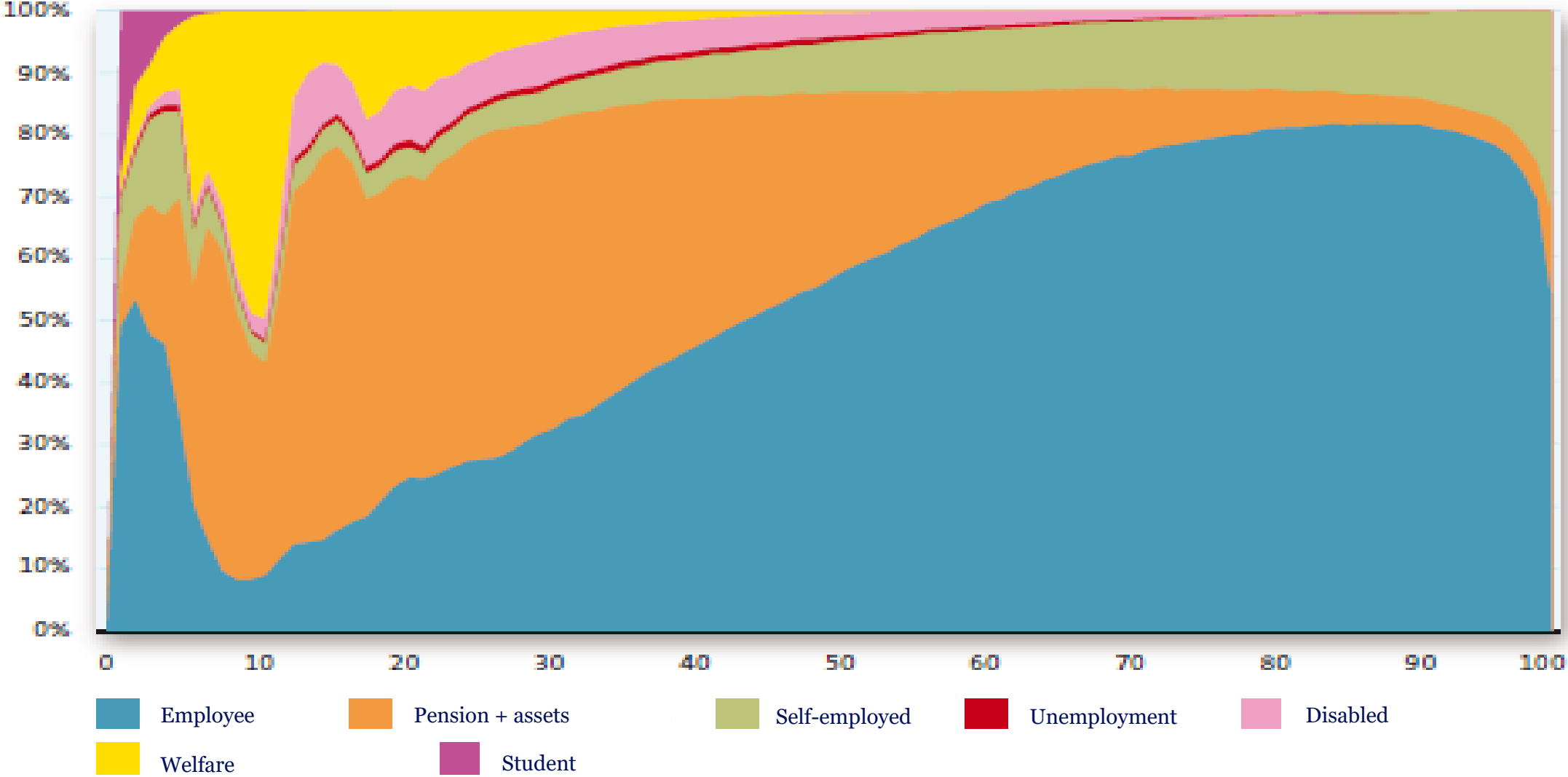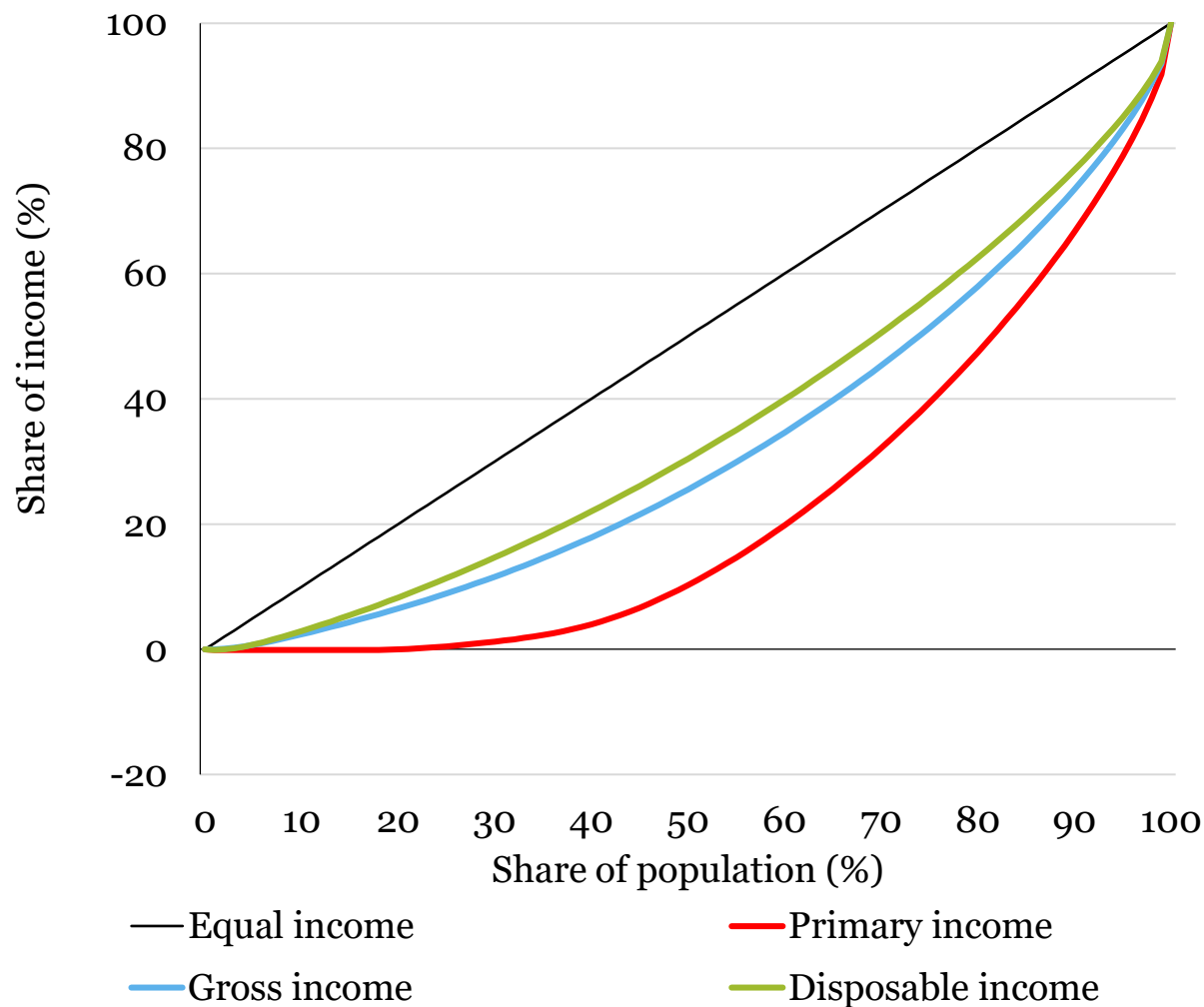
# 2.3.2 Level equivalized gross income per percentile, 2019*
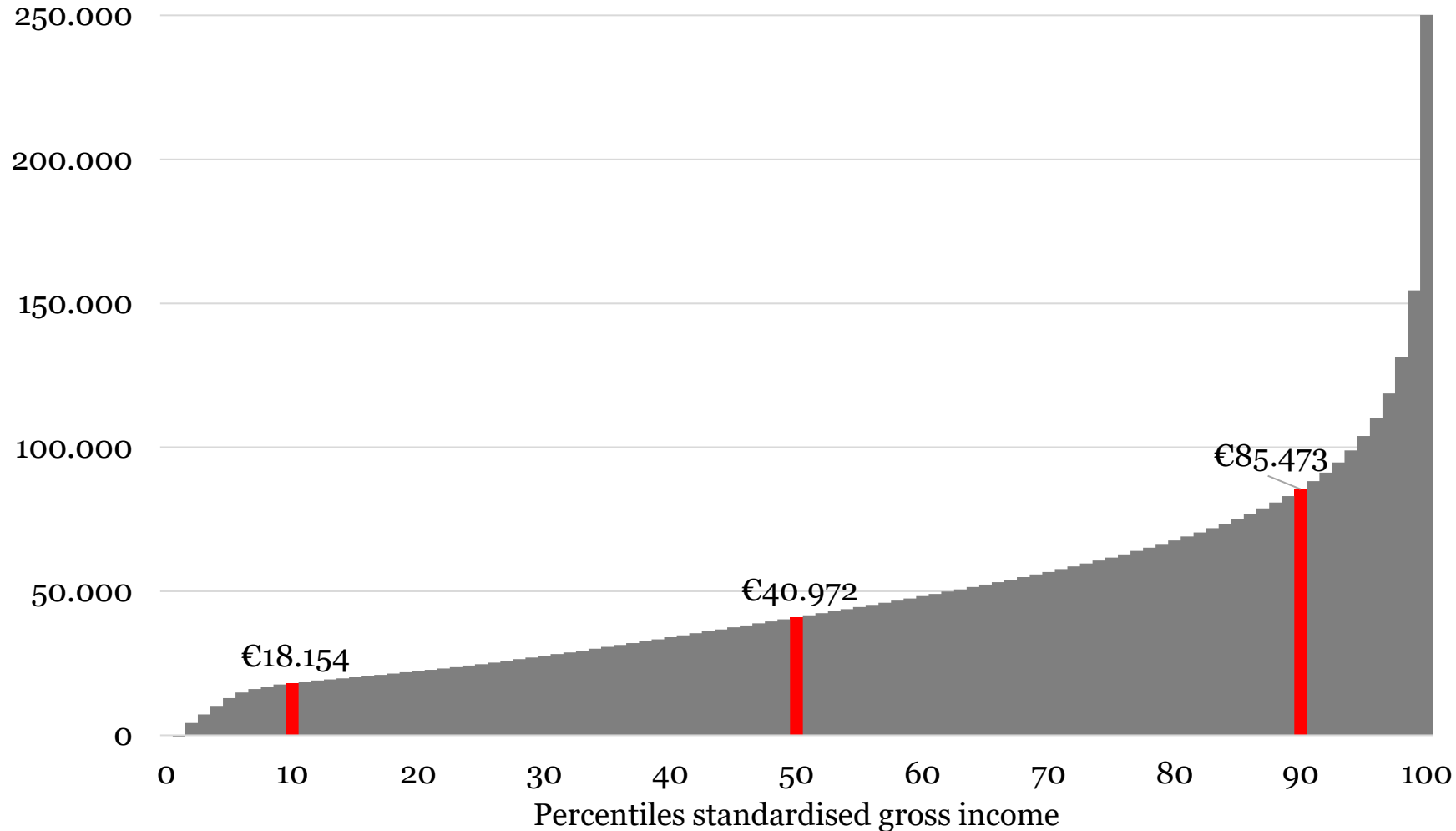


Thresholds:
- P10 = 18.154 euro
- P50 = 40.972 euro
- P90 = 85.473 euro
- P99 = 320.191 euro

€18.154

€40.972

€85.473

Percentiles standardised gross income

# 3.2.1 Lorenz curve equivalized income, 2019*



Share of income (%) vs Share of population (%)

Legend:
- Equal income
- Primary income
- Gross income
- Disposable income

## Income inequality and redistribution 2019*

| | |
|---|---|
| Gini primary income (a) | 0,544 |
| -/- redistribution via social benefits (B1) | 0,186 |
| -/- redistribution via income tax (b2) | 0,067 |
| Gini disposable income (a-b1-b2) | 0,291 |
| Gini gross income (a-b1) | 0,358 |
| Absolute redistribution (b1+b2) | 0,253 |
| Relative distribution (b1+b2/a*100 | 47% |

**Components redistribution (share %)**

| | |
|---|---|
| Public Old-Age pension benefits (AOW) | 35% |
| Supplementary pension benefits | 26% |
| Wage tax and income tax | 16% |
| Disability benefits | 6% |
| Welfare benefits | 8% |
| Unemployment benefits | 2% |
| Rent subsidy/benefit/government contribution own home | 4% |
| Scholarship benefits and compensation study costs | 1% |
| Illness benefits (ZW) | 1% |
| Child benefits (kinderbijslag) | 1% |
| AWW/ANW | 0% |
| Other (premiums incl.) | 2% |

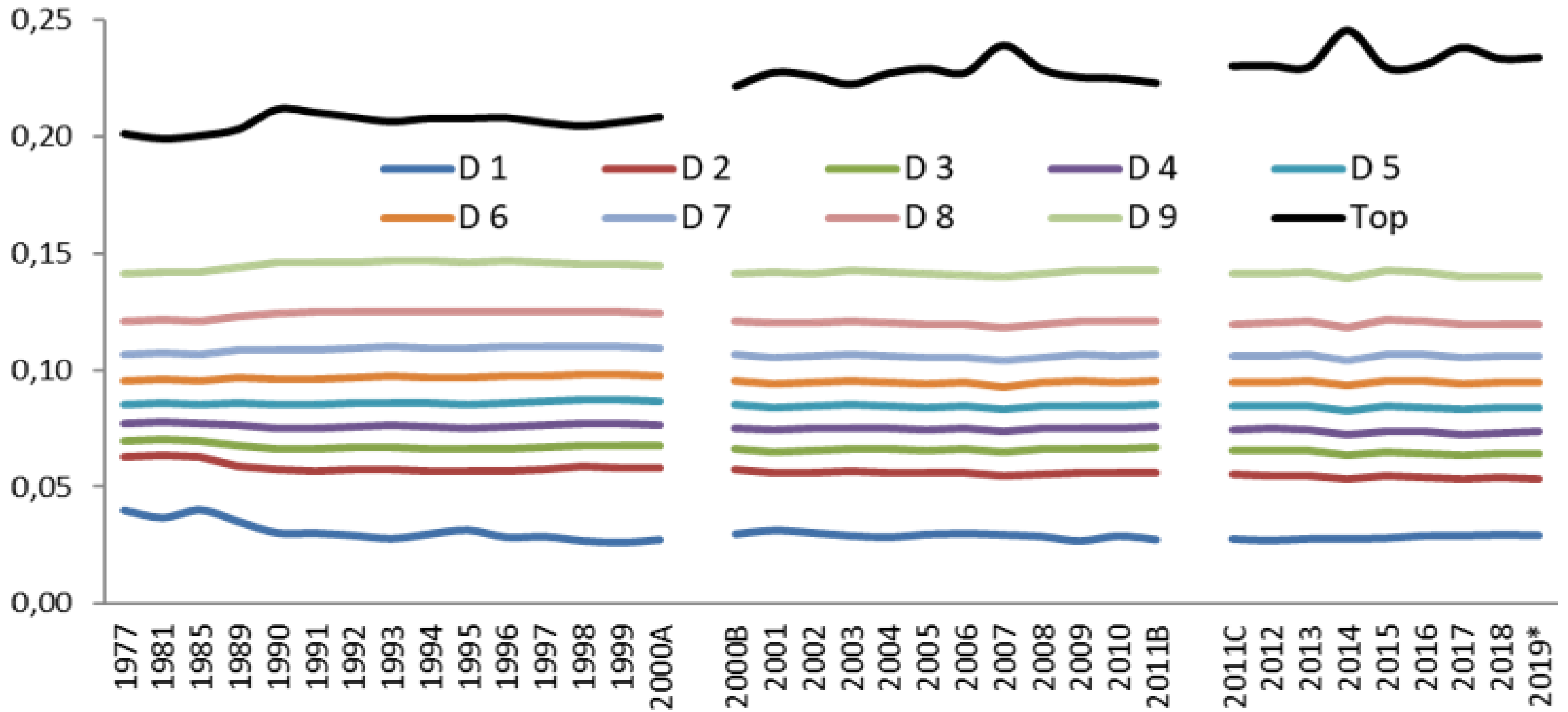# 3.3.1 Income inequality and redistribution in the Netherlands, 1977-2019*



Small increase since 1977;
Rather stable since 1990
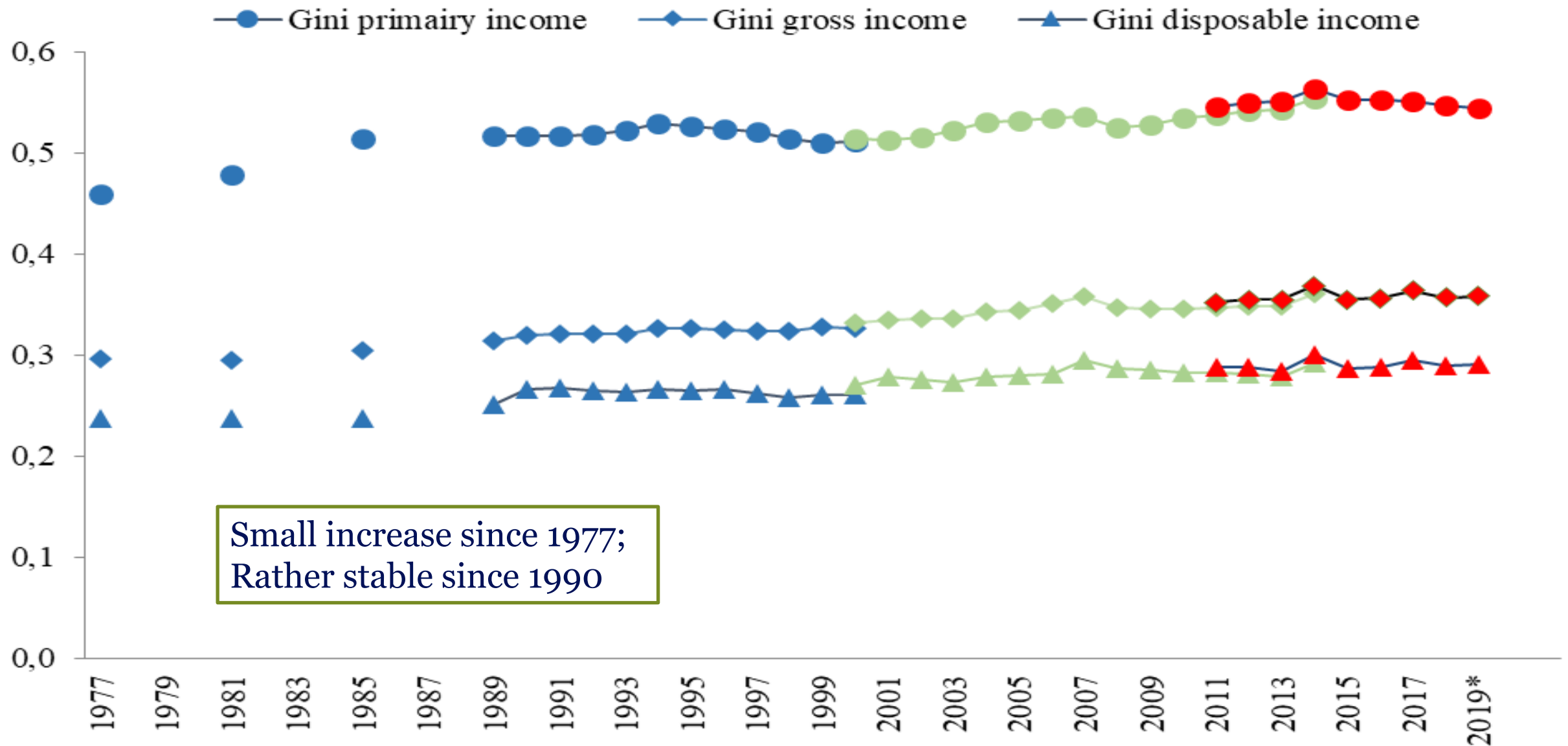
# 3.3.2 OLS regression trend Gini's and S80/S20, 1977-2019*

| | Period 1977-2019 | | | | Period 1990-2019 | | | |
|---|---|---|---|---|---|---|---|---|
| | Constant | X-var | Adj R2 | F test | Constant | X-var | Adj R2 | F test |
| Gini primary income (a) | 0,480** | 0,0020** | 0,781 | 46,2 | 0,511** | 0,0012** | 0,739 | 33,0 |
| | (0,000) | (0,000) | | (0,000) | (0,000) | (0,002) | | (0,000) |
| Gini gross income (b) | 0,295** | 0,0015** | 0,936 | 187,2 | 0,316** | 0,0012** | 0,903 | 106,2 |
| | (0,000) | (0,000) | | (0,000) | (0,000) | (0,000) | | (0,000) |
| Gini disposable income (c) | 0,240** | 0,0011** | 0,852 | 73,9 | 0,261** | 0,0004 | 0,813 | 50,2 |
| | (0,000) | (0,000) | | (0,000) | (0,000) | (0,099) | | (0,000) |
| Absolute redistribution (a-c) | 0,240** | 0,0009** | 0,285 | 6,1 | 0,250** | 0,0008* | 0,389 | 8,2 |
| | (0,000) | (0,004) | | (0,000) | (0,000) | (0,012) | | (0,000) |
| Redistribution via social benefits (a-b) | 0,185** | 0,0005* | 0,214 | 4,5 | 0,195** | 0,0001 | 0,336 | 6,7 |
| | (0,000) | (0,045) | | (0,000) | (0,000) | (0,843) | | (0,000) |
| Redistribution via income tax (b-c) | 0,055** | 0,0003** | 0,405 | 9,6 | 0,056** | 0,0007** | 0,620 | 19,5 |
| | (0,000) | (0,006) | | (0,000) | (0,000) | (0,000) | | (0,000) |
| S80/S20 gross income | 4,7** | 0,046** | 0,922 | 150,9 | 5,4** | 0,035** | 0,878 | 82,2 |
| | (0,000) | (0,000) | | (0,000) | (0,000) | (0,000) | | (0,000) |
| S80/S20 disposable income | 3,4** | 0,033** | 0,844 | 69,8 | 4,0** | 0,014** | 0,845 | 62,7 |
| | (0,000) | (0,000) | | (0,000) | (0,000) | (0,013) | | (0,000) |

OLS-regression. P-value between brackets: **p-value <0,01 and *p-value <0,05. Dummies for trend breaks

# 3.3.3 Share equivalized disposable income per decile group, 1977-2019*

# 3.3.4 Income inequality and income redistribution in the Netherlands, 1977-2019*

| | A-reeks | | | | B-reeks | | C-reeks | |
|---|---|---|---|---|---|---|---|---|
| | 1977 | 1985 | 1990 | 2000 | 2000 | 2011 | 2011 | 2019* |
| Gini primary income (a) | 0,459 | 0,514 | 0,516 | 0,511 | 0,514 | 0,537 | 0,545 | 0,544 |
| -/-Redistribution via social benefits (a-b)\| | 0,163 | 0,210 | 0,198 | 0,184 | 0,183 | 0,191 | 0,193 | 0,186 |
| Gini gross income (b) | 0,296 | 0,304 | 0,319 | 0,326 | 0,331 | 0,346 | 0,352 | 0,358 |
| -/-redistribution via income taxes (b-c) | 0,059 | 0,067 | 0,052 | 0,066 | 0,062 | 0,064 | 0,064 | 0,067 |
| Gini disposable income (c) | 0,238 | 0,237 | 0,266 | 0,260 | 0,270 | 0,282 | 0,288 | 0,291 |
| Absolute redistribution (a-c) | 0,221 | 0,277 | 0,250 | 0,250 | 0,244 | 0,255 | 0,257 | 0,253 |
| Relative redistribution: (a-c)/a*100 | 48% | 54% | 48% | 49% | 47% | 47% | 47% | 47% |
| | | | | | | | | |
| ***Components redistribution (share%)*** | | | | | | | | |
| Public Old-Age benefits (AOW) | 35% | 28% | 30% | 30% | 30% | 34% | 34% | 35% |
| Supplementary benefits | 15% | 17% | 19% | 23% | 24% | 27% | 27% | 26% |
| Wages and income tax | 16% | 10% | 11% | 12% | 12% | 15% | 15% | 16% |
| Disability benefits | 12% | 11% | 11% | 8% | 8% | 7% | 7% | 6% |
| Welfare benefits | 8% | 16% | 12% | 8% | 8% | 7% | 8% | 8% |
| Unemployement benefits | 1% | 1% | 3% | 2% | 2% | 3% | 3% | 2% |
| Rent subsidy/benefit/contribution own home | 1% | 2% | 2% | 3% | 3% | 3% | 3% | 4% |
| Scholarship benefits and compensation study costs | 0% | 1% | 3% | 2% | 1% | 2% | 2% | 1% |
| Child benefits (kinderbijslag) | 3% | 3% | 2% | 1% | 1% | 1% | 1% | 1% |
| AWW/ANW | 4% | 3% | 3% | 2% | 2% | 1% | 1% | 0% |
| Other (premiums included) | 4% | 7% | 4% | 9% | 7% | 1% | 0% | 3% |

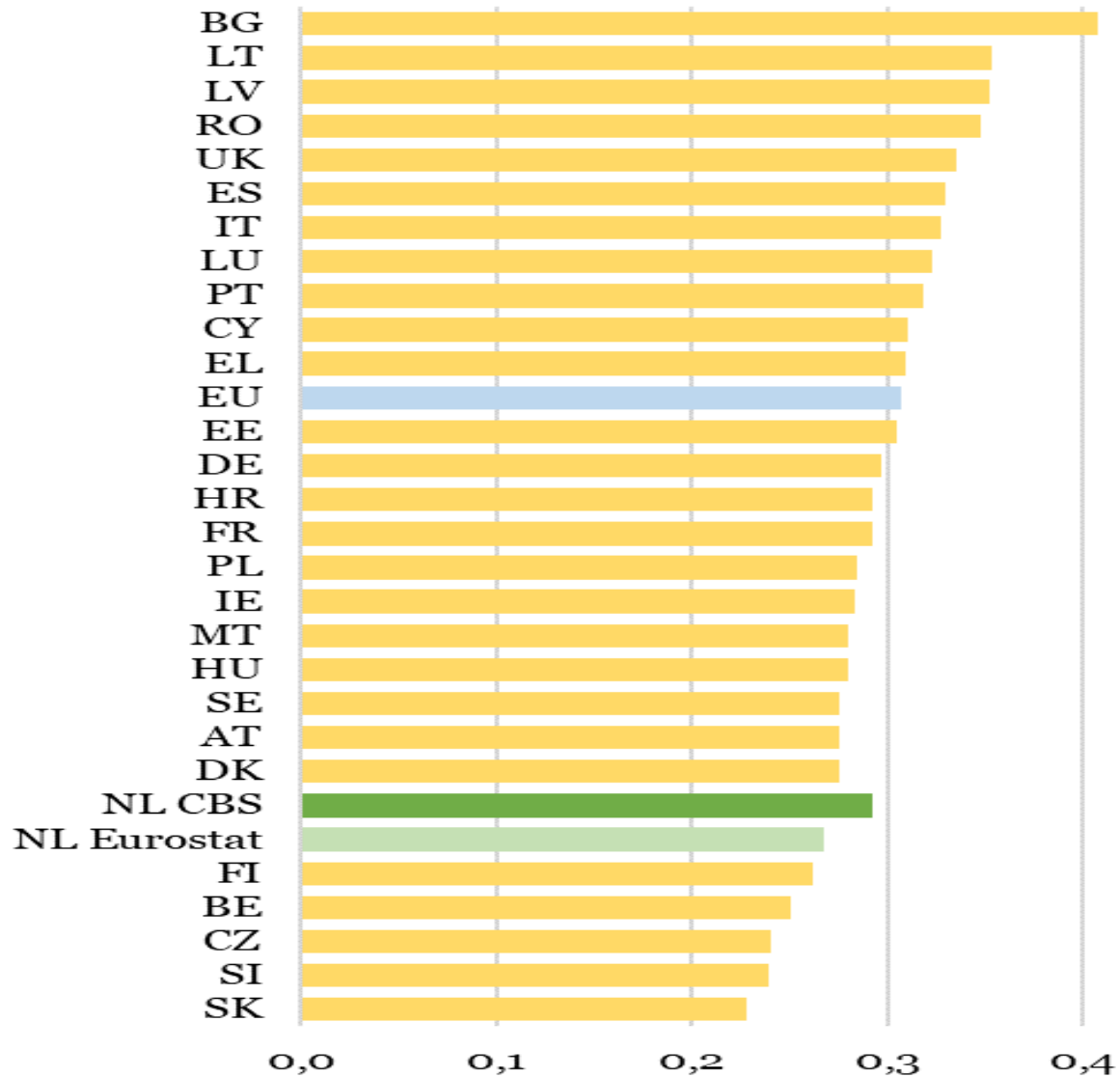Rather stable income distribution and redistribution

Peak of redistribution: 1985

Onwards:

Increase: PAYG pensions / supplementary pensions

Decrease: Unemployment benefits and disability benefits

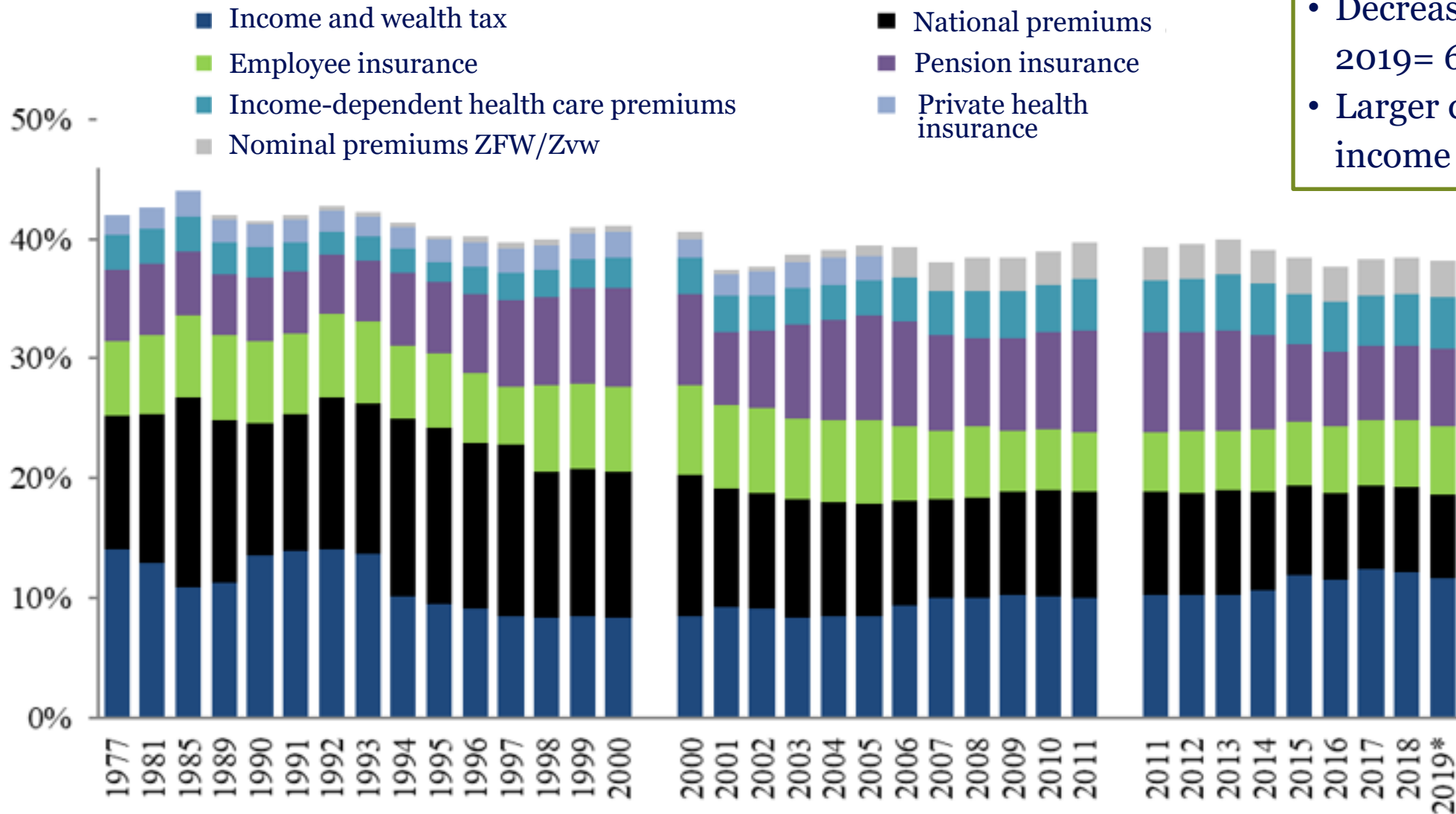# 3.4.1 Gini Coefficient equivalized disposable income, 2019



- Dutch income inequality rather low
- Dutch redistribution around EU mean
- No clear trend of income inequality in EU since 1995
- Convergence EU15 1995-2019

# 4.2.2 Composition mean tax burden per percentile gross income, 2019*



Mean burden of income taxes and social contributions = 38.2%

Percentiles standardised gross income
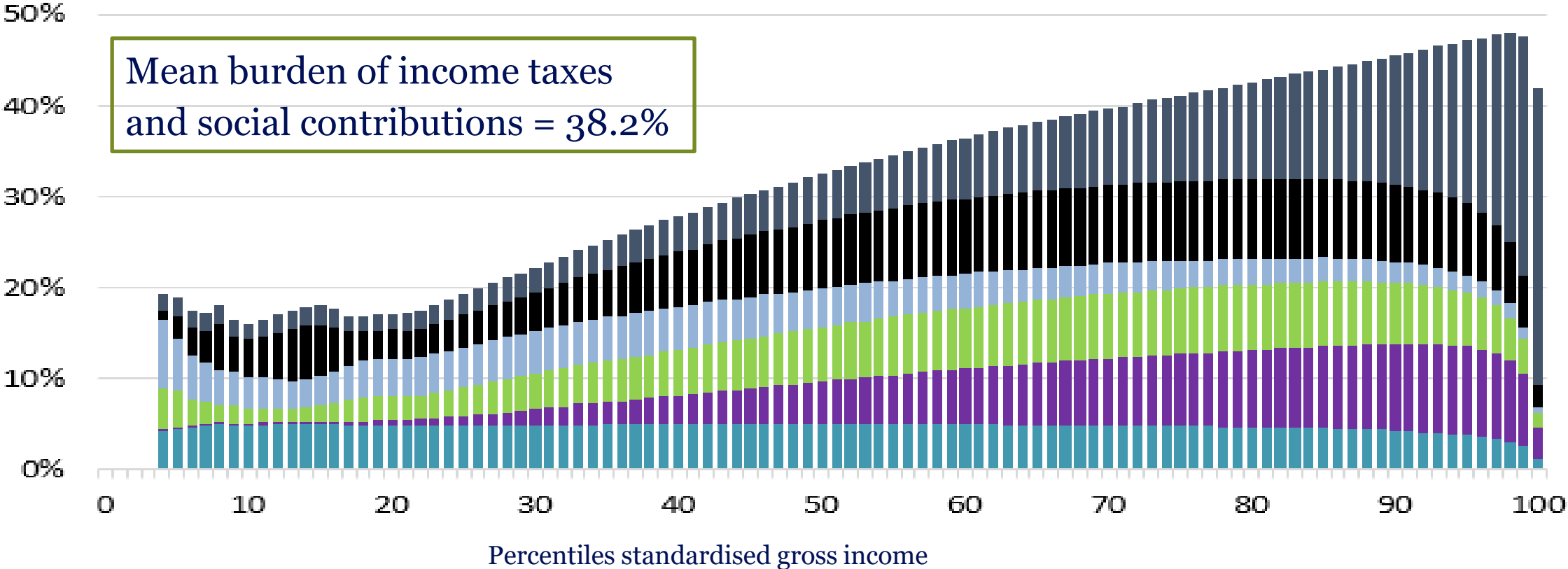
- Income-related premiums health care
- Employee insurance
- National insurance
- Pension insurance
- Private health insurance/ Zvw
- Income and wealth tax

# 4.3.1 Trend level and composition of levies on income, 1977-2019*



Legend:
- Income and wealth tax
- Employee insurance
- Income-dependent health care premiums
- Nominal premiums ZFW/Zvw
- National premiums
- Pension insurance
- Private health insurance

- Decrease tax burden 1985-2019= 6%-points
- Larger decrease for lower income groups
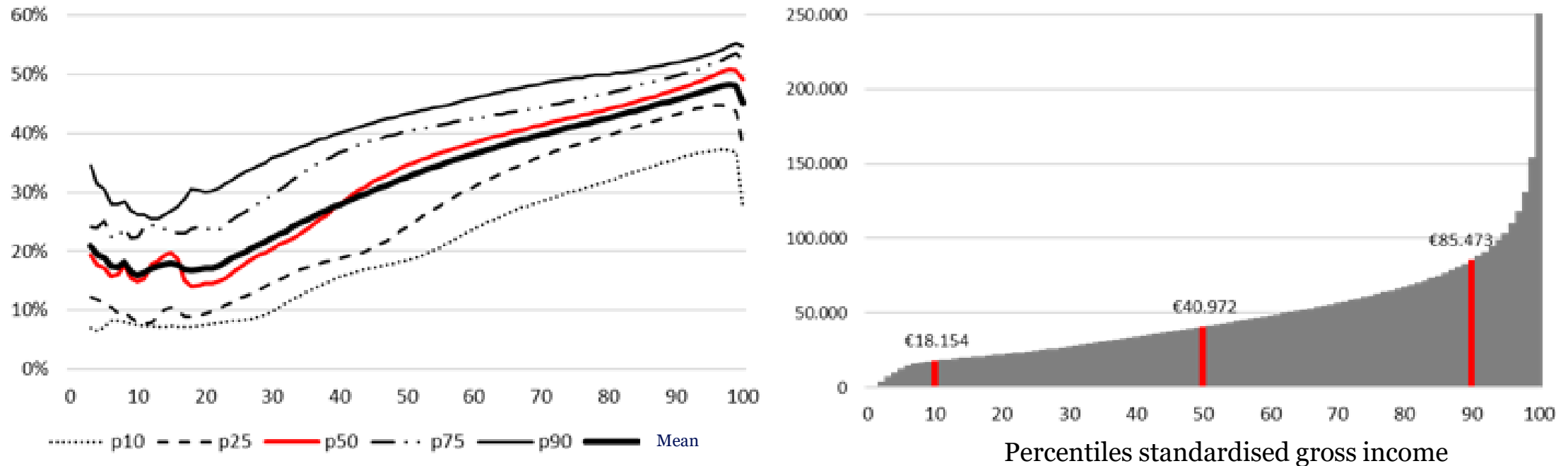
Tax burden per percentile (top 1%, P98, p80, p50)

Repair breaks series:
- P50, p80, ALL
- P98, Top 1%

Still puzzling

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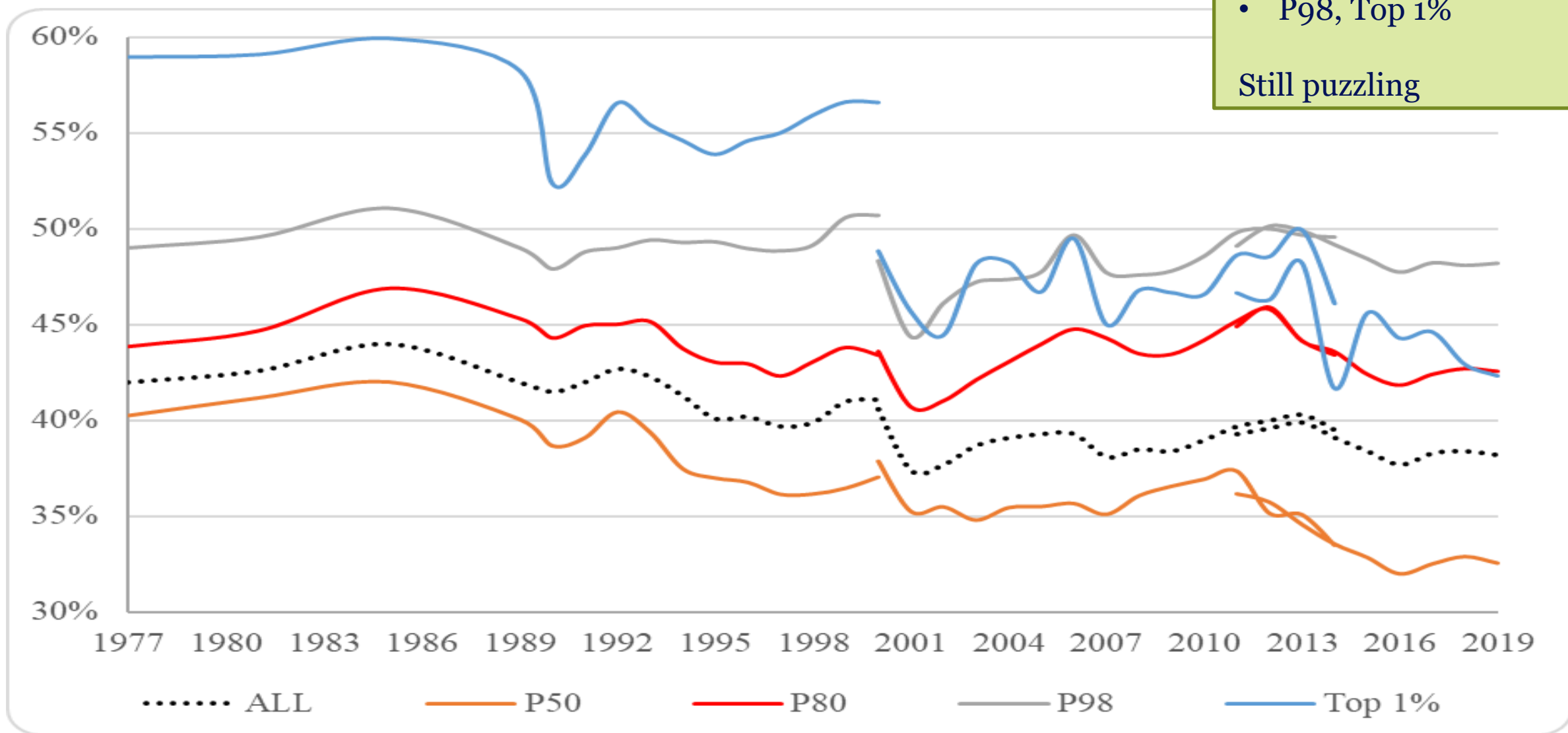
# 4.4.1 Heterogeneity tax burden (left) and income level per percentile (right), 2019*



Legend (left chart): ·········· p10 — — — p25 —— p50 (red) — ·· — p75 —— p90 —— Mean

Percentiles standardised gross income

- Median tax burden: 33.7%, much variation around the mean.
- 50th percentile: 10% of households tax < 18.5% (p10)
- 50th percentile: 10% of households tax burden > 43.3% (p90)
- Same level of gross income → variation in income taxes and social premiums of 10.158 euros (43.8% minus 18.5% of 40.972 euros).
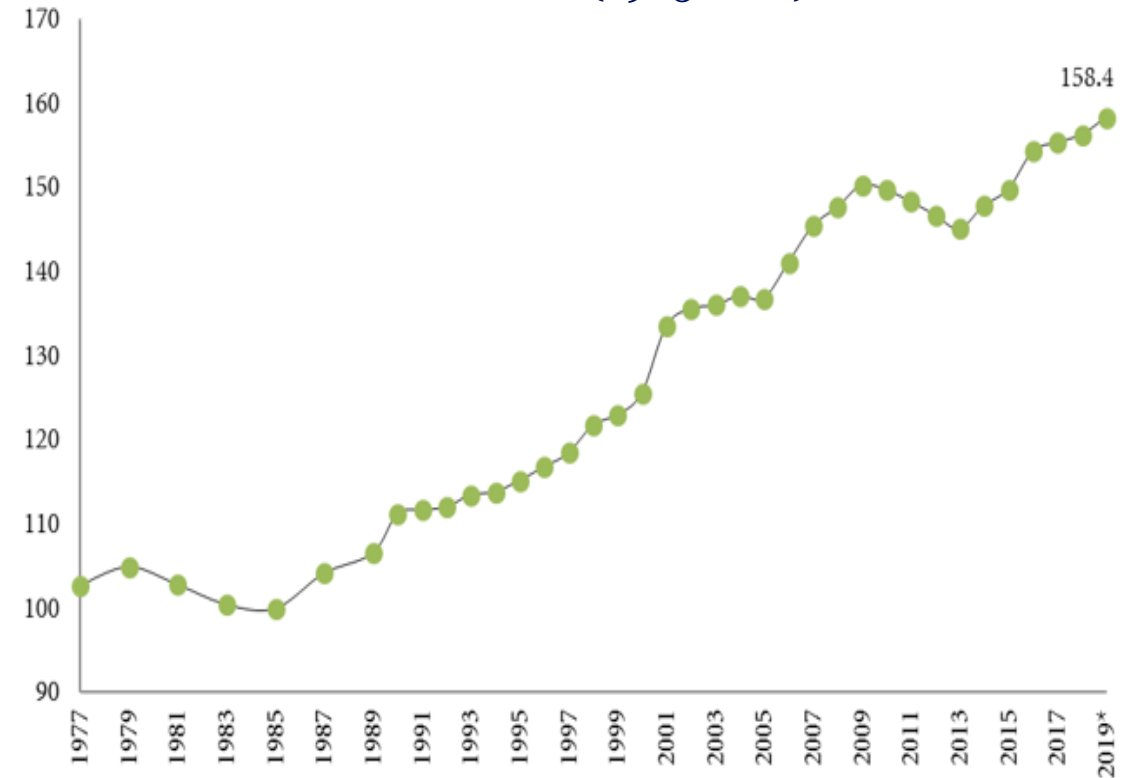
# 4.4.2 Trend heterogeneity distribution of the tax burden, 1990-2019*
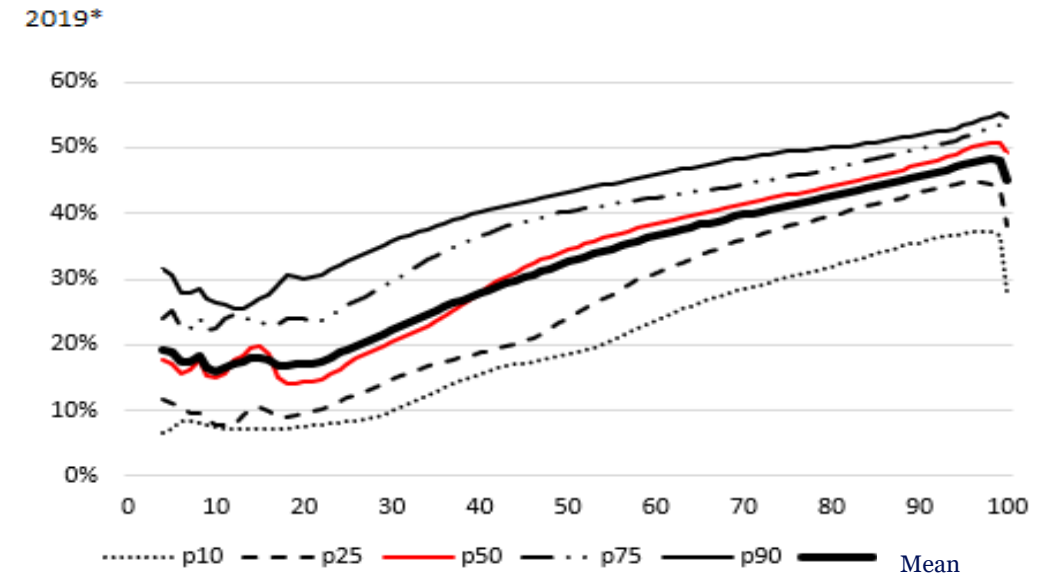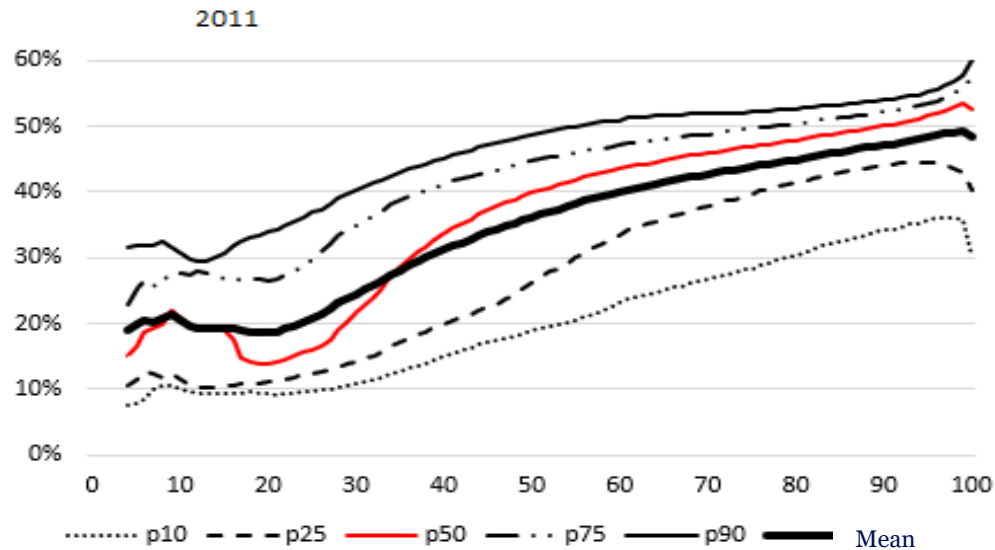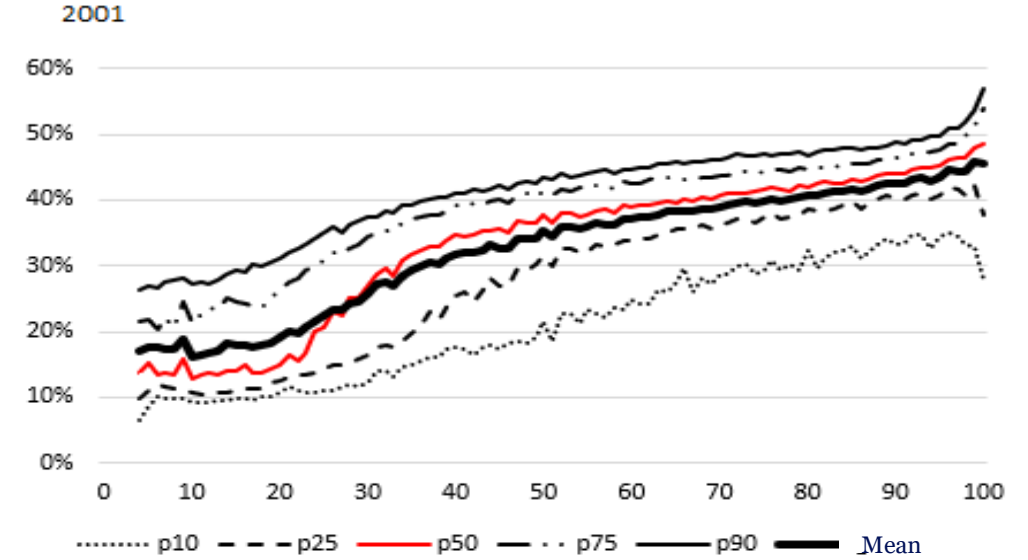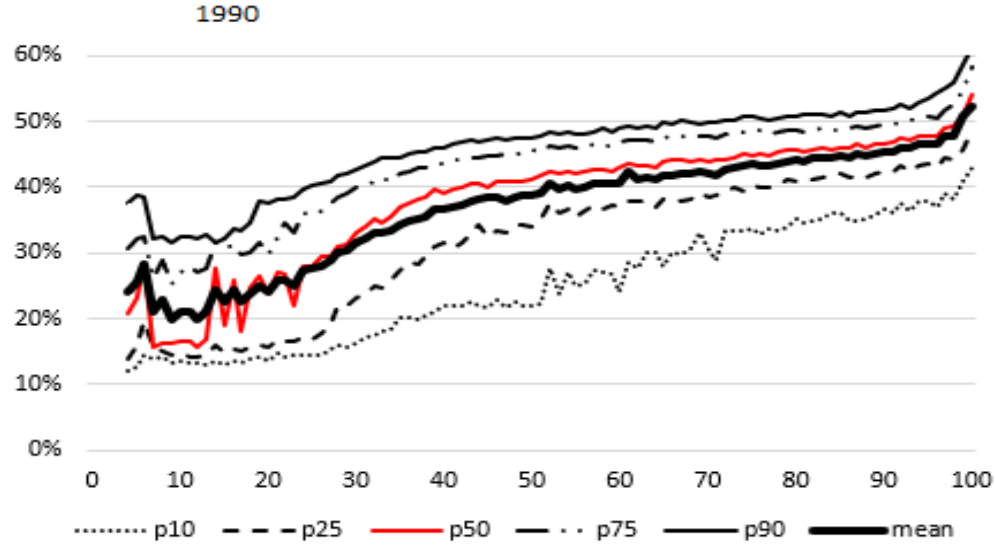
5.3.1 Trend dynamic purchasing power 1977-2019, year-to-year
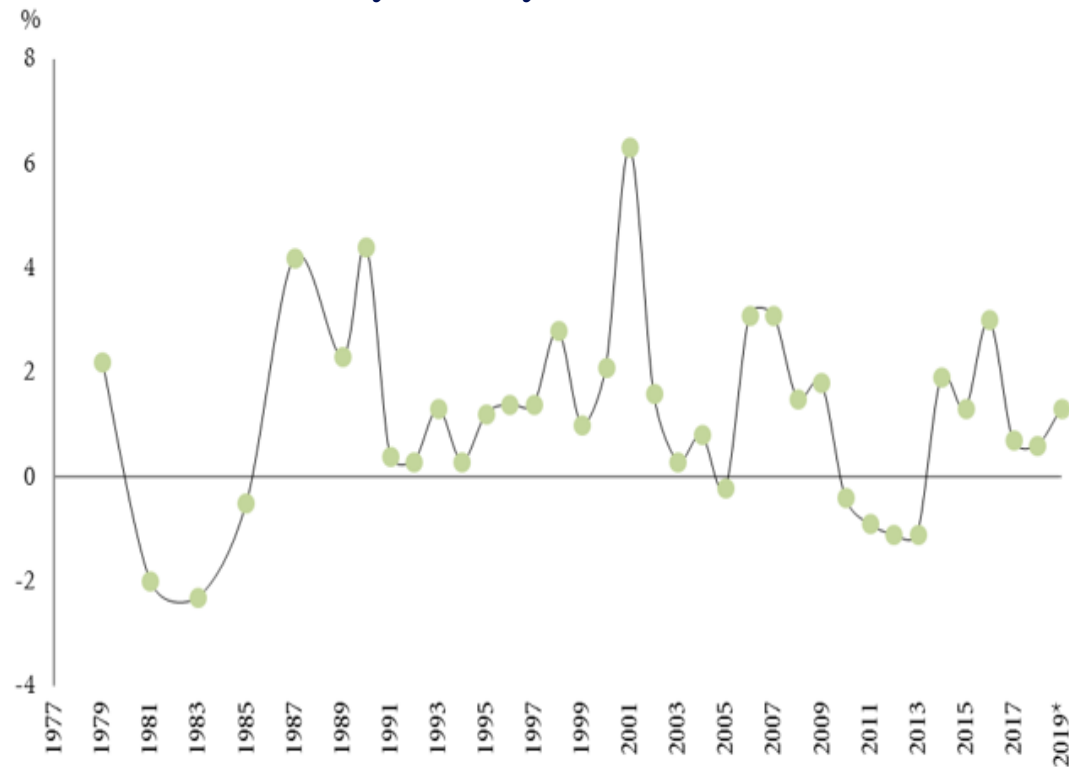
5.4.1 Trend dynamic purchasing power 1977-2019, cumulative (1985=100)

- Trend dynamic purchasing power takes into account all factors (e.g. lost of jobs, divorce)
- Purchasing power has risen since 1977, with exceptions for economic crises in 1979-1985 and 2009-2013
- Trend purchasing power most positive for working population and households with children

# 5.5.2 Trend dynamic purchasing power by main income source of households, 1989-2019

## Cumulative per decade
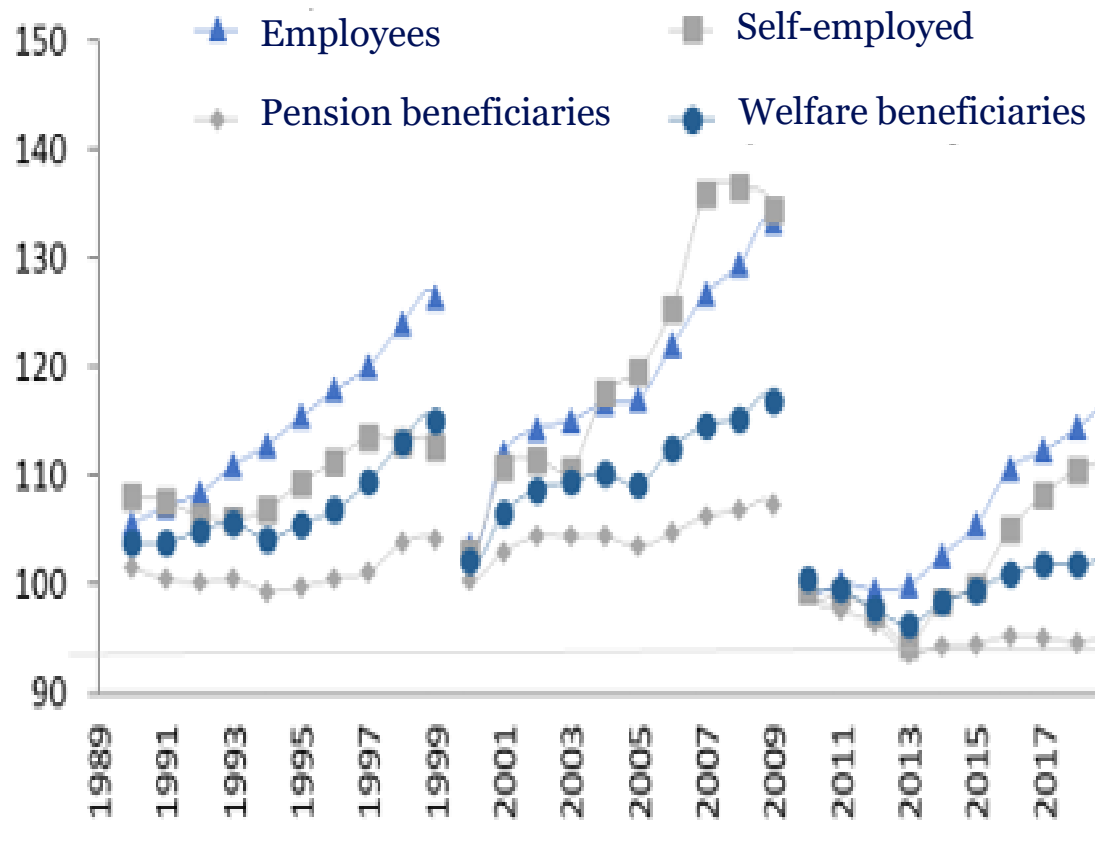


## Cumulative since 1989
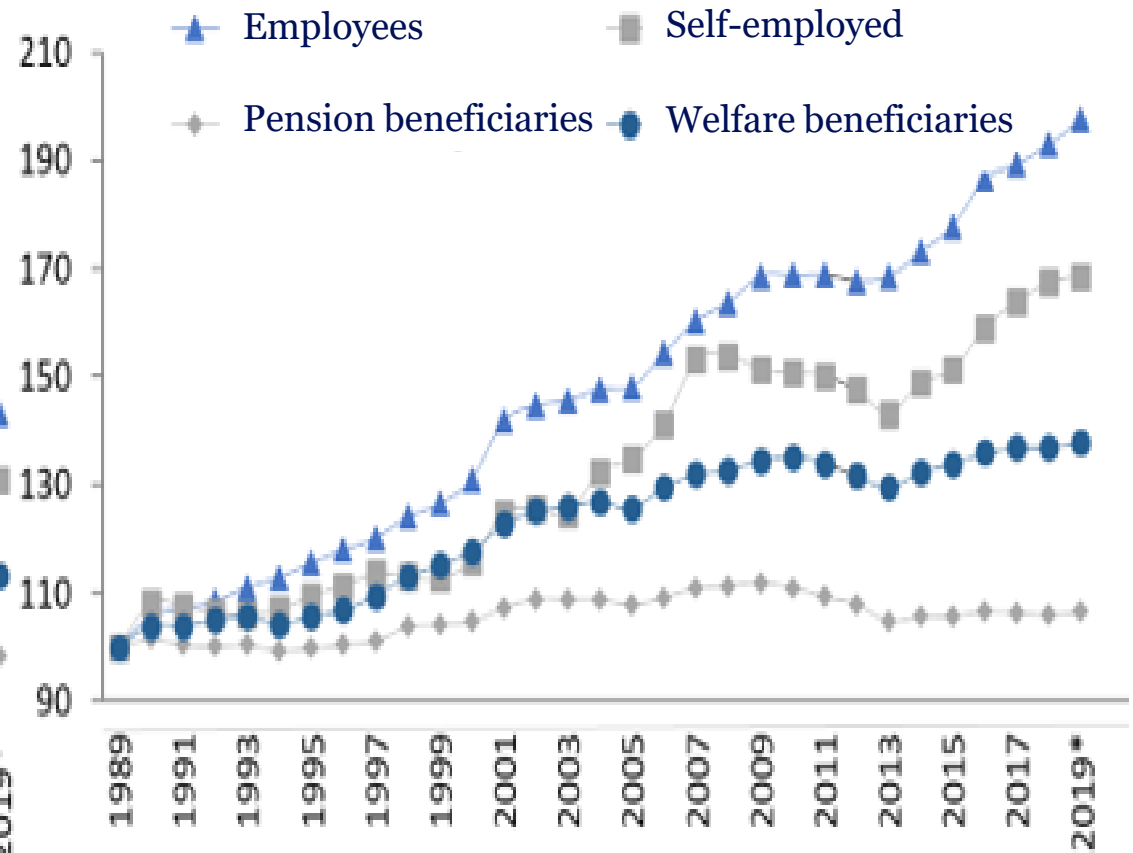
# 5.5.4 Dynamic development of purchasing power, by household composition, 1989-2019

### Cumulative per decade
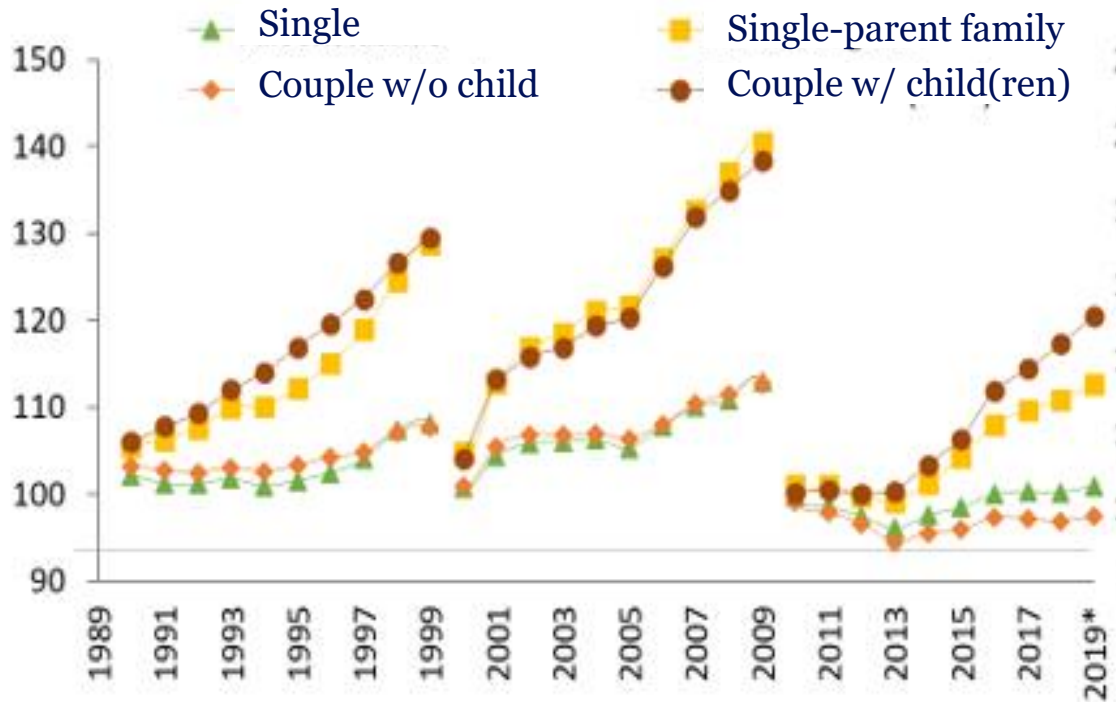


### Cumulative since 1989
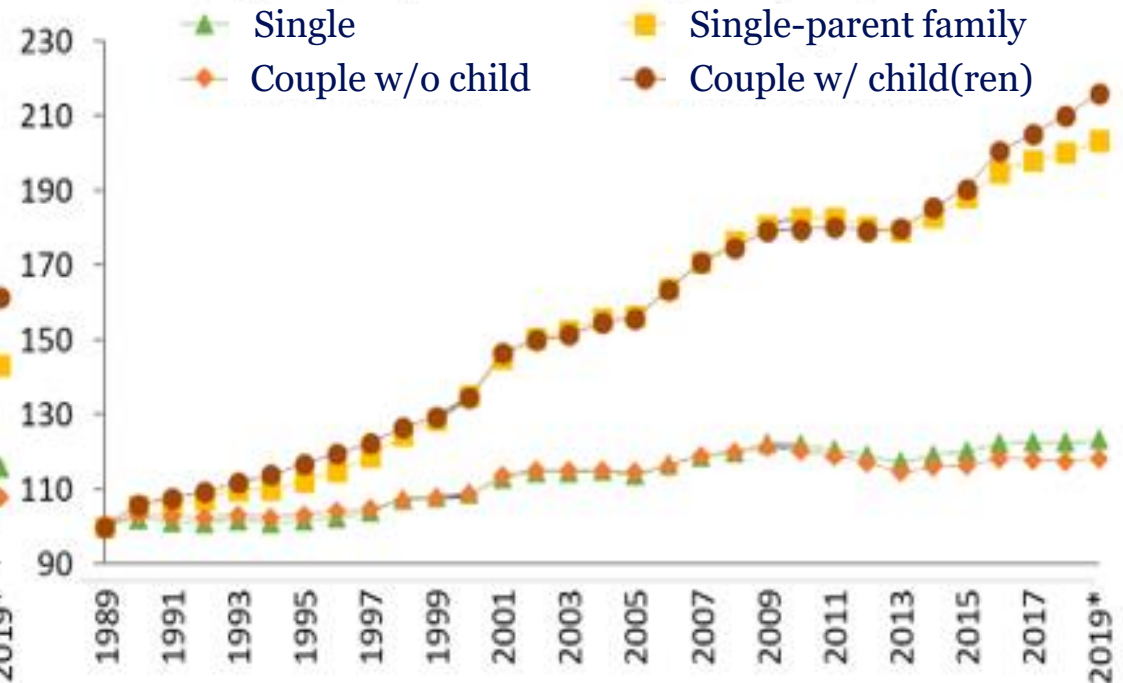
# 6.2.2 Households with (long term) low income, by age of sole earner, 2019*
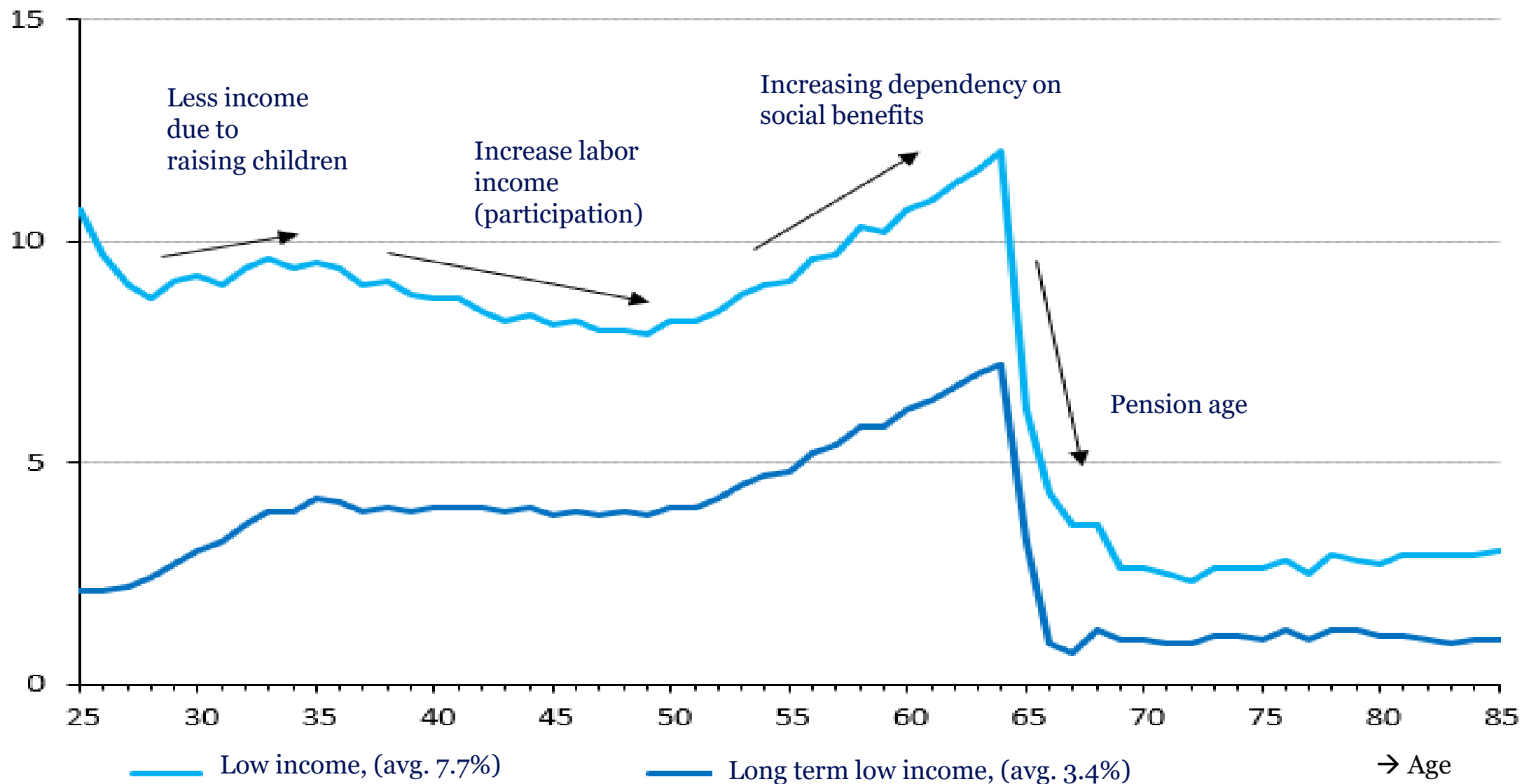


Less income due to raising children

Increase labor income (participation)

Increasing dependency on social benefits

Pension age

— Low income, (avg. 7.7%)    — Long term low income, (avg. 3.4%)    → Age

# 6.4.3 Households with low income by migration background, 1995-2019*



A-reeks     B- en C-reeks

Legend: Dutch — Western — Non-Western

# 6.4.4 Households with low income, by migration background, 1995-2019*



Dutch
Western, 1st generation
Western, 2nd generation
Non-Western, 1st generation
Non-Western, 2nd generation
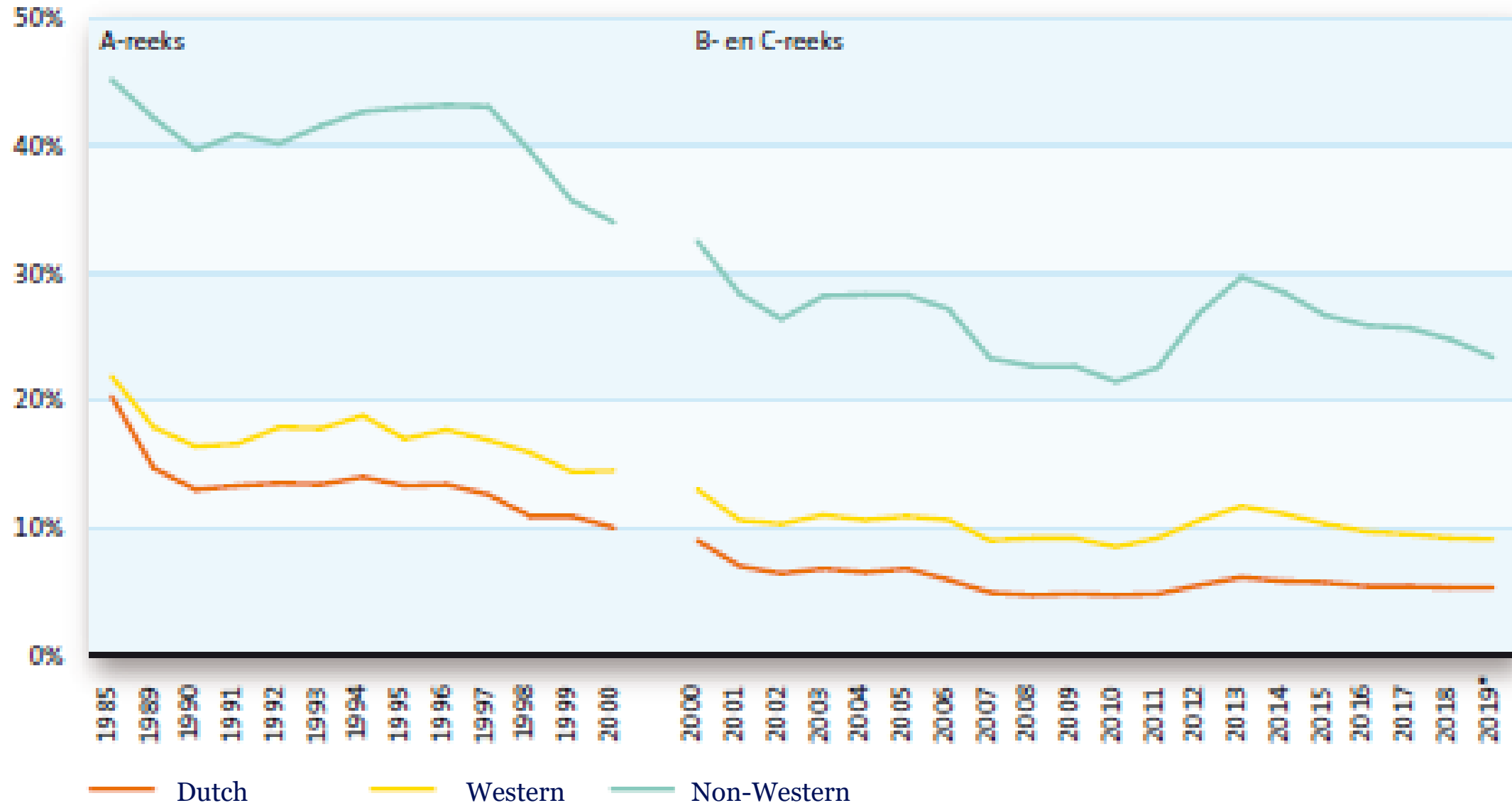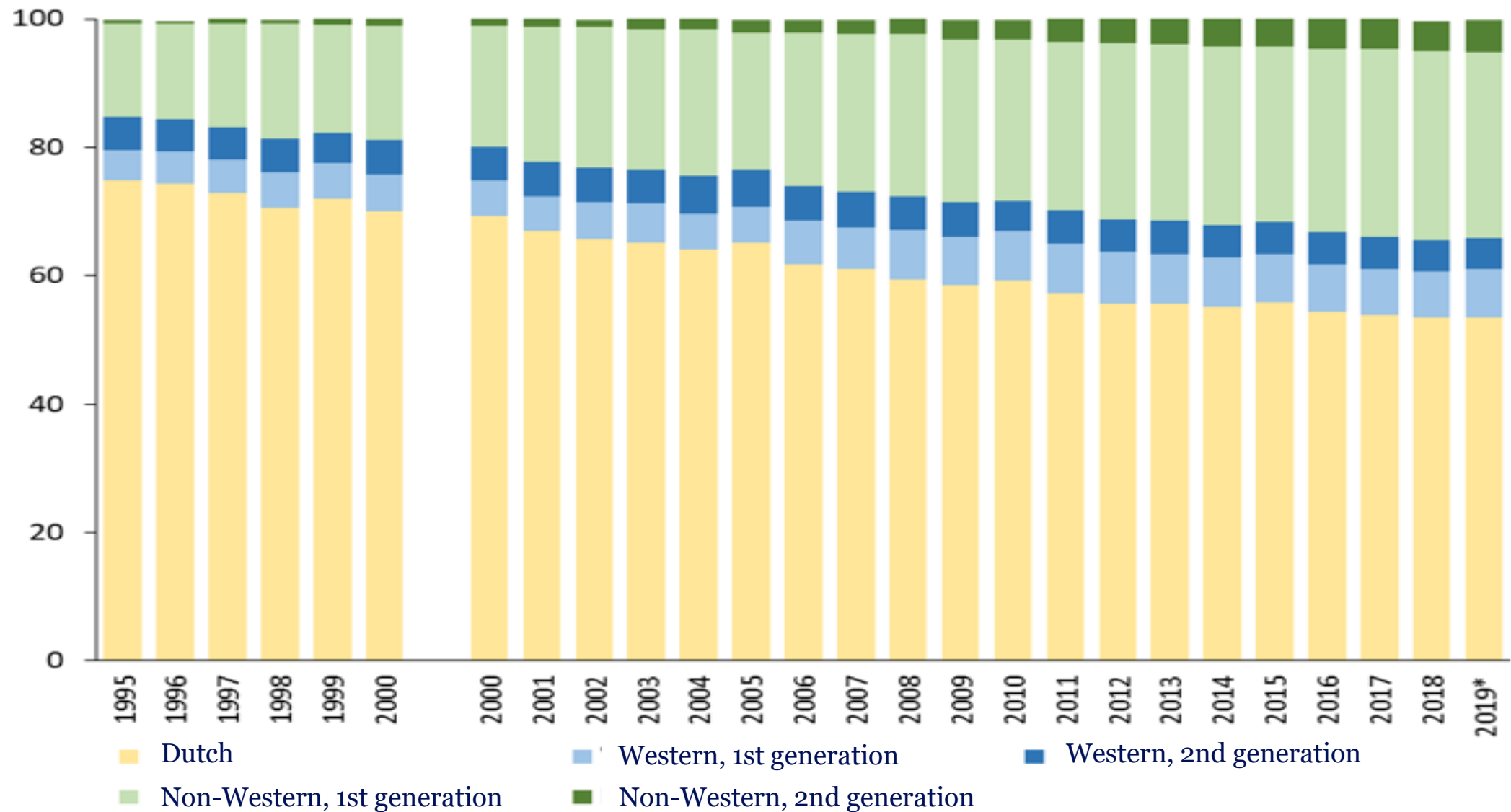
# 6.5.3 Minors < 18 years at risk of poverty by migration background, 1995-2019* (%)



A-reeks    B- en C-reeks

Legend: Dutch · Western · Non-Western
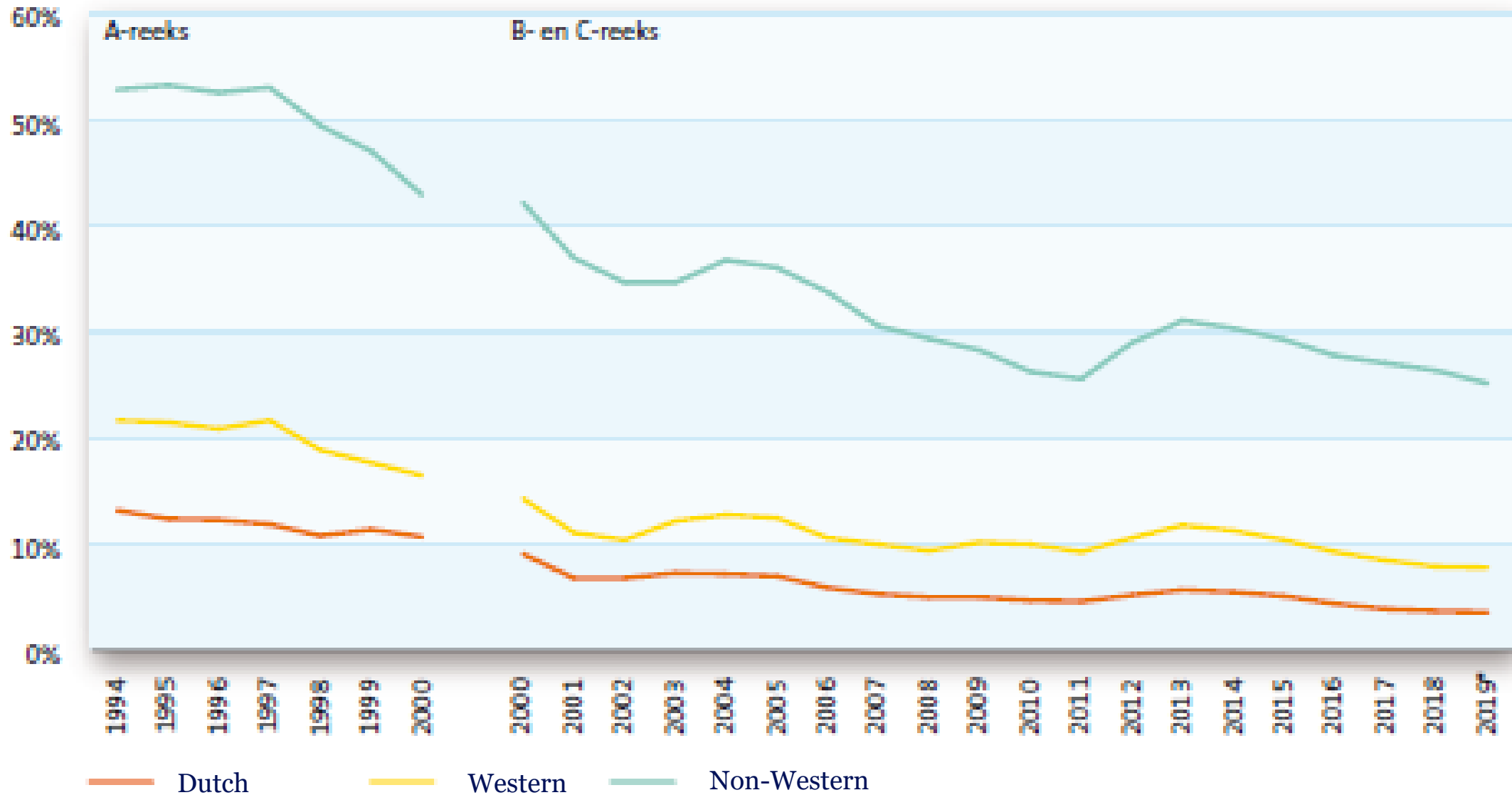
6.5.4 Minors at risk of poverty by migration background, 1995-2019*

Legend:
- Dutch
- Western, 1st generation
- Western, 2nd generation
- Non-Western, 1st generation
- Non-Western, 2nd generation

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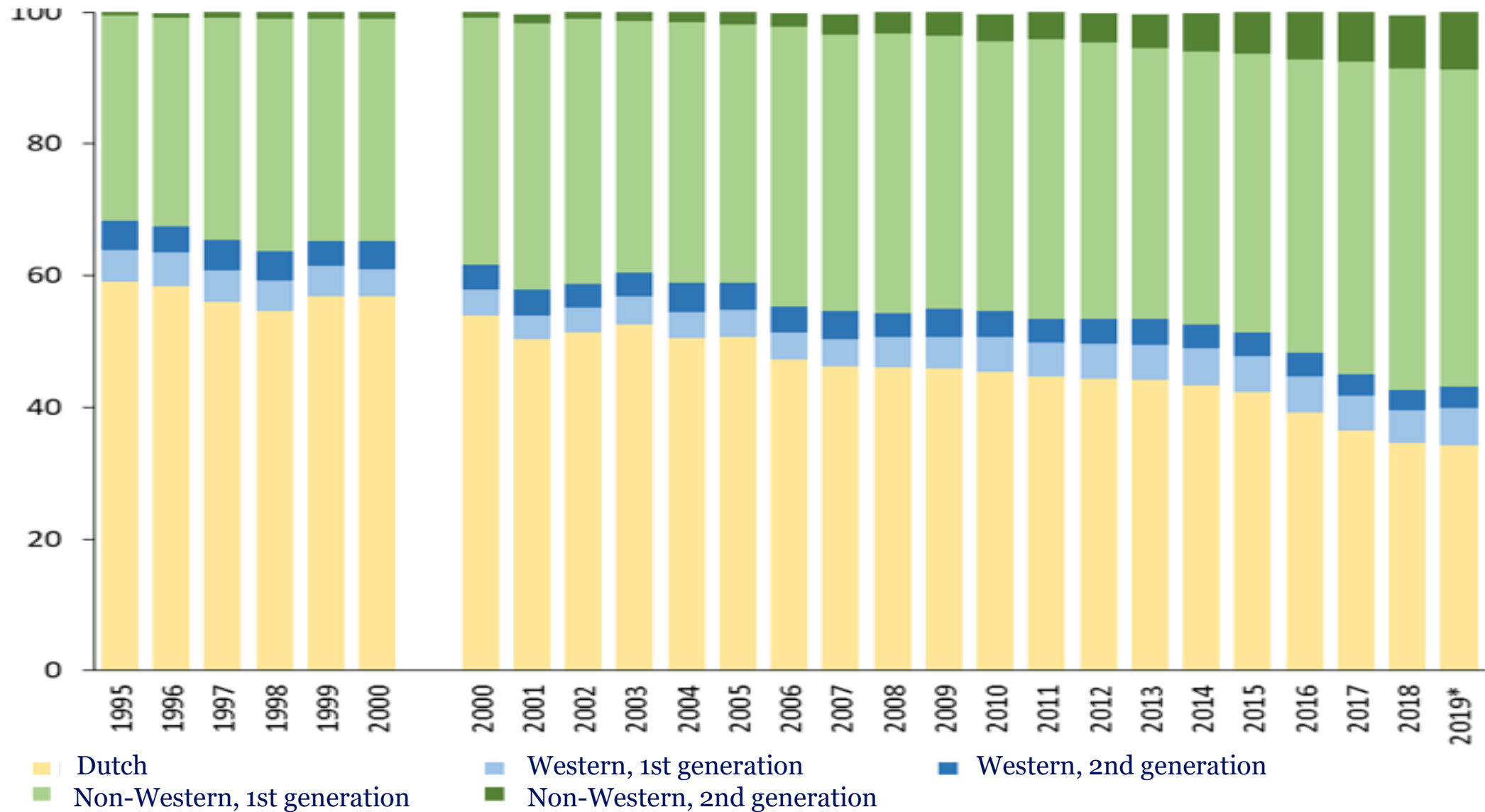
# 6.4.5 Relative risk at poverty households (long term low income), 2019*

|  | All households (7.5 million) | With minors (3.1 million) |
|---|---|---|
| No migration background (= 1) | 1,0 | 1,0 |
| Romania | 1,4 | 1,8 |
| Bulgaria | 1,8 | 2,8 |
| Suriname (2nd generation) | 1,3 | 3,8 |
| Turkey (2nd generation) | 1,5 | 4,5 |
| Netherlands Antilles (2nd gen.) | 1,6 | 5,5 |
| Iran | 5,2 | 7,8 |
| Morocco (2nd generation) | 2,7 | 9,3 |
| Afghanistan | 4,8 | 13,4 |
| Eritrea | 5,5 | 15,8 |
| Iraq | 5,8 | 16,1 |
| Somalia | 5,6 | 17,2 |
| Syria | 7,1 | 24,0 |

Adjusted for differences in education level and age of main bread winner.

# 6.6.1 At risk of poverty in the EU, 2019



Legend: ALL (black line), < 18 (red), 18-24 (green), 25-54 (blue), 55-64 (yellow), > 65 (grey)
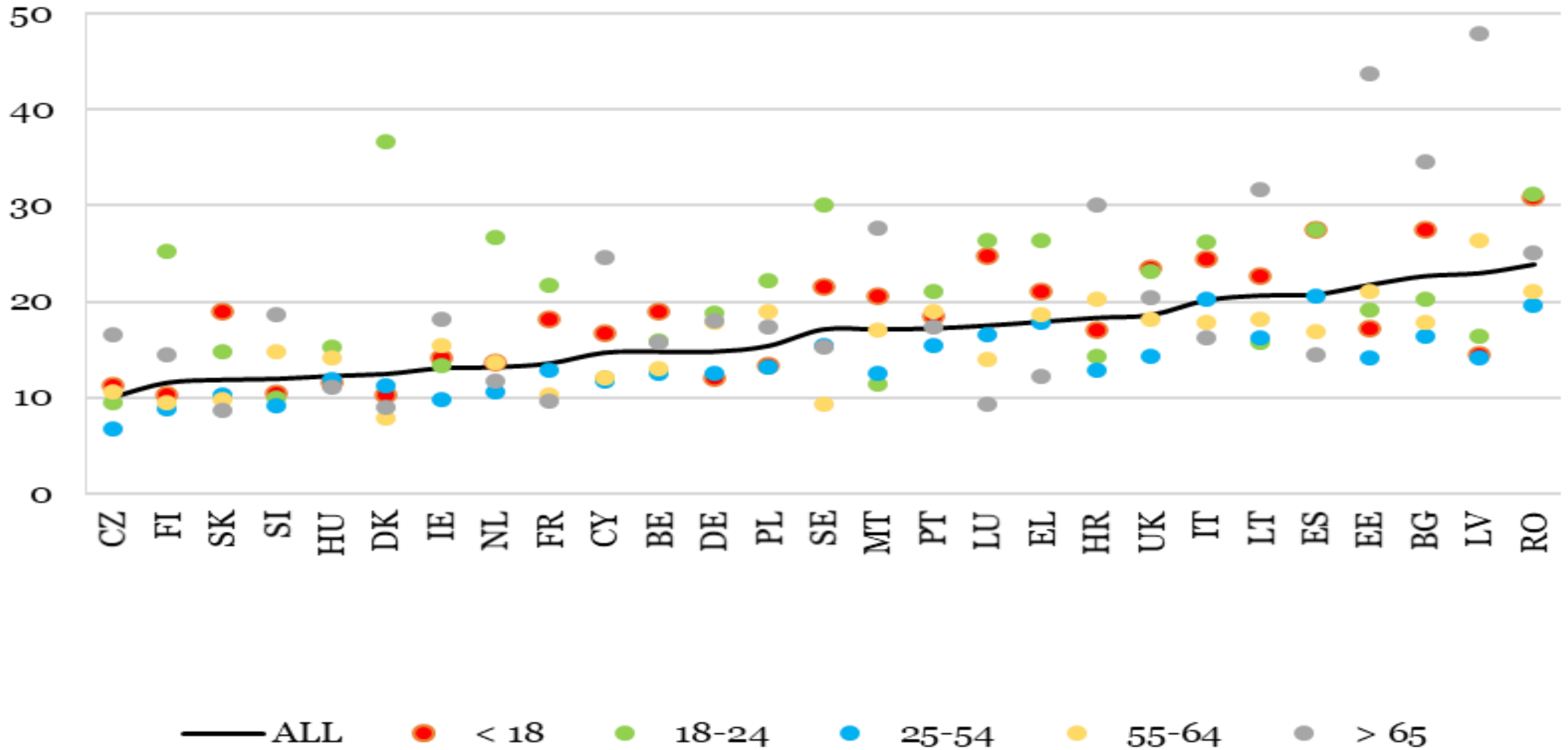
# 6.6.2 Share of population lifted out of poverty via income taxes and social benefits, 2019

## Above EU-average

| | AROP market income (%) | AROP disposable income (%) | Lifted out of poverty (%) |
|---|---|---|---|
| IE | 31,0 | 13,1 | 17,9 |
| FI | 25,2 | 11,6 | 13,6 |
| AT | 26,2 | 13,3 | 12,9 |
| SE | 28,9 | 17,1 | 11,8 |
| DK | 23,7 | 12,5 | 11,2 |
| BE | 25,4 | 14,8 | 10,6 |
| UK | 29,1 | 18,6 | 10,5 |
| SK | 22,0 | 12,0 | 10,0 |
| FR | 23,5 | 13,6 | 9,9 |
| LT | 30,1 | 20,6 | 9,5 |
| LU | 26,5 | 17,5 | 9,0 |
| PL | 24,4 | 15,4 | 9,0 |
| EE | 30,2 | 21,7 | 8,5 |
| DE | 23,2 | 14,8 | 8,4 |
| EU-28 | 25,1 | 16,8 | 8,3 |

## Below EU-average

| | AROP market income (%) | AROP disposable income (%) | Lifted out of poverty (%) |
|---|---|---|---|
| NL | 21,4 | 13,2 | 8,2 |
| CY | 22,7 | 14,7 | 8,0 |
| HU | 20,0 | 12,3 | 7,7 |
| SI | 19,2 | 11,9 | 7,3 |
| BG | 29,6 | 22,6 | 7,0 |
| LV | 29,9 | 22,9 | 7,0 |
| CZ | 16,6 | 10,1 | 6,5 |
| ES | 26,9 | 20,7 | 6,2 |
| MT | 23,2 | 17,1 | 6,1 |
| HR | 24,3 | 18,3 | 6,0 |
| PT | 22,7 | 17,2 | 5,5 |
| EL | 23,2 | 17,9 | 5,3 |
| IT | 25,2 | 20,1 | 5,1 |
| RO | 28,1 | 23,8 | 4,3 |
| EU-28 | 25,1 | 16,8 | 8,3 |

# 7.2.3 Top income shares 2019*: different definitions of income



Top 10%: Personal primary income 29,9 · Personal gross income 30,7 · Standardised disposable income 28,6

Top 5%: Personal primary income 18,8 · Personal gross income 19,3 · Standardised disposable income 18,0

Top 1%: Personal primary income 6,5 · Personal gross income 6,7 · Standardised disposable income 6,3

Legend:
- Personal primary income
- Personal gross income
- Standardised disposable income

# 7.2.4 Share top incomes by gender 2019*
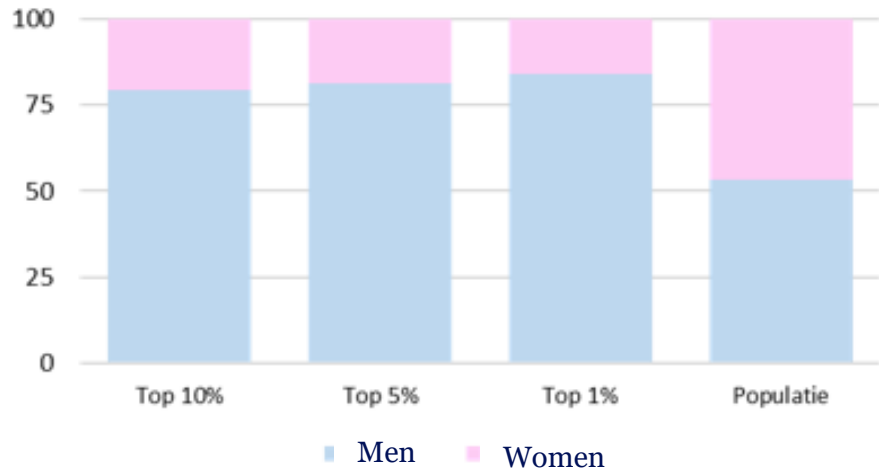


# 7.2.5 Share top incomes by age 2019*
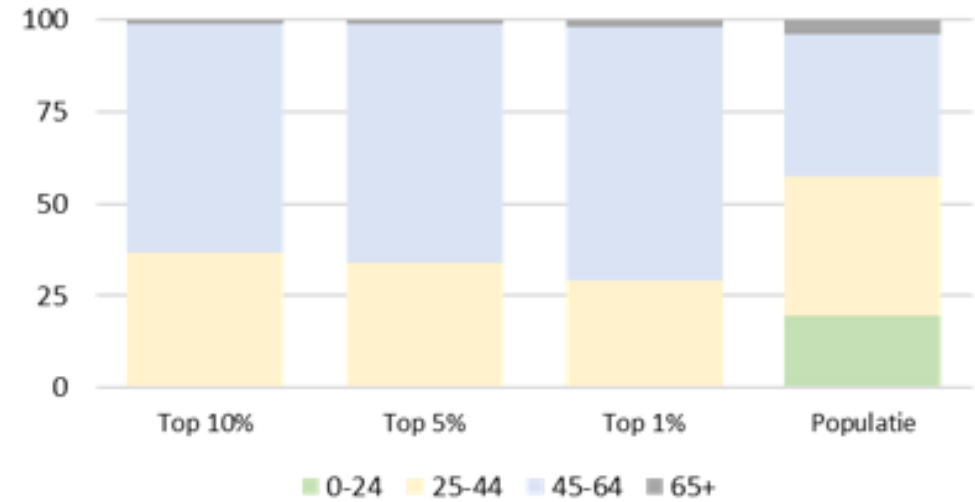


# 7.2.6 Share top incomes by socio-economic category 2019*
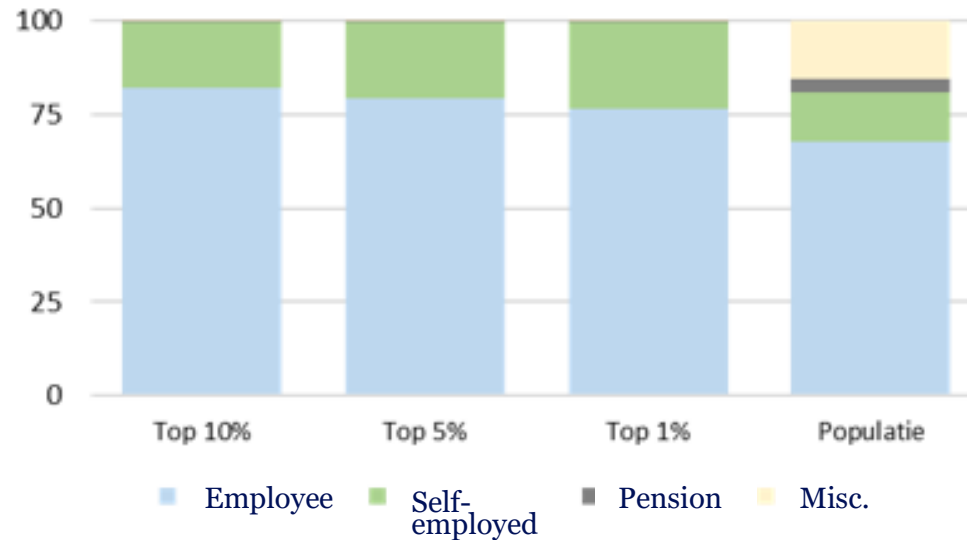
# 7.3.1 Share top incomes in 1977-2019*: personal primary income



Legend: Top 10% · Top 5% · Top 1%
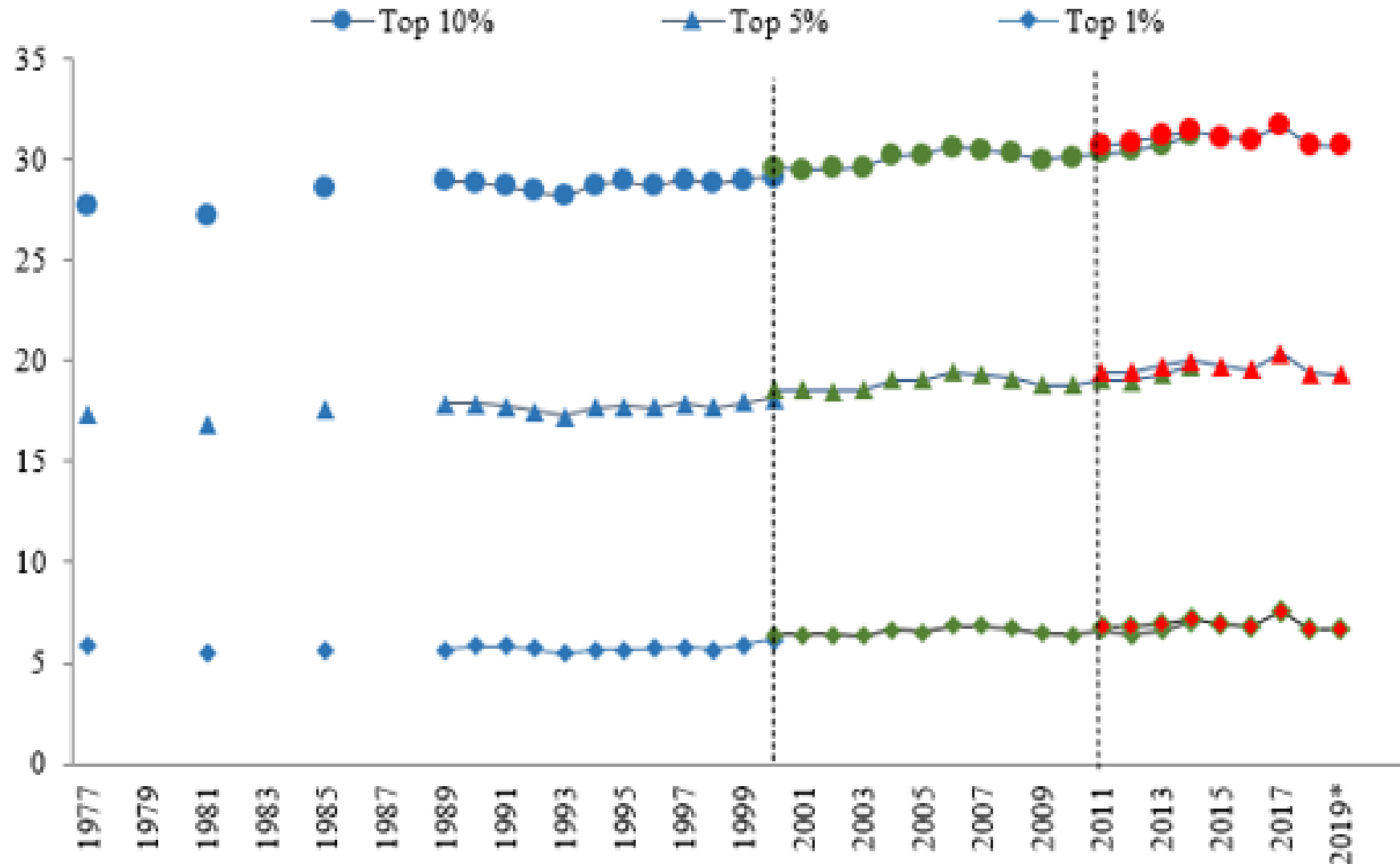
- Share top incomes rather stable over time (top 10%, top 5% & top 1%)

- Independent of definition of income, such as personal gross income and standardized disposable income

- OLS regression: no increased concentration of income in top 1% since 1977

# 7.3.4 OLS regression trend share of top incomes, 1977-2019*

| | Periode 1977-2019 | | | | Periode 1990-2019 | | | |
|---|---|---|---|---|---|---|---|---|
| | Constante | X-var | Adj R2 | F test | Constante | X-var | Adj R2 | F test |
| **Primary income** | | | | | | | | |
| top 10% | 27,7** | 0,055** | 0,853 | 74,4 | 28,5** | 0,049** | 0,798 | 45,8 |
| | (0,000) | (0,000) | | (0,000) | (0,000) | (0,004) | | (0,000) |
| top 5% | 17,2** | 0,028** | 0,849 | 72,3 | 17,6** | 0,027 | 0,813 | 50,3 |
| | (0,000) | (0,004) | | (0,000) | (0,000) | (0,050) | | (0,000) |
| top 1% | 5,7** | 0,004 | 0,841 | 68,1 | 5,7** | 0,007 | 0,826 | 54,8 |
| | (0,000) | (0,462) | | (0,000) | (0,000) | (0,448) | | (0,000) |
| **Gross income** | | | | | | | | |
| top 10% | 27,6** | 0,066** | 0,908 | 126,7 | 28,4** | 0,066** | 0,898 | 100,4 |
| | (0,000) | (0,000) | | (0,000) | (0,000) | (0,000) | | (0,000) |
| top 5% | 17,1** | 0,038** | 0,895 | 109,1 | 17,5** | 0,043** | 0,881 | 85,0 |
| | (0,000) | (0,000) | | (0,000) | (0,000) | (0,003) | | (0,000) |
| top 1% | 5,6** | 0,011 | 0,854 | 74,9 | 5,7** | 0,018 | 0,839 | 60,0 |
| | (0,000) | (0,123) | | (0,000) | (0,000) | (0,077) | | (0,000) |
| **Equivalized disposable income** | | | | | | | | |
| top 10% | 19,5** | 0,027 | 0,877 | 91,3 | 20,0** | 0,015 | 0,843 | 62,0 |
| | (0,000) | (0,077) | | (0,000) | (0,000) | (0,516) | | (0,000) |
| top 5% | 11,3** | 0,022 | 0,883 | 96,1 | 11,6** | 0,016 | 0,853 | 66,6 |
| | (0,000) | (0,137) | | (0,000) | (0,000) | (0,491) | | (0,000) |
| top 1% | 3,1** | 0,012 | 0,898 | 112,0 | 3,4** | 0,007 | 0,875 | 80,6 |
| | (0,000) | (0,266) | | (0,000) | (0,000) | (0,659) | | (0,000) |

**OLS-regression. P-value between brackets: **p-value <0,01 and *p-value <0,05. Dummies for trend breaks**

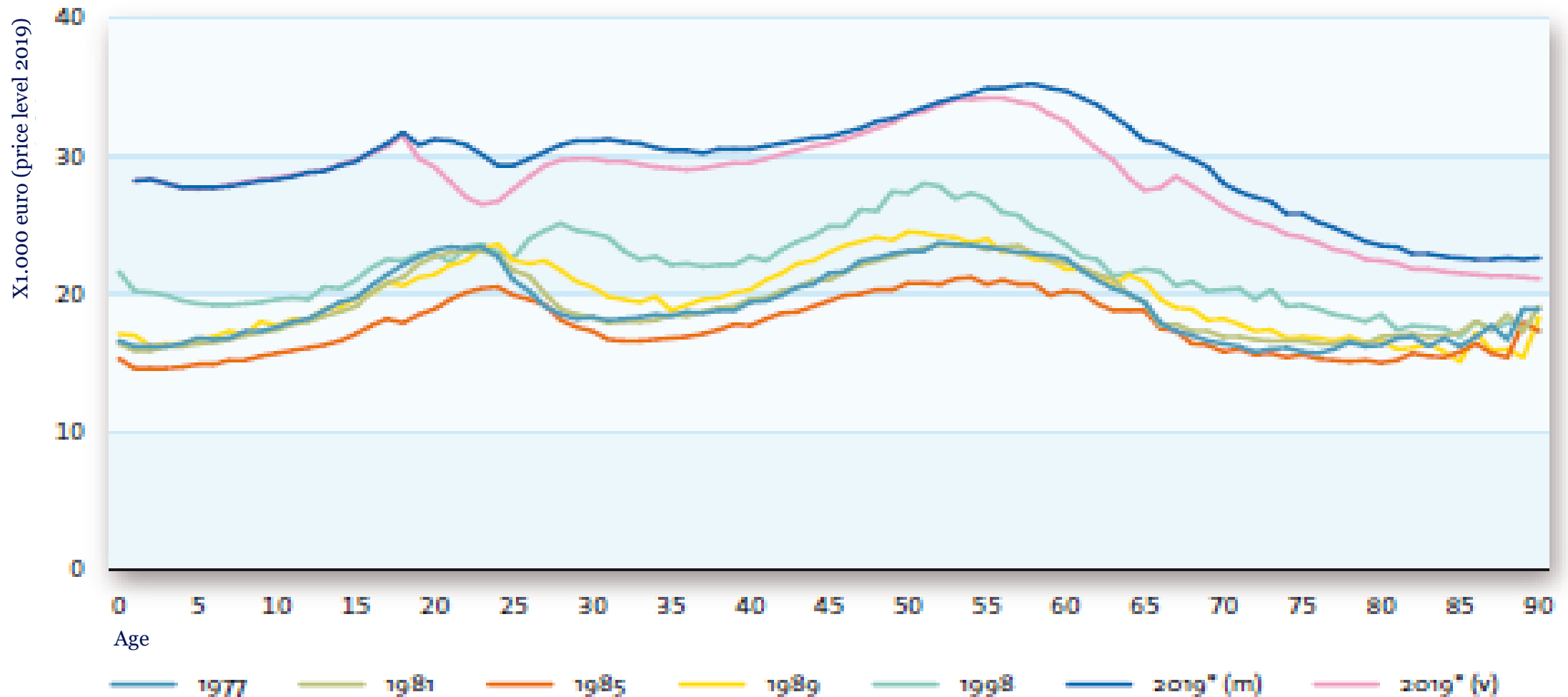# 7.4.2 Share of income top 1% in selected countries: 1980-2019
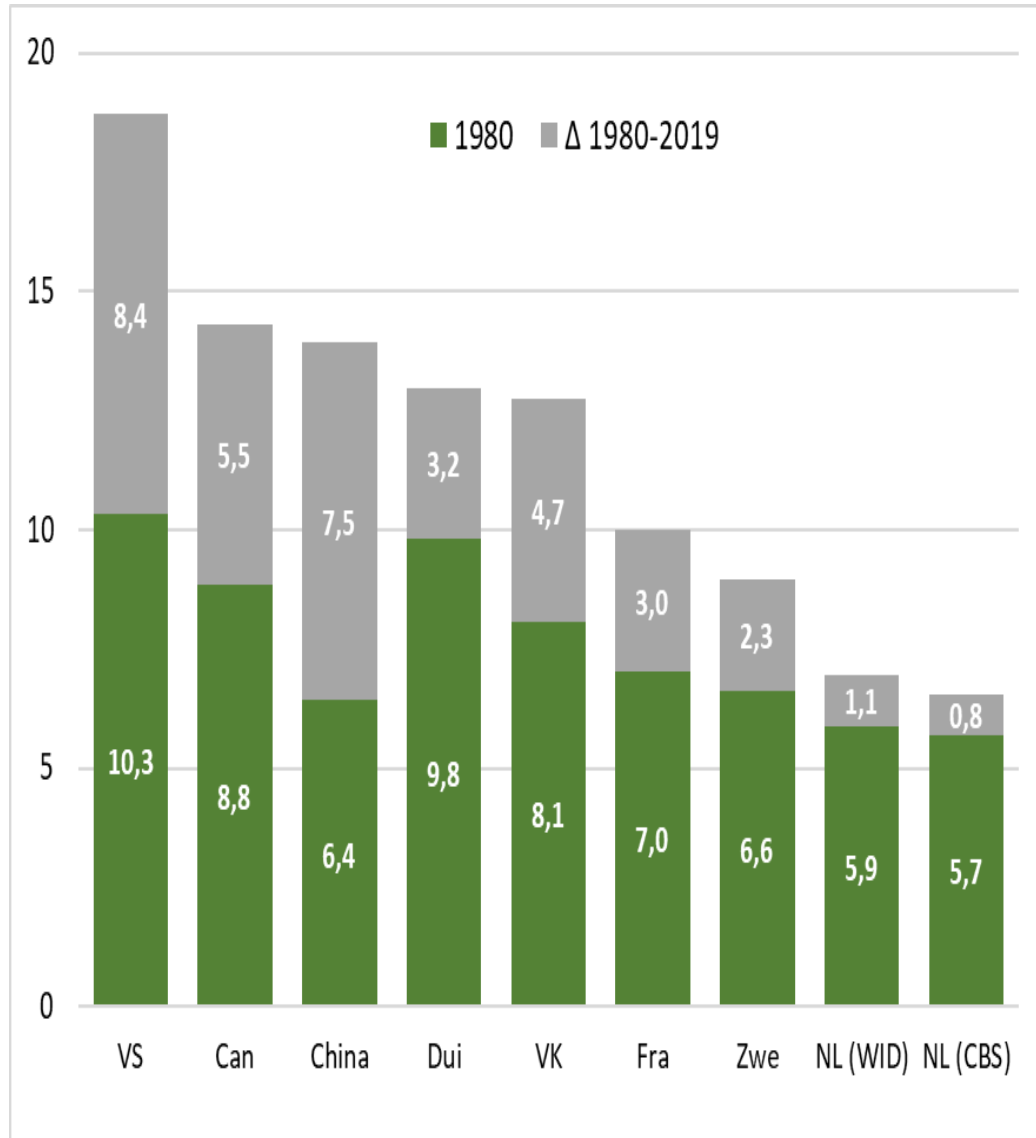


## 7.4.1 International comparison income share top 1% in 2019

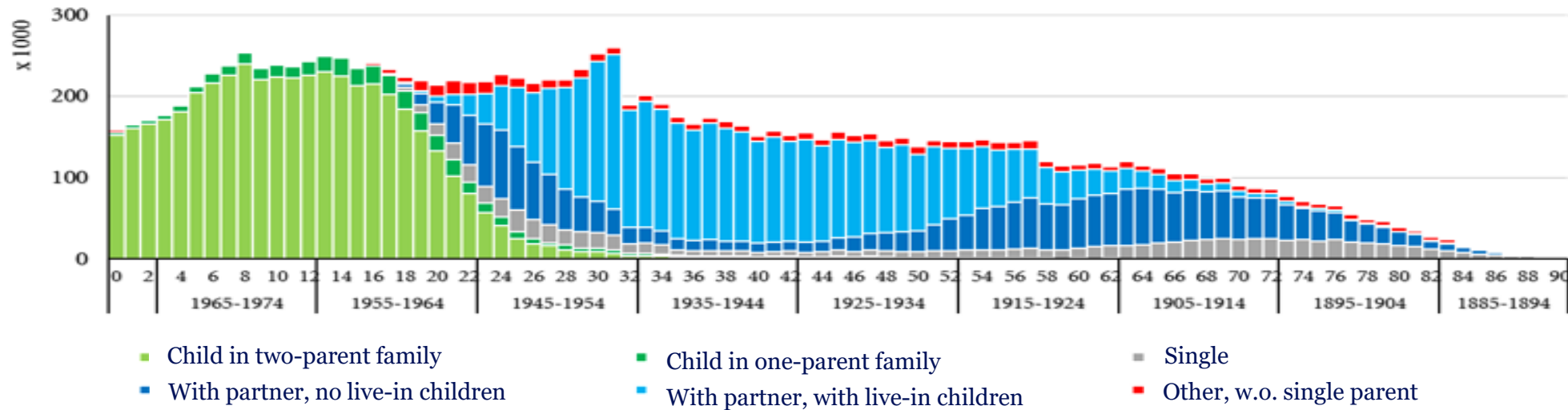| | | | | | |
|---|---|---|---|---|---|
| USA | 18,7 | Hungary | 12,4 | Cyprus | 9,8 |
| Bulgaria | 18,3 | Spain | 12,2 | Austria | 9,2 |
| Turkey | 18,0 | Litouania | 12,2 | Luxembourgh | 9,2 |
| Poland | 14,6 | Portugal | 11,6 | Letland | 9,0 |
| Israel | 14,4 | Ireland | 11,6 | Sweden | 9,0 |
| Canada | 14,3 | New Zealand | 11,4 | Cratia | 9,0 |
| Korea | 14,1 | Denmark | 11,2 | Italy | 8,8 |
| China | 13,9 | Sebia | 11,2 | Bosnia Herzegovina | 8,6 |
| Estland | 13,9 | Switzerland | 10,9 | Kosovo | 8,6 |
| Romenia | 13,2 | Slavakia | 10,6 | Belgium | 8,5 |
| Germany | 13,0 | Norway | 10,4 | Slovenia | 8,3 |
| Greece | 12,9 | Malta | 10,3 | Iceland | 8,1 |
| UK | 12,7 | Czech Republic | 10,0 | Macedonia | 7,9 |
| Australia | 12,4 | France | 10,0 | *Netherlands (WID)* | *7,0* |
| Japan | 12,4 | Finland | 10,0 | *Netherlands (CBS)* | *6,5* |

Ranking 177 countries World Inequality Database:
No 1: USA - 18.7%
No 177: Netherlands - 7.0%

# Income over the life course - Valediction chapter of Wim Bos

## 8.4.2 Median income by age

# 8.2.1 Population by age & household position, 1977



**Legend:**
- Child in two-parent family
- Child in one-parent family
- Single
- With partner, no live-in children
- With partner, with live-in children
- Other, w.o. single parent

# 8.2.3 Population by age & household position, 2019*



**Legend:**
- Child in two-parent family
- Child in one-parent family
- Single
- With partner, no live-in children
- With partner, with live-in children
- Other, w.o. single parent
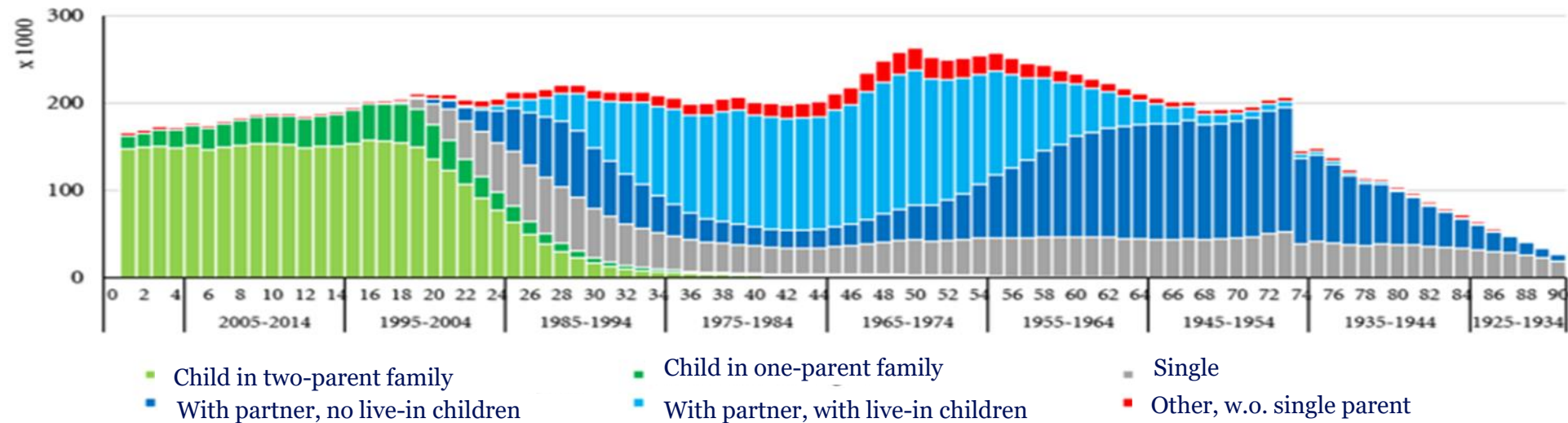
# 8.5.1 Median income of generations during the lifecycle, 1977-2019*
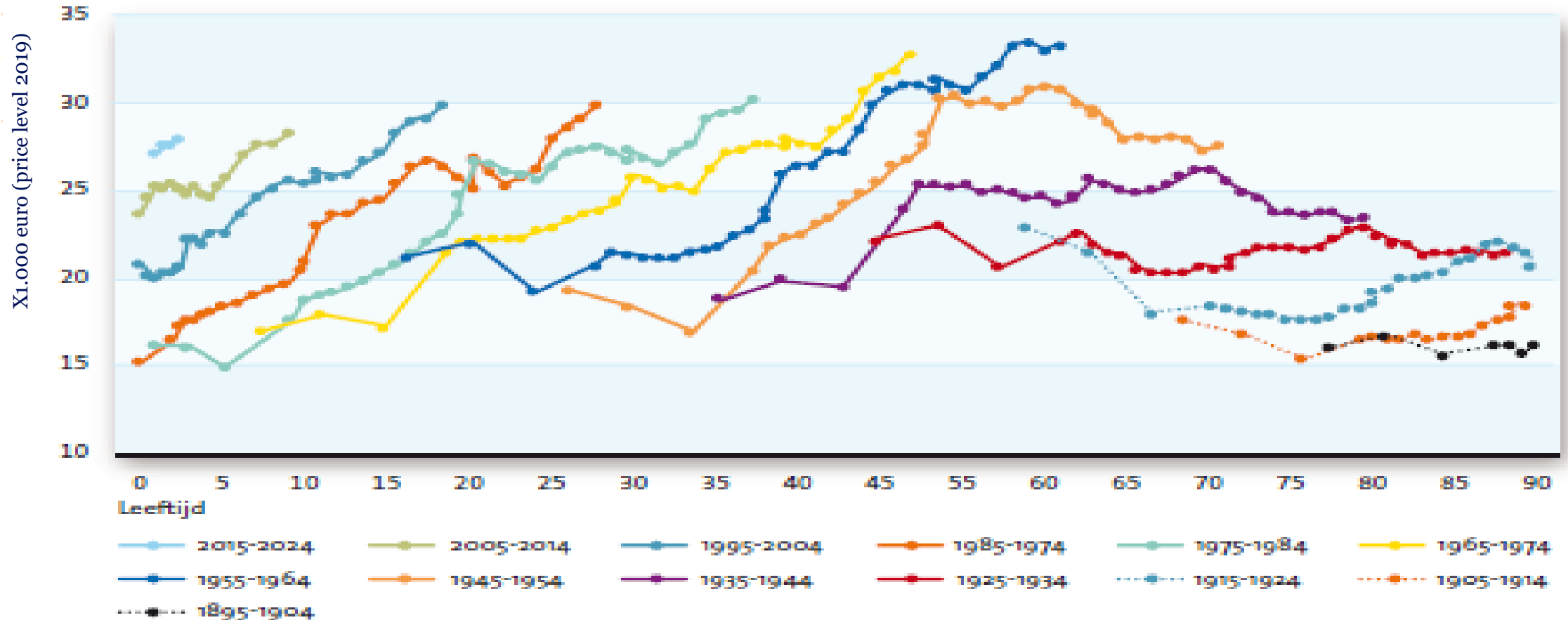


- More of less same pattern of lifecycle income; highest level of income around 55 years
- Younger generation more income than precedent generations in similar stages of life
- Main explanation: increased labor participation females

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Research project

# Dutch Income (Re)Distribution, trends 1977-2019

The book 'Dutch Income (Re)Distribution, trends 1977-2019' was published on the 14th of October. Files related to the project can be downloaded via this website.

Contact    Koen Caminada                                                    >

### Revision Dutch Income Statistics, time series 1977-2019

- Book *Dutch Income (Re) Distribution, trends 1977-2019 (in Dutch)* (📄 link)
- Supplement Figures and Tables (xls.)
- Presentation Main Findings (📄 ppt.)
- CBS Web publication (in Dutch) (🔗 link)
- Initiators: Koen Caminada (Universiteit Leiden), Egbert Jongen (Universiteit Leiden), 🔗 Wim Bos (CBS), 🔗 Marion van den Brakel (CBS), 🔗 Ferdy Otten (CBS)
- More information (in Dutch): click here

**INKOMEN VERDEELD**
**TRENDS 1977–2019**

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