Effects of tax-benefit policy changes across the income distributions of the EU-28 countries: 2013-14 and 2014-15

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[1] This document is supported by the European Union Programme for Employment and Social Solidarity – PROGRESS (2007-2013) grant no. VS/2011/0445.
This programme is managed by the Directorate-General for Employment, Social Affairs and Inclusion of the European Commission. It was established to finally support the implementation of the objectives of the European Union in the employment and social affairs area, as set out in the Social Agenda, and thereby contribute to the achievement of the Lisbon Strategy goals in these fields.
The seven-year Programme targets all stakeholders who can help shape the development of appropriate and effective employment and social legislation and policies, across the EU-28, EFTA-EEA and EU candidate and pre-candidate countries.
PROGRESS mission is to strengthen the EU contribution in support of Member States' commitment. PROGRESS is instrumental in providing analysis and policy advice on PROGRESS policy areas; monitoring and reporting on the implementation of EU legislation and policies in PROGRESS policy areas; promoting policy transfer, learning and support among Member States on EU objectives and priorities; and relaying the views of the stakeholders and society at large.
For more information see: http://ec.europa.eu/progress
The information contained in this publication does not necessarily reflect the position or opinion of the European Commission.

Data

For Belgium, Bulgaria, Czech Republic, Denmark, Germany, Ireland, Croatia, Cyprus, Latvia, Lithuania, Hungary, Malta, the Netherlands, Portugal, Romania, Slovenia, Finland and Sweden we make use of micro-data from the EU Statistics on Incomes and Living Conditions (EU-SILC) made available by Eurostat (59/2013-EU-SILC-LFS). For Estonia, Greece, Luxembourg and Poland we use the Eurostat EU-SILC together with national variables provided by respective national statistical offices. For Spain, France, Italy, Austria and the Slovak Republic we use the national EU-SILC data made available by respective national statistical offices. For the UK we use Family Resources Survey data made available by the Department of Work and Pensions via the UK Data Archive. The usual disclaimers apply.

Feedback

This is the first publication of this kind and we plan to produce it annually for the latest EUROMOD policy update. We also hope to refine the analysis and the model to improve cross-country comparability as well as the look and feel of the report.

Comments are very welcome and should be sent to euromod@essex.ac.uk (with the subject 'PET analysis feedback').

Contents

Introduction

This paper provides a short country-by-country harmonised analysis, using EUROMOD, of the distributional effects on household disposable income of direct tax and cash benefit and pension policy changes between 2013 and 2014 and (for most countries) between 2014 and 2015. We show how changes (or non-changes) to tax-benefit policies have affected household incomes in the two periods, abstracting from changes in the population characteristics (e.g. increased unemployment) and the distribution of market/original gross incomes in those periods. The tax-benefit policies in a given year refer to those that applied on 30th of June.

For each country of the EU-28 a standard table and figure show the first-order policy effect measured in real terms by policy component and income decile group, where income is household disposable income equivalised using the modified OECD scale (1:0.5:0.3). In Table 1 and Figure 1 for each country the first-order policy effect is estimated as the difference between simulated household disposable incomes under the 2014 tax-benefit policies (deflating the tax-benefit monetary parameters by Eurostat's Harmonized Index of Consumer Prices, HICP) and household disposable incomes simulated under 2013 policies. The difference is expressed as a percentage of mean household disposable income in 2013. The population is ranked into decile groups based on their equivalised household disposable income in 2013 and the effect is shown for each decile group as well as the population as a whole, based on each person's equivalised household disposable income. The total policy effect on household disposable incomes is decomposed into the following components: public pensions, means-tested benefits, non-means-tested benefits, employee and self-employed social insurance contributions (SIC) and direct taxes. We isolate the direct policy effect from changes in market/original income, which are held constant in our analysis and shown in the tables and figures as unchanging.

Table 2 and Figure 2 repeat the analysis for the following year (2014 to 2015) for most countries. (Lithuania, Luxembourg, Hungary, Malta, Romania and Slovenia are not included.) They show the policy effect in real terms by calculating the difference between simulated household disposable incomes under the 2015 tax-benefit policies (deflating the tax-benefit monetary parameters by HICP) and household disposable incomes simulated under 2014 policies, as a percentage of 2014 mean household disposable income. Ranking uses equivalised household disposable income in 2014 as well.

For clarity, Figures 1 and 2 may not be drawn to the same scale and scales also differ across countries.

The values of Eurostat's HICP are shown in Table A below.[2] This indicates how low inflation was in the two periods in question in all countries and negative in some. Thus we would not expect large policy effects to arise due to lack of indexation of tax thresholds, benefit levels or pensions payments.

[2] The information in the table also explains how 2015 values were calculated given that the analysis was done before statistics on the whole year were available. While not making a big difference in times of low inflation, this is an aspect of this analysis that needs further harmonisation.

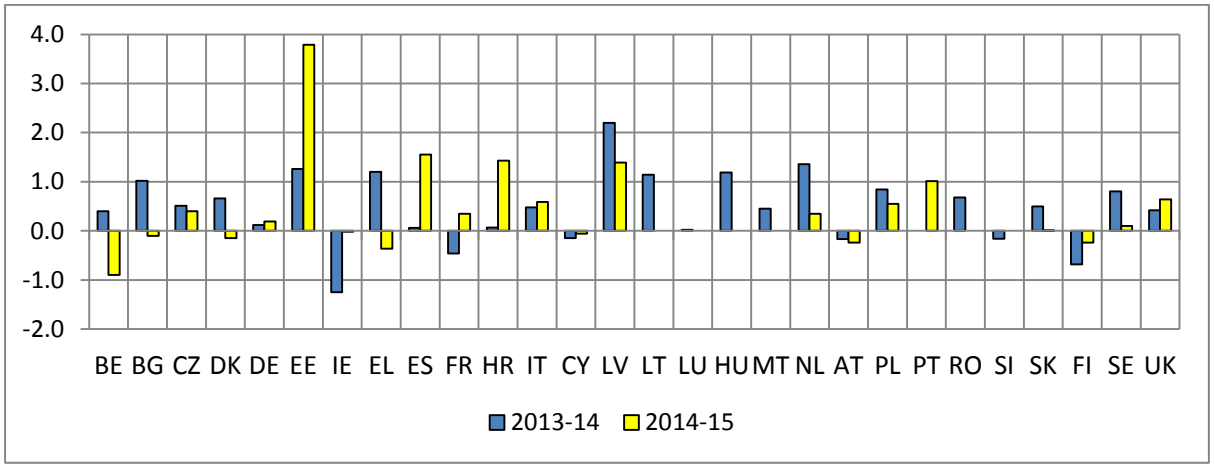
The analysis makes use of micro-data from the EU Statistics on Income and Living Conditions (EU-SILC) for 2012 with market incomes updated from 2011 to the starting point in each analysis (2013 in Table 1 and Figure 1 and 2014 in Table 2 and Figure 2). For the UK we make use of data from the Family Resources Survey (FRS) for 2011/12 with incomes updated to 2013 and 2014, as appropriate.

Results and a cross-country summary

For each country the results are accompanied by a short commentary, explaining the effects shown in terms of the policy reforms that are captured by the analysis and the extent of indexation, relative to inflation.

Figure A summarises the average policy effect for the EU28 in the two periods. In 2013-14 it ranges from an increase of 2.2% of household income in Latvia to a decrease of 1.3% of household income in Ireland. Among the 22 countries covered for 2014-15 the effect ranges from an increase of 3.8% of household income in Estonia to a decrease of 0.9% in Belgium. Other countries with relatively large changes in household income (above 1%; all increases) include, in 2013-14 Bulgaria, Estonia, Greece, Lithuania, Hungary, and the Netherlands, and in 2014-15 Spain, Croatia, Latvia and Portugal.

Figure A: Change in household disposable income (%) as a result of policy effects 2013-14 and 2014-15, using HCIP indexation



The effects of policy changes were progressive (increases in income worth more, or decreases worth less, as a % of household income at lower incomes than at higher incomes) in most countries in both periods. The distributional effects across all EU28 due to policies 2013-14 are summarized in Figure B. This shows countries ordered by the size of the average change in income (as in Figure A), breaking down the change into that for each decile group. The progressive effect is notable in Greece, Estonia, Cyprus, Romania and Bulgaria. The effect is clearly regressive in Ireland and also in the Czech Republic. In some countries the net effects were broadly distributional neutral, including in Denmark, Luxembourg and Portugal.

Figure C shows the equivalent information for policies 2014-15 for the 22 countries covered, which are ranked by the size of the average change. The effect is again progressive in most countries, again notably in Estonia. Particular exceptions are Greece, Ireland, Portugal and Croatia, where the effects are clearly regressive.

Figure B: Change in household disposable income (%) by income decile group as a result of policy effects 2013-14, using HCIP indexation

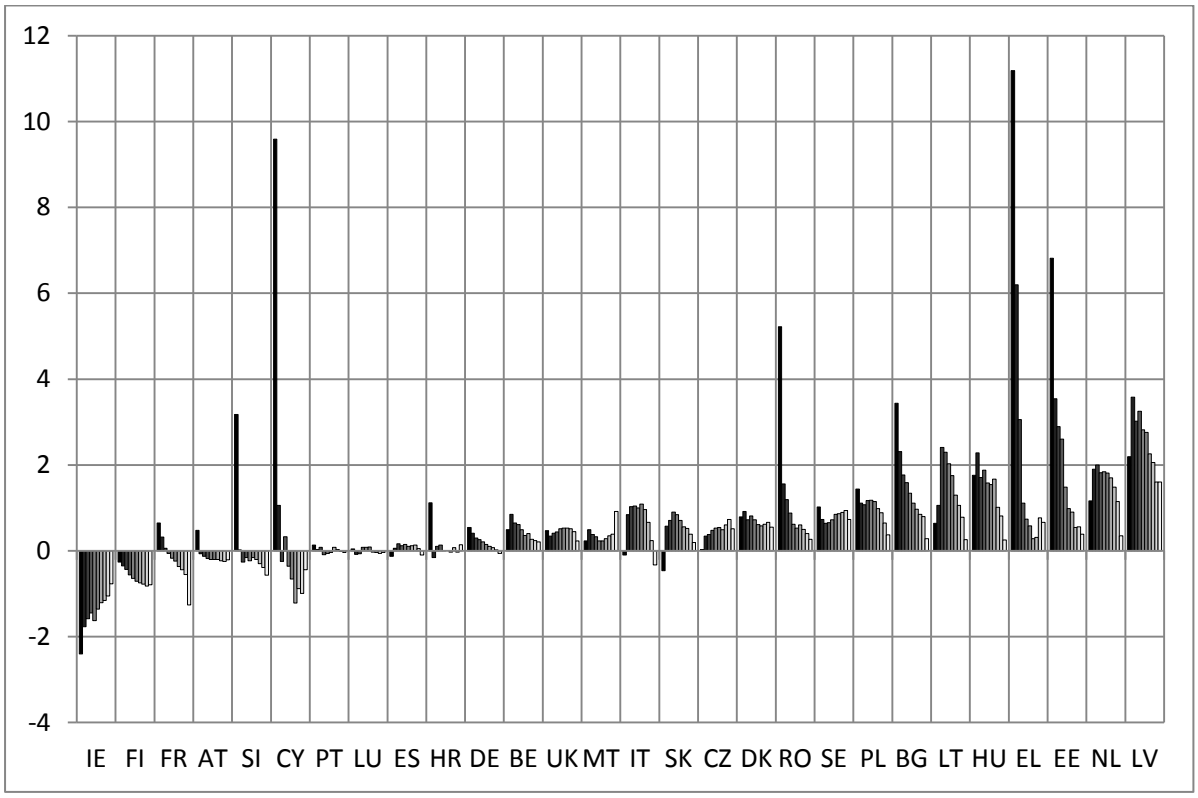
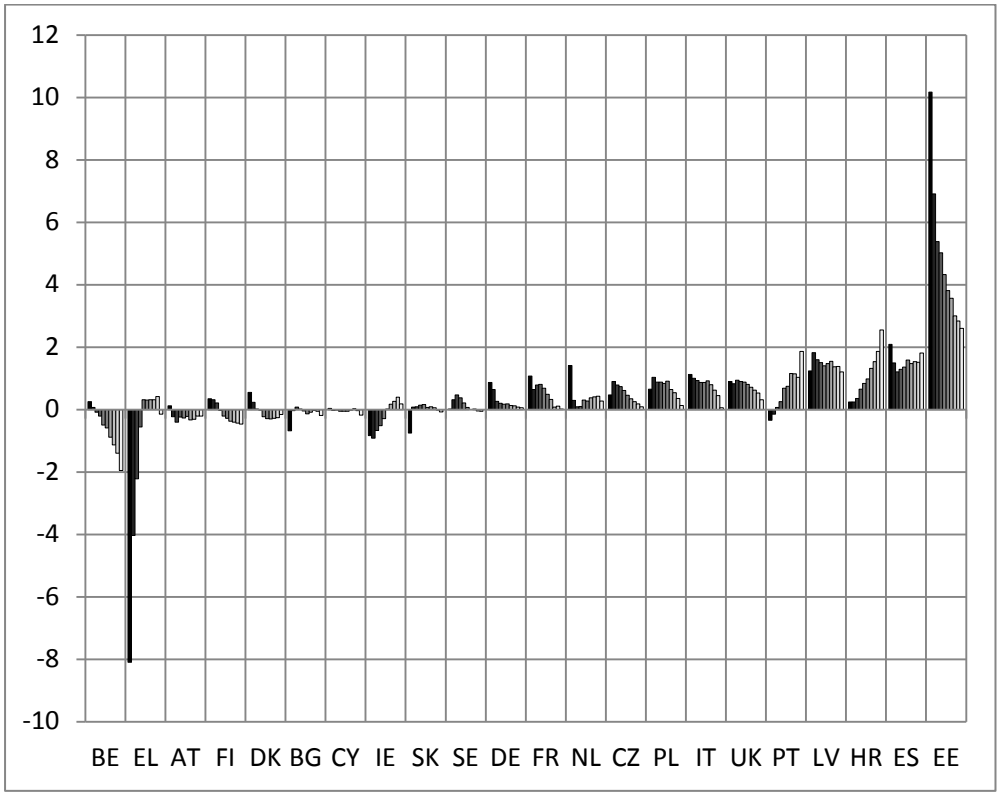


Figure C: Change in household disposable income (%) by income decile group as a result of policy effects 2014-15, using HCIP indexation



Interpreting the results

First, the reader is reminded of two features of this analysis that may differ from other analysis, and which should be borne in mind when interpreting the results.

- In some countries there were no changes to policies in nominal terms in one or both of the years that we investigate. However, when measured in real terms if the HCIP is increasing, usually this will appear as a loss to households (a reduction in benefit or increase in tax or contribution).
- In some countries there were changes to public sector wages that other analysis of public policy changes might include. In this analysis we hold all wages constant and do not include the distributional effect of real changes to public sector wages, nor to the interaction between these changes and the tax-benefit system.

Secondly, the analysis is carried out with the aim of providing a harmonized and comparable analysis for each of the countries of the EU-28. However, there are some aspects of the modelling and data which may differ across countries and the results should be interpreted with this possibility in mind. They include:

- Approximate adjustments for the non take-up of benefits are made in some countries for some benefits but not in others. [3]
- Approximate adjustments for tax evasion are made in Bulgaria, Greece, Italy and Romania, but not in other countries.
- It is not possible to simulate all policies because of lack of necessary information in the micro-data (i.e. EU-SILC, and FRS for the UK). There is some difference in the extent of simulation across countries. If policies cannot be simulated their values are uprated by indexes that capture the typical or average change in value, based on statutory indexation where this exists and has been applied.
- Pensions are not simulated in most cases and these are uprated using statutory uprating (where this exists) or using an index of average pension payments. This somewhat different approach may result in differences in the policy effect attributed to pensions in this analysis.
- In some cases, where average pension payments are used to uprate observed pension values, the results may capture changes in the composition of pensioners (e.g. a higher proportion of younger/older pensioners with higher or lower pensions) which may result in (small) changes in pensions appearing in the analysis even if pensions in payment were in fact indexed for inflation.
- In some cases other non-simulated contributory benefits (e.g. to cover sickness, unemployment or maternity) have been assumed to rise in line with earnings in the previous year. This may imply a higher rate of growth than inflation (and appear as an increase in benefit) even if there have been no policy changes to these benefits in the year in question.

For more information on how each country is treated in EUROMOD see the Country Reports.[4]

[3] See Jara Tamayo and Leventi (2014).
[4] https://www.euromod.ac.uk/using-euromod/country-reports

Change in prices 2013-14 and 2014-15

Table A shows the value of the change in HICP for the two periods. It also explains how 2015 values have been calculated, before the end of the year.

Table A: Change in Eurostat's Harmonized Index of Consumer Prices (HICP)

Country	2013-14	2014-15	Notes, sources and methods of projection for 2015
Belgium	1.005	1.001	2015 uses the June Belgian NSI CPI[5]
Bulgaria	0.980	1.020	Projections use the Ministry of Finance April forecast[6]
Czech Republic	1.004	1.003	Projections use the Czech Ministry of Finance forecast[7]
Denmark	1.004	1.004	2015 uses the June Eurostat HICP
Germany	1.010	0.996	2015 uses the German NSI CPI over the first 6 months[8]
Estonia	1.005	1.008	Projections use the spring Ministry of Finance forecast[9]
Ireland	1.004	1.012	Projections use IMF forecasts[10]
Greece	0.986	0.987	2015 uses the Greek NSI average of the first semester
Spain	0.998	0.994	Projections use DG-ECFIN forecasts[11]
France	1.006	1.0003	
Croatia	0.998	0.997	Projections use DG-ECFIN forecasts[12]
Italy	1.003	0.998	2015 uses the average of the first 8 months of Eurostat HICP
Cyprus	0.997	0.998	As for Denmark
Latvia	1.008	1.007	As for Spain
Lithuania	1.007	n/a	
Luxembourg	1.012	n/a	
Hungary	1.0002	n/a	
Malta	1.008	n/a	
The Netherlands	1.003	1.005	As for Denmark
Austria	1.015	1.013	2015 uses the Statistics Austria CPI over the first 9 months[13]
Poland	1.003	0.994	As for Denmark
Portugal	0.998	1.007	Projections use the Dec 2014 forecast of the Central Bank
Romania	1.014	n/a	
Slovak Republic	0.999	1.016	As for Ireland
Slovenia	1.004	n/a	
Finland	1.012	1.002	As for Spain
Sweden	1.002	1.003	As for Ireland
United Kingdom	1.010	1.005	Projections use Office for Budget Responsibility CPI forecast[14]

Notes: n/a indicates that analysis for 2014-15 is not included for the corresponding country.

[5] http://statbel.fgov.be/en/statistics/figures/economy/consumer_price_index
[6] http://www.minfin.bg/document/16172:3
[7] http://www.mfcr.cz/cs/verejny-sektor/prognozy/makroekonomicka-predikce
[8] https://www.destatis.de/EN/FactsFigures/Indicators/ShortTermIndicators/Prices/pre110.html?cms_gtp=148106_list%253D1&https=1
[9] http://www.fin.ee/doc.php?111791
[10] http://www.imf.org/external/pubs/ft/weo/2014/01/weodata/index.aspx
[11] http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm
[12] http://ec.europa.eu/economy_finance/publications/occasional_paper/2015/op218_en.htm
[13] http://www.statistik.at/web_de/statistiken/preise/verbraucherpreisindex_vpi_hvpi/index.html
[14] http://budgetresponsibility.org.uk/economic-fiscal-outlook-march-2015/ Supplementary Economy tables: Table 1.7

Belgium

Table 1 and Figure 1 show the effect of policy changes in 2013-2014 on mean equivalised household disposable income by income component and income decile group, as a percentage of mean equivalised household disposable income in 2013. Each policy system has been applied to the same input data, while monetary parameters of 2014 policies have been deflated by the Consumer Price Index (CPI).

We observe a 0.40% increase in disposable income between 2013 and 2014. The five bottom income deciles enjoyed a higher increase of 0.65% on average, with the largest increase (0.85%) in the second decile. In the top half of the distribution the increase was twice as low. The increases in public pensions (which were higher in lower deciles where pensioners are typically concentrated) have made the largest contribution to the growth in disposable income (0.55% on average). The income growth can also be explained by changes in direct taxes which have been reduced for the two bottom deciles due to the change in the tax credit for low-paid workers - the fiscal working bonus. It is a tax deduction for employees on low wages that are entitled to the social working bonus (i.e. a reduction in social contributions for employees if they satisfy certain income conditions). Starting from 2014 the size of the fiscal working bonus has increased from 5.7% to 8.95%.

Table 2 and Figure 2 show the effect of policy changes in 2014-2015 on mean equivalised household disposable income by income component and income decile group, as a percentage of mean equivalised household disposable income in 2014. Each policy system has been applied to the same input data, while monetary parameters of 2014 policies have been deflated by the Consumer Price Index (CPI).

We can see a different trend in 2014-2015 as compared to the previous year. The total change of the disposable income between 2014 and 2015 is negative (-0.90%). These negative changes are driven by the growth in direct taxes and social insurance contributions. The growth in direct taxes is due to the transfer of fiscal policy concerning housing, to the regions. The regions maintained the structure of the instrument with one important change: the benefit is no longer defined by the marginal tax tariff but by a fixed rate. From 2015 the amounts of the tax are no longer indexed. The growth in social insurance contributions for the self-employed is due to the fact that the income thresholds for annual incomes are not indexed compared to 2014.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	-0.01	0.52	0.17	-0.13	-0.03	-0.06	0.04	0.49
2	-0.02	0.95	-0.03	-0.06	-0.05	-0.01	0.07	0.85
3	-0.02	1.16	-0.03	-0.03	-0.17	-0.02	-0.25	0.65
4	-0.02	0.85	-0.05	-0.02	-0.08	-0.01	-0.06	0.61
5	-0.01	0.66	-0.06	-0.01	-0.07	-0.01	0.00	0.49
6	-0.01	0.47	-0.06	0.00	-0.05	-0.02	0.02	0.36
7	-0.01	0.49	-0.05	0.00	-0.05	-0.01	0.02	0.40
8	-0.01	0.41	-0.04	0.00	-0.04	-0.01	-0.04	0.27
9	-0.01	0.38	-0.03	0.00	-0.03	0.00	-0.06	0.24
10	-0.01	0.28	-0.03	-0.01	-0.02	0.00	0.00	0.21
Total	**-0.01**	**0.55**	**-0.03**	**-0.02**	**-0.05**	**-0.01**	**-0.03**	**0.40**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by the Consumer Price Index (CPI).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %

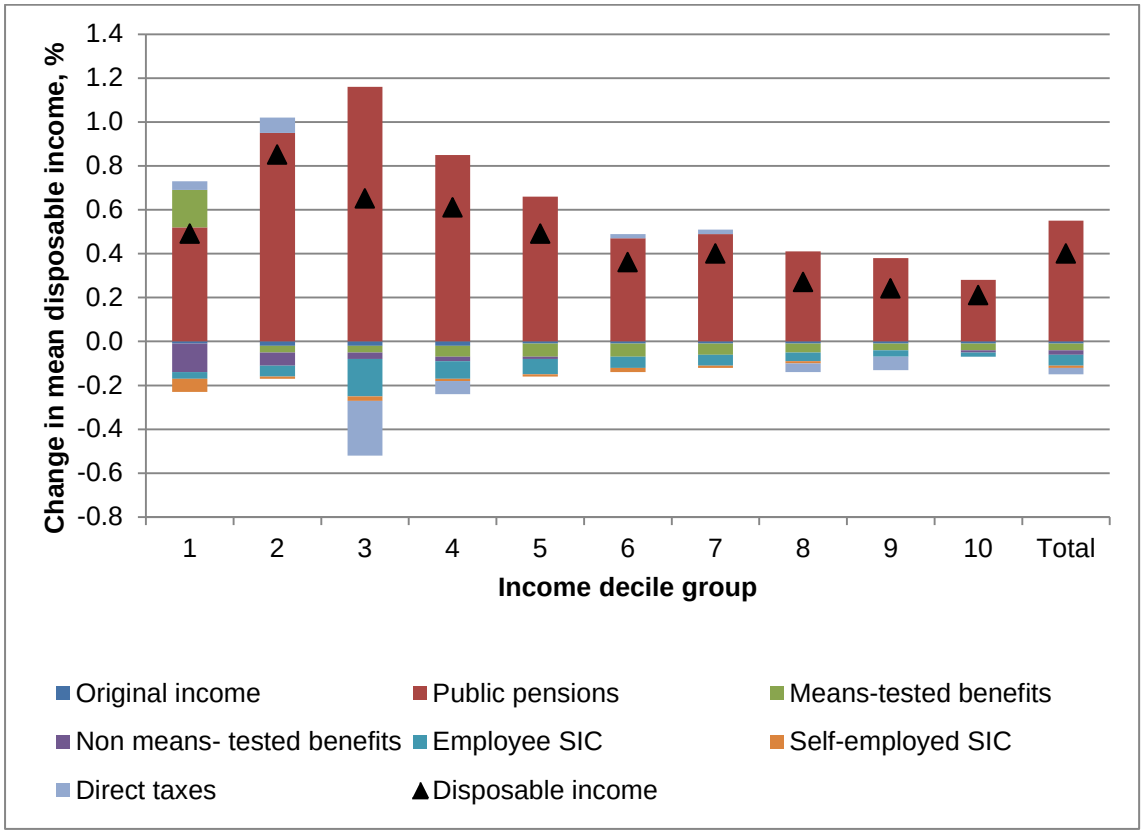
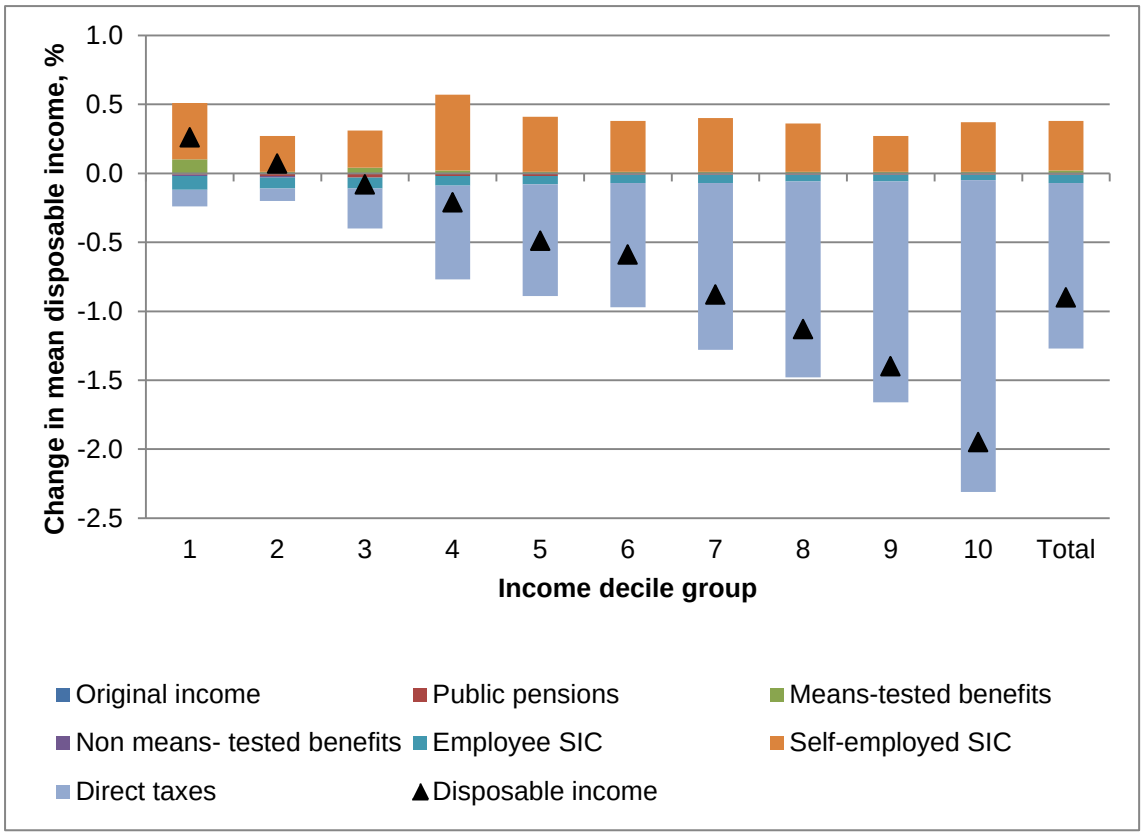


Table 2: Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	-0.01	0.10	-0.01	-0.10	0.41	-0.12	0.26
2	0.00	-0.02	0.01	-0.01	-0.08	0.26	-0.09	0.07
3	0.00	-0.03	0.04	0.00	-0.08	0.27	-0.29	-0.08
4	0.00	-0.02	0.02	0.00	-0.07	0.55	-0.68	-0.21
5	0.00	-0.02	0.01	0.00	-0.06	0.40	-0.81	-0.49
6	0.00	-0.01	0.01	0.00	-0.06	0.37	-0.90	-0.59
7	0.00	-0.01	0.01	0.00	-0.06	0.39	-1.21	-0.88
8	0.00	-0.01	0.01	0.00	-0.05	0.35	-1.42	-1.13
9	0.00	-0.01	0.01	0.00	-0.05	0.26	-1.60	-1.40
10	0.00	-0.01	0.01	0.00	-0.04	0.36	-2.26	-1.95
Total	**0.00**	**-0.01**	**0.02**	**0.00**	**-0.06**	**0.36**	**-1.20**	**-0.90**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by the Consumer Price Index (CPI).

Figure 2: Policy effects in 2014-2015, using the CPI-indexation, %



Bulgaria

In 2013-14, household disposable income increased on average by about 1%. The increase was mostly focused at the bottom of the distribution – households in the bottom 1st and 2nd decile groups saw their incomes increasing by around 3.4% and 2.3%, respectively.

The pro-poor policy effect was mostly driven by increase in means-tested benefits. In real terms the change was more than +2% for the 1st and +0.7 for the 2nd decile group. The increase in household disposable income was mostly a result of the increase in the mean-tested monthly child benefit (from BGN 35 in 2013 to BGN 50 in 2014 for the 2nd child) and the heating allowance (from BGN 65.72 (per month) in 2013 to BGN 72.2 in 2014). However, it should be noted that between 2013 and 2014 there was deflation – prices dropped by about 2 percentage points – and so, the real increase in means-tested benefits was larger than the nominal increase.

Similarly, although public pensions remained nominally the same over the period, they increased in real terms which led to small gains in disposable income (0.5% in the 1st income decile and 0.8% in the 2nd decile).

Changes in non means-tested benefits also had positive but minor effect on household disposable income. This was mainly due to an increase in the cash benefit for bringing up a child up to age of 2 – in the period 1st of January 2013 to 30th of June 2013 the benefit amount was BGN 240, from 1st of July to 31st of December 2013 – BGN 310, and in 2014 – BGN 340 per month.

There is a maximum threshold applied on earnings based on which employee and self-employed SICs are calculated and SICs are not due on the fraction of income beyond that threshold. The threshold was increased from BGN 2,200 in 2013 to BGN 2,400 in 2014, the result of which was a slight income drop in the 9th and 10th decile groups.

Finally, in the beginning of 2014, a tax deduction on incomes from wages and earnings below the minimum wage was introduced and this had a positive and pro-poor income effect – households at the bottom of the distribution saw their incomes rising by about 0.3-0.4%.

Table 2 and Figure 2 show the effect of 2015 policies compared with those in 2014. Households experienced on average a minor real income loss of 0.1%. In contrast to 2013-14, the policy effect in the period 2014-15 was regressive, i.e. the income drop was larger at the bottom of the distribution (0.7% in the 1st decile group) than at the top (0.2% in the 10th decile group).

Public pensions were indexed between 2014 and 2015 and their nominal value increased by about 3 percentage points. However, due to inflation the real increase was somewhat smaller and contributed on average to income gains of 0.2%.

Means-tested and non means-tested benefits fell in the period mostly because of inflation. Their nominal values remained unchanged but their real value deteriorated because of the growth in prices. In addition, as a result of the increase in public pensions the increase in gross household incomes based on which means-tested benefit entitlements are assessed led to reduced access to these benefits.

The maximum threshold on earnings applied in the calculation of employee and self-employed SICs increased further from BGN 2,400 in 2014 to BGN 2,600 in 2015. As a result, households at the top 10th decile group saw their incomes falling by marginal 0.05%.

The tax deduction on incomes from wages and earnings below the minimum wage introduced in 2014 was abolished in 2015 which resulted in small but regressive income losses across almost the entire income distribution.

To sum up, between 2013 and 2015 households saw their incomes increasing due to tax-benefit policies with the positive effect being concentrated at the bottom of the distribution. The income gains were driven by policy changes in 2013-14 whereas policies in 2014-15 resulted in small income losses. Although there are no statutory indexation rules for public pensions, ad-hoc increases usually tend to result in real income gains which as in 2014-15 partially or fully offset income drops due to other tax-benefit instruments. On the other hand, the irregular indexation of means-tested benefits and the regressive nature of the flat income tax suggest that the income gains in 2013-14 due to the policy effect were perhaps rather exceptional.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.47	2.07	0.46	0.00	0.00	0.43	3.44
2	0.00	0.76	0.72	0.43	0.00	0.00	0.41	2.31
3	0.00	0.68	0.45	0.29	0.00	0.00	0.34	1.77
4	0.00	0.51	0.43	0.32	0.00	0.00	0.33	1.59
5	0.00	0.37	0.33	0.35	0.00	0.00	0.28	1.34
6	0.00	0.33	0.17	0.34	0.00	0.00	0.26	1.11
7	0.00	0.29	0.14	0.31	0.00	0.00	0.23	0.97
8	0.00	0.28	0.04	0.32	0.00	0.00	0.22	0.85
9	0.00	0.24	0.03	0.38	-0.01	-0.02	0.18	0.80
10	0.00	0.13	0.01	0.22	-0.16	-0.09	0.17	0.28
Total	**0.00**	**0.32**	**0.22**	**0.32**	**-0.04**	**-0.03**	**0.24**	**1.02**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %

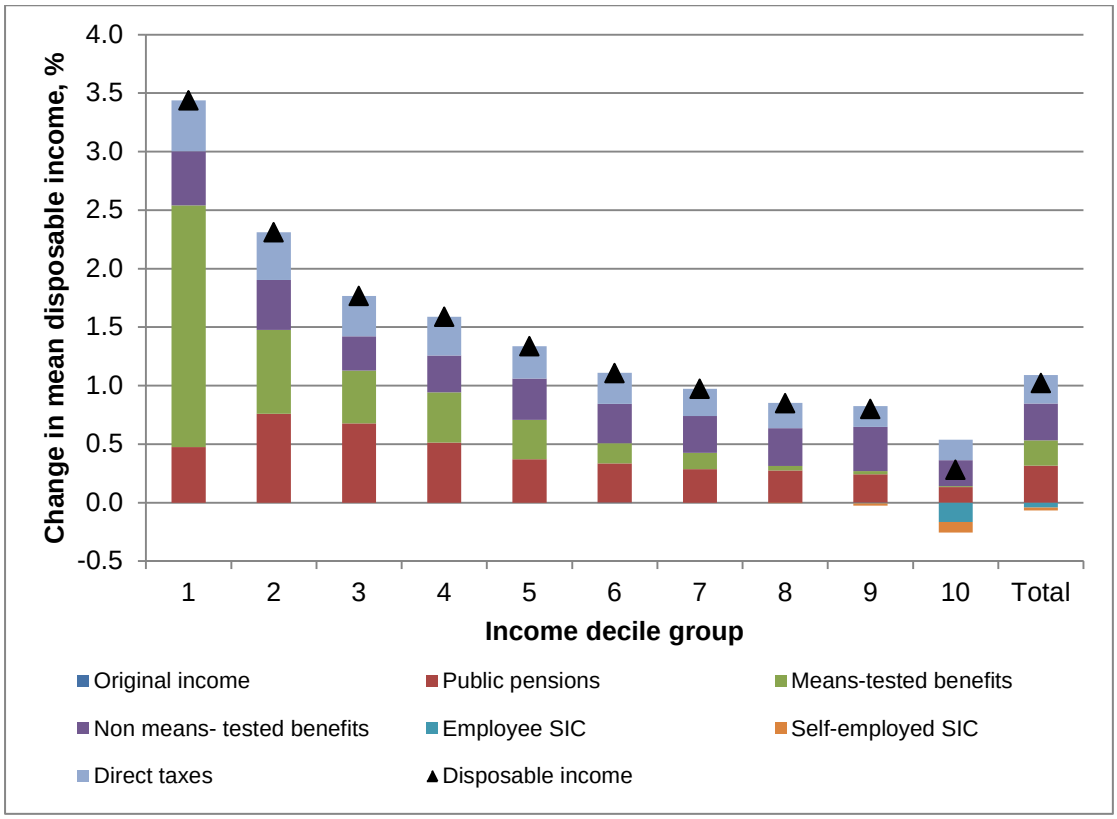
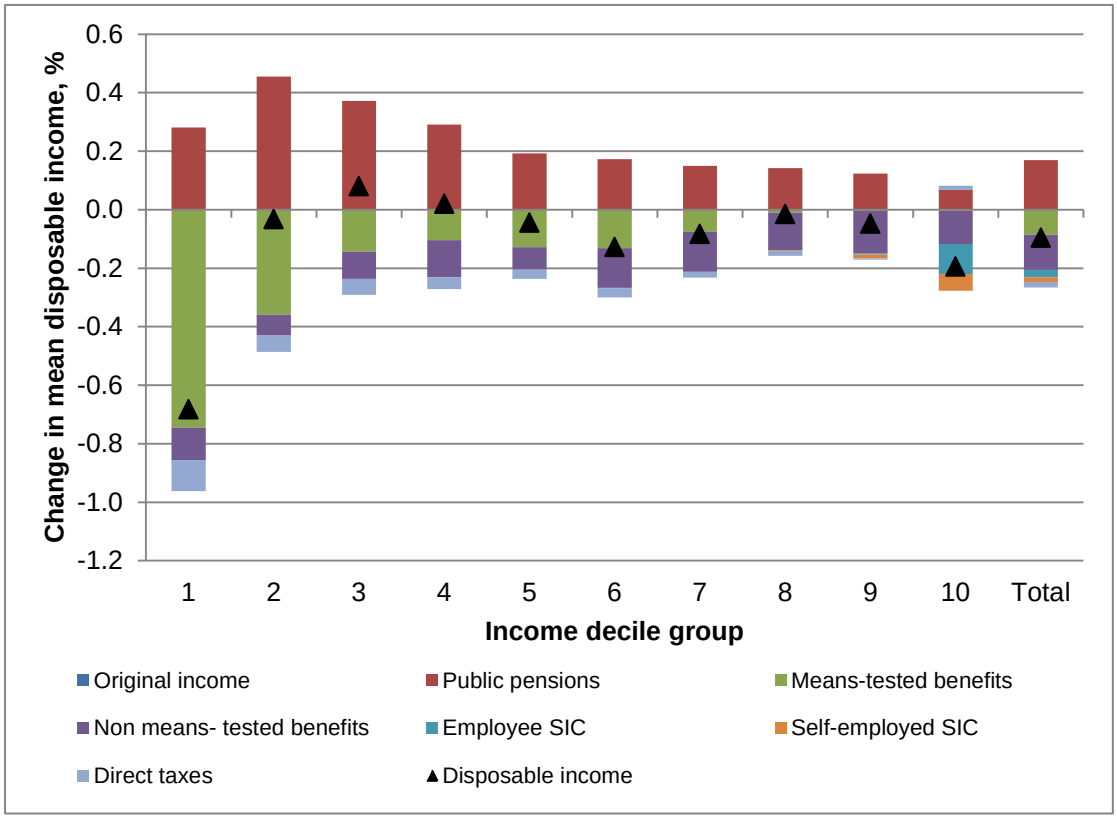


Table 2: Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.28	-0.74	-0.11	0.00	0.00	-0.11	-0.68
2	0.00	0.45	-0.36	-0.07	0.00	0.00	-0.06	-0.03
3	0.00	0.37	-0.14	-0.09	0.00	0.00	-0.05	0.08
4	0.00	0.29	-0.10	-0.13	0.00	0.00	-0.04	0.02
5	0.00	0.19	-0.13	-0.08	0.00	0.00	-0.03	-0.04
6	0.00	0.17	-0.13	-0.14	0.00	0.00	-0.03	-0.13
7	0.00	0.15	-0.08	-0.14	0.00	0.00	-0.02	-0.08
8	0.00	0.14	-0.01	-0.13	0.00	0.00	-0.02	-0.02
9	0.00	0.12	0.00	-0.15	0.00	-0.01	0.00	-0.05
10	0.00	0.07	0.00	-0.11	-0.10	-0.06	0.01	-0.19
Total	**0.00**	**0.17**	**-0.09**	**-0.12**	**-0.03**	**-0.02**	**-0.02**	**-0.10**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2: Policy effects in 2014-2015, using the CPI-indexation, %



Czech Republic

Table 1 and Figure 1 show the effect of policy changes in 2013-2014. As we can see there was an increase in real disposable income between 2013 and 2014 across all income groups. An average Czech household experienced a 0.5% increase in their disposable income. The highest increase is observed for the 8th and 9th income deciles (0.6 and 0.73%, respectively), while the bottom income decile experienced little improvement in terms of their disposable income (a 0.03% increase in disposable income).

Changes in direct taxes have made the largest contribution to this change in disposable income. In particular, in 2014, the new tax credit for placing a child in kindergarten has been introduced. The amount of credit depends on the kindergarten fees paid by parents; the maximum yearly amount of this credit is equal to the monthly minimum wage. Therefore, this tax credit has substantially reduced the tax duty for many families with small children, but especially for those with higher incomes (because low income households are much less likely to place their child in a kindergarten and they often pay zero income tax even without this additional tax credit).

Another factor which influenced the change in disposable income between 2013 and 2014 was an increase in public pensions. A sizable increase is observed for households from the 2nd to the 5th decile where the majority of pensioners are concentrated. On the other hand, disposable income of the lowest income groups has been negatively affected by an increase in the minimum wage, which is not itself included in this analysis, in August 2013. The minimum wage is used to define the minimum base for public health insurance and social insurance. Therefore, an increase in the minimum wage increased minimum contributions to health and social security insurance and thus has had a negative impact on disposable income of the bottom decile.

Table 2 and Figure 2 show the effect of policy changes in 2014-2015 on mean equivalised household disposable income by income component and income decile group, as a percentage of mean equivalised household disposable income in 2014.

Overall, the real disposable income of the population has increased by 0.4% between 2014-2015. In contrast to 2013-2014 trends described above, in 2015 the bottom deciles have gained more than the top ones. The highest growth has been observed for the 2nd-5th deciles (with figures ranging from 0.9 to 0.6%). Disposable income of the bottom decile and 6th decile has grown by 0.5%. Top deciles experienced much lower rates of growth (with just 0.09% for the top decile).

The major factor driving these positive changes was an increase in public pensions which positively affected incomes of the bottom half of income distribution where pensioners are typically concentrated (especially incomes of the 2-5th deciles). Another factor contributing to the significant improvement of the situation of low income households was an increase in means-tested benefits experienced by the three bottom deciles. Most likely this is the result of the introduction of the higher amounts of refundable tax credits for the second and third-parity children. At the same time, an increase in the social insurance contributions base due to the growth in the minimum wage has had a negative effect on disposable incomes of families at the bottom of income distribution.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.00	-0.02	-0.04	-0.10	0.01	0.17	0.03
2	0.00	0.11	0.03	-0.02	-0.03	0.00	0.25	0.34
3	0.00	0.14	0.03	-0.02	-0.02	0.00	0.25	0.38
4	0.00	0.16	0.02	-0.01	-0.02	0.00	0.34	0.48
5	0.00	0.12	0.01	-0.01	-0.02	0.00	0.44	0.53
6	0.00	0.09	0.01	-0.01	-0.02	0.00	0.48	0.54
7	0.00	0.06	0.00	-0.01	-0.02	0.00	0.47	0.49
8	0.00	0.03	0.01	-0.01	-0.01	0.00	0.57	0.60
9	0.00	0.02	0.00	-0.01	-0.01	0.00	0.72	0.73
10	0.00	0.02	0.00	-0.01	0.00	0.00	0.50	0.51
Total	**0.00**	**0.06**	**0.01**	**-0.01**	**-0.02**	**0.00**	**0.47**	**0.51**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %

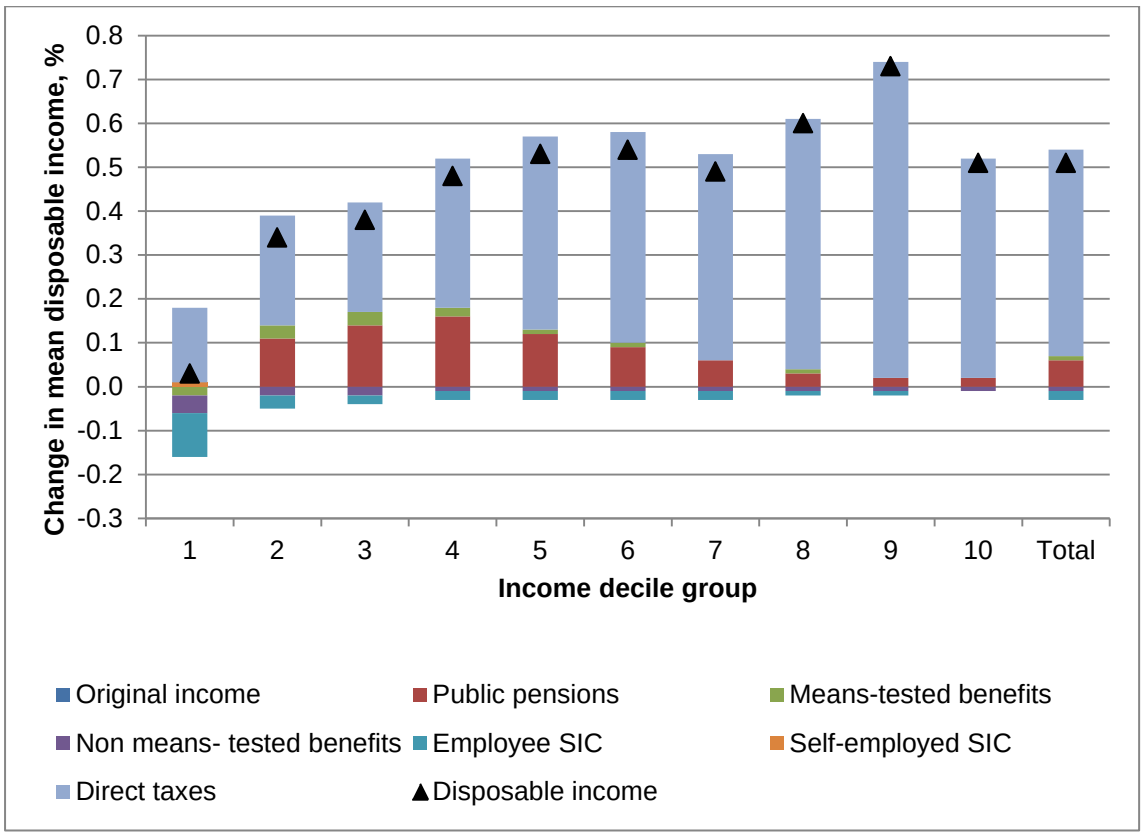
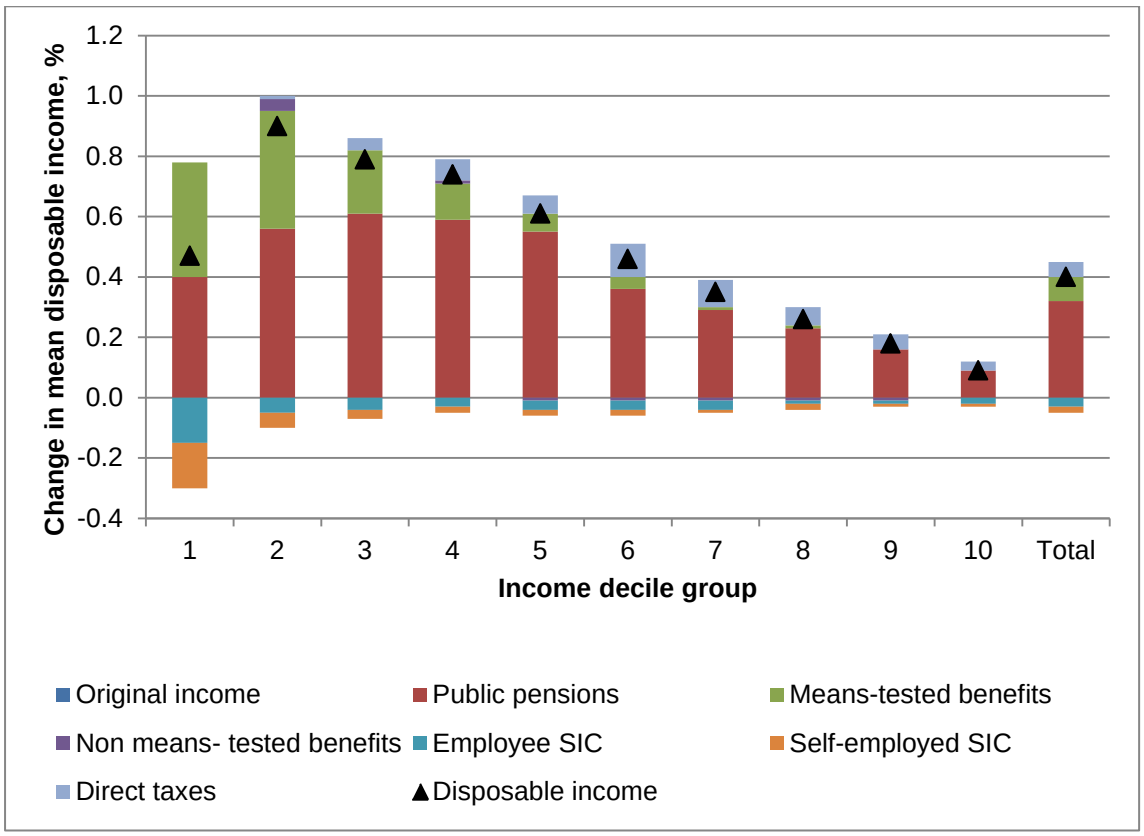


Table 2: Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.40	0.38	0.00	-0.15	-0.15	0.00	0.47
2	0.00	0.56	0.39	0.04	-0.05	-0.05	0.01	0.90
3	0.00	0.61	0.21	0.00	-0.04	-0.03	0.04	0.79
4	0.00	0.59	0.12	0.01	-0.03	-0.02	0.07	0.74
5	0.00	0.55	0.06	-0.01	-0.03	-0.02	0.06	0.61
6	0.00	0.36	0.04	-0.01	-0.03	-0.02	0.11	0.46
7	0.00	0.29	0.01	-0.01	-0.03	-0.01	0.09	0.35
8	0.00	0.23	0.01	-0.01	-0.01	-0.02	0.06	0.26
9	0.00	0.16	0.00	-0.01	-0.01	-0.01	0.05	0.18
10	0.00	0.09	0.00	0.00	-0.02	-0.01	0.03	0.09
Total	**0.00**	**0.32**	**0.08**	**0.00**	**-0.03**	**-0.02**	**0.05**	**0.40**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2: Policy effects in 2014-2015, using the CPI-indexation, %



Denmark

Table 1 and Figure 1 show the effect of 2014 policies on mean equivalised household disposable income by income component and income decile group. In comparison to 2013 policies, (deflated) 2014 policies increase mean household income by 0.7%. The increase is uniform across decile groups of household disposable incomes.

Gains in household disposable income are driven by increases in means tested benefits, while reductions are mainly driven by a reduction in non means tested benefits. The introduction in 2014 of an income test in the child family grant is likely to explain such a pattern, since the benefit was classified as a non means tested until 2013 and as means tested since 2014. As expected, the net effect of the change is progressive.

Table 2 and Figure 2 show the effect of 2015 policies on mean equivalised household disposable income by income component and income decile group. The total effect of is small and close to 0.1%, although the distribution of the change shows a progressive pattern with households at the bottom of the income distribution experiencing a (small) increase in disposable income and households at the top experiencing a (small) reduction.

Analysing changes by income component, it emerge that household at the bottom of the income distribution experienced an 1% increase in income from means tested benefits and a similar reduction due to increases in direct taxes. The findings are likely to be driven by a reform in social assistance implemented in 2015, with the abolition of the rule which would reduce benefit entitlement after 6 months, and by an increase in the tax rate of the bottom bracket income tax.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.27	4.79	-4.08	-0.07	0.00	-0.13	0.79
2	0.00	0.80	2.90	-2.74	-0.03	0.00	0.00	0.92
3	0.00	0.72	2.60	-2.63	-0.05	0.00	0.08	0.72
4	0.00	0.60	2.87	-2.73	-0.06	0.00	0.13	0.81
5	0.00	0.32	3.02	-2.84	-0.07	0.00	0.28	0.72
6	0.00	0.24	2.87	-2.72	-0.08	0.00	0.29	0.61
7	0.00	0.20	2.45	-2.36	-0.08	0.00	0.38	0.58
8	0.00	0.17	1.86	-1.81	-0.07	0.00	0.48	0.62
9	0.00	0.14	1.33	-1.30	-0.07	0.00	0.57	0.66
10	0.00	0.14	0.55	-0.69	-0.05	0.00	0.60	0.55
Total	**0.00**	**0.29**	**2.06**	**-2.00**	**-0.06**	**0.00**	**0.37**	**0.66**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %

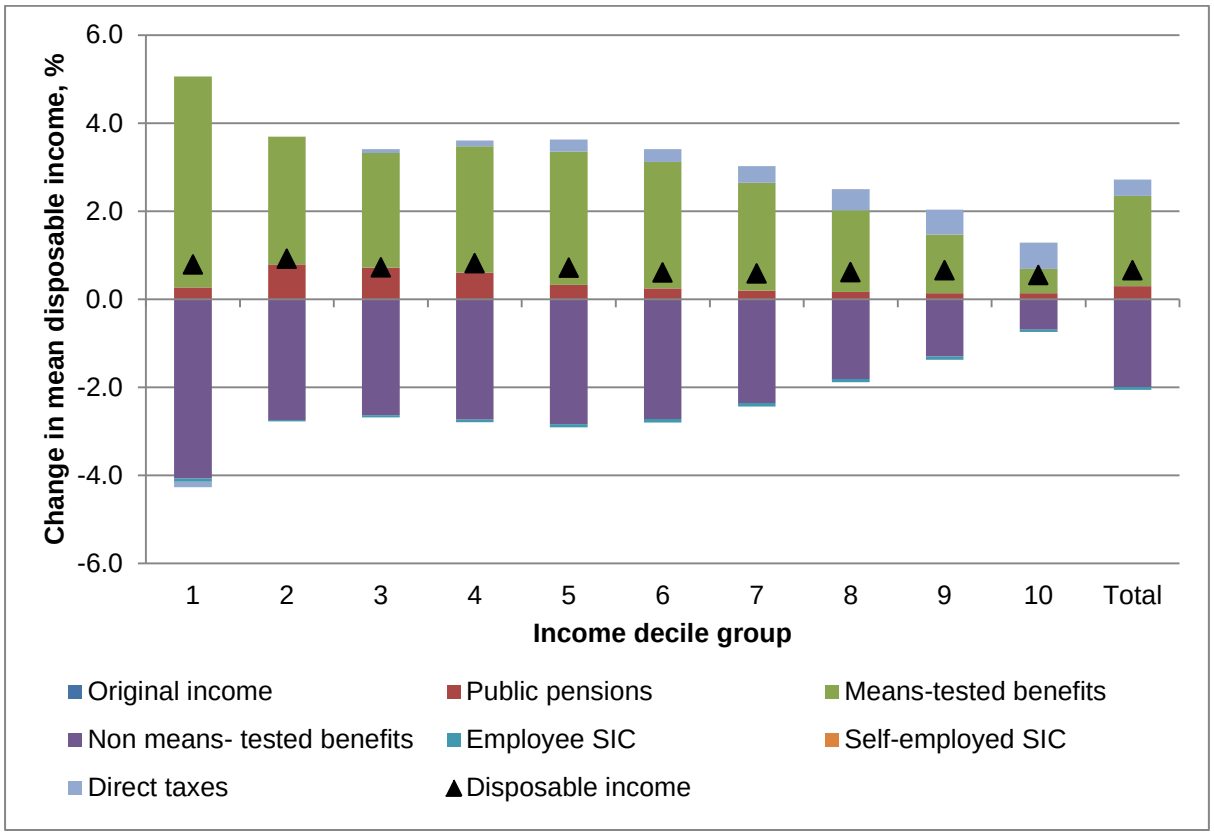
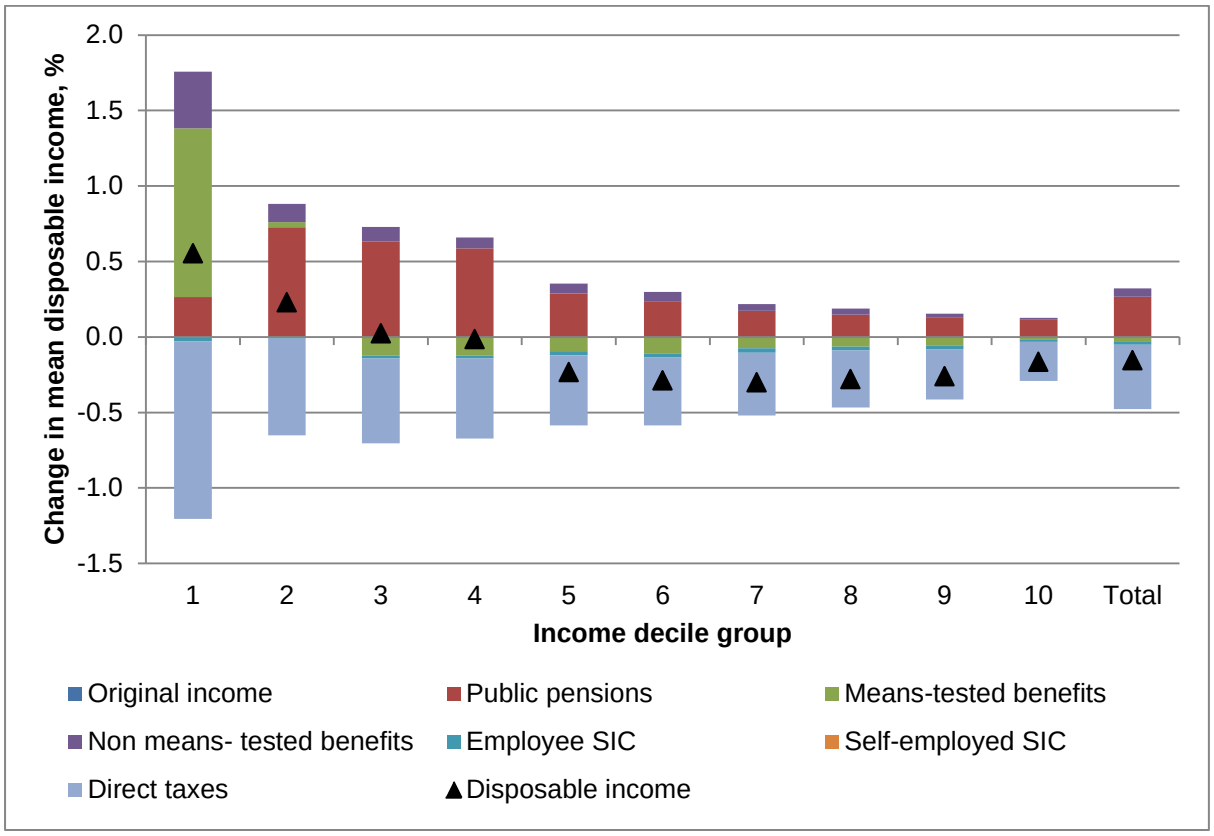


Table 2: Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.26	1.12	0.38	-0.03	0.00	-1.18	0.55
2	0.00	0.73	0.03	0.12	-0.01	0.00	-0.64	0.23
3	0.00	0.63	-0.12	0.10	-0.02	0.00	-0.56	0.02
4	0.00	0.59	-0.12	0.07	-0.02	0.00	-0.53	-0.01
5	0.00	0.29	-0.09	0.07	-0.03	0.00	-0.47	-0.23
6	0.00	0.24	-0.11	0.06	-0.03	0.00	-0.45	-0.29
7	0.00	0.17	-0.08	0.05	-0.03	0.00	-0.41	-0.30
8	0.00	0.15	-0.06	0.04	-0.03	0.00	-0.38	-0.28
9	0.00	0.13	-0.06	0.02	-0.03	0.00	-0.33	-0.26
10	0.00	0.11	-0.02	0.01	-0.02	0.00	-0.26	-0.16
Total	**0.00**	**0.27**	**-0.03**	**0.06**	**-0.02**	**0.00**	**-0.43**	**-0.15**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2: Policy effects in 2014-2015, using the CPI-indexation, %



Germany

In 2013-14 (Table 1 and Figure 1), the policy effect made little difference to household income – on average it increased only by about 0.1%. Even though small in size, the policy effect was pro-poor. Households in the bottom 1st and 2nd income decile groups saw their incomes increasing by 0.5% and 0.4%, respectively. The effect was even smaller for richer decile groups and negative for the richest 10th decile group which saw their incomes falling marginally. The real increase in public pensions resulted in income gains across the entire income distribution.

The income gains in the bottom two decile groups were also due to real increases in means-tested benefits. All basic benefit rates of most main means-tested benefits (unemployment benefits II and social benefits (*ALG II und Sozialgeld*), old-age social assistance (*Grundsicherung im Alter*) and general social assistance (*Sozialhilfe*)), were increased by a rate higher than the growth in prices.

Non-means tested benefits were kept nominally the same between 2013 and 2014 which resulted in real drop in benefit values and small losses in disposable income.

Assessment ceilings for statutory pension insurance and health insurance were raised in 2014, as well the threshold or statutory compulsory health insurance, which led to an overall increase in employee and pensioners SIC, i.e. to the negative effect on the total disposable income. Furthermore, as a result of the real increase in public pensions, SICs liabilities for pensioners increased automatically as well which led to drops in incomes. In terms of income tax changes between 2013 and 2014, these were the following: The tax allowance (tax-exempt income threshold) for elderly persons decreased from 1,292 euros in 2013 to 1,216 euros in 2014 and so did the tax-exemption maximum level of pensions for civil servants (it decreased form 2,040 euros in 2013 to 1,920 euros in 2014). On the other hand, the basic tax free allowance increased from 8,130 to 8,354 euros. The income tax threshold for the top marginal tax rate stayed the same. As a result of these changes (and non-changes) Direct Tax liabilities fell for households in the bottom 5 decile groups which translated in small income gains; however, Direct Tax liabilities increased for households located in the top 4 deciles who saw their incomes falling.

In 2014-15 (Table 2 and Figure 2), households experienced on average a minor real income gain of 0.2%. Similar to 2013-14, the policy effect in the period 2014-15 was also progressive and had very small income-increasing effect: the income gain was larger at the bottom of the distribution (0.9% in the 1st decile group) than at the top (0.1% in the 10th decile group).

The main effect at the bottom two decile groups was driven by a small increase in means-tested benefits: in the basic rate and means-test value for Unemployment benefit II (*Arbeitslosengeld II*), old-age social assistance (*Grundsicherung im Alter und bei Erwerbsminderung*) and basic social assistance (*Sozialhilfe*). Although the values of other benefits such as education benefits (*BaFöG*), or housing benefits (*Wohngeld*) remained nominally the same, the result was a slight income gain in real terms because prices fell between 2014 and 2015.

Non-means-tested benefits such as the child benefit *(Kindergeld)* and the long-term care benefits from statutory insurance *(Pflegegeld)* also increased slightly which led to small income gains for all households.

Between 2014 and 2015, Public pensions fell in nominal terms at the same rate as prices.[15] Thus, in real terms public pension amounts did not change which in turn had no effect on household incomes.

Between 2014 and 2015 the pension insurance contribution rate fell from 9.45% to 9.35%; however, the long-term care insurance contribution rate increased from 1.025% to 1.175%. As a result, the total contribution rate paid by employees increased to 20.475% in 2015 from 20.425% in 2014. Furthermore, the contribution rate for statutory long-term care insurance for pensioners also increased (from 2.05% in 2014 to 2.35% in 2015). Thus, households from all decile groups experienced a minor income loss.

The loss due to increased employees and pensioners SIC was offset by a decrease in income tax liabilities. There was an increase in the level of the basic tax free allowance from 8,354 to 8,472 euros. Furthermore, the tax allowance for children increased from 3,504 to 3,576 euros. All these changes led to an overall decrease in Direct taxes which translated in household income gains.

[15] It should be noted that we model growth in most public pensions by applying the growth in the current pension value ("Rentenwert") (see section 1.1 of the German Country Report). The current pension value is adjusted annually according to the growth rate of gross earnings from dependent employees.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee and pensioners SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.25	0.36	-0.06	-0.03	0.00	0.02	0.54
2	0.00	0.25	0.19	-0.07	-0.03	0.00	0.07	0.41
3	0.00	0.30	0.02	-0.04	-0.03	0.00	0.07	0.30
4	0.00	0.28	0.01	-0.04	-0.03	0.00	0.05	0.26
5	0.00	0.26	0.00	-0.03	-0.03	0.00	0.01	0.21
6	0.00	0.19	0.01	-0.03	-0.02	-0.01	0.00	0.15
7	0.00	0.16	0.00	-0.02	-0.02	0.00	-0.01	0.10
8	0.00	0.13	0.02	-0.02	-0.04	0.00	-0.03	0.07
9	0.00	0.12	0.01	-0.01	-0.03	-0.01	-0.06	0.02
10	0.00	0.11	0.01	0.00	-0.05	0.00	-0.13	-0.06
Total	**0.00**	**0.18**	**0.03**	**-0.02**	**-0.03**	**0.00**	**-0.03**	**0.12**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating tax-benefit monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %

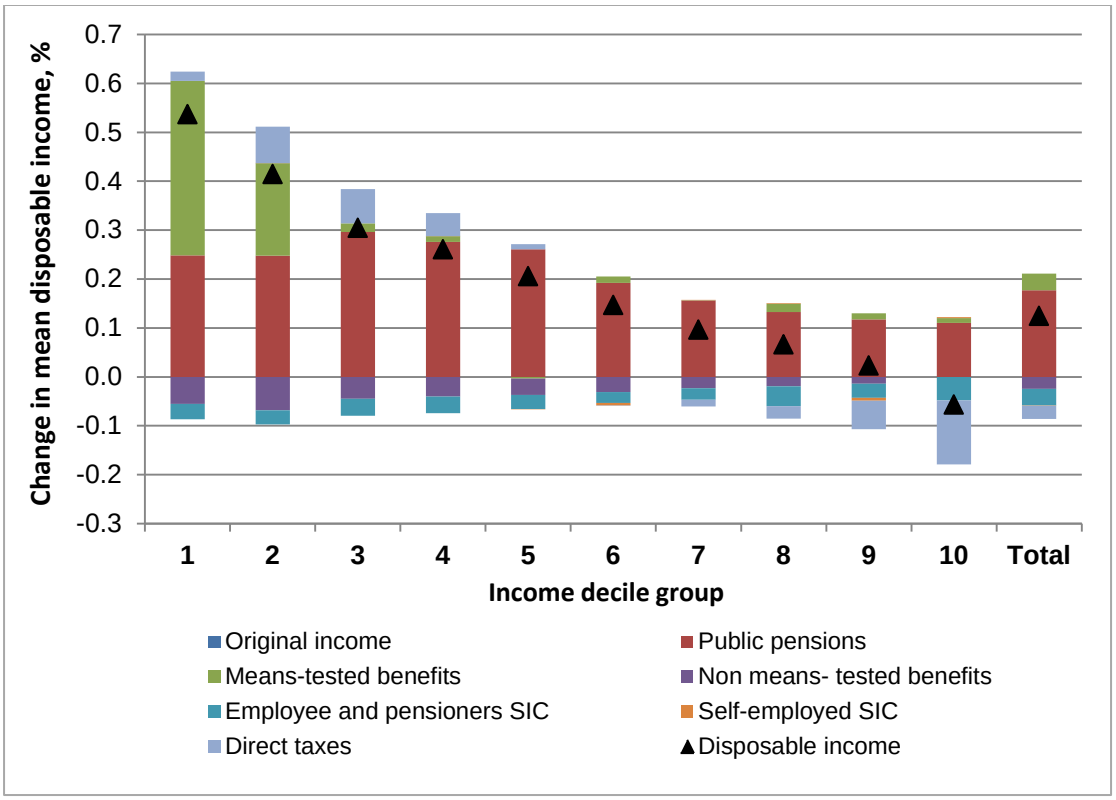
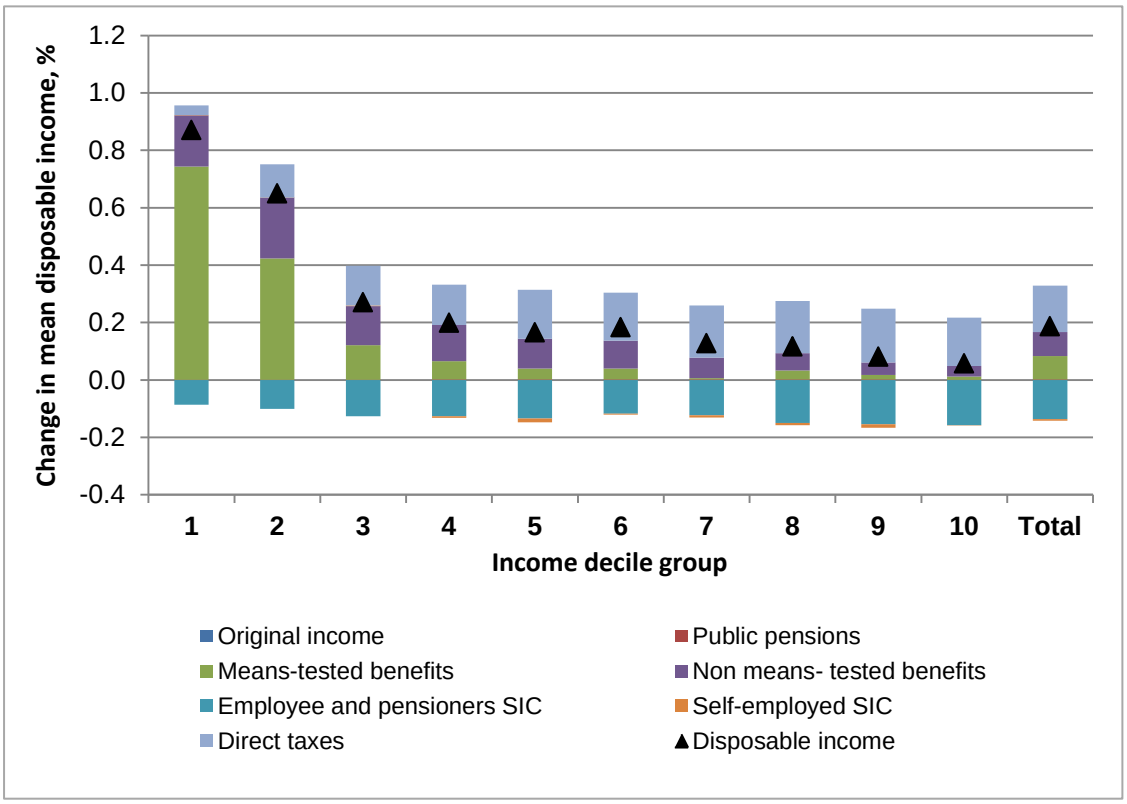


Table 2: Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee and pensioners SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.00	0.74	0.18	-0.09	0.00	0.03	0.87
2	0.00	0.00	0.42	0.21	-0.10	0.00	0.12	0.65
3	0.00	0.00	0.12	0.14	-0.13	0.00	0.14	0.27
4	0.00	0.00	0.06	0.13	-0.13	-0.01	0.14	0.20
5	0.00	0.00	0.04	0.10	-0.13	-0.01	0.17	0.17
6	0.00	0.00	0.04	0.10	-0.12	0.00	0.17	0.18
7	0.00	0.00	0.00	0.07	-0.12	-0.01	0.18	0.13
8	0.00	0.00	0.03	0.06	-0.15	-0.01	0.18	0.12
9	0.00	0.00	0.02	0.04	-0.15	-0.01	0.19	0.08
10	0.00	0.00	0.01	0.04	-0.16	0.00	0.17	0.06
Total	**0.00**	**0.00**	**0.08**	**0.08**	**-0.14**	**-0.01**	**0.16**	**0.19**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating tax-benefit monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2: Policy effects in 2014-2015, using the CPI-indexation, %



Estonia

Table 1 and Figure 1 show how in comparison to 2013 policies, (deflated) 2014 policies increase mean household income by 1.2% in total and the overall pattern is strongly progressive, i.e. lower income groups gain more in relative terms. About two thirds of the total gain is due to increased public pensions which were indexed by 5.8% in 2014 compared to only 0.5% annual inflation rate.[16] The distribution of gains across income groups largely reflects where public pensioners are located in the income distribution (i.e. primarily in the 2nd to 4th decile group). The second largest contributor in overall terms was the parental benefit, reflecting growth in (average) earnings, with larger relative gains for higher income groups. Increased taxable (maternity) benefits in turn explain higher income tax payments.

There are notable gains from means-tested benefits for the first decile group (4.5%) due to an above-inflation increase in the base amount of the social assistance benefit (*toimetulekutoetus*) (from €76.7 to €90) and an introduction of a means-tested family benefit (*vajaduspõhine peretoetus*).[17] The first benefit contributes 3.1% and the second 1.4% of the income increase for the bottom decile group. Finally, there is a small income-decreasing effect from social insurance contributions, related to a temporary increase in funded pension contribution rates (from 2% to 3%), on a voluntary basis.

Table 2 and Figure 2 show that the total effect of (deflated) 2015 policies on mean income is 3.8%, also markedly progressive. There is again a sizeable effect from indexing public pensions (by 6.3%) above the expected inflation rate (0.8%). The largest effect is from the child allowance, which was substantially raised (from €19.18 to €45 per first and second child in a family). The means-tested family benefit was even increased almost by 5 times (from €9.59 to €45), as such representing a notable gain for the bottom decile group. There is also an income gain of comparable magnitude from a reduction of the income tax rate by 1 percentage point and a small gain from a lower employee unemployment SIC rate (from 2% to 1.6%).

[16] The indexation of public pensions is largely based on the change in total pension social insurance contributions paid in the previous calendar year.

[17] The means-tested family benefit was introduced on the 1st of July 2013. As EUROMOD reflects policies as of 30th June, it is not part of 2013 baseline simulations.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	1.94	4.55	0.65	-0.03	-0.24	-0.05	6.82
2	0.00	2.88	0.31	0.51	-0.03	-0.04	-0.10	3.54
3	0.00	2.59	0.00	0.48	-0.07	-0.02	-0.10	2.89
4	0.00	2.34	0.00	0.45	-0.05	-0.02	-0.12	2.60
5	0.00	1.27	0.00	0.43	-0.11	-0.02	-0.10	1.48
6	0.00	0.84	0.00	0.33	-0.10	-0.01	-0.08	0.98
7	0.00	0.65	0.00	0.48	-0.12	0.00	-0.10	0.90
8	0.00	0.43	0.00	0.33	-0.14	-0.01	-0.07	0.54
9	0.00	0.33	0.00	0.47	-0.14	-0.01	-0.09	0.56
10	0.00	0.14	0.00	0.54	-0.20	0.00	-0.09	0.39
Total	**0.00**	**0.88**	**0.15**	**0.46**	**-0.13**	**-0.02**	**-0.09**	**1.26**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %

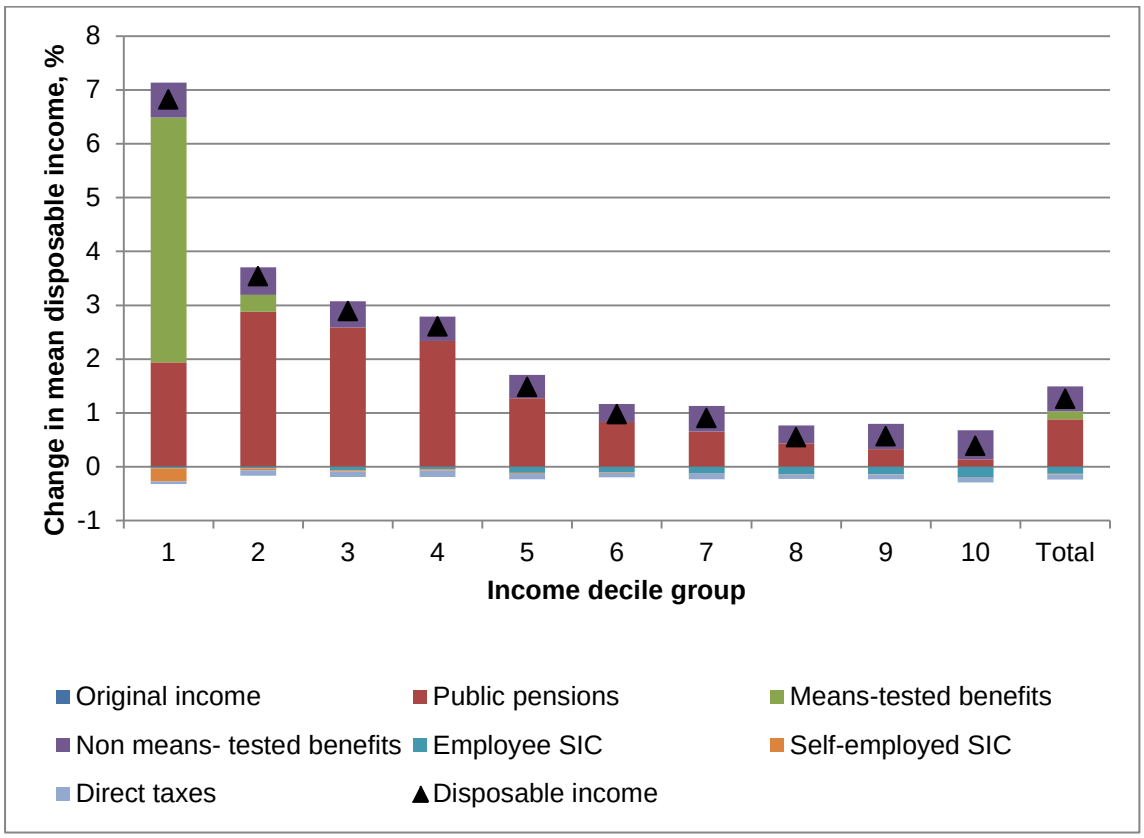
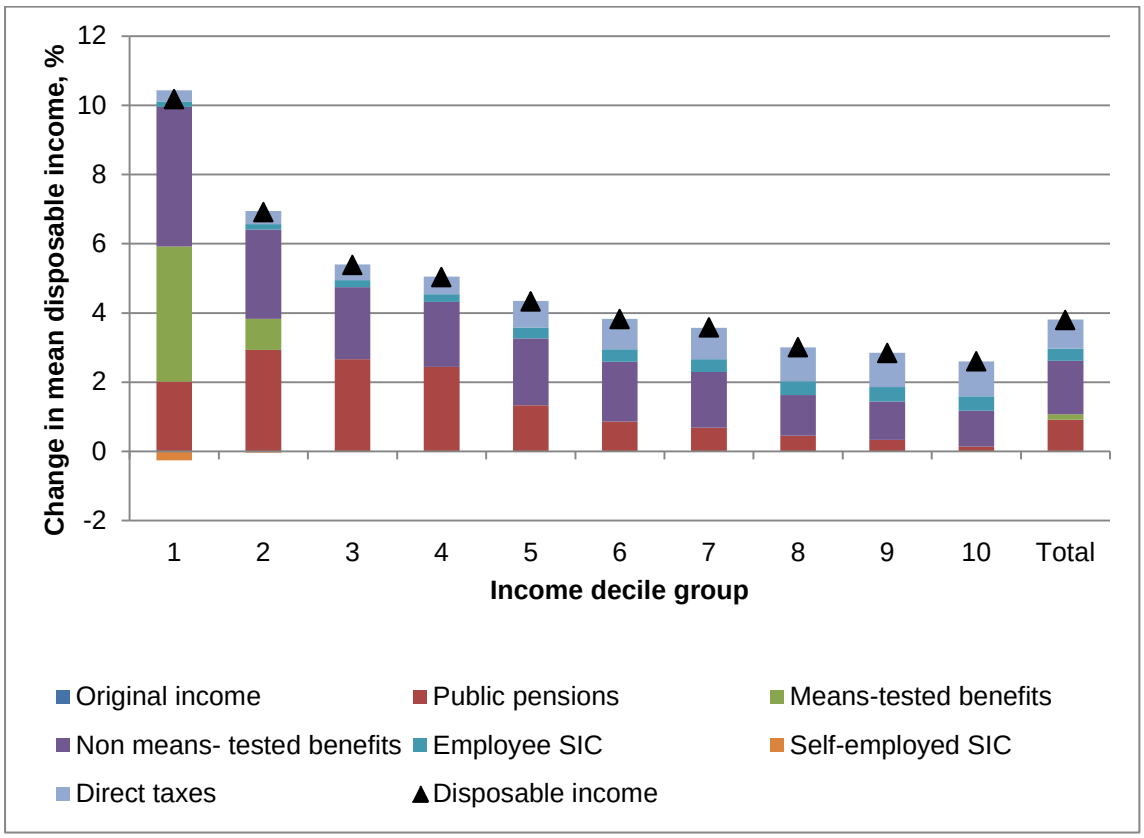


Table 2: Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	2.01	3.91	4.03	0.16	-0.26	0.32	10.17
2	0.00	2.93	0.90	2.58	0.16	-0.04	0.38	6.91
3	0.00	2.67	0.00	2.08	0.20	-0.02	0.45	5.38
4	0.00	2.45	0.00	1.88	0.22	-0.02	0.51	5.03
5	0.00	1.33	0.00	1.94	0.32	-0.02	0.76	4.33
6	0.00	0.86	0.00	1.73	0.36	-0.01	0.88	3.81
7	0.00	0.68	0.00	1.61	0.37	0.00	0.91	3.57
8	0.00	0.46	0.00	1.17	0.40	-0.01	0.98	3.00
9	0.00	0.34	0.00	1.11	0.41	-0.01	0.99	2.84
10	0.00	0.14	0.00	1.03	0.42	0.00	1.01	2.60
Total	**0.00**	**0.91**	**0.16**	**1.54**	**0.35**	**-0.02**	**0.84**	**3.79**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2: Policy effects in 2014-2015, using the CPI-indexation, %



Ireland

Table 1 and Figure 1 show the effect of policy changes in 2013-2014 and we observe that these accounted for a decrease in household disposable income of 1.25 percentage points on average. The largest decrease affected the bottom decile of the income distribution, with a decrease of 2.40 percentage points.

The effect of policy changes on household disposable income have been mainly driven by changes in direct taxes. Increases in direct taxes have accounted for a decrease in average equivalised household disposable income of 1.10 percentage points. The changes affected the most the first income decile group with a decrease of 2.17 percentage points. The effect is driven by the increase in rates of the property tax. The rate for the lower band was increased from 0.0009 to 0.0018, while the rate for the upper band was increased from 0.00125 to 0.0025.

Changes in means-tested benefits account for a decrease in average equivalised household disposable income of 0.09 percentage points. The changes affected mostly the lower part of the income distribution. The effect might be related to the decrease of the income disregard (from 110 to 90 euros per week) for means-testing of the one parent family payment.

Table 2 and Figure 2 show the effect of policy changes in 2014-2015 as a percentage of mean equivalised household disposable income in 2014. For the period 2014-2015, we observe the following:

Changes in tax-benefit policies between 2014 and 2015 have had a very small effect household disposable income on average. Household disposable income has decreased 0.02 percentage points on average, with the largest decrease observed at the bottom of the income distribution.

Decreases in direct taxes have accounted for an increase in average equivalised household disposable income of 0.39 percentage points. The changes benefited the most the upper part of the income distribution. The effect might be driven by the change in the tax schedule of the universal social charge (USC). The threshold for income exempted from USC was increased from 10,036 to 12,012 euros per year. Additionally, the rates for the first two bands were reduced from 2% to 1.5% and from 4% to 3.5%, respectively. Moreover, an additional band was added for income subject to USC above 70,044 euros per year, at a rate of 8%. There were also changes to the personal income tax, for which the tax bands were increased.

Changes in means-tested benefits account for a decrease in average equivalised household disposable income of 0.22 percentage points. The changes affected mostly the lower part of the income distribution. The effect might be related to the decrease of the income disregard (from 90 to 75 euros per week) for means-testing of the one parent family payment but also to the fact that means-tested benefit amounts have been kept unchanged (no indexation), compared to growth in CPI.

Changes in non means-tested benefits and pensions accounted for a very small decrease in average equivalised household disposable income of 0.11 and 0.08 percentage points, respectively. The changes reflect the fact that pensions and non means-tested benefit amounts have been kept unchanged (no indexation), compared to growth in CPI. The distribution of losses across income deciles reflects where recipients of non means-tested benefits and pensions are located.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	-0.01	-0.16	-0.07	0.00	0.00	-2.17	-2.40
2	0.00	-0.01	-0.28	-0.05	-0.03	0.00	-1.39	-1.77
3	0.00	-0.03	-0.26	-0.05	-0.01	0.00	-1.23	-1.58
4	0.00	-0.02	-0.26	-0.05	0.00	0.00	-1.13	-1.45
5	0.00	-0.03	-0.26	-0.04	0.00	0.00	-1.30	-1.63
6	0.00	-0.04	-0.05	-0.04	-0.01	0.00	-1.23	-1.36
7	0.00	-0.03	-0.05	-0.02	0.00	0.00	-1.09	-1.21
8	0.00	-0.03	-0.01	-0.03	-0.01	0.00	-1.07	-1.16
9	0.00	-0.02	0.00	-0.02	0.00	0.00	-1.00	-1.05
10	0.00	-0.01	0.00	-0.01	0.00	0.00	-0.75	-0.77
Total	**0.00**	-0.02	-0.09	-0.03	-0.01	0.00	-1.10	-1.25

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %

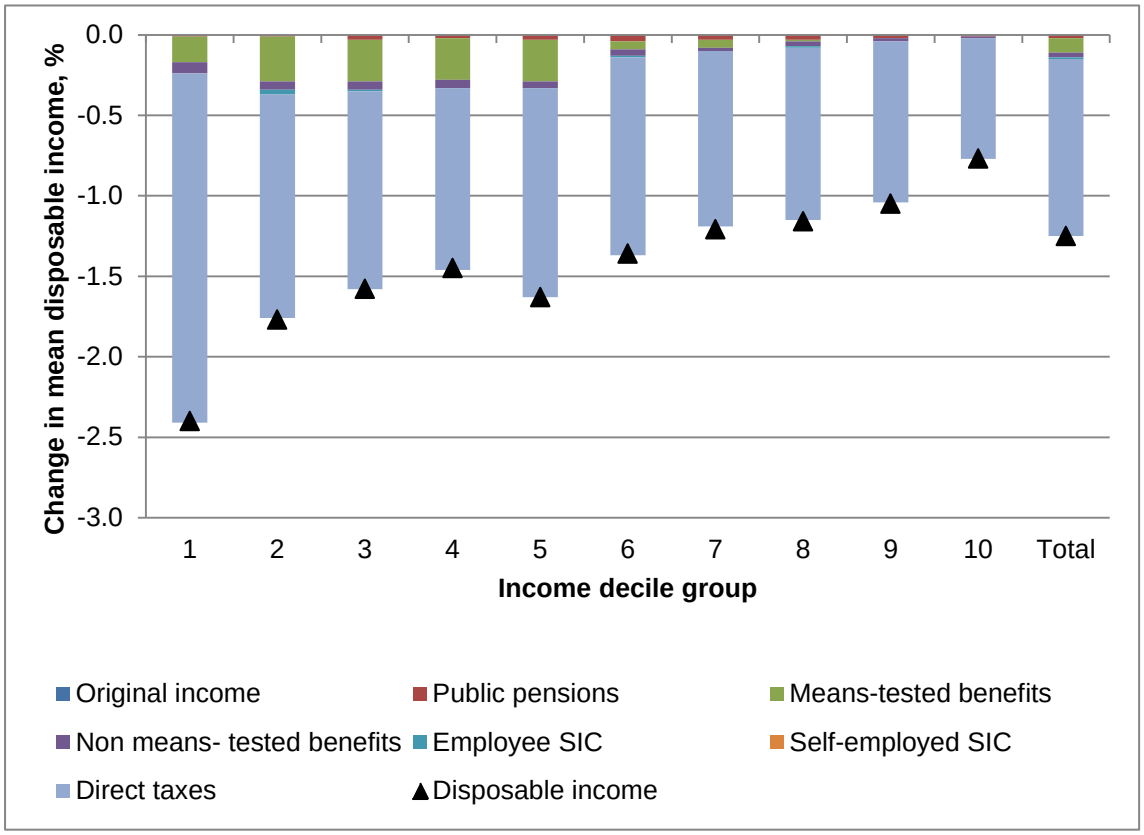
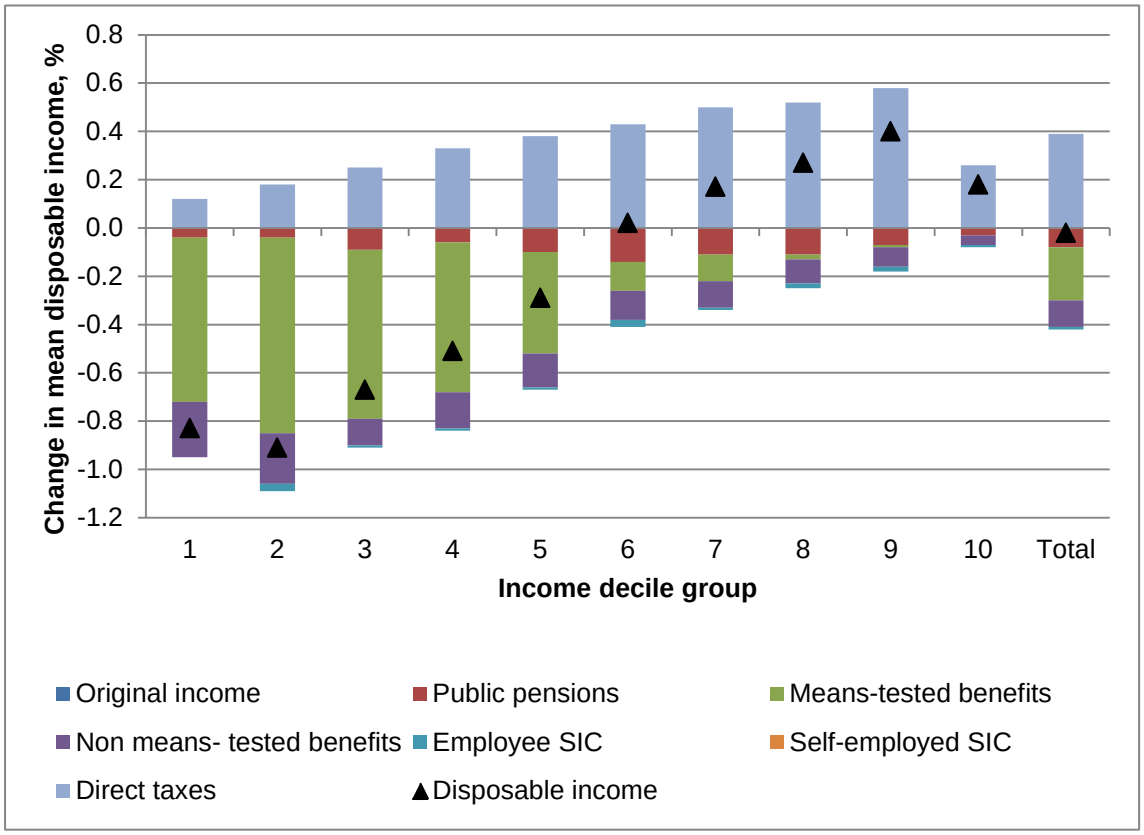


Table 2: Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	-0.04	-0.68	-0.23	0.00	0.00	0.12	-0.83
2	0.00	-0.04	-0.81	-0.21	-0.03	0.00	0.18	-0.91
3	0.00	-0.09	-0.70	-0.11	-0.01	0.00	0.25	-0.67
4	0.00	-0.06	-0.62	-0.15	-0.01	0.00	0.33	-0.51
5	0.00	-0.10	-0.42	-0.14	-0.01	0.00	0.38	-0.29
6	0.00	-0.14	-0.12	-0.12	-0.03	0.00	0.43	0.02
7	0.00	-0.11	-0.11	-0.11	-0.01	0.00	0.50	0.17
8	0.00	-0.11	-0.02	-0.10	-0.02	0.00	0.52	0.27
9	0.00	-0.07	-0.01	-0.08	-0.02	0.00	0.58	0.40
10	0.00	-0.03	0.00	-0.04	-0.01	0.00	0.26	0.18
Total	**0.00**	**-0.08**	**-0.22**	**-0.11**	**-0.01**	**0.00**	**0.39**	**-0.02**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2: Policy effects in 2014-2015, using the CPI-indexation, %



Greece

Table 1 and Figure 1 show the policy effects in 2013-14. The 1.2% increase in household disposable income was mainly driven by increases in means-tested benefits (and hence increases in the disposable income of lower income deciles). On the one hand, 2014 was the year the social dividend was disbursed to those mostly in need, while unemployment assistance could now be claimed from a wider age group (20-66 from 45-65 year olds). Employees' social insurance contributions also had a positive influence due to the abolition of contributions for family benefits in 2014. Taxes, on the other hand, had a slightly negative impact on household disposable income mainly due to the less favourable treatment of benefit recipients;[18] the effect of the new property tax appears mixed, but on average is slightly positive. Finally, note that increases in household disposable income driven by pensions and non means-tested benefits are solely due to deflation. The same applies for the social insurance contributions of the self-employed.

Table 2 and Figure 2 show the effect of policy changes in 2014-2015 on mean equivalised household disposable income by income component and income decile group as a percentage of mean equivalised household disposable income in 2014. Again, each policy system has been applied to the same input data, deflating monetary parameters of 2015 policies by Eurostat's HICP.

Policy effects in 2014-15 appear to move in the opposite direction, marking a 0.36% decrease in household disposable income. The fall in household disposable income is in part driven by a fall in means-tested benefits, as the social dividend distributed in 2014 was discontinued in 2015. Note, however, that the analysis does not take into account the near-cash transfers to the poorest households that were introduced by the March 2015 bill on humanitarian aid (rent subsidies, food vouchers and free provision of electricity). Employees' social insurance contributions also had a negative impact due to increases in the SIC paid by pensioners for sickness insurance. The negative impact of self-employed SIC is due to falling consumer prices. Deflation also explains pension increases. Finally, direct taxes had a positive impact on disposable income of most households due to the more favourable taxation of farmers' income and the abolition of the additional tax on rental income.

[18] The taxable income threshold above which certain benefits are taxed fell from €30,000 to €10,000 per year.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.30	11.61	0.06	0.10	-0.39	-0.50	11.19
2	0.00	0.46	5.28	0.08	0.14	-0.12	0.36	6.20
3	0.00	0.56	2.23	0.04	0.17	-0.10	0.17	3.06
4	0.00	0.57	0.47	0.04	0.16	-0.08	-0.04	1.11
5	0.00	0.61	0.21	0.03	0.16	-0.06	-0.22	0.74
6	0.00	0.55	0.00	0.03	0.19	-0.07	-0.12	0.58
7	0.00	0.60	-0.13	0.01	0.19	-0.06	-0.33	0.28
8	0.00	0.45	-0.07	0.02	0.20	-0.06	-0.24	0.31
9	0.00	0.49	0.05	0.01	0.20	-0.03	0.05	0.77
10	0.00	0.37	0.03	0.00	0.13	-0.05	0.17	0.66
Total	**0.00**	**0.49**	**0.62**	**0.02**	**0.17**	**-0.06**	**-0.03**	**1.20**

Notes: SIC also include pensioners. Shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1 Policy effects in 2013-2014, using the CPI-indexation, %

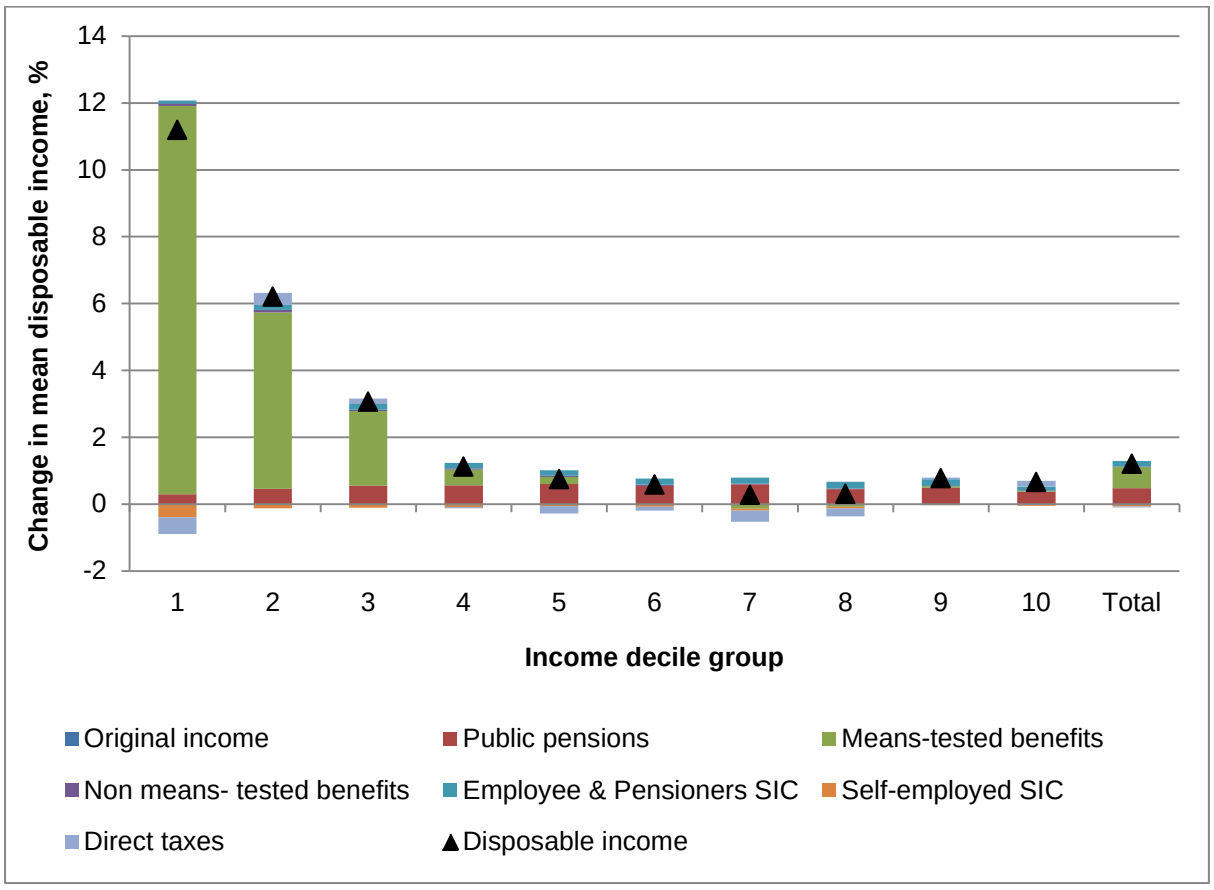
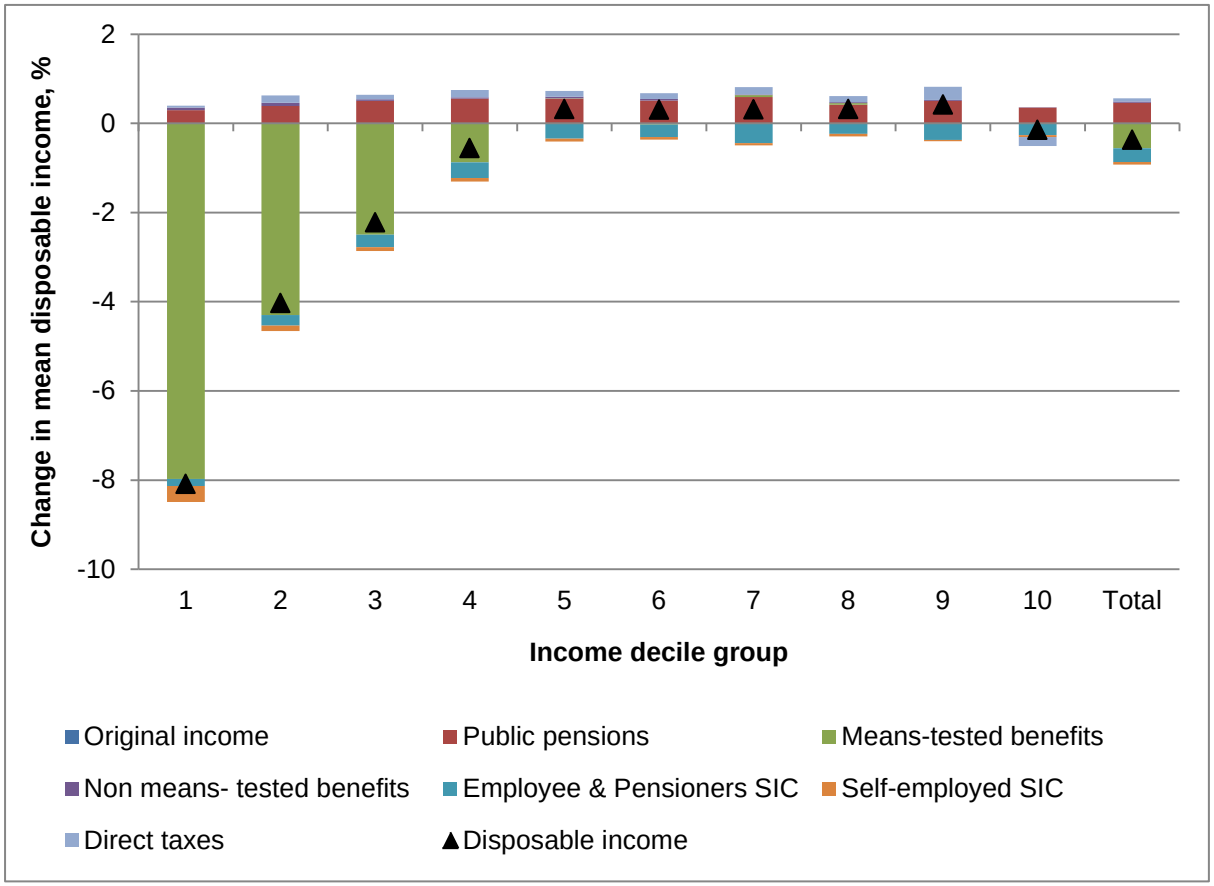


Table 2: Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.29	-7.98	0.06	-0.16	-0.36	0.05	-8.09
2	0.00	0.39	-4.30	0.08	-0.24	-0.12	0.16	-4.03
3	0.00	0.50	-2.50	0.04	-0.28	-0.09	0.10	-2.22
4	0.00	0.55	-0.88	0.03	-0.35	-0.08	0.17	-0.56
5	0.00	0.56	0.01	0.04	-0.34	-0.06	0.13	0.32
6	0.00	0.51	-0.02	0.03	-0.28	-0.06	0.13	0.31
7	0.00	0.59	0.04	0.02	-0.44	-0.06	0.16	0.32
8	0.00	0.42	0.03	0.03	-0.24	-0.05	0.13	0.32
9	0.00	0.51	0.00	0.02	-0.37	-0.03	0.30	0.42
10	0.00	0.35	0.00	0.01	-0.26	-0.04	-0.20	-0.15
Total	**0.00**	**0.46**	**-0.56**	**0.02**	**-0.31**	**-0.06**	**0.08**	**-0.36**

Notes: Employees SIC also include pensioners. Shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2: Policy effects in 2014-2015, using the CPI-indexation, %



Spain

Table 1 and Figure 1 show the effect of policy changes in 2013-2014. The effects of changes in benefits, social contributions and direct taxes from 2013 to 2014 have been very limited. In percentage terms disposable income decreased by 0.13% in the first decile and by 0.10% in the tenth and increased in the others by less than 0.16%.

Looking at the impact of different policies, the changes in social insurance contributions for self-employed (increase in the minimum social contribution base) are the most important, causing a decrease in all deciles, the effect being larger in the first one, 0.24%.

In contrast, public pensions produced a rise of income in every decile, the indexation of public pensions was on average 0.25%; the increase of disposable income is between 0.06% and 0.13%. The changes in means-tested and non means-tested benefits also contributed to the growth of disposable income all over the distribution, but the effects are minor.

The impact of direct taxes depends on the decile, but the effect is very small, and could be due to changes and elimination of some regional tax credits.

Table 2 and Figure 2 show the policy effects on the disposable income of changes in policies from 2014 to 2015. The largest effect on disposable income is due to the changes in direct taxes (in particular, changes in Personal Income Tax, PIT).There was an extensive PIT reform in 2015 concerning mainly the decrease of national tax rates, the elevation of the personal and family non-taxable minimum and the change of work related income allowances. The reform affects the disposable income increasing it in all the deciles. The effect is stronger in the upper part of the income distribution (1.58% increase in the 10th decile and only 0.01% in the 1st decile).

Another effect that is worth to highlight is the effect of non means-tested benefits. There are two new benefits managed by the Personal Income Tax as refundable tax credits[19]: tax credit for large families and for lone parents with two or more children. These payments in combination with changes in other non means-tested benefits have produced the increase of disposable income in all deciles. In general the effect in percentage terms is more noticeable in lower deciles: 1.78% in the first decile.

The influence of other policies on disposable income has been weaker. Means-tested benefits have increased disposable income: the percentage increase is higher for lower deciles (0.4% in the bottom and 0.01% in the top decile). The rise of disposable income caused by public pensions is small in all the deciles. On the contrary, the changes in social insurance contributions decreased disposable income, but very slightly.

The combination of all the changes brings out the growth of disposable income across all the income distribution. The effect ranges from 1.21% in the 3rd decile to 2.09% in the 1st decile. The 1st decile benefits the most because of generous refundable tax credits. The effect of the tax credits decreases for subsequent deciles, but as earnings increase, the effect of tax reduction becomes stronger, not least because reduction in taxes was more generous in higher income brackets.

[19] These refundable tax credits are similar to benefits by nature, so in this analysis EUROMOD classifies them as such.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.06	0.04	0.01	0.00	-0.24	0.00	-0.13
2	0.00	0.08	0.05	0.01	0.00	-0.08	0.00	0.06
3	0.00	0.13	0.06	0.01	0.00	-0.03	-0.01	0.16
4	0.00	0.11	0.05	0.01	0.00	-0.04	-0.01	0.12
5	0.00	0.12	0.02	0.01	0.00	-0.03	0.03	0.15
6	0.00	0.11	0.01	0.01	0.00	-0.03	0.00	0.10
7	0.00	0.11	0.01	0.01	0.00	-0.02	0.02	0.12
8	0.00	0.10	0.01	0.00	-0.01	-0.02	0.04	0.13
9	0.00	0.09	0.00	0.00	-0.01	-0.02	-0.01	0.05
10	0.00	0.07	0.00	0.00	-0.05	-0.03	-0.10	-0.10
Total	**0.00**	**0.10**	**0.02**	**0.01**	**-0.01**	**-0.03**	**-0.01**	**0.06**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure1: Policy effects in 2013-2014, using the CPI-indexation, %

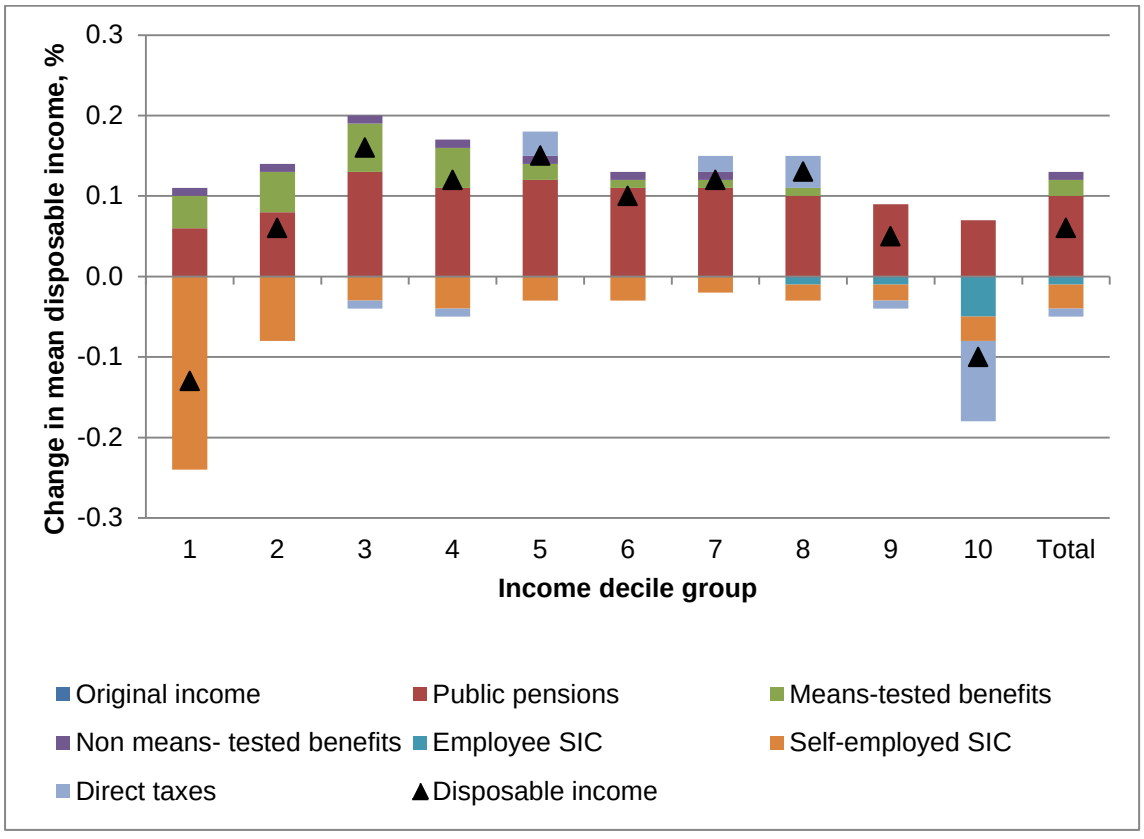
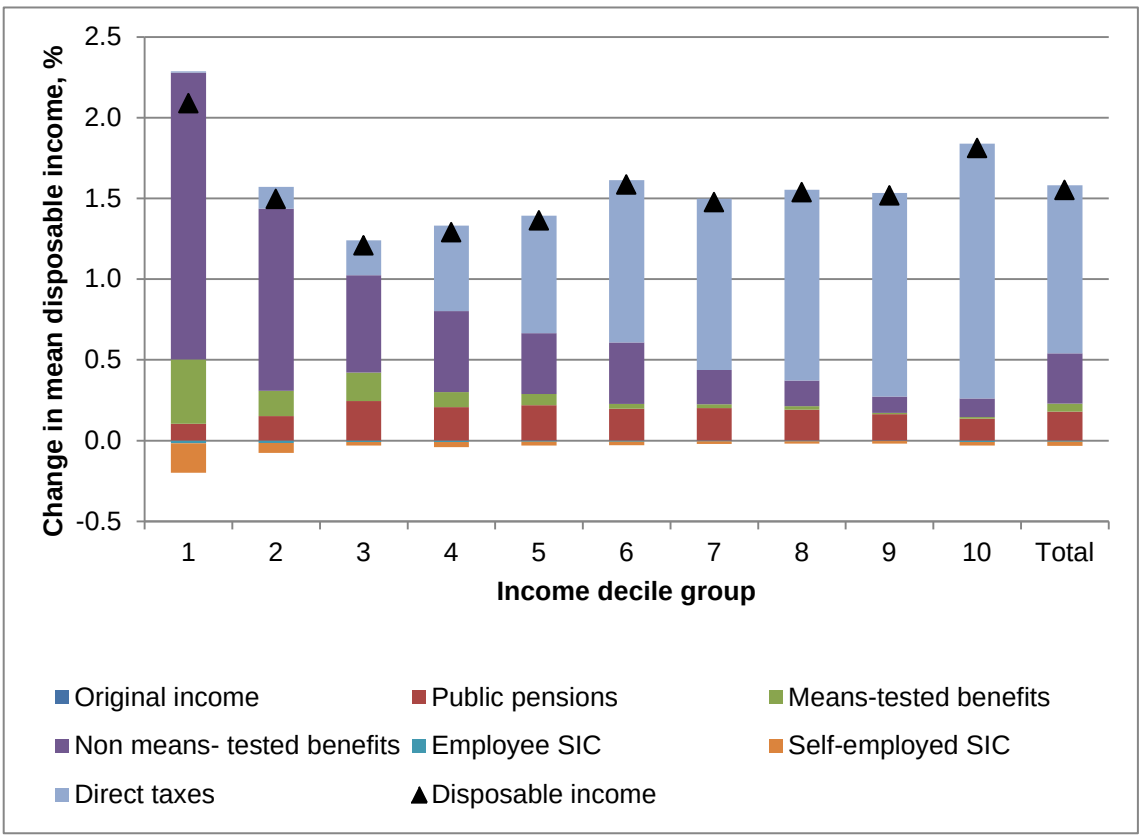


Table 2: Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.11	0.40	1.78	-0.02	-0.18	0.01	2.09
2	0.00	0.15	0.16	1.13	-0.02	-0.06	0.14	1.50
3	0.00	0.24	0.18	0.60	-0.01	-0.02	0.22	1.21
4	0.00	0.21	0.09	0.50	-0.01	-0.03	0.53	1.29
5	0.00	0.22	0.07	0.38	-0.01	-0.02	0.73	1.36
6	0.00	0.20	0.03	0.38	-0.01	-0.02	1.00	1.59
7	0.00	0.20	0.02	0.21	-0.01	-0.02	1.06	1.48
8	0.00	0.19	0.02	0.16	0.00	-0.01	1.18	1.54
9	0.00	0.16	0.01	0.10	0.00	-0.01	1.26	1.52
10	0.00	0.14	0.01	0.11	-0.01	-0.02	1.58	1.81
Total	**0.00**	**0.18**	**0.05**	**0.31**	**-0.01**	**-0.02**	**1.04**	**1.55**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2: Policy effects in 2014-2015, using the CPI-indexation, %



France

The profile of policy changes performed in 2014 clearly points at redistributing resources from deciles above the median to the two first deciles. We can claim that the tax-benefit system becomes more progressive. Three main changes can be observed.

First, the tax burden increased for most taxpayers, but especially so for those in the top two deciles. The large increase is due to the tax rate on dividends going up from 21% to 24%. At the same time, at the bottom two deciles were affected by lower caps on deductible income on account of the quotient familial and by the freezing of the refundable tax credit for low earners (PPE). The tax pressure increased and it was not fully compensated by a rise in the means-tested programs and other redistributive programs. In other words, the reform was not budget neutral. This is so because at that time, the French government has to comply with its commitment with Brussels regarding the stability and growth pact and the path of reducing the budget deficit. The last decile is losing 1% of disposable income through mainly changes of the tax code of the income tax.

Means-tested benefits have increased for the first three deciles. The increase is mainly due to above inflation increases of the main means-tested social assistance benefit (RSA). In addition, the large family benefit (CF) has been reformed to introduce a second, more generous, benefit level for families on very low incomes. On the contrary, the means-tested benefit for young children (PAJE) has been made less generous for families higher up in the income distribution which explains the small decrease in means-tested benefits for deciles seven and eight.

Finally, all income groups have been affected roughly to the same extent by an increase in the old-age employee insurance contribution rates.

In 2015, disposable income increased for all deciles and especially for the bottom. Several changes in policy can explain this fact. First, the tax burden decreased for all income deciles but the first. The decrease was highest for the middle deciles. This change can largely be explained by the suppression of first tax bracket and the establishment of a larger tax-exempt income threshold. In addition, a tax rebate (decote) has been made more generous for couples. An increase in employee old-age insurance contribution rates affected all groups, but especially deciles three to ten. Conversely, some (family and invalidity & death) social insurance contribution rates for the self-employed have been lowered, especially for self-employed on lower incomes. This policy reform has resulted in higher disposable income especially in the first two deciles.

Means-tested benefits have increased substantially for the first two deciles. The increase is largely attributable to a substantial rise in the higher tier of means-tested benefits for large families and to the above-inflation increases in the main means-tested social assistance benefit (RSA).

Non-means tested benefits have decreased for the first two deciles because of a reduction in the length of paid parental benefit as well as a freezing of the main child benefit.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	-0.02	0.81	0.02	-0.09	0.01	-0.08	0.65
2	0.00	-0.02	0.51	0.01	-0.14	0.01	-0.04	0.32
3	0.00	-0.03	0.24	00.01	-0.16	0.01	0.00	0.06
4	0.00	-0.03	0.14	0.01	-0.18	0.01	0.01	-0.06
5	0.00	-0.03	0.09	0.00	-0.20	0.00	-0.03	-0.17
6	0.00	-0.03	0.05	0.00	-0.22	0.00	-0.05	-0.24
7	0.00	-0.03	-0.02	0.00	-0.22	0.00	-0.11	-0.37
8	0.00	-0.03	-0.05	0.00	-0.22	0.00	-0.15	-0.44
9	0.00	-0.03	0.01	-0.01	-0.21	0.00	-0.32	-0.55
10	0.00	-0.02	0.02	0.00	-0.17	0.00	-1.08	-1.26
Total	0.00	-0.03	0.10	0.00	-0.19	0.00	-0.34	-0.46

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %

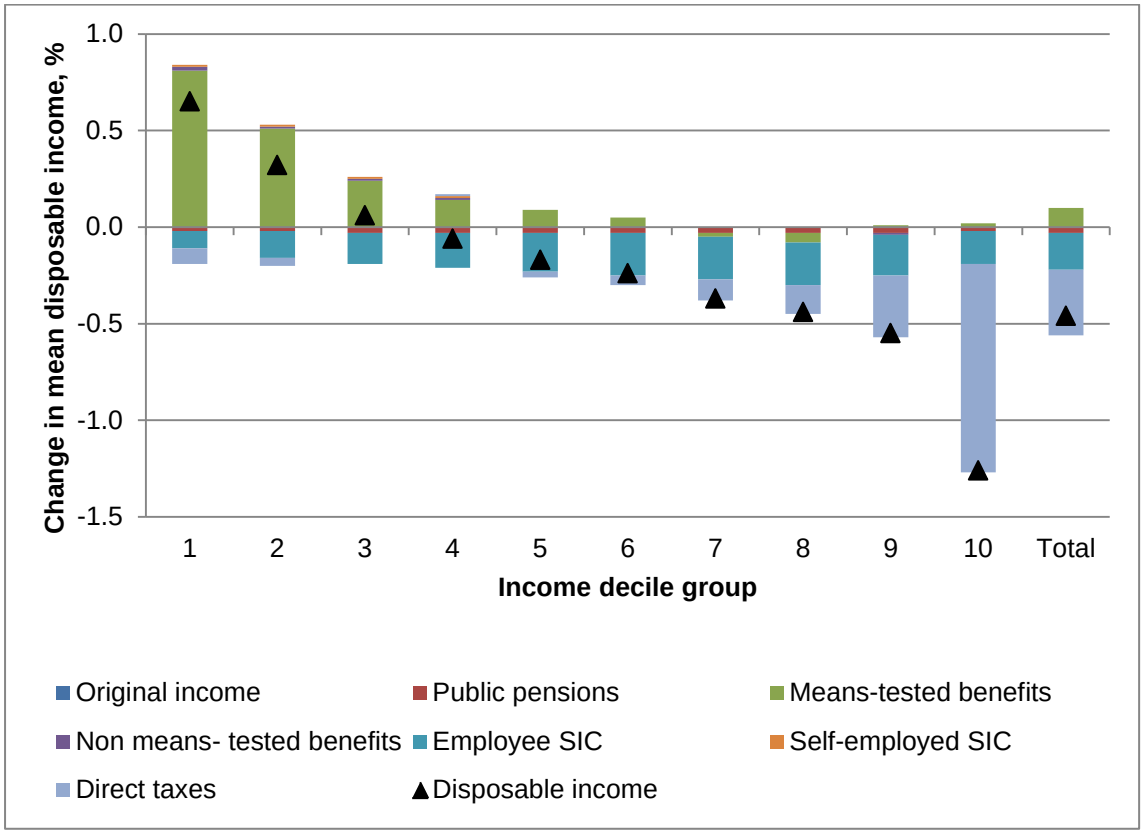
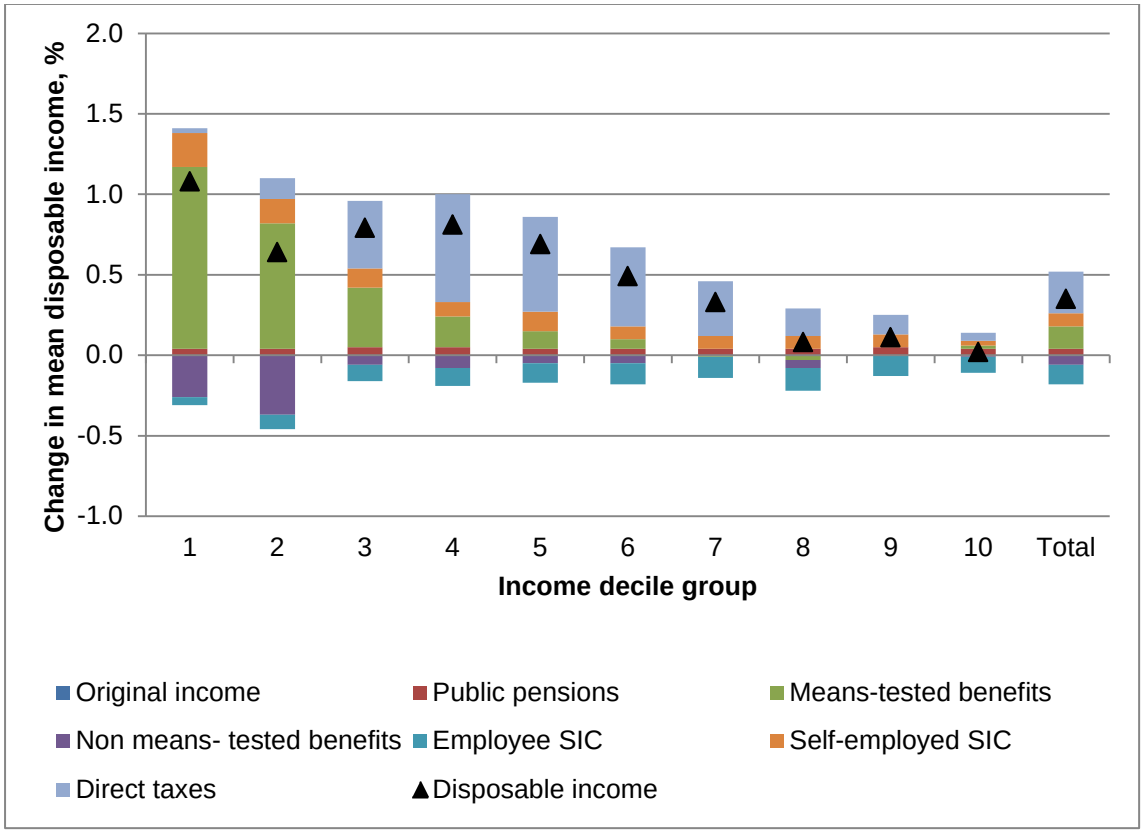


Table 2: Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.04	1.13	-0.26	-0.05	0.21	0.03	1.08
2	0.00	0.04	0.78	-0.37	-0.09	0.15	0.13	0.64
3	0.00	0.05	0.37	-0.06	-0.10	0.12	0.42	0.79
4	0.00	0.05	0.19	-0.08	-0.11	0.09	0.67	0.81
5	0.00	0.04	0.11	-0.05	-0.12	0.12	0.59	0.69
6	0.00	0.04	0.06	-0.05	-0.13	0.08	0.49	0.49
7	0.00	0.04	-0.01	0.00	-0.13	0.08	0.34	0.33
8	0.00	0.04	-0.03	-0.05	-0.14	0.08	0.17	0.08
9	0.00	0.05	0.00	0.00	-0.13	0.08	0.12	0.11
10	0.00	0.04	0.02	-0.01	-0.10	0.03	0.05	0.02
Total	0.00	0.04	0.14	-0.06	-0.12	0.08	0.26	0.35

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2: Policy effects in 2014-2015, using the CPI-indexation, %



Croatia

Table 1 and Figure 1 show how, in comparison with 2013 policies, (deflated) 2014 policies only had a minor impact on average equivalised household disposable income. The poorest decile seems to have benefited the most from changes in means-tested benefits, and in particular from the increase in the Subsistence benefit levels. On the other hand, the simultaneous introduction of a cap in this benefit, set at the level of gross minimum wage, is estimated to have a negative impact on the second income decile.

Changes in public pension benefits led to an overall increase in average household disposable income by around 0.19%. The distribution of gains across income groups largely reflects where pensioners are located in the income distribution. The income-increasing effect from pension benefits is broadly reversed by the increase in self-employed social insurance contributions. The latter were mostly related to the increase in general health contributions, the introduction of unemployment contributions for all self-employed and expansion of occupational health contributions to farmers exempted from personal income tax.

Table 2 and Figure 2 show the effect of policy changes in 2014-2015. Measured in real terms, policy changes led to an overall increase in average household disposable income by around 1.4%. The increase in household disposable income was almost solely driven by changes in direct taxes. Interestingly, the most important driver of this result was the increase in personal income tax allowances. The main beneficiaries were people located in the upper and middle part of the income distribution; hence, the effect of this policy change has been markedly regressive. The extension of the second personal income tax bracket from 8,800 to 13,200 HRK per month seems to have had a significant income-increasing effect only on the richest decile (35 per cent of the total direct taxation effect). Finally, the minor income-increasing effect from pension benefits is entirely driven by the slight decrease in consumer prices between the two years (deflation).

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee & pensioners SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.27	1.39	0.08	-0.01	-0.62	0.00	1.12
2	0.00	0.31	-0.26	0.05	-0.01	-0.25	0.00	-0.16
3	0.00	0.27	0.04	0.10	0.00	-0.33	0.02	0.10
4	0.00	0.25	0.05	0.03	-0.01	-0.21	0.02	0.13
5	0.00	0.19	0.04	0.01	0.00	-0.25	0.03	0.01
6	0.00	0.21	0.00	0.01	0.00	-0.24	0.02	0.00
7	0.00	0.19	0.00	0.02	0.00	-0.28	0.05	-0.03
8	0.00	0.18	0.00	0.03	0.00	-0.19	0.04	0.07
9	0.00	0.16	0.00	0.01	0.00	-0.26	0.07	-0.03
10	0.00	0.11	0.00	0.15	0.00	-0.19	0.06	0.14
Total	0.00	0.19	0.04	0.05	0.00	-0.25	0.04	0.07

Notes: Shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %

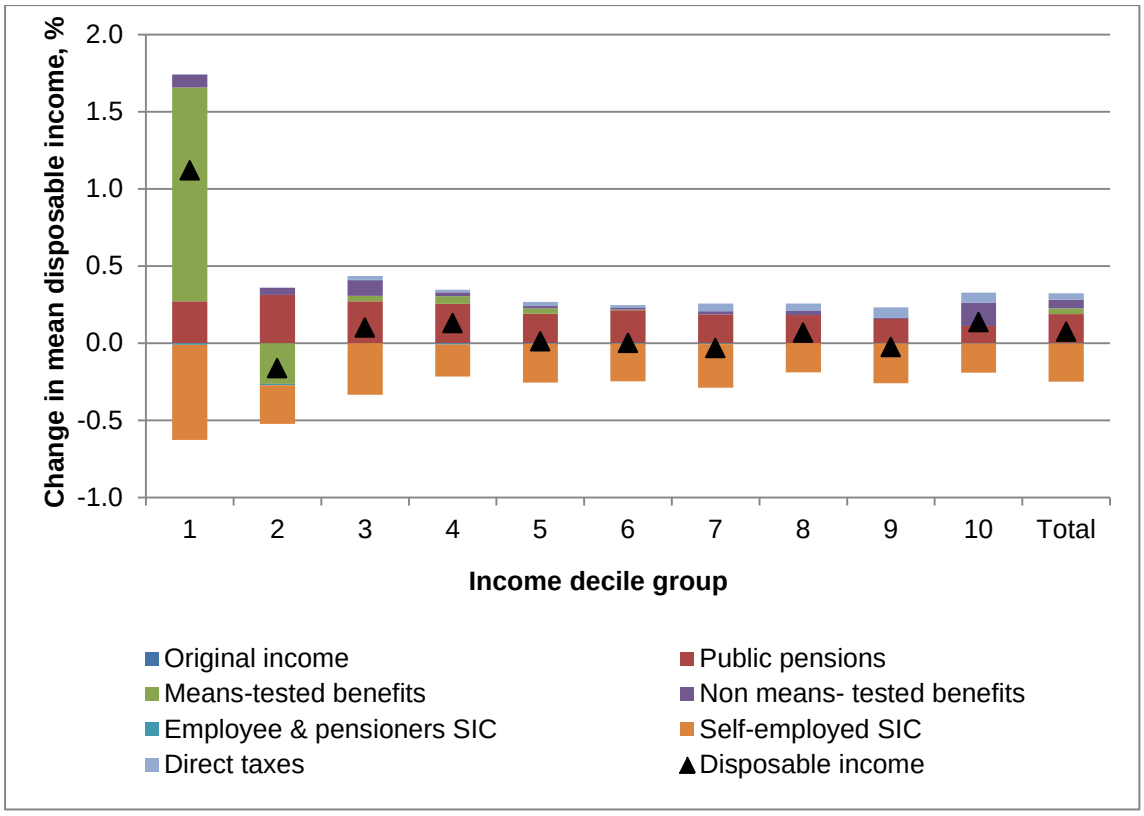
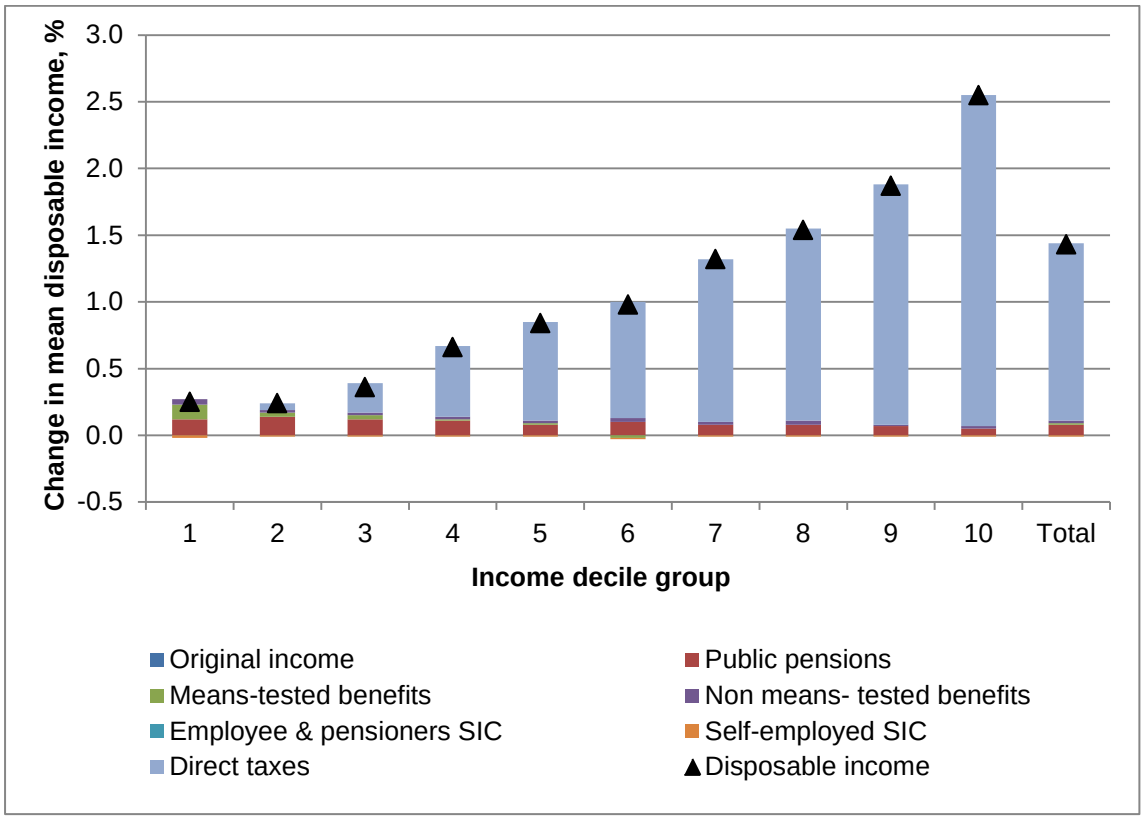


Table 2: Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee & pensioners SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.12	0.11	0.04	0.00	-0.02	0.00	0.25
2	0.00	0.14	0.03	0.02	0.00	-0.01	0.05	0.24
3	0.00	0.12	0.03	0.02	0.00	-0.01	0.22	0.36
4	0.00	0.11	0.01	0.02	0.00	-0.01	0.53	0.66
5	0.00	0.08	0.01	0.02	0.00	-0.01	0.74	0.84
6	0.00	0.10	-0.02	0.03	0.00	-0.01	0.87	0.98
7	0.00	0.08	0.00	0.02	0.00	-0.01	1.22	1.32
8	0.00	0.08	0.00	0.03	0.00	-0.01	1.44	1.54
9	0.00	0.07	0.00	0.01	0.00	-0.01	1.80	1.87
10	0.00	0.05	0.00	0.02	0.00	-0.01	2.48	2.55
Total	0.00	0.08	0.01	0.02	0.00	-0.01	1.33	1.43

Notes: Shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2: Policy effects in 2014-2015, using the CPI-indexation, %



Italy

As shown in Table 1 and Figure 1, in the period 2013-14 the overall net effect of direct taxes on disposable income is the net effect of three policies contributing in opposite directions. In 2014 a new tax on the main residence (i.e. TASI) has been introduced; taxes on income from capital (excluding interests on sovereign debt) increased from 20% to 26%; at the same time a new "bonus" of at most 80 euro per month for employees with taxable income below between 8.000 euro and 26.000 euro per year has been given since May (and the tax credit for employees have been slightly increased). The net effect (blue bars in Figure 1) is positive for all individuals with the exception of those in the bottom decile group because they are likely to be not entitled to the "bonus" (i.e. if they do not have taxable income of at least 8000 euro per year, meaning that they do not pay any income tax at all). Partial indexation of the public pensions up to three times the minimum amount and a very low CPI in 2014 (closed to 0.25%) contributed to a positive effect of public pensions (brown bars in Figure 1).

Table 2 and Figure 2 show that in 2015 the "bonus" of 80 euro per month for employees has been extended to cover the whole year resulting in a more generous transfer than the previous year. As part of means-tested benefits, families with a new born child whose income is below a family-specific threshold are entitled for three years to a new bonus of 80 euro per month. Public pensions up to three times the minimum amount have been indexed at a level higher than the observed CPI contributing to a positive effect of public pensions (brown bars in Figure 2).

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.20	-0.06	0.05	-0.02	-0.09	-0.19	-0.10
2	0.00	0.31	-0.01	0.02	-0.02	-0.05	0.58	0.84
3	0.00	0.32	-0.01	0.03	-0.02	-0.04	0.74	1.03
4	0.00	0.32	0.01	0.02	-0.01	-0.04	0.74	1.04
5	0.00	0.34	0.00	0.02	-0.02	-0.04	0.69	1.00
6	0.00	0.28	0.01	0.02	-0.02	-0.04	0.84	1.09
7	0.00	0.25	-0.02	0.01	-0.02	-0.04	0.77	0.96
8	0.00	0.22	0.00	0.01	-0.03	-0.04	0.50	0.66
9	0.00	0.17	-0.03	0.01	-0.03	-0.04	0.17	0.24
10	0.00	0.05	-0.02	0.01	-0.07	-0.06	-0.23	-0.33
Total	**0.00**	**0.20**	**-0.01**	**0.01**	**-0.04**	**-0.05**	**0.36**	**0.48**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %

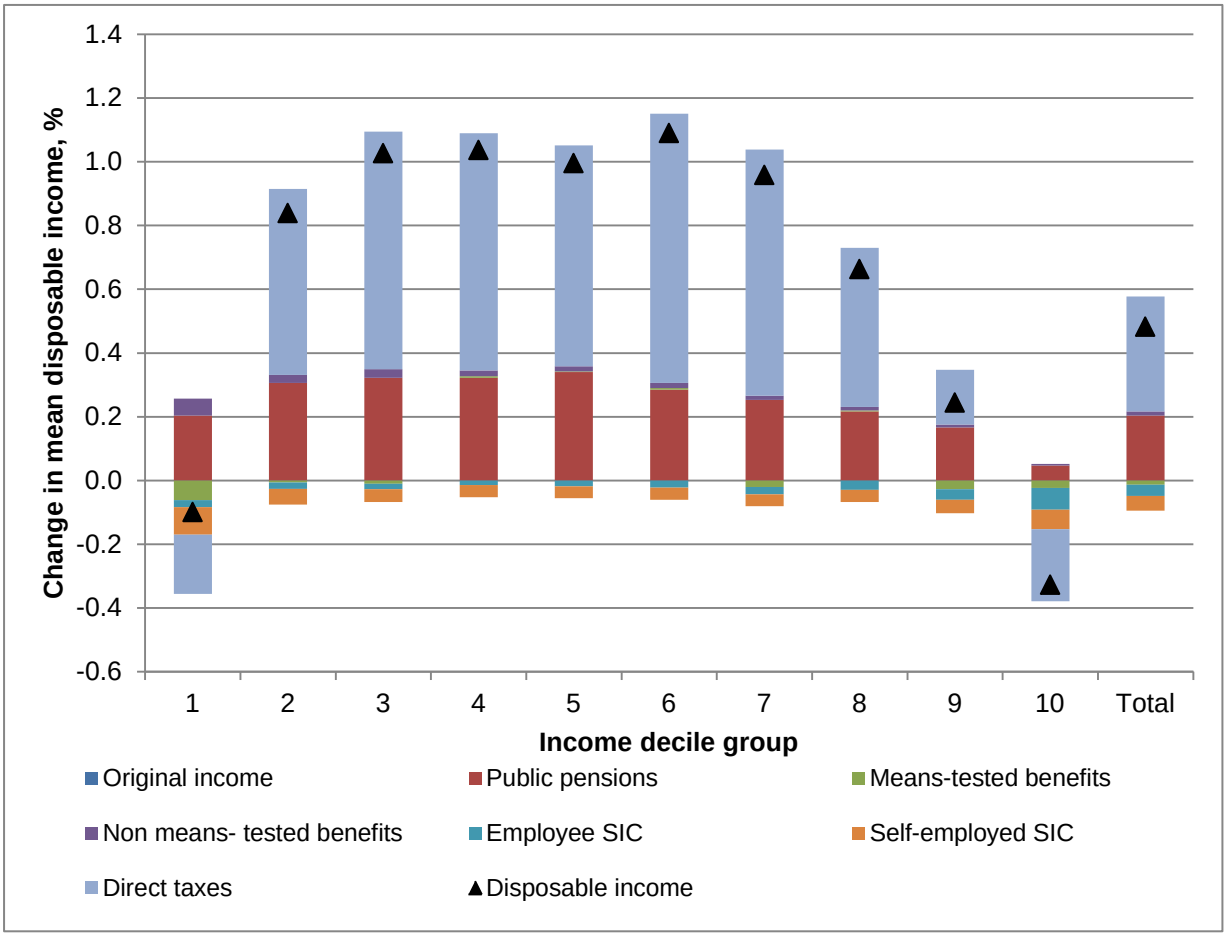
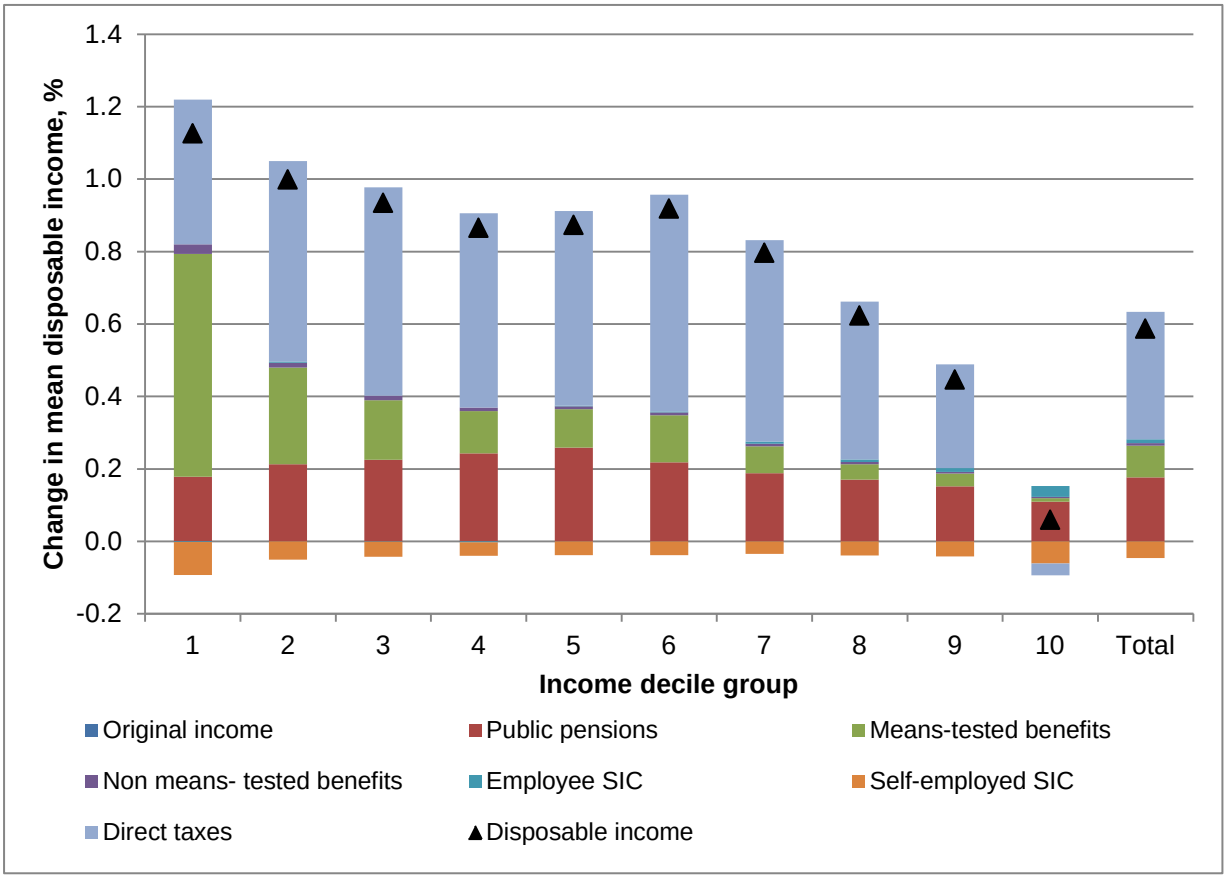


Table 2: Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.18	0.62	0.03	0.00	-0.09	0.40	1.13
2	0.00	0.21	0.27	0.01	0.00	-0.05	0.55	1.00
3	0.00	0.22	0.16	0.01	0.00	-0.04	0.57	0.93
4	0.00	0.24	0.12	0.01	0.00	-0.04	0.54	0.87
5	0.00	0.26	0.11	0.01	0.00	-0.04	0.54	0.87
6	0.00	0.22	0.13	0.01	0.00	-0.04	0.60	0.92
7	0.00	0.19	0.07	0.01	0.01	-0.03	0.56	0.80
8	0.00	0.17	0.04	0.01	0.01	-0.04	0.44	0.62
9	0.00	0.15	0.04	0.00	0.01	-0.04	0.29	0.45
10	0.00	0.11	0.01	0.00	0.03	-0.06	-0.03	0.06
Total	**0.00**	**0.18**	**0.09**	**0.01**	**0.01**	**-0.05**	**0.35**	**0.59**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2: Policy effects in 2014-2015, using the CPI-indexation, %



Cyprus

Table 1 and Figure 1 show that in comparison with 2013 policies, (deflated) 2014 policies reduce mean household income by 0.6%. Policy changes show a strong pro-poor pattern, with households from the lowest two deciles experiencing an increase in household disposable of respectively 10% and 1%. In contrast, richer household have experienced a reduction in their disposable income.

Gains in household disposable income are driven by increases in means tested benefit, with the abolition of social assistance in favour of GMI, benefitting the poorest households. Yet, a word of caution is needed in regard to this result. The model does not control for the fairly complex asset criteria of the GMI system. Given that there is the possibility of a number of households with very low income but with relatively substantial assets, then the model might overestimate the actual impact of the reform. The changes in other income components are small in sizes and due to parametrical changes as well as differences between uprating factors and annual inflation rates.

Table 2 and Figure 2 show that the total effect of (deflated) 2015 policies on mean income is small and close to 0.1%. There were no parametrical or structural changes implemented in the 2015 system compared to the 2014 one. The changes in income are hence due to differences between the uprating factors used for each component and the annual inflation rate.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.09	10.47	-0.08	-0.42	-0.29	-0.17	9.59
2	0.00	0.08	1.88	-0.09	-0.43	-0.25	-0.13	1.06
3	0.00	0.07	0.63	-0.07	-0.52	-0.23	-0.14	-0.25
4	0.00	0.03	1.38	-0.07	-0.66	-0.23	-0.12	0.33
5	0.00	0.03	0.72	-0.06	-0.70	-0.22	-0.13	-0.36
6	0.00	0.02	0.50	-0.08	-0.74	-0.21	-0.15	-0.66
7	0.00	0.03	-0.10	-0.05	-0.78	-0.19	-0.13	-1.22
8	0.00	0.03	0.23	-0.03	-0.81	-0.13	-0.17	-0.88
9	0.00	0.03	0.13	-0.05	-0.79	-0.12	-0.18	-0.99
10	0.00	0.06	0.40	-0.13	-0.59	-0.04	-0.14	-0.44
Total	**0.00**	0.04	**0.86**	**-0.08**	**-0.67**	**-0.15**	**-0.15**	**-0.15**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP). Public wage cuts have not been taken into account in the computations.

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %

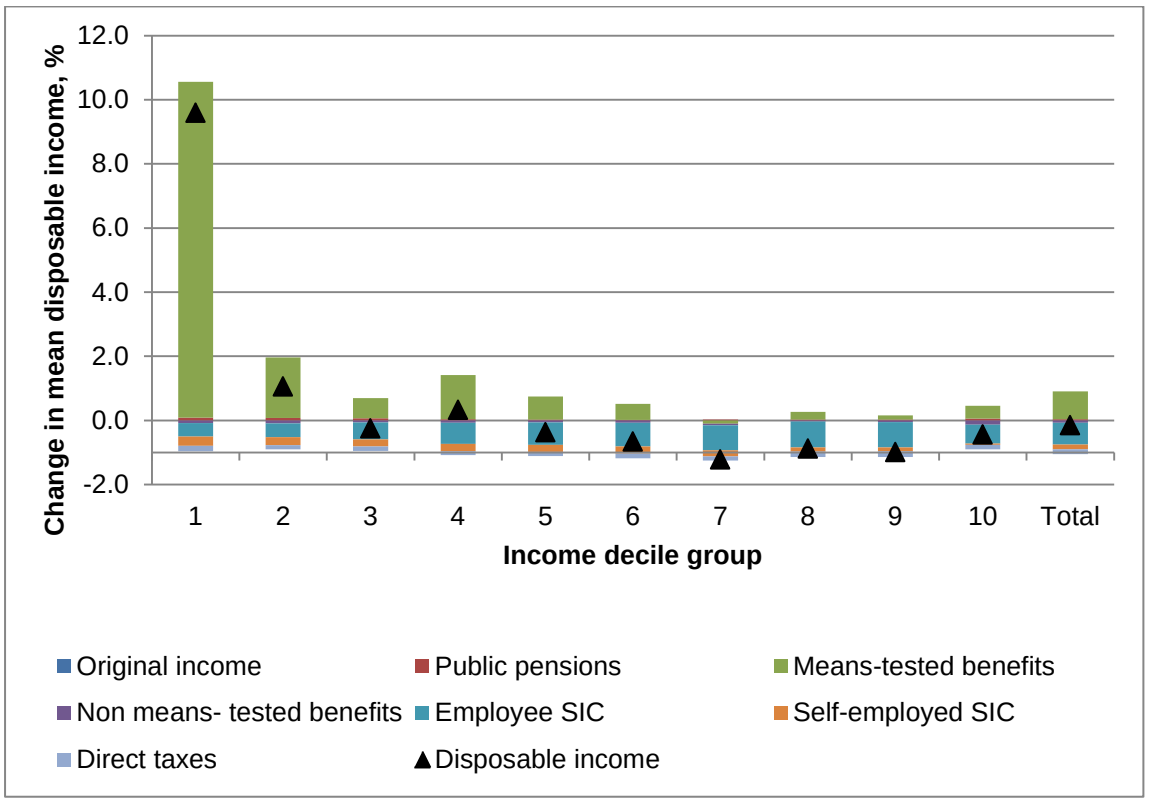
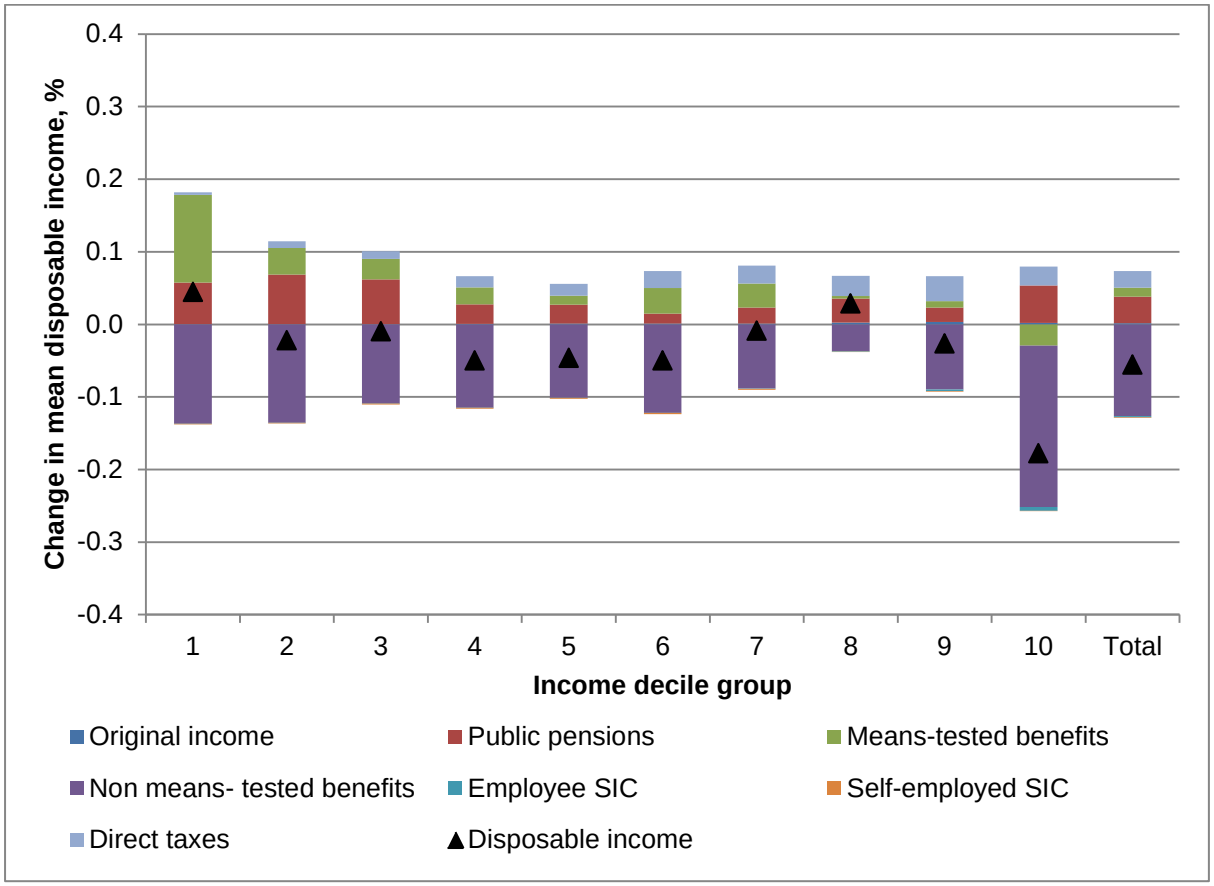


Table 2: Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.06	0.12	-0.14	0.00	0.00	0.00	0.04
2	0.00	0.07	0.04	-0.14	0.00	0.00	0.01	-0.02
3	0.00	0.06	0.03	-0.11	0.00	0.00	0.01	-0.01
4	0.00	0.03	0.02	-0.11	0.00	0.00	0.02	-0.05
5	0.00	0.03	0.01	-0.10	0.00	0.00	0.02	-0.05
6	0.00	0.01	0.04	-0.12	0.00	0.00	0.02	-0.05
7	0.00	0.02	0.03	-0.09	0.00	0.00	0.02	-0.01
8	0.00	0.03	0.00	-0.04	0.00	0.00	0.03	0.03
9	0.00	0.02	0.01	-0.09	0.00	0.00	0.03	-0.03
10	0.00	0.05	-0.03	-0.22	-0.01	0.00	0.03	-0.18
Total	**0.00**	**0.04**	**0.01**	**-0.13**	**0.00**	**0.00**	**0.02**	**-0.06**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2: Policy effects in 2014-2015, using the CPI-indexation, %



Latvia

Table 1 and Figure 1 show that on the whole, policies in 2013-2014 had a positive impact on disposable income throughout income distribution, but more so at the bottom. One of the factors ensuring the progressive impact was growth of public pensions. In October 2013, pensions were indexed at a rate exceeding inflation, ensuring an increase in pensioners' disposable income. The impact was progressive, first - because only pensions below a certain threshold were indexed and second, a larger effect of pensions in the bottom deciles is due to the fact that pensioners in Latvia are clustered in the lower tail of income distribution.

Progressivity of the policy effect was also ensured by changes in non means-tested benefits, and was mainly driven by changes in parental and childcare benefits (broadening eligibility for the childcare benefit, raising the minimum amount of parental benefit and increasing childcare benefit). These benefits comprise a larger share of disposable income for people in the bottom distribution deciles, hence the effect is stronger in the lower deciles.

Social Insurance Contributions (SIC) ensured an increase in disposable income across the distribution due to a reduction in the SIC rate, but the effect was stronger in the upper deciles. The smaller effect in the bottom is due to a smaller proportion of employed individuals. Moreover, an additional factor behind the increase in disposable income in the top deciles was introduction of income cap over which SIC is not applied.

Contribution of self-employed SIC is slightly negative in most deciles, which is determined by increasing minimum income from which self-employed SIC have to be paid,[20] offsetting the positive impact coming from a reduction in SIC rate for self-employed.

Means-tested benefits contributed to a reduction in disposable income in the lowest deciles (this is where the recipients of means-tested benefits are mainly concentrated), despite there were no policy changes in means-tested benefits in 2013-2014. The reason for the reduction was that less individuals remained eligible for GMI and housing benefit following changes in child-related benefits described above.

The positive effect of direct taxes in 2013-2014 is due to an increase in tax allowances, in particular tax allowance for dependents. The effect is especially strong in the middle deciles, and weaker in the bottom and top deciles, which is due to the fact that (i) the share of employed individuals in the bottom deciles is relatively small, which explains the relatively weak effect, (ii) allowances are set in absolute terms, which explains their relatively weak effect on high income earners.

The effect of policies in 2014-2015 was progressive (Table 2 and Figure 2), but the difference between the effect in the top and bottom deciles was less pronounced than in 2013-2014.

The overall effect of pensions on disposable income was slightly higher than in 2013-2014, and was more evenly distributed across income deciles. The reason for a more even impact was that all pensions, irrespective of the size, were indexed in October 2014 (but only part of the pension below a certain threshold, as opposed to 2013 indexation, when only low pensions were indexed). Like in

[20] In the model we assume that self-employed pay SIC only from the minimum amount even if their income from self-employment exceeds the threshold. This is a commonly observed situation in Latvia.

2013-2014, the effect of non means-tested benefits remained positive, and was even stronger in 2014-2015, especially in the bottom deciles. The changes in non-means tested benefits continued to be mainly driven by childcare and parental benefit. In addition to that, ceilings on contributory benefits (child-related and unemployment benefits) were removed in 2015, which had a positive effect on disposable income, mainly in the upper deciles of income distribution.

Like in 2013-2014, growth of non means-tested benefits had a crowding out effect on means-tested benefit in the bottom income deciles, especially in the first decile where the share of recipients of means-tested benefits is the highest; as a result, overall policy effect in the first decile is lower than that in the second decile.

The only policy change in employees' SIC was an increase in the income threshold above which contributions are not paid. This had a negative effect on disposable income, but affected only the top income decile. For self-employed, a decrease in SIC rate was again accompanied by an increase in income subject to contributions, which had a mixed overall effect on disposable income across deciles. Effect of direct taxes in 2014-2015 was regressive, reflecting a reduction in personal income tax rate and unchanged tax allowances.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.65	-0.67	1.43	0.20	-0.03	0.61	2.19
2	0.00	1.02	-0.28	1.26	0.25	0.00	1.33	3.58
3	0.00	1.13	-0.03	0.38	0.27	-0.06	1.32	3.02
4	0.00	0.85	0.00	0.46	0.31	0.03	1.60	3.25
5	0.00	0.59	0.00	0.35	0.36	0.02	1.51	2.82
6	0.00	0.31	0.00	0.46	0.45	-0.02	1.56	2.76
7	0.00	0.21	0.00	0.29	0.50	-0.04	1.30	2.26
8	0.00	0.12	0.00	0.19	0.55	-0.03	1.23	2.06
9	0.00	0.09	0.00	0.21	0.56	-0.02	0.77	1.60
10	0.00	0.01	0.00	0.13	1.15	-0.03	0.35	1.60
Total	**0.00**	**0.30**	**-0.03**	**0.33**	**0.63**	**-0.02**	**0.99**	**2.20**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %

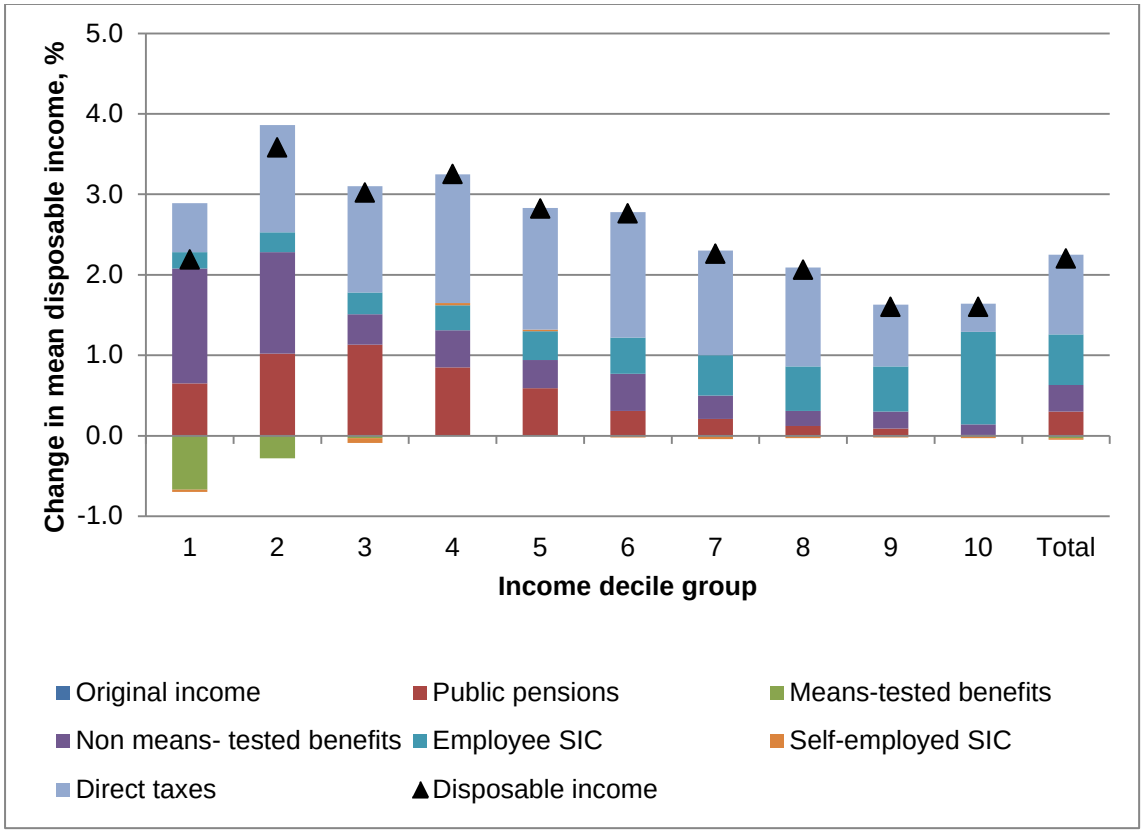
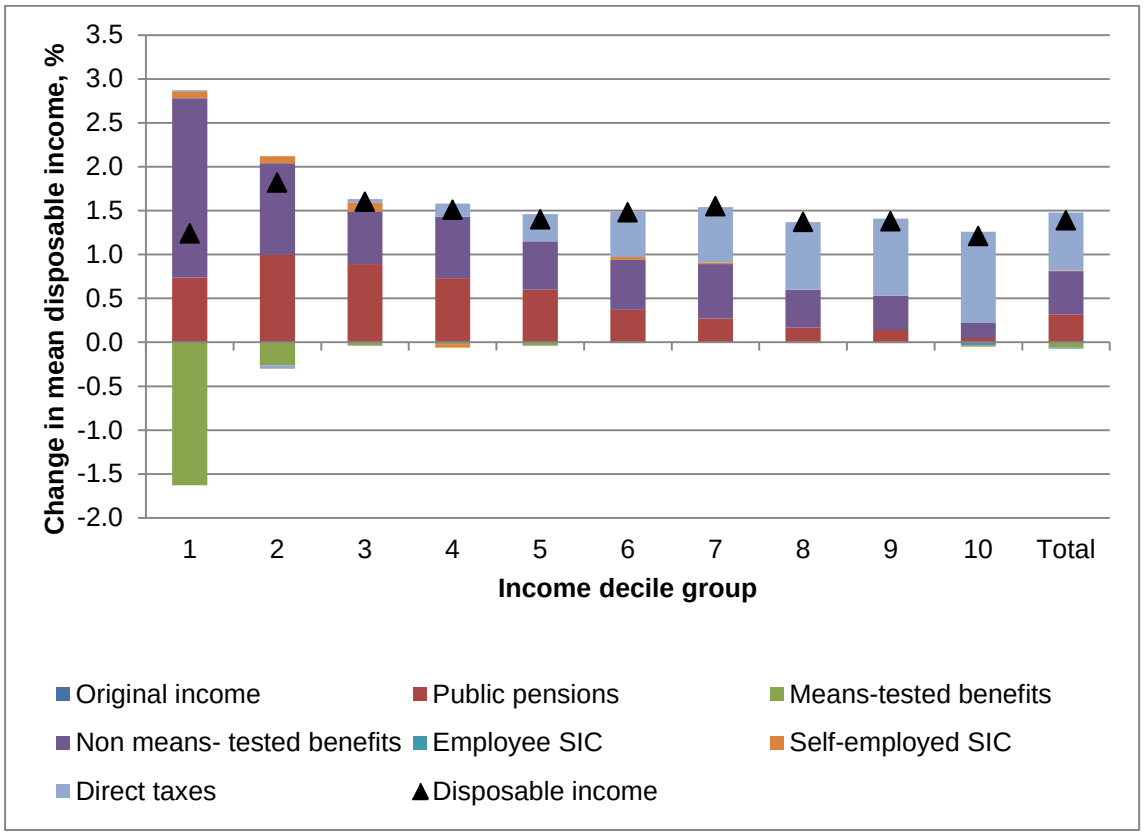


Table 2: Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.74	-1.63	2.04	0.00	0.08	0.01	1.24
2	0.00	1.00	-0.26	1.04	0.00	0.08	-0.04	1.82
3	0.00	0.89	-0.04	0.60	0.00	0.10	0.04	1.60
4	0.00	0.73	-0.02	0.70	0.00	-0.04	0.15	1.51
5	0.00	0.60	-0.04	0.55	0.00	0.00	0.31	1.40
6	0.00	0.37	-0.01	0.57	0.00	0.03	0.52	1.48
7	0.00	0.27	0.00	0.62	0.00	0.02	0.63	1.55
8	0.00	0.17	0.00	0.43	0.00	-0.01	0.77	1.37
9	0.00	0.14	0.00	0.39	0.00	-0.01	0.88	1.38
10	0.00	0.05	0.00	0.17	-0.04	-0.01	1.04	1.21
Total	**0.00**	**0.32**	**-0.06**	**0.49**	**-0.01**	**0.01**	**0.66**	**1.39**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2: Policy effects in 2014-2015, using the CPI-indexation, %



Lithuania

Table 1 and Figure 1 show the effect of policy changes implemented in 2014. The increases in public pensions implemented in 2014 appear to have the biggest impact on mean disposable income. There were no changes in policy as such; however, since 2014 the losses due to structural cuts in pensions carried out in 2010 and 2011 were partially compensated by the government. This affected old-age, early retirement and disability pensions (but not survivor's pensions). The amount of compensation for the pensioner is equal to the amount she/he has lost due to pension cuts in 2010-2011. Given that the cuts were of a progressive nature and that pensioner households are concentrated around the 3-5th income deciles, the compensations have affected those deciles more than others. 3rd and 4th deciles have gained around 1.5 percent of disposable income because of pension compensations. For the 1st, 2nd and 8th deciles a 0.5 percent increase is recorded.

There were no changes in employee social insurance contributions (SICs) , nor were there changes in SIC policies for the self-employed.

There were no changes in means-tested programmes as well. However we can see a small negative impact of changes in those benefits on mean disposable income. The plausible explanation is the change in incomes that fall under the means-test. E.g., there was an increase in pensions due to compensations. As pensions are a part of the means-tested income for both social assistance benefits and child benefits, this might be the main reason why some households became ineligible for social assistance benefit and/or child benefit. Therefore we see a small impact, especially for the poorest deciles. Another explanation for the reduction in household disposable income due to means-tested benefits is that those are not being indexed by CPI in Lithuania and have decreased in 2014 in real terms.

Small changes in household disposable income due to non means-tested benefits are most likely due to the changing proportions of beneficiaries who opt for one or two years' maternity (paternity) benefit. Those proportions have slightly changed between 2013 and 2014 (in 2013 only 9.6 percent chose to receive maternity (paternity) benefit for one year, while in 2014 this share has dropped to 6.9 percent). The fact that eligible recipients of maternity (paternity) benefits in EUROMOD are randomly assigned to receive one or two year benefit, might have some minor impact on disposable income. This impact ranges between – 0.05 percent for the top decile to 0.05 percent for 5th and 9th deciles.

Changes in direct taxes, namely PIT, appear to have a positive impact on household disposable income. In 2014 there was an increase in the general non-taxable allowance from 470 to 570 LTL per month and the income threshold for calculating this allowance was lifted from 800 to 1000 LTL. The second policy change was an increase in non-taxable allowance for the first child from 100LTL to 200LTL. Their amounts became equal to the allowance for the second and each subsequent children. The highest impact (almost 1 percent), is observed for the 3rd and 4th deciles, while it is smaller for other deciles, especially for the top ones.

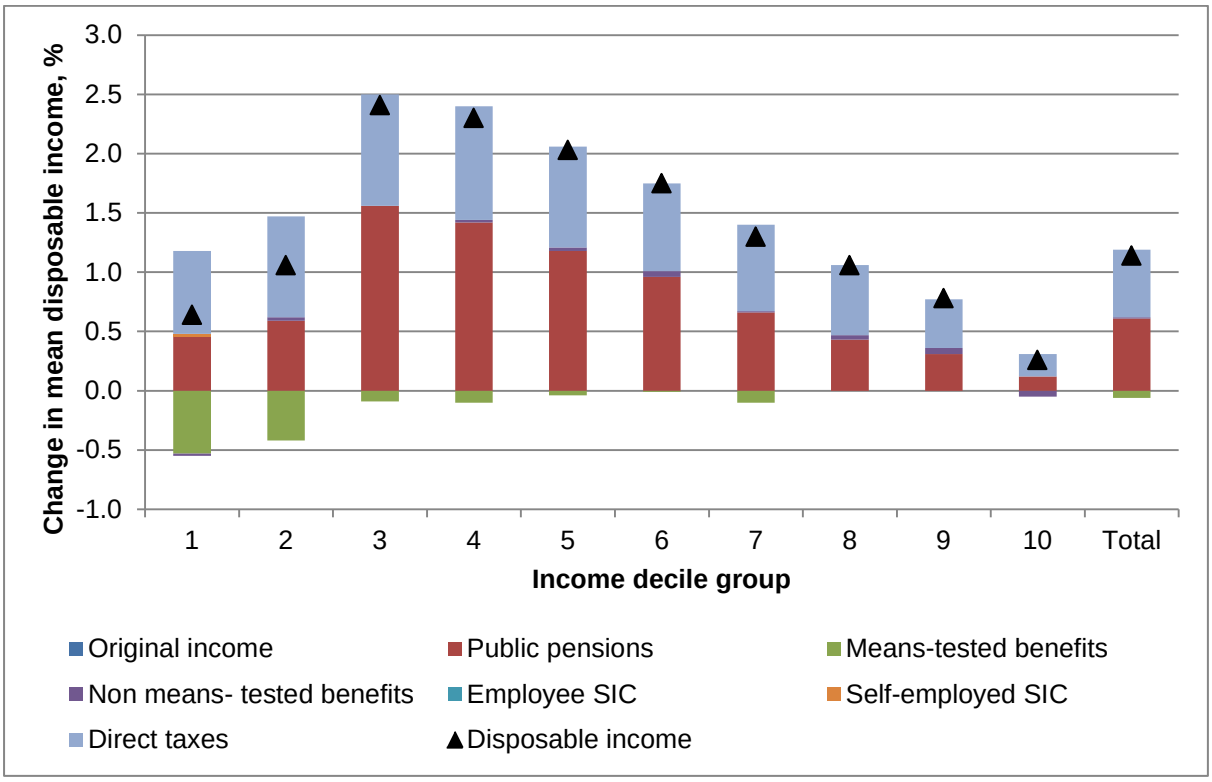
Overall the changes in the abovementioned policies between 2013 and 2014 had a bigger impact on incomes of the 3-5th deciles (a 2 percent increase). The top and bottom deciles remained least affected, as their incomes have increased just by 0.26 and 0.64 percent, respectively.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.46	-0.53	-0.02	0.00	0.02	0.70	0.64
2	0.00	0.59	-0.42	0.03	0.00	0.00	0.85	1.06
3	0.00	1.56	-0.09	0.00	0.00	0.00	0.94	2.41
4	0.00	1.42	-0.10	0.02	0.00	0.00	0.96	2.30
5	0.00	1.18	-0.04	0.03	0.00	0.00	0.85	2.03
6	0.00	0.96	-0.01	0.05	0.00	0.00	0.74	1.75
7	0.00	0.66	-0.10	0.01	0.00	0.00	0.73	1.30
8	0.00	0.43	0.00	0.04	0.00	0.00	0.59	1.06
9	0.00	0.31	0.00	0.05	0.00	0.00	0.41	0.78
10	0.00	0.12	0.00	-0.05	0.00	0.00	0.19	0.26
Total	**0.00**	**0.61**	**-0.06**	**0.01**	**0.00**	**0.00**	**0.57**	**1.14**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %



Luxembourg

Table 1 and Figure 1 show that the net effect of 2013 policies in comparison with (deflated) 2014 policies did not have any major impact on household disposable income due to the lack of major policy changes in the period analysed.

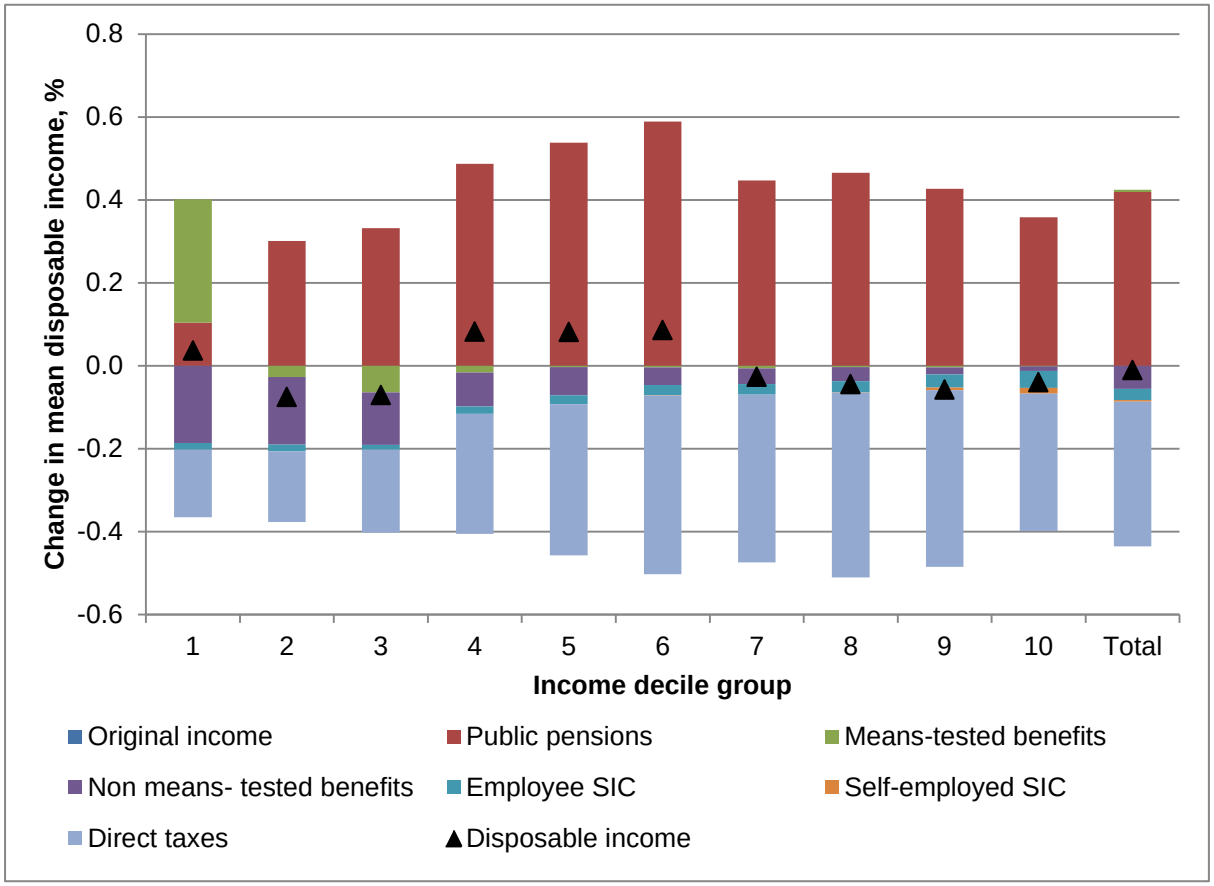
However, there were increases in pension incomes because pensions grew at a rate above the HCIP inflation, resulting in an increase in average household disposable income which occurs across the whole distribution although with a smaller proportional effect at the very top. On average this is largely balanced by increases in income tax. There were no changes to the income tax rules in the period analysed. However, the negative effect of taxes is due to a combination of the tax paid on higher pensions and other taxable benefits and fiscal drag. Tax thresholds fell in real terms due to not being indexed for inflation, generating an increase in tax liabilities.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.10	0.30	-0.19	-0.02	0.00	-0.16	0.04
2	0.00	0.30	-0.03	-0.16	-0.02	0.00	-0.17	-0.08
3	0.00	0.33	-0.06	-0.13	-0.01	0.00	-0.20	-0.07
4	0.00	0.49	-0.02	-0.08	-0.02	0.00	-0.29	0.08
5	0.00	0.54	0.00	-0.07	-0.02	0.00	-0.36	0.08
6	0.00	0.59	0.00	-0.04	-0.02	0.00	-0.43	0.09
7	0.00	0.45	-0.01	-0.04	-0.03	0.00	-0.40	-0.03
8	0.00	0.47	0.00	-0.03	-0.03	0.00	-0.45	-0.04
9	0.00	0.43	0.00	-0.02	-0.03	-0.01	-0.43	-0.06
10	0.00	0.36	0.00	-0.01	-0.04	-0.01	-0.33	-0.04
Total	**0.00**	0.41	0.02	-0.05	-0.03	0.00	-0.34	0.02

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %



Hungary

The analysis for policy changes 2013-2014 shown in Table 1 and Figure 1 shows that the changes in the tax-benefits system made all deciles groups better off, yielding an average overall increase of 1.19 per cent in equivalized disposable income. The lower deciles, up to the 7th, benefitted from these policy changes more than upper deciles, although in a non-linear way.

Overall the largest contribution to the increase in disposable income came from Public pensions and from reduced Employee social security contributions (SIC), respectively 0.70 and 0.53 percentage points. The reduction in means tested benefits had an almost negligible negative impact on disposable income on the bottom five deciles, with no effect on the upper part of the income distribution.

The positive effect from Public Pensions (old age pension, disability pension, survivor benefits and sickness related benefits) reforms worked through pension indexation which rose faster than inflation (1.0002%) between 2013 and 2014.

The introduction in 2014 of a Family Contribution Allowance reduced employees' health and pension insurance contributions arising in the positive effect due to Employees SIC shown in Table1 and Figure 1.

As far as means-tested benefits are concerned, there were no structural changes to their calculation between 2013 and 2014. However, the amount of social assistance for old age, the regular social assistance benefit and the stand-by allowance depend on the National Minimum Pension. Since the latter remained unchanged in nominal terms over time, this resulted in a cut in real terms of means-tested benefits (although almost negligible considering the very small changes in the price index).

Changes to non means-tested benefits, on the other hand, contributed positively to rising household income: although there were no structural changes to the non means-tested benefit calculations, the National Minimum Wage, used as a base value for the calculation of selected benefits (such as unemployment benefits and job seekers allowance), increased from HUF 98,000 to HUF 101,500 per month. This corresponds to a 3.6% increase, much higher than the increase registered by the consumer price index. The amount of other non means-tested benefits (child care allowance, child raising support, family allowance and maternity grant) also depends on the National Minimum Pension and therefore decreased in real terms. Overall, however, the positive impact of benefits anchored to rising Minimum Wages seem to have been the main driver of the net positive effect of non-means tested benefits on disposable income.

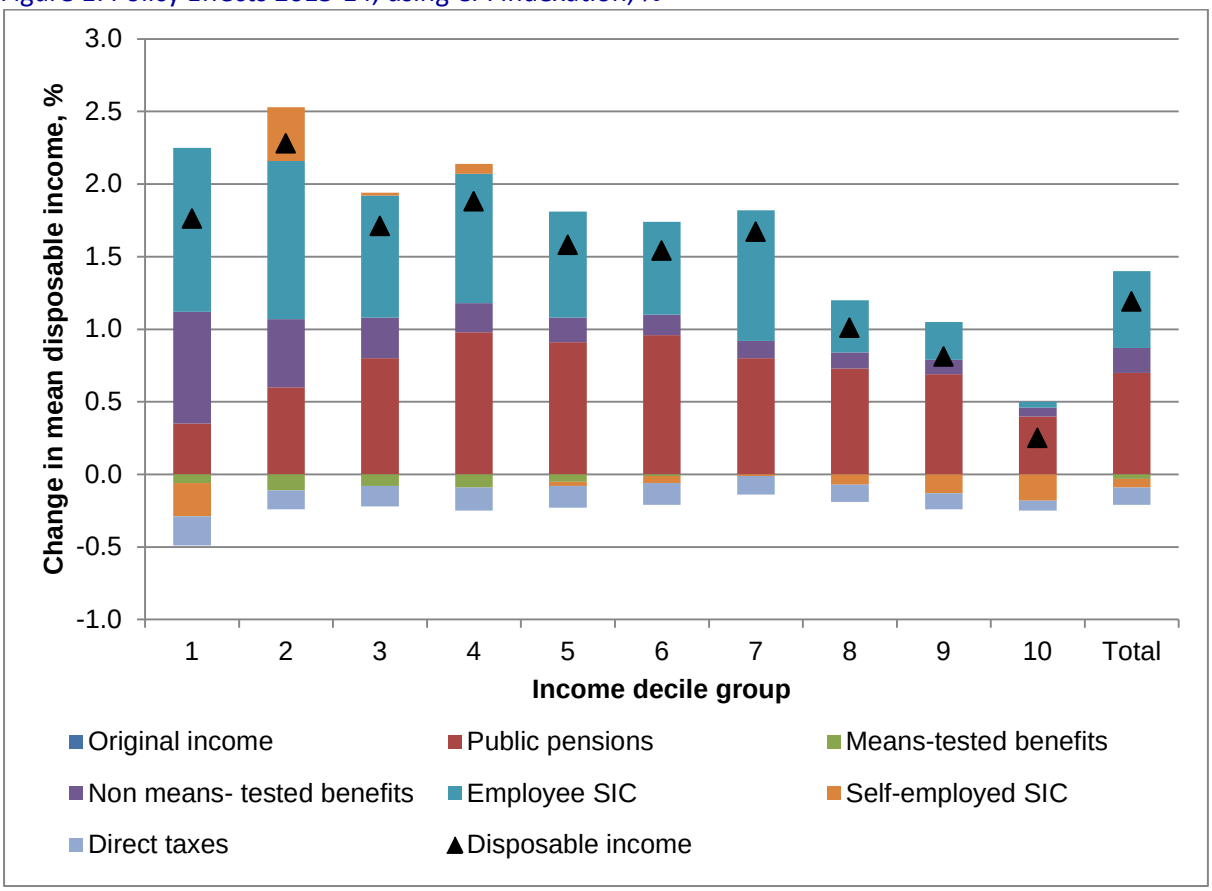
In summary, on average all income groups were net gainers, but the poorest benefitted more than the richest from the policy changes. The bottom decile in fact increased their disposable income by 1.76 per cent, against the 0.25 per cent increase registered by the top decile.

Table 1 Policy Effects 2013-14, using CPI indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.35	-0.06	0.77	1.13	-0.23	-0.20	1.76
2	0.00	0.60	-0.11	0.47	1.09	0.37	-0.13	2.28
3	0.00	0.80	-0.08	0.28	0.84	0.02	-0.14	1.71
4	0.00	0.98	-0.09	0.20	0.89	0.07	-0.16	1.88
5	0.00	0.91	-0.05	0.17	0.73	-0.03	-0.15	1.58
6	0.00	0.96	-0.01	0.14	0.64	-0.05	-0.15	1.54
7	0.00	0.80	0.00	0.12	0.90	-0.01	-0.13	1.67
8	0.00	0.73	0.00	0.11	0.36	-0.07	-0.12	1.01
9	0.00	0.69	0.00	0.10	0.26	-0.13	-0.11	0.81
10	0.00	0.40	0.00	0.06	0.04	-0.18	-0.07	0.25
Total	**0.00**	**0.70**	**-0.03**	**0.17**	**0.53**	**-0.06**	**-0.12**	**1.19**

Notes: shown as a percentage change in mean equalized household disposable income by income component and income decile group. Income decile groups are based on equalized household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy Effects 2013-14, using CPI indexation, %



Malta

Table 1 and Figure 1 show how policy changes in 2013-2014 led to an overall increase in average household disposable income by around 0.45%. The increase in household disposable income was mainly driven by changes in direct taxes (around 0.36% in total). In 2014 the ceiling of the amount liable to the preferential rate of 15% on tax on part-time work increased from €6,988.12 to €10,000 in the case of part time employees and to €12,000 for the part-time self-employed individuals. The personal tax rate of 32% applicable to those earning less than €60,000 declined to 29%. Tax reductions were also implemented through the parent computation where the previous tax band was extended from €9,300 to €9,800. In addition, the age of the child maintained by parents was raised from 21 years to 23 years. Furthermore, the term tertiary education is being widened to include colleges and their educational institutions.

The Cost-of-Living Adjustment (COLA) for 2014 was €3.49 per week for people aged 52 years and over. This "increase", that is, the additional amount, led to an increase in the category of Public pensions in real terms and it had an overall positive effect on the average household disposable income.

A small nominal increase in Means-tested benefits, measured in real terms, had only a small effect. There were the following changes to means-tested benefits:

- Unemployment assistance (weekly) rates for a single person have increased from €98.15 to €100.48;
- Special Unemployment Benefit rates for single parents and married persons maintaining non-employed spouse increased from €19.41 to €19.83. Other persons qualifying for the said benefit had their special unemployment benefit increase from €12.67 to €12.94;
- Non-Contributory age pension for a married couple who both qualify for a pension increased from €130 to €132.79. For married couple with one spouse eligible for a pension the increase was from €84.62 to €86.95. For widowed or single persons the increase was from €102.23 to €104.56;
- Children's allowance increased income threshold from €24,439 to €24,621. And the lower limit of assessed income increased from €4,658 to €5,356;
- Social assistance rates for single persons increased from €98.15 to €100.48;
- Supplementary assistance income ceilings have increased from €8,405 to €8,800 for single persons and from €10,573 to €10,968 for married couples.

In 2014 the Unemployment benefit increased from a (daily) rate of €11.55 to €11.80 for single and married persons and from €7.56 to €7.72 for other persons and had a positive effect on Non means-tested benefits. On the other hand, Sickness Benefit and Injury Benefit, as well as Child allowance led to a decrease. The Sickness and Injury benefits are not simulated in the model, but the uprating factor was lower in 2014 compared to 2013. The uprating factor is calculated as the average based on external statistics and the reason why is lower in 2014 could be that the structure of people who receive this benefits has changed and included people with lower amounts. Child allowance is divided in two components – one is means and other is non means-tested. Due to changes in threshold and the way it is simulated, people who were receiving Child allowance in 2013 as an amount recorded under non means-tested benefits, continued receiving it in 2014 but as a part of means-tested benefits which led to a small decrease in total non-means tested benefits and also a small increase in means-tested benefits.

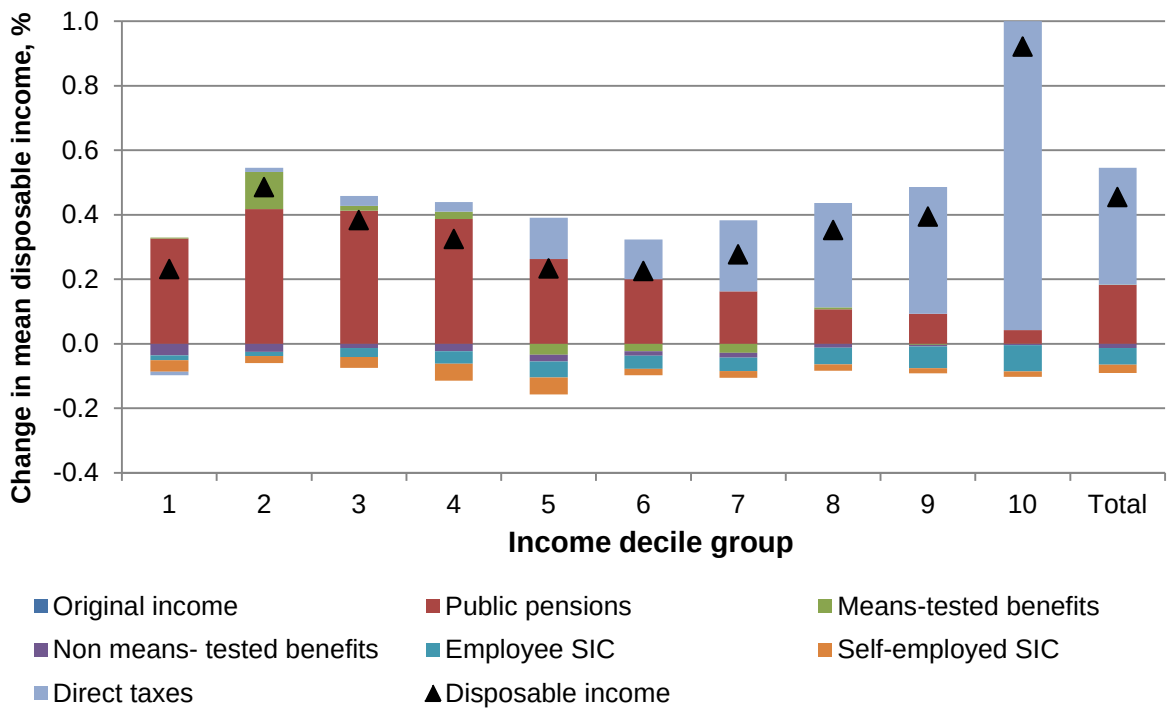
The negative changes in components Employee and Self-employed Social Insurance Contributions (SIC) were caused by the increase in the minimum and maximum contributions payable. For Employee SIC there was an increase in the minimum contribution from €16.22 to €16.57 per week, whilst the maximum contribution increased from €33.9 to €34.25 per week for persons born up to 31.12.1961, and it increased from €40.32 to €41.21 per week for persons born from 1.1.1962. Age limit for maximum contributions payable changed from "<52" to "<53" years. For Self-employed/occupied social contributions the minimum contributions increased from €27.86 to €28.38 per week while the maximum increased from €60.47 to €61.82 per week. The changes in Employee SIC affected more the people in higher deciles while the changes in Self-employed SIC affected more the people in lower deciles.

Table 1: Policy effects in 2013-2014, using the CPI-indexation*, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.33	0.00	-0.04	-0.01	-0.04	-0.01	0.23
2	0.00	0.42	0.12	-0.03	-0.01	-0.02	0.01	0.49
3	0.00	0.41	0.02	-0.01	-0.03	-0.03	0.03	0.38
4	0.00	0.39	0.02	-0.02	-0.04	-0.05	0.03	0.33
5	0.00	0.26	-0.03	-0.02	-0.05	-0.05	0.13	0.23
6	0.00	0.20	-0.02	-0.01	-0.04	-0.02	0.12	0.23
7	0.00	0.16	-0.03	-0.01	-0.04	-0.02	0.22	0.28
8	0.00	0.11	0.01	-0.01	-0.05	-0.02	0.32	0.35
9	0.00	0.09	0.00	0.00	-0.07	-0.02	0.39	0.39
10	0.00	0.04	0.00	0.00	-0.08	-0.02	0.98	0.92
Total	**0.00**	**0.18**	**0.00**	**-0.01**	**-0.05**	**-0.03**	**0.36**	**0.45**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation*, %



The Netherlands

Table 1 and Figure 1 show how in comparison to 2013 policies, (deflated) 2014 policies increase mean household income by 1.4%. The increase is slightly above this average between decile group 2 and decile group 7 and lower in the remaining deciles. The main cause of the increase turns out to be the decrease in the Employee SICs. This concerns in particular the fixed part of the health insurance contribution. In the lower deciles, a decrease in means tested benefits mitigates the increase in disposable income. This is mainly caused by the decreased generosity of the health allowance.

Table 2 and Figure 2 show that the total effect of (deflated) 2015 policies is an increase in disposable income of 0.4%. The pattern is fairly flat, except for the first (lowest) decile group where we find an increase in disposable income of 1.4%. In most decile groups, the increase can be attributed to the decrease in the rate of employee SICs, in particular the 3% decrease in the rate of the General Act on Special Health Care Costs (AWBZ), accompanied by a slightly lower increase in income taxation. In the lowest deciles, an increase in means tested benefits causes an increase in disposable income. Here the net effect of the increase in the child related budget and the decrease in the single parent allowance, the half orphan allowance and the single parent tax credit is positive. Notably, the introduction of cost sharing norms in social assistance has not yet been taken into account because it only affects new cases which cannot be identified in EUROMOD. It will be fully implemented in the second half of 2015.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.10	-1.58	0.07	2.27	0.00	0.32	1.16
2	0.00	0.25	-1.11	0.09	2.21	0.00	0.47	1.90
3	0.00	0.27	-1.13	0.07	2.31	0.00	0.49	2.00
4	0.00	0.18	-0.92	0.06	2.08	0.00	0.42	1.82
5	0.00	0.13	-0.64	0.04	1.93	0.00	0.39	1.84
6	0.00	0.10	-0.40	0.05	1.72	0.00	0.34	1.81
7	0.00	0.07	-0.19	0.03	1.51	0.00	0.28	1.70
8	0.00	0.06	-0.17	0.02	1.30	0.00	0.27	1.48
9	0.00	0.04	-0.08	0.02	0.97	0.00	0.19	1.15
10	0.00	0.03	-0.04	0.01	0.28	0.00	0.07	0.35
Total	**0.00**	**0.10**	**-0.43**	**0.04**	**1.38**	**0.00**	**0.28**	**1.36**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %

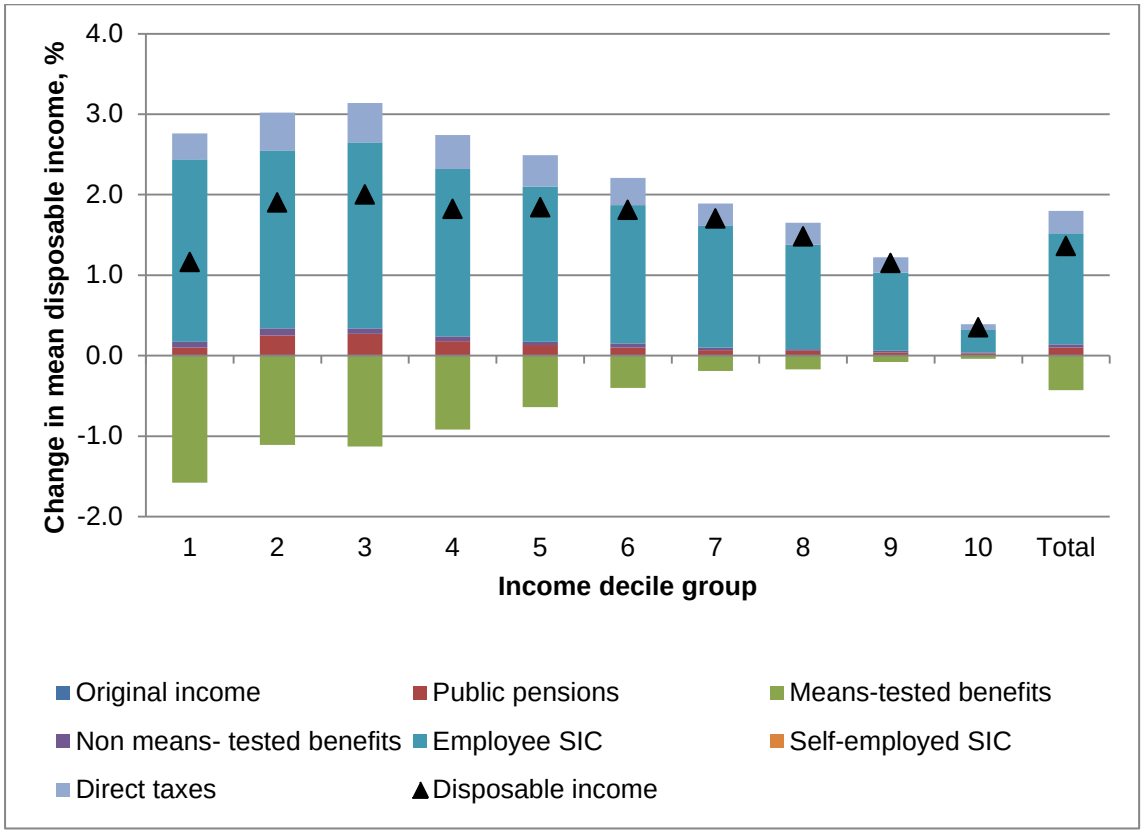
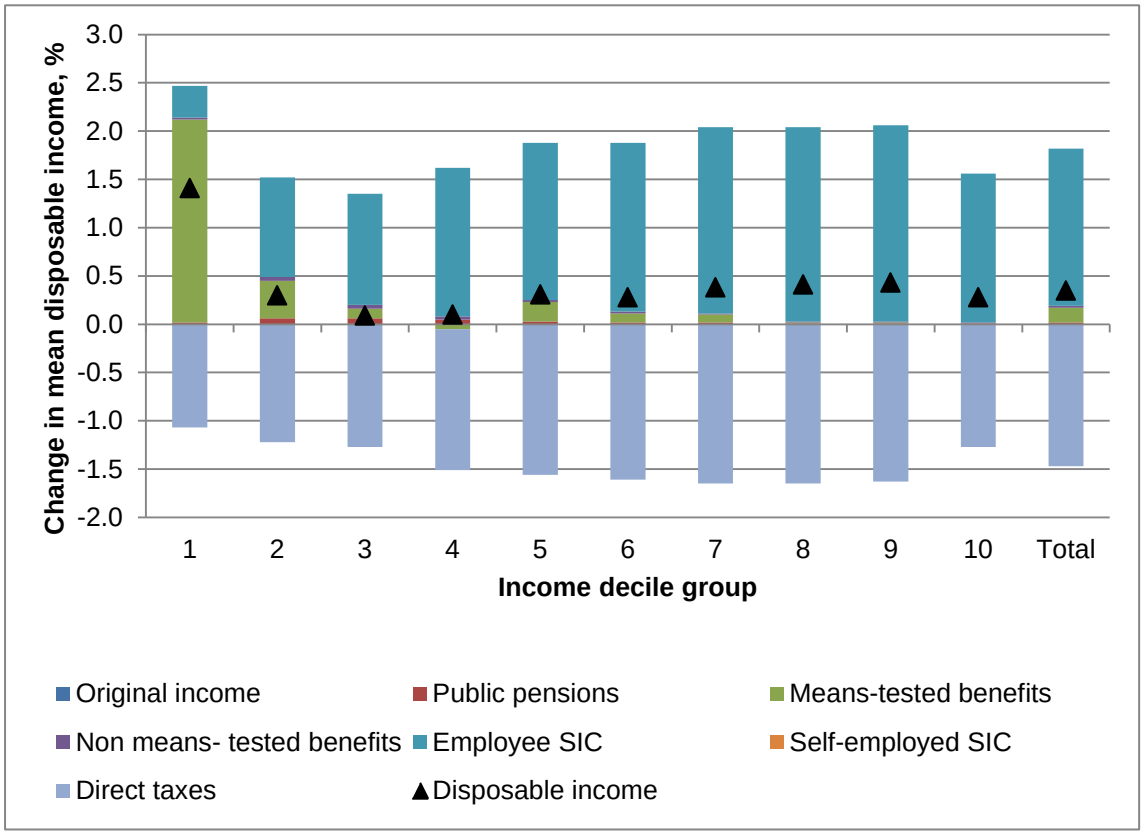


Table 2: Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.02	2.10	0.02	0.33	0.00	-1.07	1.41
2	0.00	0.06	0.39	0.04	1.03	0.00	-1.22	0.30
3	0.00	0.06	0.10	0.04	1.15	0.00	-1.27	0.09
4	0.00	0.05	-0.05	0.03	1.54	0.00	-1.46	0.10
5	0.00	0.03	0.20	0.02	1.63	0.00	-1.56	0.31
6	0.00	0.02	0.09	0.02	1.75	0.00	-1.61	0.28
7	0.00	0.02	0.08	0.01	1.93	0.00	-1.65	0.38
8	0.00	0.01	0.01	0.01	2.01	0.00	-1.65	0.41
9	0.00	0.01	0.01	0.01	2.03	0.00	-1.63	0.43
10	0.00	0.01	0.00	0.01	1.54	0.00	-1.27	0.28
Total	**0.00**	**0.02**	**0.15**	**0.02**	**1.63**	**0.00**	**-1.47**	**0.35**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2: Policy effects in 2014-2015, using the CPI-indexation, %



Austria

In 2013-14 (Table 1 and Figure 1), the policy effect made little difference to household income – on average it reduced incomes only by about 0.2%. Even though small in size and negative (on average), the policy effect was pro-poor. Households in the bottom income decile group saw their incomes increasing by 0.5%. All other households saw their incomes falling – the 2nd decile group experienced a small loss of 0.1% while the top 10th decile experienced an income loss of 0.2%.

The income gains in the bottom 1st decile group were mainly due to real increases in means-tested benefits. The minimum income benefit *(Bedarfsorientierte Mindestsicherung)*[21] is indexed alongside the minimum pension top up which was increased by a rate higher than the growth in prices. Non-means tested benefits also increased in real terms between 2013 and 2014: the most significant policy change was the increase of the universal family allowance *(Familienbeihilfe)* by nominal 4%. This was exceptional as the benefit is not indexed on a regular basis. The gains were somewhat higher in the lower deciles as families with (more) children are concentrated at the bottom of the income distribution. The income increases due to benefits were offset by income losses due to direct taxes. In the period 2013-14, there were no changes to the nominal levels of tax allowances and tax thresholds. As prices increased, the monetary tax parameters fell in real terms. As a result, households' taxable income was assessed at higher tax bands which led to higher tax liabilities and lower disposable (net) incomes.

In 2014-15 (Table 2 and Figure 2), households experienced on average a minor real income loss of 0.2%. Similar to 2013-14, the policy effect in 2014-15 was also progressive and had very small income-increasing effect only in the 1st decile group (0.1%) while households across the rest of the income distribution saw their incomes falling.

The income increase in bottom 1st decile group was again mainly driven by a small increase in means-tested benefits: as in 2013-14, the minimum income benefit *(Bedarfsorientierte Mindestsicherung)* which is indexed alongside the minimum pension top up was increased by a rate higher than the growth in prices. Public pensions were increased by a rate slightly higher than the rate of price growth, which resulted in small income gains along the entire income distribution. Non-means-tested benefits which are not indexed on a regular basis were on the whole kept nominally the same. However, due to price increases their real value deteriorated which contributed to small income losses across the entire distribution with the largest losses concentrated in the poorest decile groups. The somewhat higher losses related to employee and pensioner SIC especially in the highest income decile is due to an above-average increase of the upper contribution limit for social insurance contributions. Finally, as in 2013-14, direct taxes had a negative income effect in 2014-15: all income tax thresholds and allowances remained nominally the same which led to a real increase in household tax liabilities and drop in household disposable incomes.

[21] It should be noted that there are regional differences in the rules for the minimum income benefit. However, for simplicity we ignore the regional differences and simulate the benefit according to the rules in Vienna (where also the majority of recipients are located).

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee and pensioners SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.02	0.43	0.13	0.02	0.00	-0.11	0.48
2	0.00	0.04	-0.02	0.10	0.03	0.00	-0.21	-0.07
3	0.00	0.04	0.00	0.10	0.00	-0.01	-0.26	-0.13
4	0.00	0.04	-0.02	0.07	0.00	-0.01	-0.26	-0.18
5	0.00	0.04	-0.03	0.06	0.01	-0.01	-0.27	-0.20
6	0.00	0.04	0.02	0.04	-0.01	-0.01	-0.28	-0.20
7	0.00	0.04	0.03	0.03	-0.01	-0.01	-0.28	-0.20
8	0.00	0.03	0.01	0.02	-0.01	-0.01	-0.28	-0.23
9	0.00	0.03	0.00	0.01	-0.03	-0.01	-0.26	-0.25
10	0.00	0.03	0.01	0.01	-0.04	-0.01	-0.20	-0.21
Total	**0.00**	**0.03**	**0.02**	**0.04**	**-0.01**	**-0.01**	**-0.25**	**-0.17**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating tax-benefit monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %

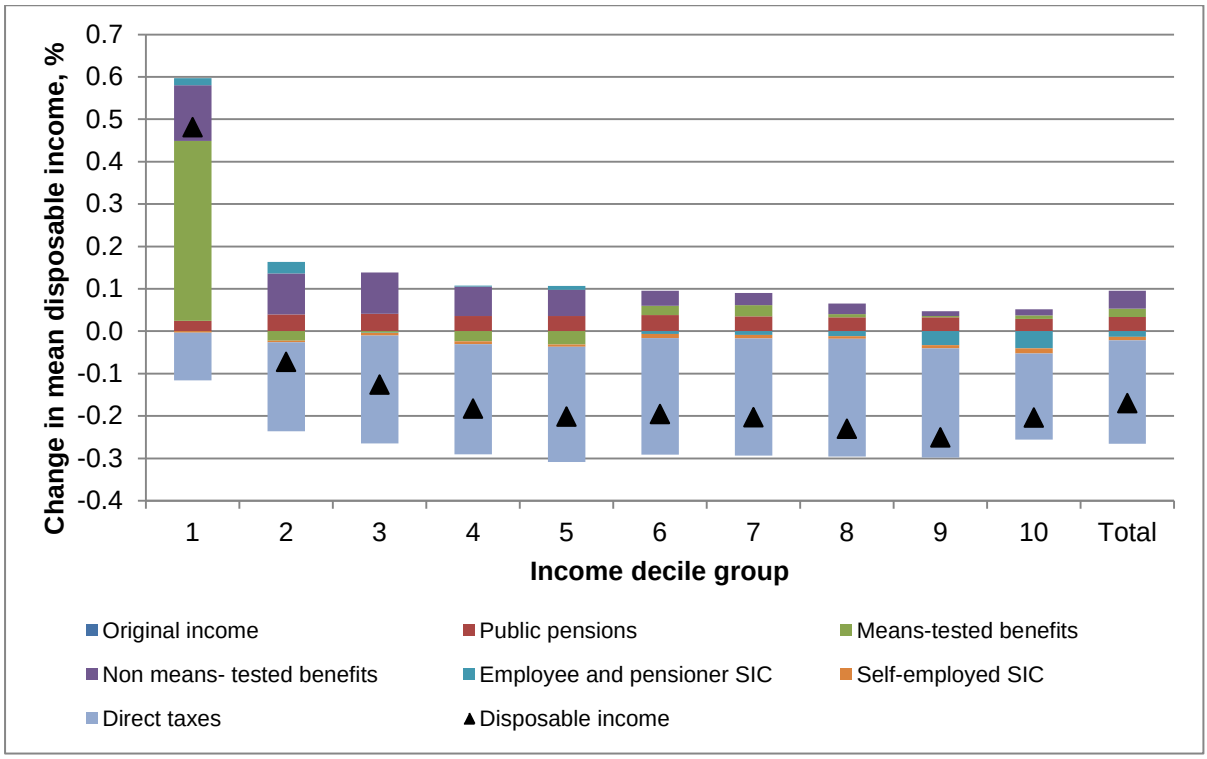
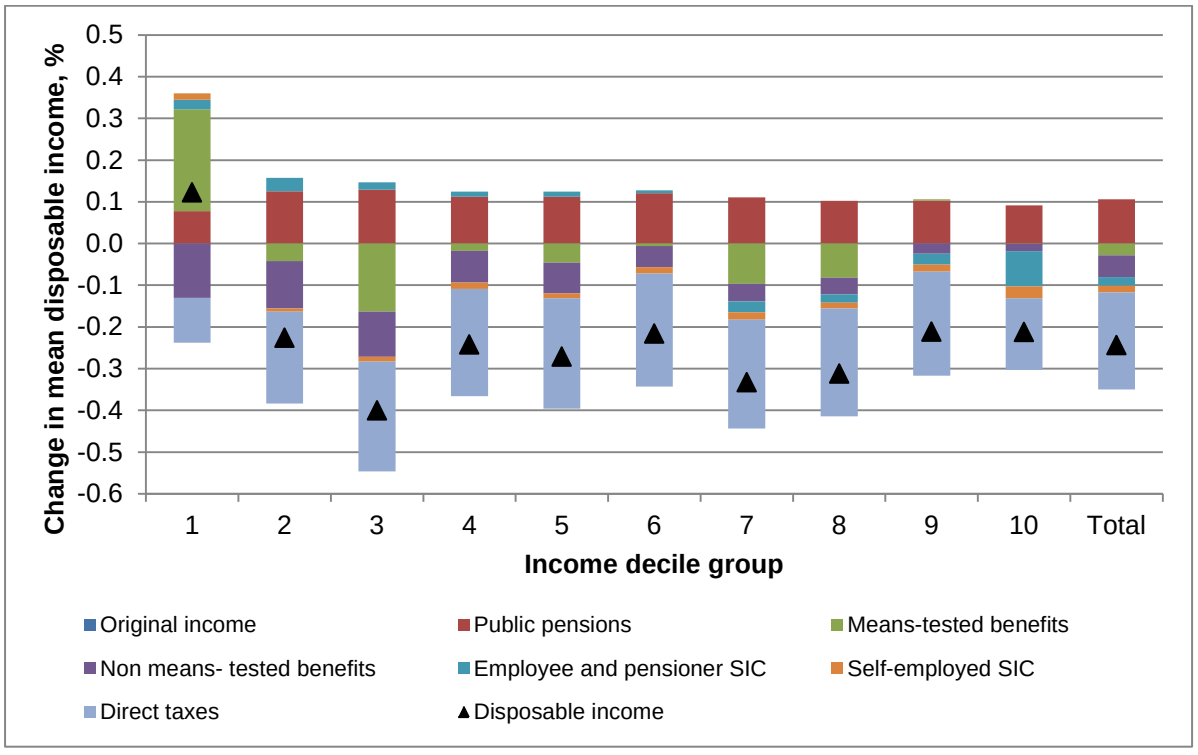


Table 2: Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee and pensioners SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.08	0.25	-0.13	0.02	0.02	-0.11	0.12
2	0.00	0.13	-0.04	-0.11	0.03	-0.01	-0.22	-0.23
3	0.00	0.13	-0.16	-0.11	0.02	-0.01	-0.26	-0.40
4	0.00	0.11	-0.02	-0.08	0.01	-0.02	-0.26	-0.24
5	0.00	0.11	-0.05	-0.07	0.01	-0.01	-0.27	-0.27
6	0.00	0.12	-0.01	-0.05	0.01	-0.02	-0.27	-0.22
7	0.00	0.11	-0.10	-0.04	-0.03	-0.02	-0.26	-0.33
8	0.00	0.10	-0.08	-0.04	-0.02	-0.01	-0.26	-0.31
9	0.00	0.10	0.00	-0.02	-0.03	-0.02	-0.25	-0.21
10	0.00	0.09	0.00	-0.02	-0.08	-0.03	-0.17	-0.21
Total	**0.00**	**0.11**	**-0.03**	**-0.05**	**-0.02**	**-0.02**	**-0.23**	**-0.24**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating tax-benefit monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2: Policy effects in 2014-2015, using the CPI-indexation, %



Poland

Table 1 and Figure 1 shows how reforms of tax-benefit system between 2013 and 2014 in Poland resulted in an average increase of equivalised HDI by 0.8% (measured in real terms). The income group that benefited the most was the 1st income decile with average gain of equivalised HDI by 1.4%. Households from the 2nd to 6th income deciles gained from 1.1% to 1.2% of equivalised HDI. The group that gained the least was the 10th income decile with average increase of equivalised HDI by 0.4%.

Public pensions accounted for the average increase of equivalised HDI by 1.0% which is the most significant positive change of households' incomes. Average changes of public pensions varied between 1.1%-1.3% for income deciles from 1st to 8th. In income deciles 9 and 10 public pensions increased on average by 0.8% and 0.5% respectively.

Direct taxes had a 0.2% negative effect on average on mean equivalised HDI between 2013 and 2014. However the distributional analysis reveals a positive effect for the 1st income decile group (increase by 0.2%) related to the reduction of the factor used in agricultural tax assessment and the reform of the Child Tax Credit (CTC) that applies to taxable incomes from 2014. The reform allowed to refund part of health and social security insurance from income tax due as a top-up of the CTC and increased its basic values. The negative changes of equivalised HDI for the other income deciles (from 2nd to 10th) are related to the fiscal drag effect with tax brackets, the universal tax credit and revenue costs values held constant in nominal terms. Decrease of mean equivalised HDI in those income groups varied on average from 0.1% to 0.2%.

In 2014 the changes in means-tested benefits were limited to housing benefit values and eligibility threshold. The overall effect of means-tested benefits on mean equivalised HDI was close to 0.0%. Households from the 1st income decile benefited the most from the indexation of housing benefits. Their mean equivalised HDI increased on average by 0.1%. Changes in non-means-tested benefits lead to an average increase of mean equivalised HDI by 0.1% and can be explained by increases of Nursing Supplement and Nursing Allowance values. Households from the 3rd to 7th income deciles were positively affected by the increase of those benefits (average increase of mean equivalised HDI between 0.1% and 0.2%).

The overall effect of employee SIC and self-employed SIC on changes of mean eqiuvalised HDI in 2014 was close to zero. Regarding self-employed contributions, households from the 1st income decile group bore the biggest burden of the rise in contributions. Their mean equivalised HDI decreased on average by 0.2%.

Table 2 and Figure 2 shows that as a result of tax-benefit changes between 2014-2015, the average equivalised HDI measured in real values from 2014 increased by 0.6%. This change showed a generally progressive pattern, although the income group which benefited the most was the 2nd income decile with average increase of equivalised HDI by 1.0%.

The biggest positive change of mean equivalised HDI is associated with indexation of public pensions. On average this income component increased by 0.7% with the 1st income decile benefiting the most from average increase of public pensions by 1.1% and the 10th income decile, indicating the lowest increase by 0.3%. The fact that majority of pensioners are located in the lower

income deciles determines the simulated pattern of income changes due to uprating of pensions with the average pension index. However, the actual effect of pension indexation in 2015 is not fully reflected in Figure 2. As shown by Myck et al. (2014, CenEA Commentary, 29.10.2014) the effect was even more progressive due to the combination of proportional indexation with a lower bound on the minimum indexation amount of 36 PLN per month (gross) for retirement and 27 PLN per month for disability pensions. This policy, implemented in March 2015, implied that lowest retirement and disability pensions grew at an above average rate (see: Myck et al. 2014, CenEA Commentary, 29.10.2014).

The disposable income component which contributed the most to negative changes of mean equivalised HDI is associated with the increase of self-employed social security contributions. This income component caused average decrease of equivalised HDI by 0.2% with households from the 1st income decile that bore the biggest burden of self-employed SIC with average decrease of mean equivalised HDI by 1.1%.

Means-tested and non-means-tested benefits are another reason of the increase in mean equivalised HDI. Both groups of benefits led to an average growth of equivalised HDI by 0.1%.

The effect of means-tested benefits can be explained by changes in Family Allowance, Special Nursing Allowance and Housing Benefit. In 2015 income thresholds to Family Allowance and Special Nursing Allowance have been raised. Changes in Housing Benefit included increase of benefit values and raise of income eligibility thresholds. The changes in means-tested benefits affected households from the 1st to 3rd income decile groups with highest gains among households from the 2nd income decile (average increase of equivalised HDI by 0.4%).

Changes in HDI caused by non-means tested benefits are connected with annual indexation of Nursing Supplement and raise of Nursing Allowance values. Those changes influenced the incomes of households from the 2nd to 8th income deciles and resulted in average increases of equivalised HDI ranging from 0.1% to 0.2%.

Another part of disposable income that contributed to changes in equivalised HDI is direct taxes. Although the overall effect of changes in direct taxes on mean equivalised HDI is close to 0.0%, the effects vary among particular income deciles. The positive change of 0.4% in 1st income decile is associated with the decrease of the factor used in agricultural tax assessment, while the negative changes of equivalised HDI in the middle and upper-end of the income distribution are connected with the effect of fiscal drag with all nominal elements of the direct tax system unchanged between 2014 and 2015. However, these changes are small (about -0.1%).The negative effect of the Employee SIC is connected with annual indexation of income thresholds for old-age pension and disability insurance.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	1.25	0.11	0.04	0.00	-0.17	0.20	1.44
2	0.00	1.23	0.02	0.05	0.00	-0.03	-0.15	1.11
3	0.00	1.24	-0.04	0.09	0.00	-0.08	-0.15	1.07
4	0.00	1.28	-0.01	0.14	0.00	-0.05	-0.20	1.17
5	0.00	1.24	0.00	0.16	0.00	-0.02	-0.21	1.18
6	0.00	1.27	0.00	0.11	0.00	-0.03	-0.20	1.15
7	0.00	1.14	0.00	0.06	0.00	-0.04	-0.17	0.98
8	0.00	1.06	0.00	0.04	0.00	-0.02	-0.19	0.89
9	0.00	0.80	0.00	0.02	0.00	-0.02	-0.14	0.65
10	0.00	0.50	0.00	0.02	-0.01	-0.02	-0.12	0.37
Total	**0.00**	**0.97**	**0.00**	**0.06**	**0.00**	**-0.03**	**-0.15**	**0.84**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %

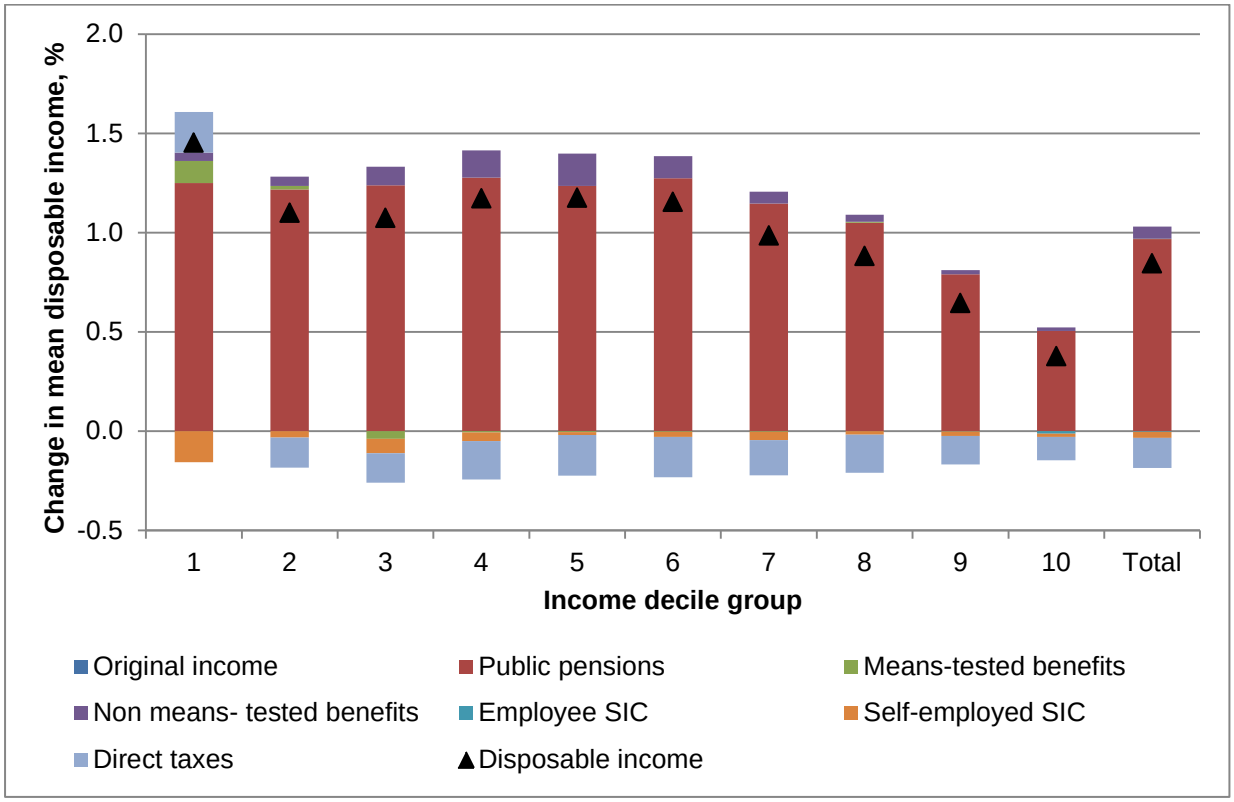
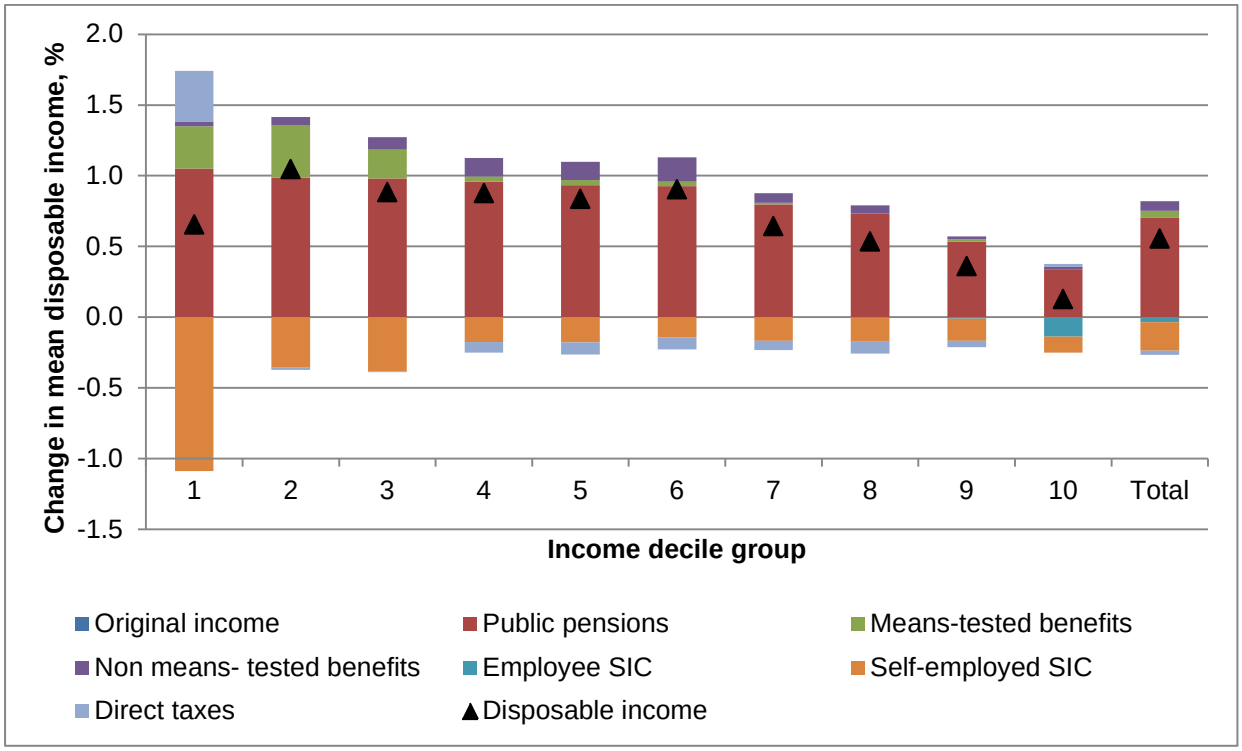


Table 2: Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	1.06	0.28	0.03	0.00	-1.10	0.38	0.66
2	0.00	0.99	0.37	0.05	0.00	-0.37	-0.01	1.03
3	0.00	0.98	0.20	0.09	0.00	-0.38	-0.01	0.88
4	0.00	0.96	0.05	0.13	0.00	-0.19	-0.07	0.88
5	0.00	0.93	0.04	0.13	0.00	-0.18	-0.08	0.84
6	0.00	0.93	0.03	0.17	0.00	-0.14	-0.09	0.91
7	0.00	0.80	0.01	0.07	0.00	-0.17	-0.06	0.64
8	0.00	0.74	0.00	0.06	0.00	-0.17	-0.08	0.54
9	0.00	0.54	0.02	0.02	-0.01	-0.16	-0.05	0.36
10	0.00	0.34	0.00	0.02	-0.14	-0.11	0.02	0.13
Total	**0.00**	**0.70**	**0.05**	**0.07**	**-0.03**	**-0.20**	**-0.03**	**0.55**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2: Policy effects in 2014-2015, using the CPI-indexation, %



Portugal

Table 1 and Figure 1 for 2013-2014 show that on average, (deflated) 2014 policies have no noticeable effect on household income, when compared with the 2013 policies. In fact, there is hardly any relevant change in policies during 2014. The austerity measures were all implemented in the years before and only begin to be alleviated in 2015. The small decline in disposable income due to changes in means-tested benefits is explained by the increase in the age criterion of the solidarity supplement for the elderly by one additional year. Changes in the extraordinary solidarity contribution on pensions are responsible for the small decreases in disposable incomes for households with pensioners located in higher deciles of the distribution.

The situation is different for 2014-2015 as shown in Table 2 and Figure 2. In comparison with 2014, (deflated) 2015 policies increase mean household income by 1.01%. The main drivers for this increase rely on the changes in the income tax and in the extraordinary pensioners' solidarity contributions policies in 2015.

Changes in income tax – a new quotient for the calculation of taxable income that takes the number of children into account – are especially observed near the middle and in most of the top half of the distribution, being accounted for more than 1pp variations on mean equivalised household income for deciles 7 and 8. The alleviation of a big part of the extraordinary solidarity contribution paid by pensioners in 2015 – the monthly threshold from which pensioners start paying solidarity contributions was increased from 1,000 to 4,611.42 euros – is accountable for a 0.59% increase in disposable income. As expected, the impact of this policy reform is clearly increasing along the deciles and is zero for pensions below 1,000 euros, i.e. pensioners located at the lower part of the distribution. The sum of both effects gives the regressive shape to the overall pattern, i.e., higher income groups gain more in relative terms.

Finally, as the vast majority of public pensions remained frozen between 2014 and 2015 while prices increased, this income component ended up reducing mean equivalised household disposable income by approximately 0.2 per cent in real terms.

Table 1 Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee & pensioners SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.06	0.01	0.06	0.00	0.00	0.00	0.13
2	0.00	0.06	-0.08	0.04	0.00	0.00	0.01	0.03
3	0.00	0.05	-0.02	0.04	0.00	0.00	0.02	0.08
4	0.00	-0.03	-0.11	0.04	0.00	0.00	0.01	-0.09
5	0.00	0.01	-0.11	0.04	-0.02	0.00	0.02	-0.06
6	0.00	0.04	-0.13	0.03	-0.03	0.00	0.04	-0.04
7	0.00	0.04	0.00	0.03	-0.03	0.00	0.04	0.08
8	0.00	0.04	-0.01	0.04	-0.07	0.00	0.04	0.03
9	0.00	0.04	0.00	0.02	-0.12	0.00	0.05	-0.01
10	0.00	0.05	0.00	0.00	-0.22	0.01	0.12	-0.04
Total	**0.00**	**0.04**	**-0.03**	**0.03**	**-0.09**	**0.00**	**0.05**	**0.00**

Notes: Shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1 Policy effects in 2013-2014, using the CPI-indexation, %

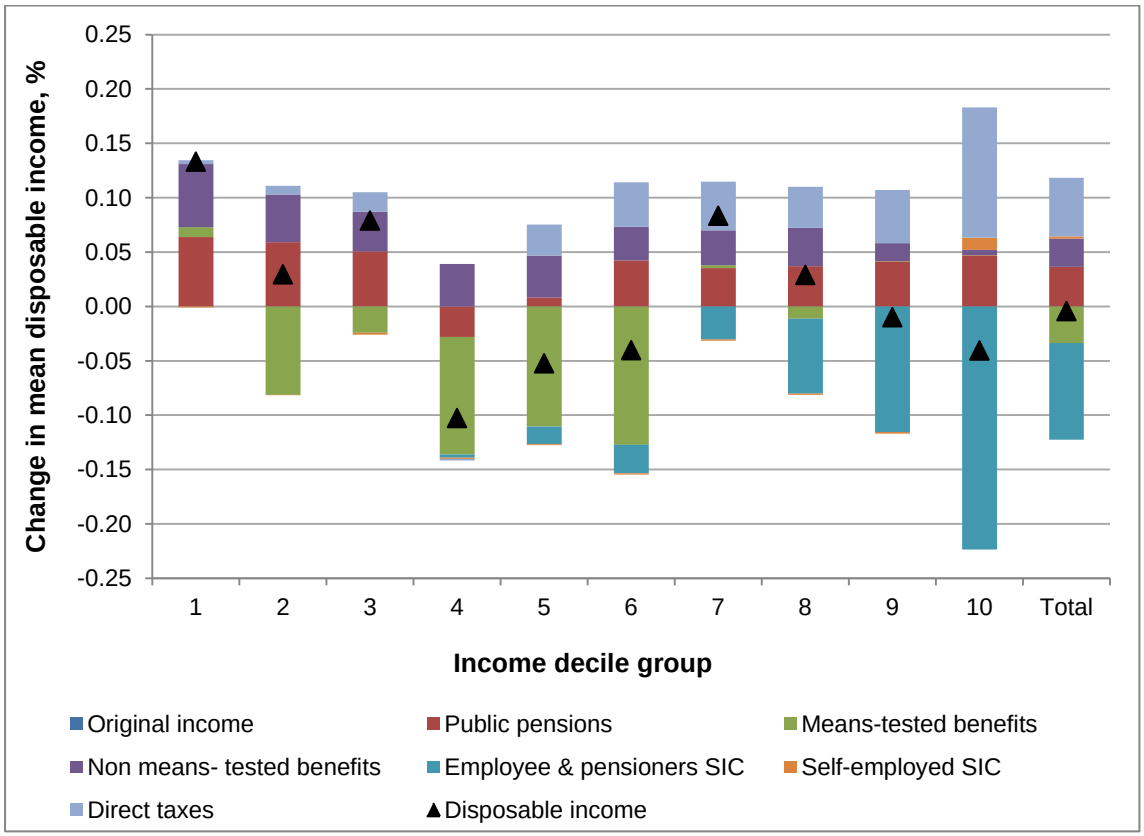
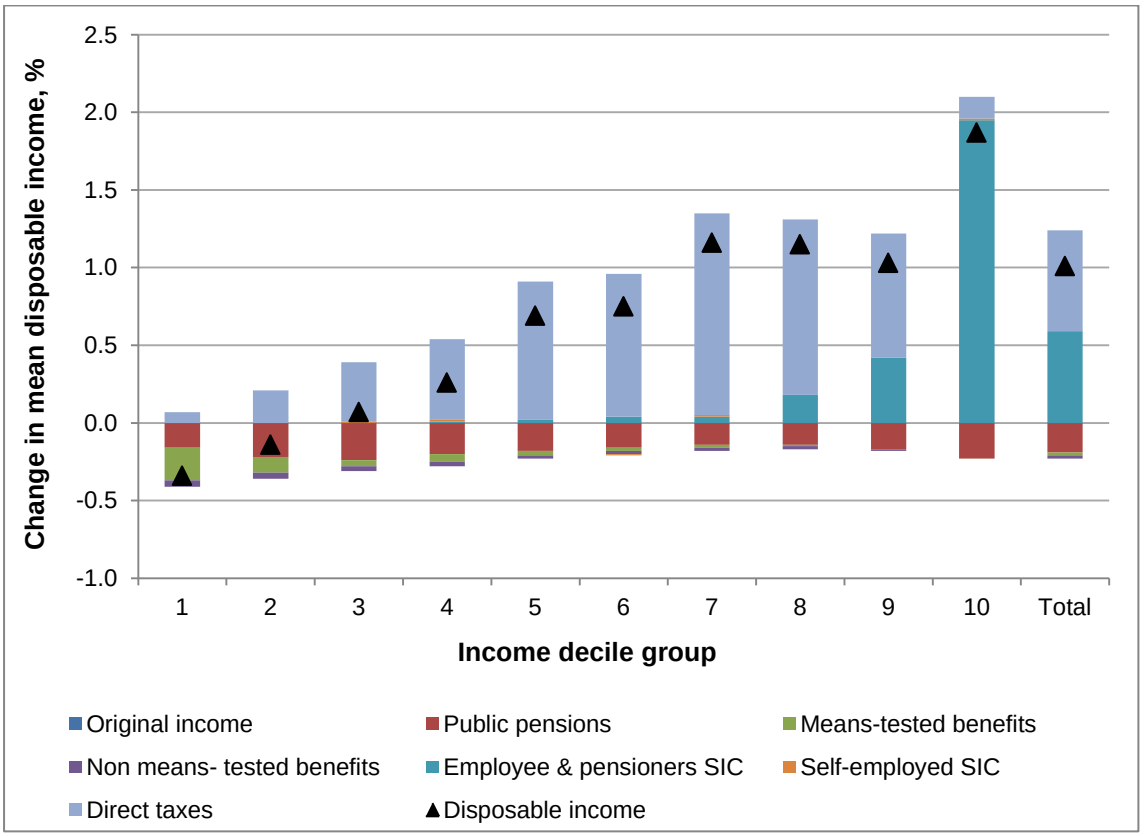


Table 2 Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee & pensioners SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	-0.16	-0.21	-0.04	0.00	0.00	0.07	-0.34
2	0.00	-0.22	-0.10	-0.04	0.00	0.00	0.21	-0.14
3	0.00	-0.24	-0.04	-0.03	0.00	0.01	0.38	0.07
4	0.00	-0.20	-0.05	-0.03	0.01	0.01	0.52	0.26
5	0.00	-0.17	-0.03	-0.02	0.02	0.00	0.89	0.69
6	0.00	-0.16	-0.02	-0.02	0.04	-0.01	0.92	0.75
7	0.00	-0.14	-0.02	-0.02	0.04	0.00	1.30	1.16
8	0.00	-0.14	-0.01	-0.02	0.18	0.00	1.13	1.15
9	0.00	-0.17	0.00	-0.01	0.42	0.00	0.80	1.03
10	0.00	-0.23	0.00	0.00	1.95	0.01	0.14	1.87
Total	**0.00**	**-0.19**	**-0.02**	**-0.02**	**0.59**	**0.00**	**0.65**	**1.01**

Notes: Shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2 Policy effects in 2014-2015, using the CPI-indexation, %



Romania

As a result of policy changes between 2013 and 2014, Table 1 and Figure 1 show that the disposable income of all household has increased by approximately 1%. The households in the first decile group have benefited by nearly 6% increase of their disposable income, mostly driven by the changes in the means-tested benefits (more than 5% of disposable income). Particularly, the means-tested family allowance has been increased by 33% of 2013 values, both in terms of amounts paid and thresholds for income testing. The most important means-tested benefit, the social assistance benefit, has registered a 13% raise in the eligibility threshold. Also, the amount of the heating benefit in the case of households using gas for house heating has been increased by a percent between 5 and 17%, depending on the income level of the household.

In the case of non means-tested benefits, there is a slight income increase effect (below 0.1% for all households), which can be attributed to the changes in the amounts of the unemployment benefit and child raising benefit, which were restored in 2014 to the 2010 value (pre-“austerity measures”). The positive change is too small to be visible in Figure 1.

Negative income effects are attributed to direct taxes, specifically because of the increase of the minimum health insurance contribution, its value being linked with the statutory minimum wage, which was increased by 13% from 2013 to 2014.

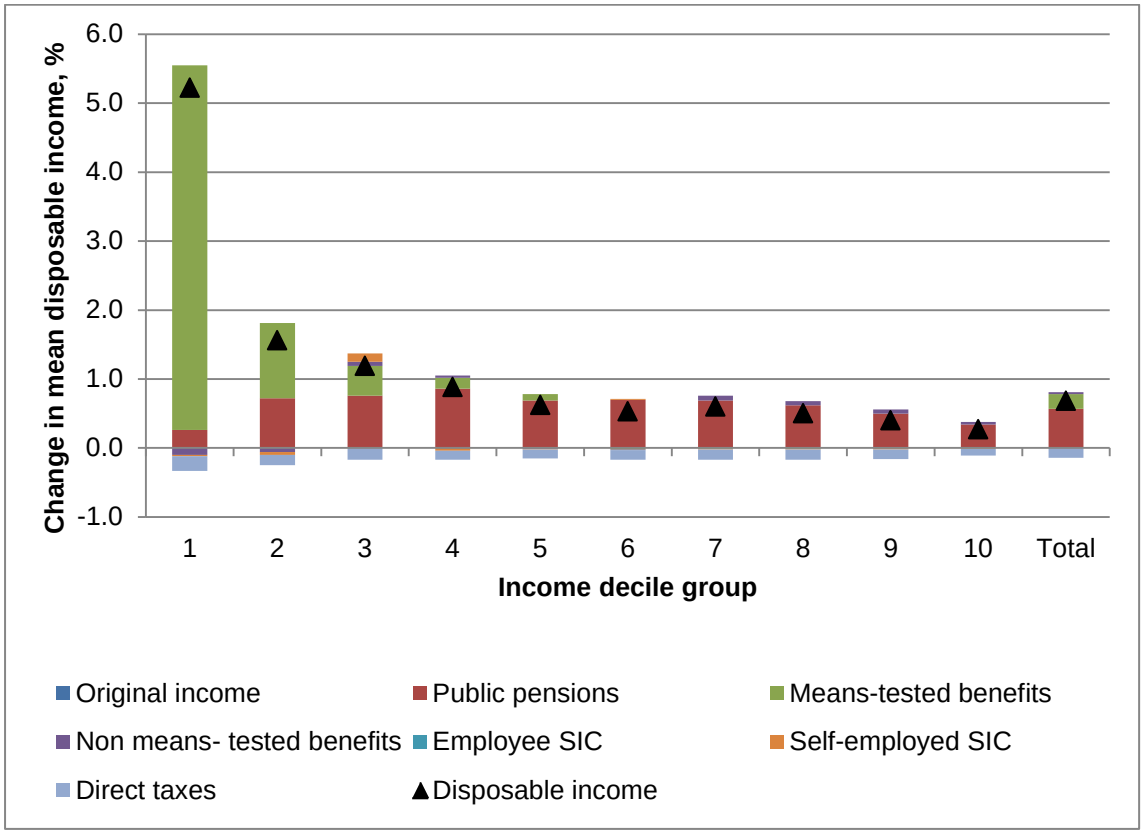
There has been an increase in the pension income (almost 1% for all households), as a consequence of the indexation coefficient applied which is higher than the consumer prices index.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.26	5.29	-0.1	0.00	-0.02	-0.21	5.22
2	0.00	0.72	1.09	-0.06	0.00	-0.04	-0.15	1.56
3	0.00	0.76	0.43	0.06	0.00	0.12	-0.17	1.19
4	0.00	0.86	0.16	0.03	0.00	-0.04	-0.13	0.88
5	0.00	0.69	0.09	-0.01	0.00	-0.01	-0.13	0.62
6	0.00	0.7	-0.02	-0.01	0.00	0.01	-0.14	0.53
7	0.00	0.69	-0.01	0.07	0.00	-0.01	-0.15	0.6
8	0.00	0.62	-0.01	0.06	0.00	-0.01	-0.15	0.5
9	0.00	0.50	0.00	0.06	0.00	-0.02	-0.14	0.4
10	0.00	0.34	0.00	0.04	0.00	-0.01	-0.1	0.27
Total	0.00	0.57	0.21	0.03	0.00	0	-0.14	0.68

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %



Slovenia

Table 1 and Figure 1 show the effects of policy changes in 2013-2014 on mean equivalised household disposable income by income component and income decile group in Slovenia. Disposable income for the total population decreased by only 0.16%, however the effects of tax/benefits changes are quite different along the income distribution. In fact, the poorest decile experienced a positive increase in disposable income by 3.2 percent. On the other hand, all income groups between the third lowest and the top decile, experienced a mild decline in disposable income, between 0.16 and 0.57 percent, with the richest deciles characterized by relatively larger reductions.

Means tested benefits had the largest positive impact on disposable income, although mostly for the poorest decile. This can be explained by the increase in minimum income (the base value for the calculation of social assistance, housing benefit and income support) at a higher rate than CPI during the 2013-2014 period.

Self-employed social security contributions are the second component contributing positively to disposable income, although to a very small extent. Since 2014, self-employed social contributions have been levied on actual incomes, a basis lower than the one in place until 2013 (an income schedule depending on the average gross wage). This led to a slight increase in disposable income across all deciles, except for the poorest one.

Employee's social security contributions on the contrary represent the largest contribution to the reduction in disposable income between 2013 and 2014. In 2014, in fact, employee social security contributions were introduced also on occasional incomes, therefore reducing disposable income. Higher deciles experienced relatively larger reductions since the incidence of occasional incomes was higher at the upper end of distribution.

Non means tested benefits had a negative although almost negligible impact on disposable income for all income deciles except the 5th. Such negative effect was plausibly caused by the absence of indexation for most of these benefits between 2013 and 2014.

Further, the absence of indexation made public pensions drop in real terms, especially for the lowest deciles, where the share of pensions in disposable income is larger, thereby reducing total disposable income.

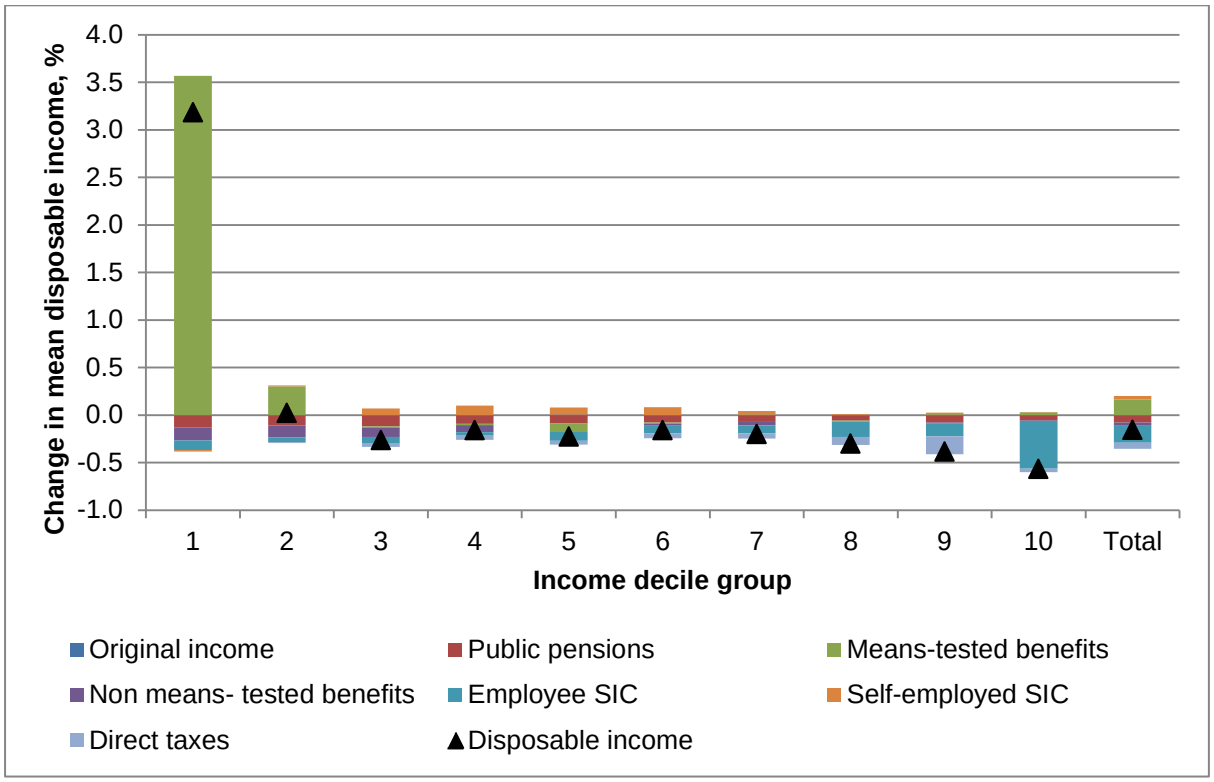
Finally, direct taxes, mainly Personal Income Taxes, reduced disposable income across all deciles between 2013 and 2014, although negligibly. This stems from the abolition of seniority tax allowance in 2014 and from the lack of uprating of all remaining tax allowances' amounts between 2013 and 2014. Since wages slightly increased during the same period, while tax allowances decreased in real terms, the final tax base and consequently personal income taxes (PIT) increased across all deciles, reducing disposable income.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	-0.13	3.57	-0.14	-0.10	-0.01	-0.01	3.18
2	0.00	-0.11	0.30	-0.12	-0.05	0.01	-0.01	0.02
3	0.00	-0.12	-0.02	-0.09	-0.07	0.07	-0.03	-0.26
4	0.00	-0.09	-0.01	-0.08	-0.04	0.10	-0.04	-0.16
5	0.00	-0.09	-0.08	0.01	-0.10	0.07	-0.04	-0.23
6	0.00	-0.08	-0.01	-0.02	-0.09	0.08	-0.05	-0.16
7	0.00	-0.07	0.00	-0.04	-0.08	0.04	-0.05	-0.20
8	0.00	-0.06	-0.01	0.00	-0.16	0.01	-0.08	-0.30
9	0.00	-0.08	0.01	-0.01	-0.14	0.02	-0.19	-0.39
10	0.00	-0.06	0.03	-0.01	-0.50	0.00	-0.04	-0.57
Total	**0.00**	**-0.08**	**0.16**	**-0.03**	**-0.18**	**0.04**	**-0.06**	**-0.16**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %



Slovak Republic

Table 1 and Figure 1 show the following for 2013-2014:

Increases in Public Pensions and Non Means-tested benefits have accounted for an increase in average equivalised household disposable income of 0.51 and 0.08 percentage points, respectively. The increase in non-means tested benefits across income deciles was driven by the growth of parental allowance. Means-tested benefits had almost negligible influence on household disposable income.

The effect of pensions is driven by the fact that growth in average pensions, which is used to uprate pensions in EUROMOD (as they are not simulated), was higher than growth in Harmonized Index of Consumer Prices, which is used as the reference to deflate monetary parameters in this exercise. Pensions increased mainly in the lower-middle part of the income distribution.

Increases in self-employment SICs have accounted for a 0.22 percentage point decrease in household disposable income. The changes affected the most the first income decile group with a decrease of 0.48 percentage points. The reason behind the increase in self-employment SICs was the increase of the proportion of Average wage (from 0.442 to 0.5) considered as part of the assessment base for self-employment SICs, as well as the decrease in the coefficient used in the division for the calculation of the assessment base (from 1.9 to 1.6).

Decreases in taxes have accounted for a 0.16 percentage point increase in household disposable income. The effect comes from two sources. First, the increase of personal income tax basic allowance by 1.8% in 2014. The second source relates to the higher social contributions paid by self-employed that are deductible from tax base.

Table 2 and Figure 2 show the following for 2014-2015:

Reductions in Employee SICs have accounted for a 0.20 percentage points increase in household disposable income. The reductions have mainly resulted in increases of household disposable income in the lowest income decile groups. The policy reform driving these effects is the introduction of an allowance for health insurance contributions, equal to 380 eur per month (minimum wage in 2015). The allowance decreases the assessment base for health insurance contributions. It is applicable only to employment income, while when determining the entitlement other revenues are also considered. The allowance gradually decreases with income and is equal to zero with income of 570 eur per month.

Decreases in means-tested benefits have accounted for a 0.08 percentage points reduction in household disposable income. The most important reduction (0.93pp) is observed in the first decile group. The decrease in means-tested benefits might be the result of the health insurance contribution allowance. The allowance increases income of low income employees and thus reduces the entitlement to social assistance.

Increases in direct taxes have accounted for a 0.12 percentage point decrease in household disposable income. This might also be related to the reduction of employee SICs, as they are deducted from taxable income to compute the tax base. This is applicable only to lowest income deciles. The second reason could be the fact that basic tax allowance which reduces assessment base for income tax did not rise while the income increased in 2015.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.26	-0.44	0.22	-0.01	-0.47	-0.01	-0.46
2	0.00	0.61	0.02	0.13	0.00	-0.29	0.10	0.57
3	0.00	0.75	0.01	0.12	0.01	-0.29	0.12	0.71
4	0.00	0.89	0.01	0.09	-0.01	-0.22	0.14	0.90
5	0.00	0.79	0.00	0.06	0.00	-0.16	0.15	0.84
6	0.00	0.70	0.00	0.07	0.00	-0.23	0.17	0.71
7	0.00	0.51	0.00	0.08	0.03	-0.21	0.16	0.56
8	0.00	0.48	0.00	0.06	0.01	-0.20	0.18	0.52
9	0.00	0.36	0.00	0.05	0.00	-0.20	0.18	0.39
10	0.00	0.17	0.00	0.04	-0.01	-0.18	0.16	0.19
Total	**0.00**	**0.51**	**-0.02**	**0.08**	**0.00**	**-0.22**	**0.15**	**0.50**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %

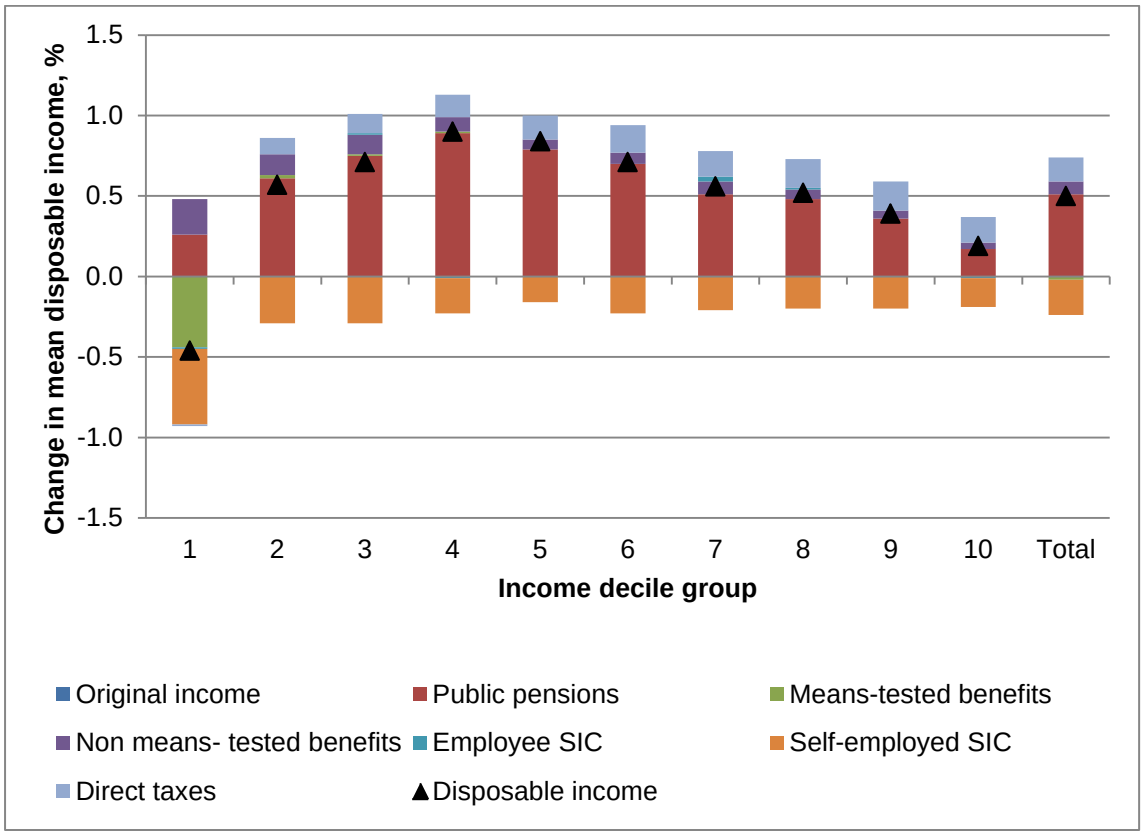
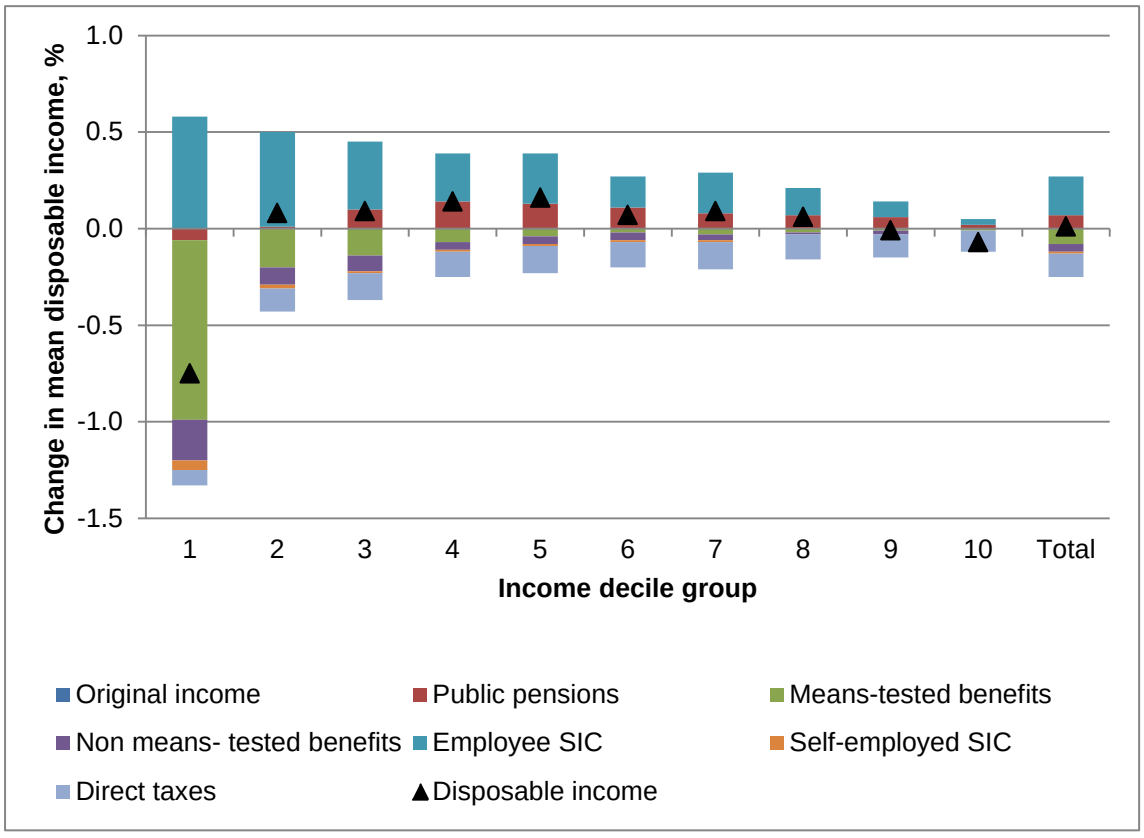


Table 2: Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	-0.06	-0.93	-0.21	0.58	-0.05	-0.08	-0.75
2	0.00	0.01	-0.20	-0.09	0.49	-0.02	-0.12	0.08
3	0.00	0.10	-0.14	-0.08	0.35	-0.01	-0.14	0.09
4	0.00	0.14	-0.07	-0.04	0.25	-0.01	-0.13	0.14
5	0.00	0.13	-0.04	-0.04	0.26	-0.01	-0.14	0.16
6	0.00	0.11	-0.02	-0.04	0.16	-0.01	-0.13	0.07
7	0.00	0.08	-0.03	-0.03	0.21	-0.01	-0.14	0.09
8	0.00	0.07	-0.02	-0.01	0.14	0.00	-0.13	0.06
9	0.00	0.06	-0.01	-0.02	0.08	0.00	-0.12	-0.01
10	0.00	0.02	-0.01	0.00	0.03	0.00	-0.11	-0.07
Total	**0.00**	**0.07**	**-0.08**	**-0.04**	**0.20**	**-0.01**	**-0.12**	**0.01**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2: Policy effects in 2014-2015, using the CPI-indexation, %



Finland

Table 1 and Figure 1 show how in 2014 the policy changes decrease the disposable income in all income deciles. The most significant effect can be seen in the upper half of the income distribution. The main policy instrument driving the changes is the increase in several social insurance contributions: daily allowance contribution, earnings-related pension contribution and unemployment insurance contribution. In addition, the tightened municipal tax rates had a decreasing impact to disposable income in all deciles.

Table 2 and Figure 2 show the effect of policy changes in 2014-2015. The income distribution is affected by several policy changes. The child tax credit introduced in 2015 benefits the lower income deciles. However, the cut in child benefit neutralizes the effect for most households. The local authority income support was increased slightly more than other benefits which can be seen in the rise of means-tested benefits.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.02	-0.01	-0.06	-0.10	-0.02	-0.08	-0.26
2	0.00	0.04	0.00	-0.04	-0.20	-0.02	-0.13	-0.35
3	0.00	0.05	0.03	-0.04	-0.27	-0.04	-0.17	-0.43
4	0.00	0.05	0.01	-0.03	-0.35	-0.03	-0.21	-0.56
5	0.00	0.04	0.01	-0.02	-0.42	-0.04	-0.20	-0.64
6	0.00	0.03	-0.01	-0.02	-0.48	-0.04	-0.19	-0.71
7	0.00	0.03	0.00	-0.02	-0.54	-0.03	-0.19	-0.75
8	0.00	0.03	0.00	-0.01	-0.57	-0.03	-0.20	-0.78
9	0.00	0.02	0.00	-0.01	-0.61	-0.04	-0.19	-0.82
10	0.00	0.02	0.00	0.00	-0.58	-0.04	-0.18	-0.79
Total	**0.00**	**0.03**	**0.00**	**-0.02**	**-0.47**	**-0.04**	**-0.18**	**-0.68**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the HICP-indexation, %

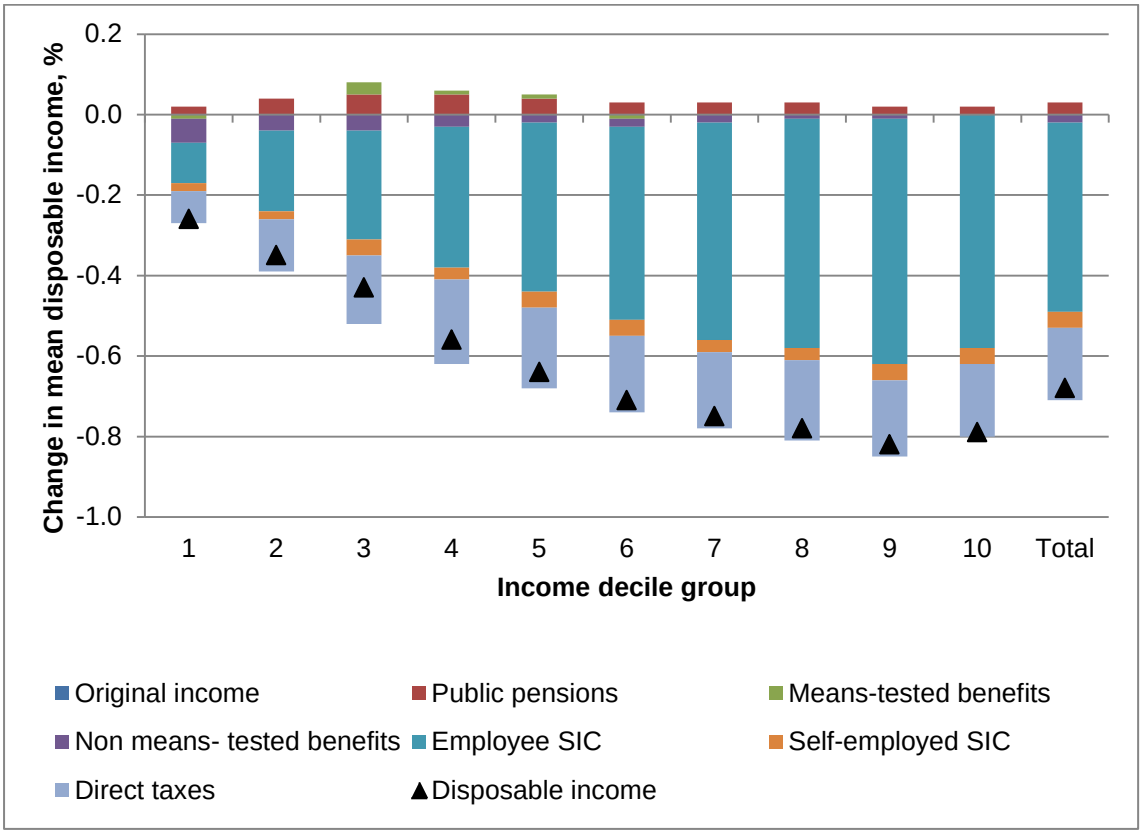
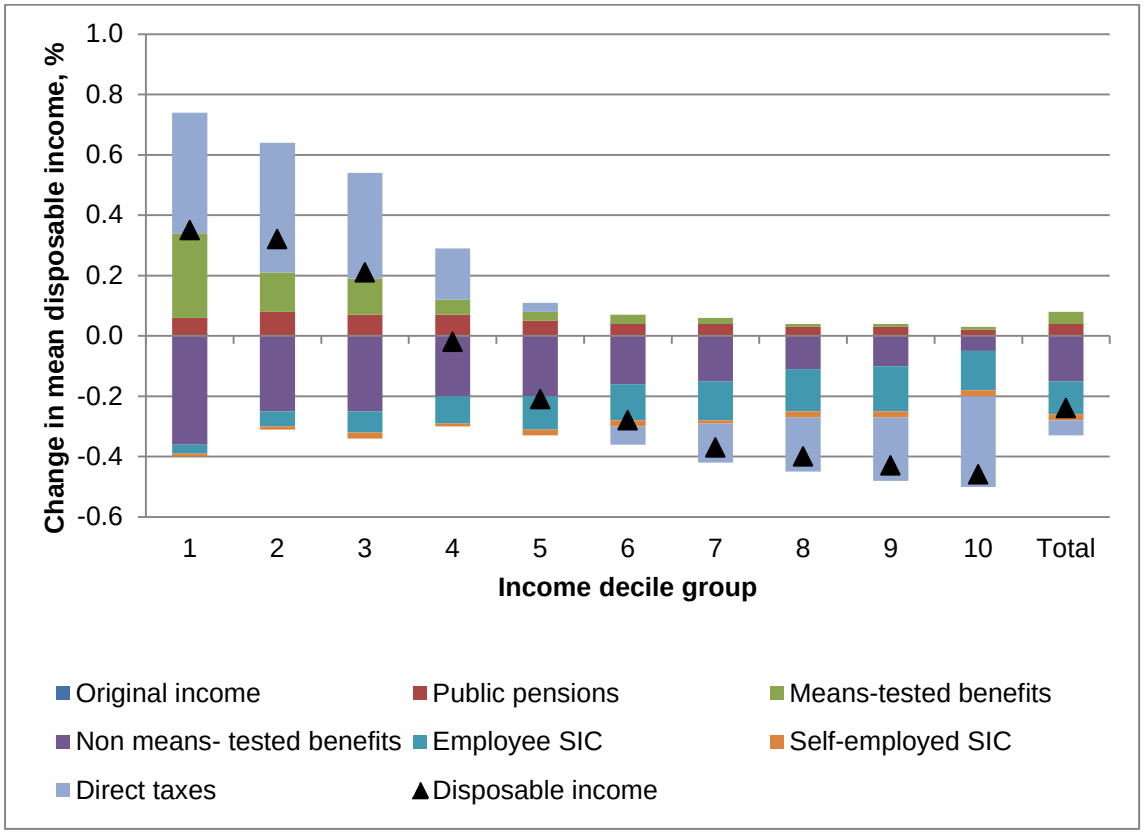


Table 2: Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.06	0.28	-0.36	-0.03	-0.01	0.40	0.35
2	0.00	0.08	0.13	-0.25	-0.05	-0.01	0.43	0.32
3	0.00	0.07	0.12	-0.25	-0.07	-0.02	0.35	0.21
4	0.00	0.07	0.05	-0.20	-0.09	-0.01	0.17	-0.02
5	0.00	0.05	0.03	-0.20	-0.11	-0.02	0.03	-0.21
6	0.00	0.04	0.03	-0.16	-0.12	-0.02	-0.06	-0.28
7	0.00	0.04	0.02	-0.15	-0.13	-0.01	-0.13	-0.37
8	0.00	0.03	0.01	-0.11	-0.14	-0.02	-0.18	-0.40
9	0.00	0.03	0.01	-0.10	-0.15	-0.02	-0.21	-0.43
10	0.00	0.02	0.01	-0.05	-0.13	-0.02	-0.30	-0.46
Total	**0.00**	**0.04**	**0.04**	**-0.15**	**-0.11**	**-0.02**	**-0.05**	**-0.24**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2: Policy effects in 2014-2015, using the CPI-indexation, %



Sweden

Table 1 and Figure 1 show the effects of policy changes in 2013-2014 on mean equivalised household disposable income by income component and income decile group in Sweden. Changes in tax-benefit policies between 2013 and 2014 have accounted for an increase of household disposable income of 0.8 percentage points on average. The largest increases benefited households in the first decile of the income distribution, but also households in the upper part of the distribution.

Changes in direct taxes have accounted for a 0.98 percentage point increase in household disposable income. The positive effect of the changes increases the higher household disposable income. The factor driving these changes is the increase in rates of additional basic allowances for pensioners and to some extent the increase in rates of earned income tax credit.

Changes in means-tested benefits have accounted for an increase in average equivalised household disposable income of 0.10 percentage points. The largest increase was of 0.80 percentage points in average household income in the first decile group. Two factors drive the positive effect of changes in means-tested benefits. First, the increase in the amount of the family needs component of housing allowance from 1300SEK per month to 1500 SEK per month for families with 1 child, 1750 SEK per month to 2000 SEK per month for families with 2 children and 2350 SEK per month to 2650 SEK per month for families with 3 or more children. Second, the introduction of a deductible amount (24000 SEK) in the definition of income means housing allowance for pensioners.

Finally, decreases in public pensions have accounted for a decrease of 0.31 percentage points in average equivalised disposable income. The changes reflect the fact the pension index has decreased between 2013 and 2014 compared to the increase of CPI observed in those years. The distribution of losses across income deciles reflects where recipients of pensions are located.

For the period between 2014 and 2015, Table 2 and Figure 2 show that changes in tax-benefit policies have accounted for a modest increase of household disposable income, by only 0.1 percentage points on average. The largest increases benefited households between the second and the fifth decile of the income distribution. Households in the upper two deciles of the distribution experienced a negative but quite small variation in disposable income, while the remaining deciles enjoyed positive but negligible changes.

The most important component contributing to the growth of disposable income between 2014 and 2015 were public pensions, most likely since the pension index grew faster than CPI growth. The indexation favoured all deciles, but to a greater extent those between the bottom second and the fifth.

Direct taxes have been the most important income component negatively affecting disposable income growth, quite homogeneously across deciles. Two main structural changes can be observed in relation to direct taxes. First, the allowance for voluntary private pension contributions was reduced from 12000SEK to 1800SEK per year. This reduction had the effect of expanding the income tax base, and therefore the amount of income taxes paid, reducing disposable income. The second change consists in the increase in the amount of the Earned Income Tax Credit as a consequence of the increase in the income base on which the EITC is calculated [in 2015, the formula for the EITC income base became: yem + yse + kfb -min(xpp,1800), from the 2014 version in place since 2008 and

equal to: yem + yse + kfb -min(xpp,12000)]. The two changes have opposite effects on disposable income; the final effect is therefore a priori undetermined, but in this case the negative effect of taxes on disposable income dominated.

Means-tested benefits have had a slight regressive impact, reducing negligibly disposable income on average, though a bit more substantially for the first two lowest deciles. The effect can be explained by the change in the amount of taxes paid, which can both restrict the eligibility condition for receiving means tested benefits, and reduce the amount of the means-tested benefits received.

Table 1: Policy effects in 2013-2014, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	-0.23	0.80	0.02	0.00	0.00	0.43	1.02
2	0.00	-0.69	0.53	0.03	0.00	0.00	0.87	0.73
3	0.00	-0.53	0.19	0.07	0.00	0.00	0.92	0.64
4	0.00	-0.44	0.07	0.09	0.00	0.00	0.94	0.65
5	0.00	-0.32	0.00	0.07	0.00	0.00	0.97	0.72
6	0.00	-0.25	0.04	0.05	0.00	0.00	1.01	0.85
7	0.00	-0.21	0.00	0.06	-0.01	-0.01	1.03	0.86
8	0.00	-0.24	0.04	0.04	-0.01	0.00	1.06	0.90
9	0.00	-0.23	0.05	0.03	0.00	0.00	1.09	0.94
10	0.00	-0.26	0.00	0.01	0.00	-0.01	0.98	0.73
Total	0.00	-0.31	0.10	0.05	0.00	0.00	0.98	0.80

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1: Policy effects in 2013-2014, using the CPI-indexation, %

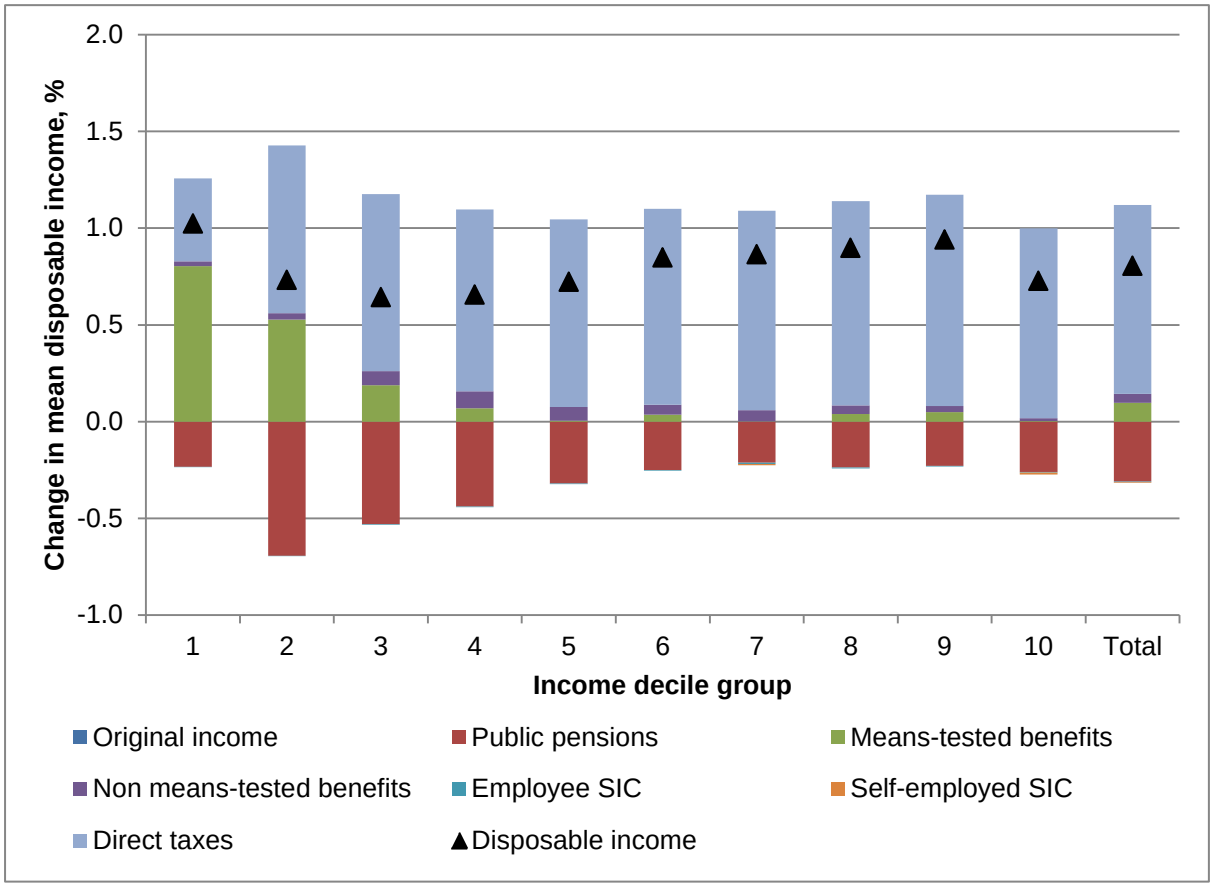
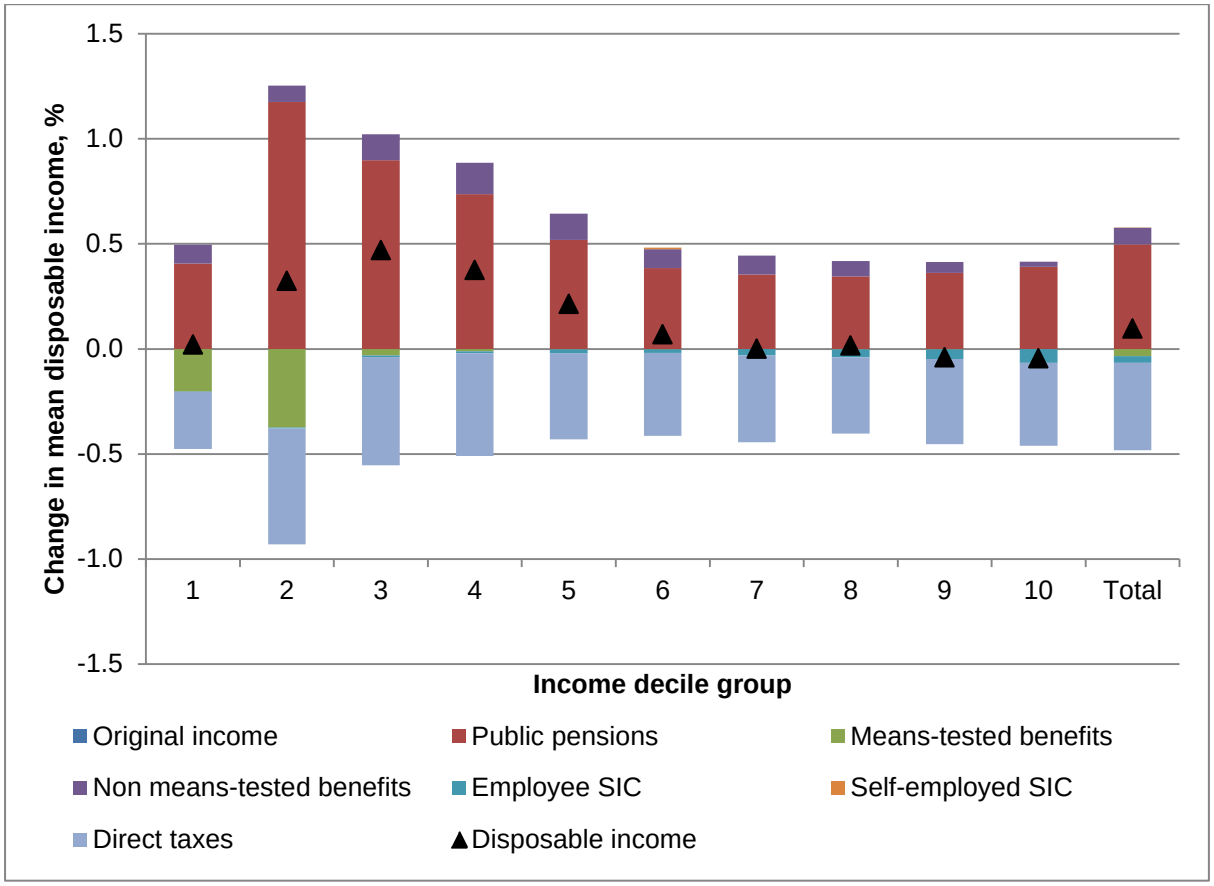


Table 2: Policy effects in 2014-2015, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.41	-0.20	0.09	0.00	0.00	-0.27	0.02
2	0.00	1.17	-0.37	0.08	0.00	0.00	-0.55	0.32
3	0.00	0.90	-0.03	0.12	-0.01	0.00	-0.51	0.47
4	0.00	0.74	-0.01	0.15	-0.01	0.00	-0.49	0.38
5	0.00	0.52	0.00	0.12	-0.02	0.00	-0.41	0.21
6	0.00	0.38	0.00	0.09	-0.02	0.01	-0.39	0.07
7	0.00	0.35	0.00	0.09	-0.03	0.00	-0.41	0.00
8	0.00	0.34	0.00	0.07	-0.04	0.00	-0.36	0.02
9	0.00	0.36	0.00	0.05	-0.05	0.00	-0.41	-0.04
10	0.00	0.39	0.00	0.02	-0.07	0.00	-0.39	-0.05
Total	**0.00**	**0.50**	**-0.03**	**0.08**	**-0.03**	**0.00**	**-0.42**	**0.10**

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2: Policy effects in 2014-2015, using the CPI-indexation, %



United Kingdom

Table 1 and Figure 1 compare 2013 policies to price-indexed 2014 policies and show that, overall households gained from the changes, by 0.42 per cent of incomes on average. People gained from reduced Direct Taxes liabilities (with the increase personal allowance and a frozen Council Tax which falls in real terms) and from state pension rising faster than CPI-inflation (with the triple-lock indexation[22]). Means-tested benefits were cut, compared to a price-indexed system.

On average all income groups were net gainers from the reforms introduced between 2013 and 2014. The poorest tenth gain 0.47 per cent of their incomes, while the top tenth gain 0.23 per cent of their incomes. However, with the exception of the two top tenths, income groups in the top half gain more than those in the lower half of the distribution. Thus, from the bottom to the eighth income group the policy changes introduced between 2013 and 2014 were regressive, helping more those higher up the income distribution as a share of their incomes. This is because for the bottom half gains from lower Income Tax and fast rising state pension are offset by benefit reductions[23].

Table 2 and Figure 2 show the effect of 2015 policies relative to those in 2014. The total effect of (deflated) 2015 policies on mean income is 0.64 per cent with a progressive distributional pattern. As for the previous year, all income groups are net gainers from an increase personal allowance that reduces direct taxes liability and from state pension rising faster than CPI-inflation with the triple-lock indexation. However, between 2014 and 2015 the bottom half of the distribution gains from both means-tested and non-means tested benefit increases despite the restrictions on the indexation of Child Benefit and working age benefits (which might have been expected to appear as losses). The main explanation for those positive outcomes is a very low inflation out-turns in 2014 and 2015, which meant that, while the planned indexation had been below inflation, benefits in fact kept pace with the evolution of CPI.

[22] The highest of CPI, average earnings and 2.5%.

[23] Note that some of the poorest households are those who do not take up benefits they are entitled to. As a result, they are unaffected by changes in the values of those benefits. For instance, some of those who might have claimed Council Tax Benefit are unaffected by its reform, but do gain from the freeze in gross Council Tax.

Table 1 Policy Effects 2013-14, using CPI indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.20	-0.01	0.08	0.02	0.00	0.17	0.47
2	0.00	0.24	-0.14	0.06	0.02	0.00	0.15	0.34
3	0.00	0.20	-0.09	0.07	0.03	0.00	0.20	0.41
4	0.00	0.19	-0.11	0.08	0.04	0.00	0.23	0.44
5	0.00	0.18	-0.06	0.08	0.04	0.00	0.26	0.51
6	0.00	0.15	-0.02	0.06	0.05	0.00	0.30	0.53
7	0.00	0.11	0.00	0.04	0.05	0.00	0.31	0.53
8	0.00	0.08	0.00	0.02	0.05	0.00	0.35	0.51
9	0.00	0.06	0.00	0.01	0.04	0.00	0.33	0.45
10	0.00	0.03	0.00	0.00	0.03	0.00	0.17	0.23
Total	0.00	0.11	-0.03	0.04	0.04	0.00	0.26	0.42

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2013, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2014 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 1 Policy Effects 2013-14, using CPI indexation, %

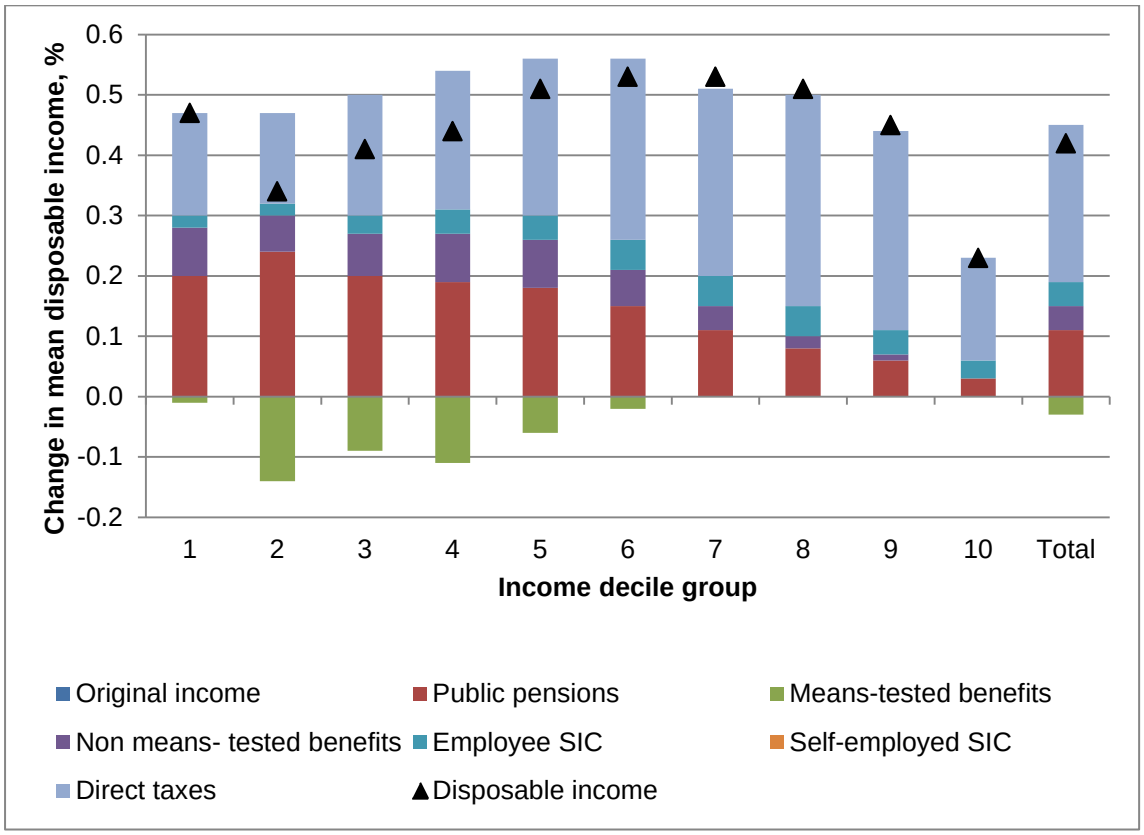
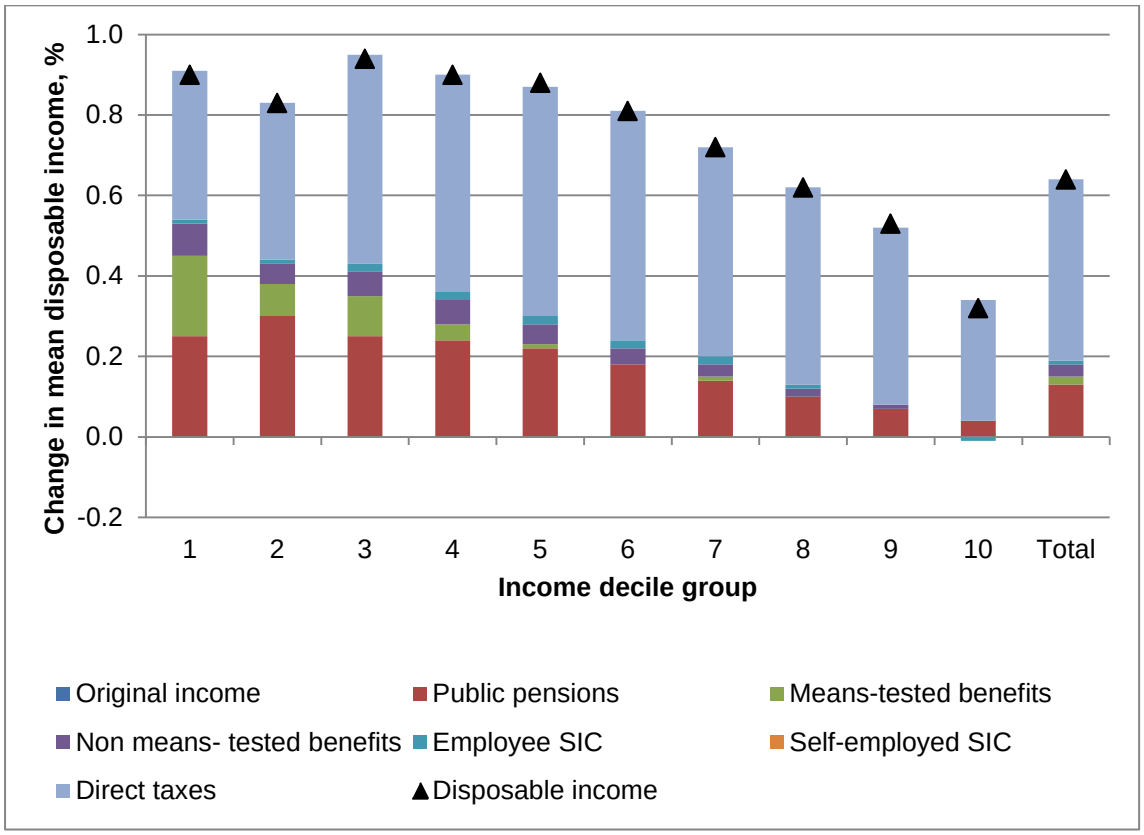


Table 2 Policy Effects 2014-15, using CPI indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Direct taxes	Disposable income
1	0.00	0.25	0.20	0.08	0.01	0.00	0.37	0.90
2	0.00	0.30	0.08	0.05	0.01	0.00	0.39	0.83
3	0.00	0.25	0.10	0.06	0.02	0.00	0.52	0.94
4	0.00	0.24	0.04	0.06	0.02	0.00	0.54	0.90
5	0.00	0.22	0.01	0.05	0.02	0.00	0.57	0.88
6	0.00	0.18	0.00	0.04	0.02	0.00	0.57	0.81
7	0.00	0.14	0.01	0.03	0.02	0.00	0.52	0.72
8	0.00	0.10	0.00	0.02	0.01	0.00	0.49	0.62
9	0.00	0.07	0.00	0.01	0.00	0.00	0.44	0.53
10	0.00	0.04	0.00	0.00	-0.01	0.00	0.30	0.32
Total	0.00	0.13	0.02	0.03	0.01	0.00	0.45	0.64

Notes: shown as a percentage change in mean equivalised household disposable income by income component and income decile group. Income decile groups are based on equivalised household disposable income in 2014, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2015 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Figure 2 Policy Effects 2014-15, using CPI indexation, %



References

Jara Tamayo H. X. and C. Leventi, 2014, "Baseline results from the EU27 EUROMOD (2009-2014)" *EUROMOD Working Paper* EM18/14 Colchester: ISER, University of Essex.

Sutherland H. and F. Figari, 2013, "EUROMOD: the European Union tax-benefit microsimulation model" *International Journal of Microsimulation,* 6(1) 4-26.