Effects of Tax-Benefit Policy Changes across the Income Distributions of the EU-27 Countries and the UK: 2019-2020

January 2021

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Introduction

This paper provides a short country-by-country harmonised analysis - using EUROMOD[1] - of the distributional effects on household disposable income of direct tax and cash benefit policy changes between 2019 and 2020. It is the latest in this series of reports, available as EUROMOD working papers, produced annually on the public release of an updated EUROMOD.

In this paper, we show how changes (or non-changes) in tax-benefit policies have affected household incomes, abstracting from changes in the population characteristics (e.g. increased unemployment) and the distribution of market/original gross incomes in the years under consideration.[2] The tax-benefit policies in a given year refer to those that applied on 30 June.

For each country of the EU-27, plus the UK, a standard table and figure show the policy effects 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 2020 tax-benefit policies (deflating the tax-benefit monetary parameters back to 2019 by the Harmonized Index of Consumer Prices, HICP) and household disposable incomes simulated under 2019 policies. The difference is expressed as a percentage of mean household disposable income in 2019. The population is ranked into decile groups based on their equivalised household disposable income in 2019 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. Note that the scale used for Figure 1 differs across countries.

Projected values for HICP are shown in Table A below. Given that the values are projections and were calculated before statistics on the whole year were available, the provisional nature of the indexes is something that the reader should bear in mind.

For most countries, the analysis makes use of micro-data from the EU Statistics on Income and Living Conditions (EU-SILC) for 2018 with market incomes updated to the starting year in each analysis - 2019. For the UK we make use of data from the Family Resources Survey (FRS) for 2017/2018 with market incomes updated to 2019.

An important caveat for 2020: Covid-19 monetary compensation schemes and labour market transitions

In an ordinary year, *incomes* in the input data are uprated from the year that they are reported for (i.e. SILC year -1) to the policy year that is being analysed (e.g. 2017 incomes from the 2018 SILC are uprated to 2020, if that is the policy year that we are interested in). At the same time, it is standard

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[1] For more information about EUROMOD see Sutherland and Figari (2013) and www.euromod.ac.uk.
[2] The full methodology used to estimate the effects of tax-benefit policy changes is described in Section 2 of De Agostini, P., A. Paulus and I. Tasseva, 2016, "The effect of changes in tax-benefit policies on the income distribution in 2008-2015" EUROMOD Working Paper EM6/16 Colchester: ISER, University of Essex. For general framework, see A. Paulus and I. Tasseva, 2018, "Europe Through the Crisis: Discretionary Policy Changes and Automatic Stabilisers", EUROMOD Working Paper EM 16/18, Colchester: ISER, University of Essex.

practice in EUROMOD for the input data *populations* to remain the same: demographic (e.g. increased migration) and socio-economic changes (e.g. increased unemployment) that might have changed the distribution of households or their original incomes are not accounted for. Again, in an ordinary year, this works satisfactorily: system shocks are much rarer than incremental change.

However, for 2020, all 28 systems suffered shocks to some extent and labour market disruptions were in many instances substantial. **Abstracting EUROMOD results from these disruptions should therefore be undertaken with more care this year than in previous years**. Indeed, it is for this reason that the 2020 policy systems in the EUROMOD public release (version I3.0+) contain simulated labour market transitions - defined in policy TransLMA_cc - that can be used to transit individuals into a country's monetary compensation scheme (where appropriate) and into unemployment (where appropriate). The policy only produces results if the model is run in combination with the EUROMOD software's Labour Market Adjustment (LMA) add-on. Users are encouraged to refer to the Simulating labour market transitions in EUROMOD document that accompanies the public release of the model prior to using the policy and add-on.

Nevertheless, the nature of these simulations is still experimental and only partially validated. **For this reason, the labour market transitions policy is switched OFF in EUROMOD baselines. As a consequence, the simulation of monetary compensation schemes does not produce any effect in baseline simulations, including those in this report**. Since all policies not linked to labour market transitions are fully functional (including Covid-related policy responses that fall outside the monetary compensation schemes, e.g. greater generosity for existing benefits or tax cuts), it is, for example, possible for disposable income in 2020 to be higher than disposable income in previous years. Interpretation of the results presented here should bear this in mind.

Results and a cross-country summary

Figure A summarises the policy effect on average household disposable income across all countries. The effect ranges from a decrease of 0.53% of household income in Cyprus to an increase of 5.02% of household income in Poland.

Figure A: Change in household disposable income (%) as a result of policy effects 2019-2020, using HICP indexation
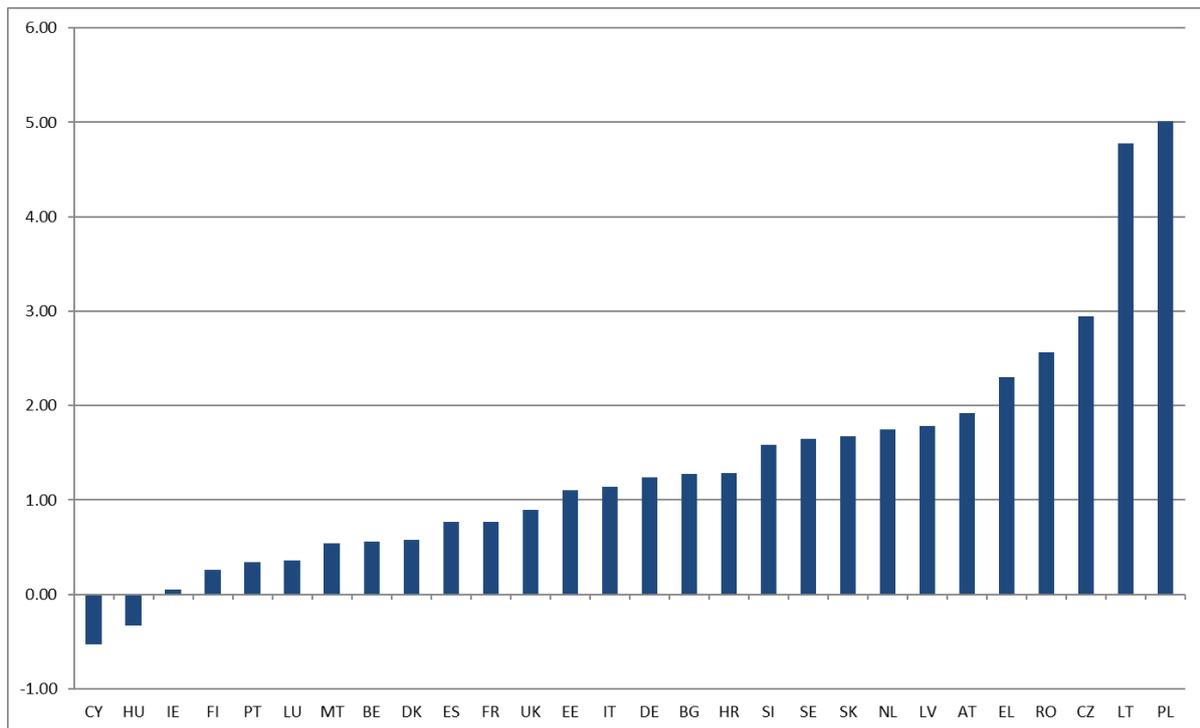
In the following section, policy effects are described and accounted for on a country-by-country basis - with a short commentary explaining the effects shown in terms of the policy reforms that are captured by the analysis and the extent of indexation, relative to inflation. However, to place both the range in effect across the countries (around 5.5 percentage points) and the individual figures for Cyprus and Poland in the context of recent years, Figure B provides the equivalent information for each of the last three years.

Of the three periods analysed, the effects on household incomes attributable to policy changes in 2019-2020 show the most positive set. In contrast to previous years, only two countries saw a drop in incomes due to reforms in their tax-benefit system. For half the countries, policy changes have now delivered three consecutive years of growth in household incomes (remembering that we are abstracting these results from Covid-related labour market changes and monetary compensation schemes) and, as last year, when the three years are taken together, the Baltic states can be categorised as having seen the strongest income growth attributable to policy change in any sub-region. In particular, Lithuania has seen the largest policy-related % income growth for two of the past three years.

Figure B: Change in household disposable income (%) as a result of policy effects 2017-2018, 2018-2019 and 2019-2020, using HICP indexation
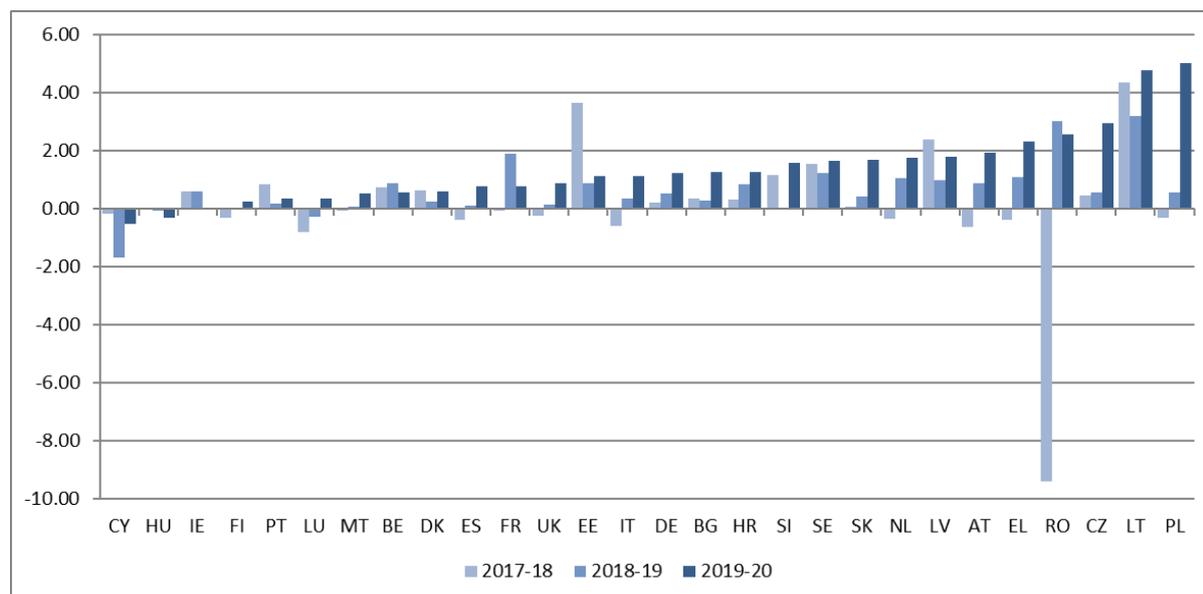
The distributional effects across all the countries due to policy changes between 2019-2020 are summarised in Figure C, breaking down the change into that for each decile group. The figures are not all drawn to the same scale but in each case the interval between gridlines is the same: 0.5%.

As per previous years, if we were to classify these distributions by type, the modal category would be an effect that is progressive (increases in income worth more, or decreases worth less, as a % of household income at lower incomes than at higher incomes). However, whereas in previous years this description might have been a fit for around half the EU countries, for 2020, a progressive pattern can be seen for around two thirds of the countries. For another four countries - Spain, Cyprus, Luxembourg and Hungary - whilst the policy effects are not classically progressive (linear) across the whole income distribution, income growth in the first decile dwarfs that in all other deciles. For Spain, where income growth attributable to policy reform is over 20% in the poorest decile, this is especially the case. In large part, this was due to the introduction of a new national-wide minimum income. It is worth noting that income growth is also particularly strong (greater than 6%) in the first decile for Czechia, Italy, Latvia and Lithuania (like Spain, greater than 20%).

In only two countries - Greece and Croatia - can the effect of policy changes be described as regressive.

As usual, there are also several cases where an overall pattern is not easy to discern: some countries tend towards a U-shaped distribution with middle incomes doing less well relatively (Slovenia and Sweden), others towards an inverted U-shape (Poland). Ireland is perhaps the only country where it is difficult to detect any kind of pattern. Romania, too, is unusual insofar as the first decile is impacted negatively while the impact across deciles two to ten is both positive and progressive.

In all cases, it is worth reading the country summary in the next section to better understand the particular drivers of income change at different parts of a country's income distribution.

Figure C: Change in household disposable income (%) by income decile group as a result of policy effects 2019-2020, using HICP indexation
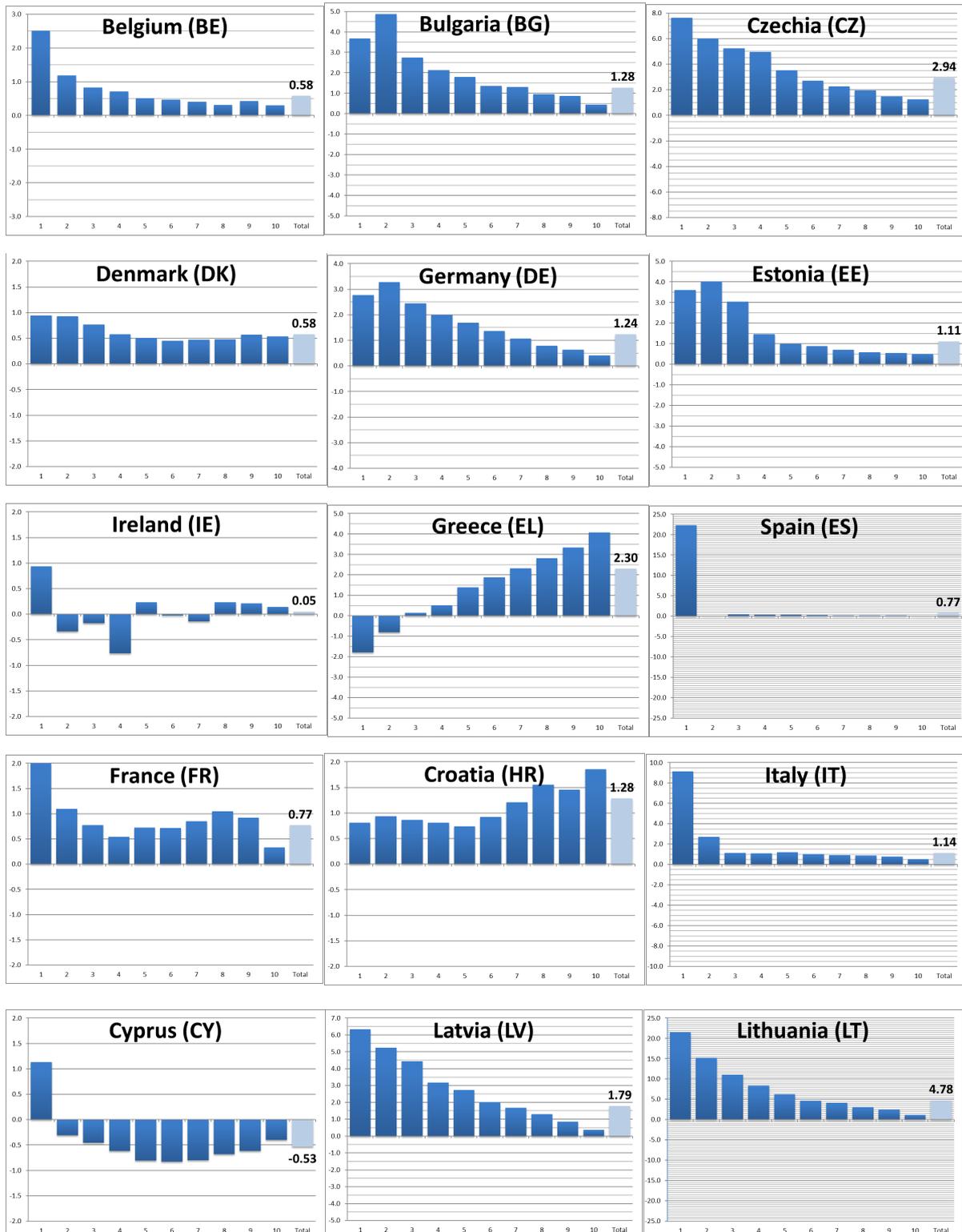
Interpreting the results

First, the reader is reminded of four 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. However, when measured in real terms if the HICP 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.
- For all countries, these results do not show the direct effect of any change to the minimum wage (though note that indirect effects may be seen where benefits are anchored to the minimum wage).
- In some countries, increases in social assistance and similar benefits (or the introduction of new benefits) may not have the effects shown at the bottom of the income distribution if take-up turns out to be incomplete (though note below that adjustments for this are made in some countries).

Secondly, the analysis is carried out with the aim of providing a harmonized and comparable analysis for each of the countries of the EU-27, and the UK. 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 several countries for some benefits but not in others. Approximate adjustments for tax evasion are made in Bulgaria, Greece, Italy and Romania, but not in other countries.[3] It is not possible to simulate all policies because of a 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 between the two policy years, 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 difference in uprating treatment may result in conceptual 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 short-term contributory benefits (e.g. to cover sickness, unemployment or maternity) have been assumed to rise in line with earnings in the previous year.[4] 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.[5]

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[3] See Kneeshaw (2020) for detail on which countries adjust for benefit non take-up and which adjust for tax evasion and the approach they take.

[4] This assumption is usually made where benefits are a function of past earnings, for which data are not available in the EU-SILC.

[5] https://www.euromod.ac.uk/using-euromod/country-reports

Change in prices 2019-2020

Table A shows the value of the change in (projected) HICP for each country. Projections employ the DG ECFIN indicator ZCPIH.

Table A: Harmonized Index of Consumer Prices (HICP), 2020

Country	HICP
Belgium	1.002
Bulgaria	1.011
Czechia	1.023
Denmark	1.003
Germany	1.003
Estonia	1.007
Ireland	0.996
Greece	0.994
Spain	1.000
France	1.004
Croatia	1.004
Italy	0.997
Cyprus	0.998
Latvia	1.002
Lithuania	1.008
Luxembourg	1.007
Hungary	1.030
Malta	1.007
The Netherlands	1.008
Austria	1.011
Poland	1.025
Portugal	0.998
Romania	1.025
Slovenia	1.005
Slovak Republic	1.019
Finland	1.005
Sweden	1.004
United Kingdom	1.012

Source: http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm.

Belgium

On average, the policy changes between 2019 and 2020 resulted in a 0.58% increase in the mean disposable income of the population and had a positive impact throughout the income distribution. Focussing on the deciles, the increase was especially large for the first deciles (2.52% for the first, 1.18% for the second, 0.82% for the third). There are three main drivers for the positive changes in the first deciles: an increase in means tested benefits, non-means tested benefits and public pensions. As for the increases in disposable income for deciles 5 to 10, the main driver is lower direct taxes, followed by increased non means-tested benefits.

Belgium

Table 1 (Belgium): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested Benefits	Non means-tested Benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	0.59	1.26	0.66	0.03	-0.01	0.00	-0.01	**2.52**
2	0.00	0.35	0.37	0.30	0.07	0.00	0.00	0.10	**1.18**
3	0.00	0.28	0.24	0.21	-0.02	0.00	0.00	0.12	**0.82**
4	0.00	0.24	0.16	0.16	-0.01	0.00	0.00	0.16	**0.71**
5	0.00	0.13	0.06	0.14	-0.01	0.00	0.00	0.19	**0.51**
6	0.00	0.08	0.03	0.15	0.00	0.00	0.00	0.20	**0.47**
7	0.00	0.10	0.03	0.10	-0.02	0.00	0.00	0.20	**0.41**
8	0.00	0.04	-0.01	0.10	-0.04	0.00	0.00	0.22	**0.31**
9	0.00	0.05	0.08	0.09	-0.01	0.00	0.00	0.21	**0.42**
10	0.00	0.01	0.00	0.24	-0.01	-0.01	0.00	0.06	**0.30**
Total	**0.00**	**0.13**	**0.13**	**0.18**	**-0.01**	**0.00**	**0.00**	**0.15**	**0.58**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Belgium): Policy effects in 2019-2020, using the CPI-indexation, %
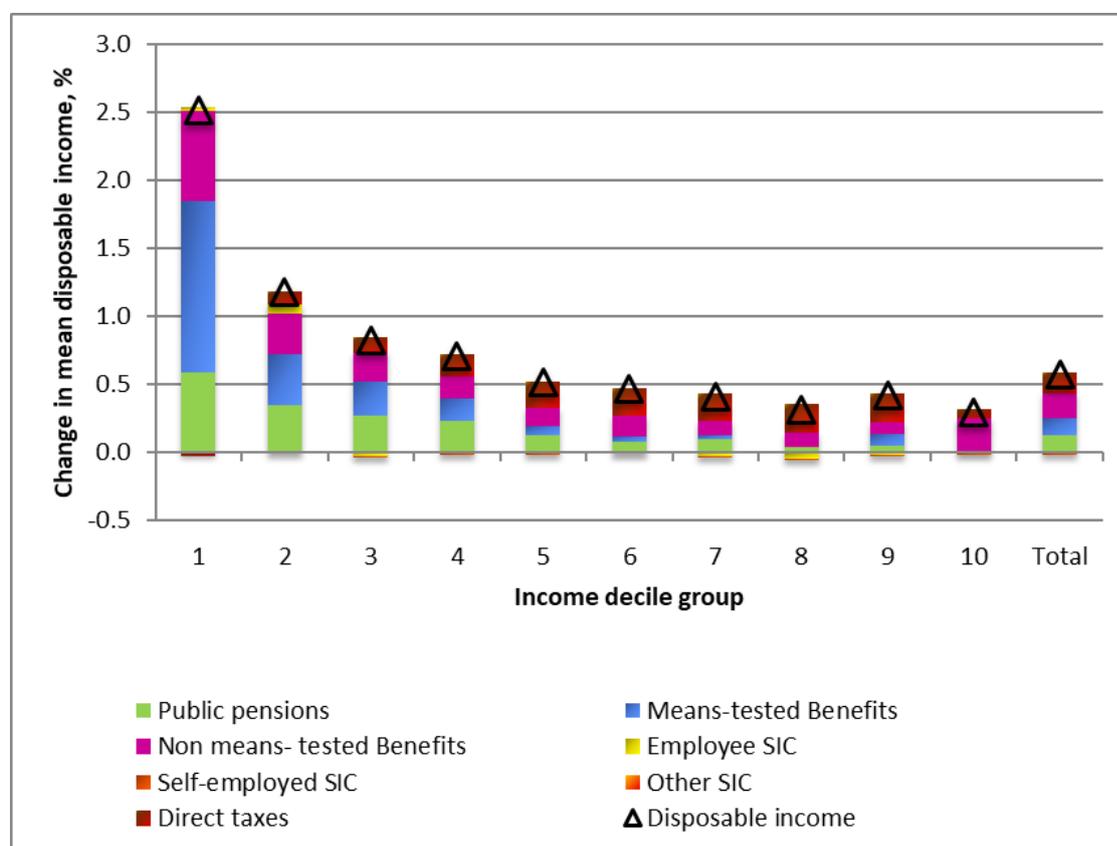
Bulgaria

Table 1 shows that in 2019-20 household net incomes increased on average by 1.28% in real terms. Net incomes increased across all deciles, with the biggest income gain of 3.67% and 4.87% concentrated in the first and second deciles, respectively. Households in the richest decile, saw their disposable incomes increasing in real terms by 0.45% on average.

The income gains across the distribution were mainly due to changes to public pensions (+0.93% on average), while changes to means-tested benefits led to a minor increase (+0.09% on average). Changes to non-means-tested benefits had a small positive effect on household incomes (+0.24%). The income gains across most of the distribution were mainly the result of generous pension indexation (5.7% as of 1 July 2019) and lump-sum pension supplements paid in December 2019 and April 2020 (of BGN 40 each paid to pensioners whose pensions are below the national poverty line of BGN). Furthermore, the non-contributory social old-age pension increased in nominal terms by 6.2% (from BGN 129.16 in 2019 to BGN 137.19 in 2020), well ahead of the price growth of 1.1%. While these policy changes affected all income groups, their effect is considerably higher for households placed at the bottom of the income distribution.

This can be explained by the fact that pensioners are concentrated in lower-income households and middle- and higher-income households are represented mainly by people actively participating in the labour market and receiving employment incomes. Thus, the first four decile groups benefited the most from the pension changes. Their disposable income measured in real terms rose by 2.16% (first decile), 3.35% (second decile), 2.42% (third decile) and 1.81% (fourth decile). The effect for other deciles tends to decrease gradually as household disposable income rises.

In 2019-20 there were tiny income gains due to changes to non-means-tested benefits (of 0.24% on average), in particular to the contributory benefit for pregnancy and childbirth (bmaprct_s). The minimum amount of the benefit increased in line with the minimum wage by 8.9% in nominal terms (from BGN 560 in 2019 to BGN 610 per month in 2020), contributing to income gains. Furthermore, we have assumed, to the best of our knowledge, that the average amount of non-contributory unemployment benefits (bunot) grew faster than prices . Other than that, the statutory amounts for the i) contributory maternity benefit for bringing up a child up to the age of 2 (bmaycct_s), ii) the birth grant (bchbals_s), iii) the non-means-tested child benefit for mothers in tertiary education (bchnm01_s), as well as iv) the minimum and maximum amounts of the unemployment benefit (bunct_s) were nominally frozen, so their value actually fell in real terms, offsetting part of the aforementioned income gains. There were no changes to the policy rules shaping entitlement to these benefits.

Changes to means-tested benefits contributed to small income gains for the bottom two deciles. The rise in the heating allowance (bsaht_s) of 24.5% in nominal terms (from BGN 74.83 per month in 2019 to BGN 93.18 per month in 2020) led to the increase in the real value of the benefit. The coverage of the guaranteed minimum income (bsa00_s) was also extended as the Differentiated Minimum Income was extended to cover parents with children. These remaining benefits – the means-tested child benefit (bchmt00_s) and the non-contributory benefit for raising a child under the age of 1 (bmaprnc_s) – were frozen nominally and so they fell in real terms.

There were no policy changes in direct taxes and social contributions. Therefore, they did not cause corresponding changes in the household disposable income.

To conclude, the overall effect of policy developments in 2019-20 was pro-poor, benefitting most households from the bottom of the income distribution. The main driver of these effects is the generous pension indexation which influenced positively household incomes at all parts of the distribution. Increases to the heating allowance contributed to further income gains for the poorest two deciles.

Table 1 (Bulgaria): Policy effects in 2019-20, using CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	2.16	1.34	0.18	0.00	0.00	0.00	0.00	**3.67**
2	0.00	3.35	1.36	0.16	0.00	0.00	0.00	0.00	**4.87**
3	0.00	2.42	0.10	0.22	0.00	0.00	0.00	0.00	**2.74**
4	0.00	1.81	0.01	0.31	0.00	0.00	0.00	0.00	**2.13**
5	0.00	1.43	-0.01	0.37	0.00	0.00	0.00	0.00	**1.79**
6	0.00	1.07	-0.02	0.30	0.00	0.00	0.00	0.00	**1.35**
7	0.00	1.02	0.01	0.28	0.00	0.00	0.00	0.00	**1.30**
8	0.00	0.69	0.01	0.26	0.00	0.00	0.00	0.00	**0.96**
9	0.00	0.59	0.00	0.27	0.01	0.00	0.00	0.00	**0.87**
10	0.00	0.23	0.00	0.18	0.03	0.01	0.00	-0.01	**0.45**
Total	**0.00**	**0.93**	**0.09**	**0.24**	**0.01**	**0.00**	**0.00**	**0.00**	**1.28**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Bulgaria): Policy effects in 2019-20, using CPI-indexation, %

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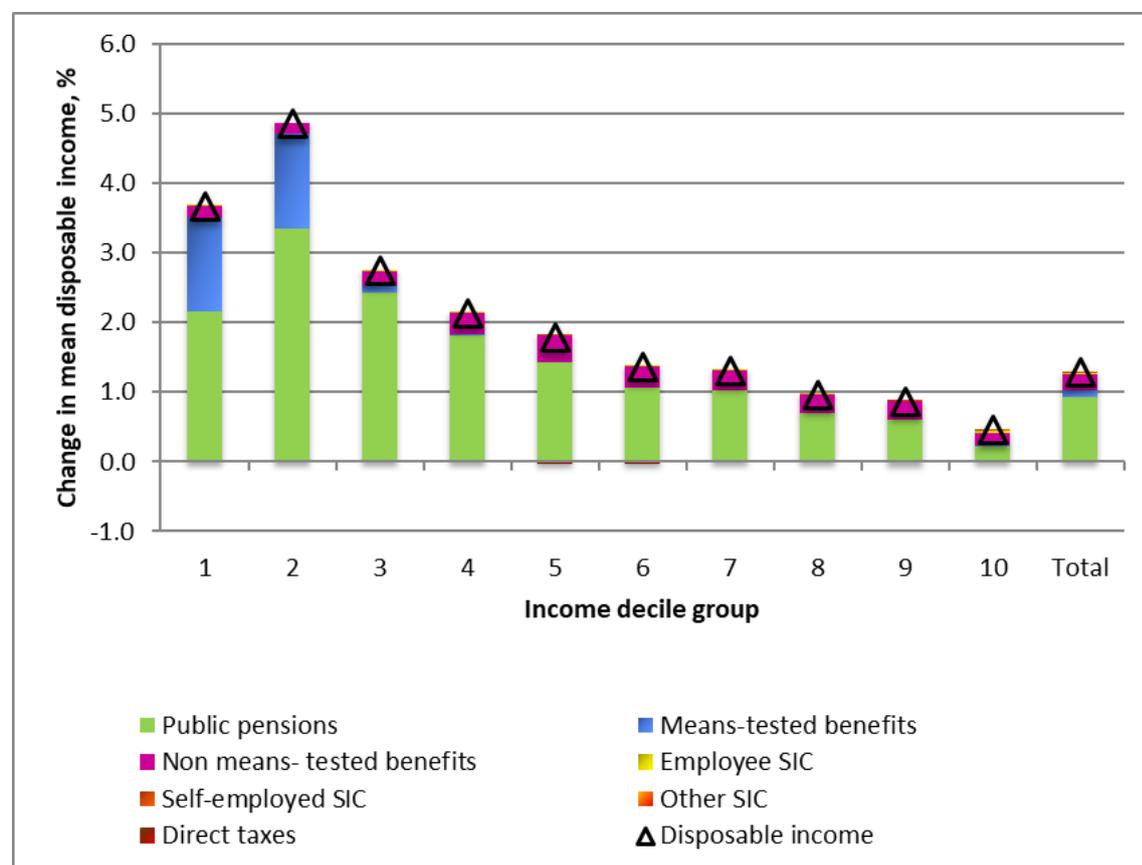
Czechia

Overall, the real disposable income of the population has increased by 2.94% between years 2019 and 2020. The largest increase in disposable income was in the first decile (by 7.63%), while the higher deciles gained less (compared to their income in 2019) with the tenth decile gaining the least (1.26% of their disposable income).

There were two main driving forces behind the increase in disposable incomes: i) a decrease in self-employed social security and health contributions, and ii) an increase in public pensions and non-means tested benefits. The decrease in social security and health contributions paid by the self-employed was driven by the fact that self-employed were exempt from paying minimum contributions from March to August (COVID-19 measure) and by the decrease in the rate of sickness insurance.[6] The first measure had much a greater impact on the self-employed than the latter, because those self-employed who pay minimum contributions paid zero contributions for half of the year, and those who pay higher than minimum contributions pay only the difference between the required level of contributions and the minimum. Therefore, all self-employed gained CZK 4896 (sum of minimum contributions for social and health insurance) per month over six months. The relative importance of this measure was thus higher for the lower deciles, but it increased disposable incomes in all deciles.

The increase in public pensions was driven by a yearly valorization of pensions, which apart from a standard valorization also included an extra increase this year. In particular, a one-off bonus of 5,000 CZK was put in place in 2020. This valorization affected all income deciles, but mostly the first to the fourth deciles, where most pensioners are concentrated.

The third main policy change that increased disposable incomes of individuals in all deciles, but was pronounced in lower income deciles, was an increase in the parental allowance. Parental allowance is a major non-means tested benefit for parents taking care of a child below 4 years old. In 2020, the total amount of allowance (that parents can collect over 1 to 4 years) increased from CZK 220,000 to CZK 300,000 for single childbirth and from CZK 330,00 to CZK 450,000 for multiple childbirth.

However, the bottom deciles (especially the bottom three deciles) also slightly lost in their disposable income due to lower amount of means-tested benefits. This is quite a surprising finding given that the amounts of Minimum Living Standard (MLS) increased in 2020 and most means-tested benefits set up the threshold for eligibility based on some multiple of MLS. This should thus increase eligibility of means-tested benefits and increase disposable incomes of individuals in bottom deciles. However, the increase in disposable incomes driven by the above-mentioned measures (lower SIC of self-employed, higher pensions, higher parental allowance[7]) was likely larger than the increase in MLS, causing a drop in the eligibility for means-tested benefits.

Another factor decreasing disposable incomes was an increase in direct taxes, which was experienced by all deciles, but especially by the higher ones. The increase in direct taxes is likely caused by the fact

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[6] The rate of sickness insurance changed from 2.3% to 2.1% from July 1, 2019, but the change was only simulated for 2020.

[7] All these measures are part of the income that is used to calculate the eligibility for most means-tested benefits. For example, if parental allowance increases, disposable income for the purpose of child allowance eligibility increases leading to a decrease in eligibility for child allowance.

that wages have grown steadily in the past years, but the tax credits are defined in absolute amounts and have not been valorized for many years. Nevertheless, compared to other changes in disposable incomes, this was a negligible decrease.

Table 1 (Czechia): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	3.33	-0.25	1.36	-0.05	3.31	0.00	-0.06	**7.63**
2	0.00	3.43	-0.08	1.04	-0.02	1.71	0.00	-0.09	**5.99**
3	0.00	3.15	-0.05	0.77	-0.02	1.51	0.00	-0.12	**5.24**
4	0.00	3.08	-0.01	0.70	-0.02	1.35	0.00	-0.14	**4.97**
5	0.00	2.05	0.02	0.65	-0.01	1.01	0.00	-0.19	**3.53**
6	0.00	1.23	-0.01	0.66	-0.02	1.03	0.00	-0.21	**2.70**
7	0.00	1.00	0.01	0.54	-0.01	0.91	0.00	-0.19	**2.27**
8	0.00	0.76	0.01	0.33	-0.01	1.04	0.00	-0.20	**1.94**
9	0.00	0.51	0.00	0.32	0.00	0.80	0.00	-0.16	**1.46**
10	0.00	0.31	0.00	0.16	-0.02	0.89	0.00	-0.09	**1.26**
Total	**0.00**	**1.44**	**-0.02**	**0.53**	**-0.02**	**1.16**	**0.00**	**-0.15**	**2.94**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Czechia): Policy effects in 2019-2020, using the CPI-indexation, %
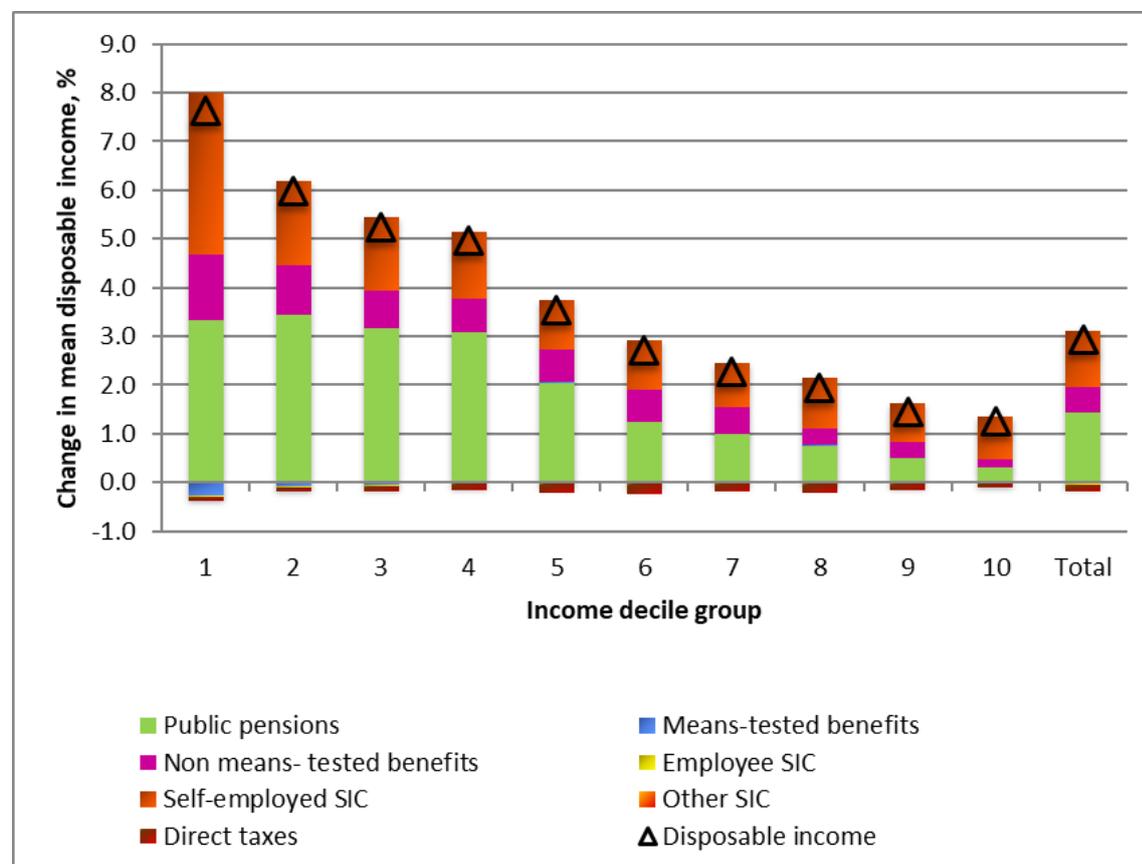
Denmark

The total effect of (deflated) 2020 policies on mean disposable income is relatively small (an increase of 0.58%). No major reforms have taken place from 2019 to 2020. There has been again this year a substantial increase in the income dependence parameters for old-age pension supplement (see Table 2.19 of the Denmark Country Report), and also in the calculation of the pension-supplement rate. The changes in how to calculate the direct taxation has continued mostly to be beneficial for the upper part of the income distribution (deciles 8-10). On the contrary, the lower deciles gain mostly by the increase in public pension, as indexation of pension was higher than growth in HICP. The larger effect at the bottom of the income distribution could reflect where most of pensioners are located.

For benefits, there is a small increase attributable to means-tested benefits (0.05%) and also a slight increase (0.07%) in total for non-means tested benefits. This is mainly in the first decile (+0.45%) for means-tested and (+0.49%) for non-means tested. Part of the reason is the extra temporary child benefit (see Section 2.3.6 of the Denmark Country Report).

Therefore, increases in income are mostly due to the change in calculation of income dependence and annual increase of pension payments as well as the changes in direct taxation.

Changes by income groups show a mixed pattern with households at the bottom decile having the highest increase of 0.95% (first decile) and 0.93% (second decile), whereas there is a lower increase in all deciles from 3-10, with the lowest in the sixth and seventh deciles of the distribution, albeit the difference is small. The increases in income for the lower deciles are mainly based on an increase in public pensions and other benefits, whereas for those with higher income it is the changes in the direct taxes.

Table 1 (Denmark): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	0.32	0.45	0.49	-0.01	0.00	0.00	-0.31	**0.95**
2	0.00	1.06	0.13	0.20	-0.01	0.00	0.00	-0.45	**0.93**
3	0.00	0.98	0.03	0.12	-0.01	0.00	0.00	-0.35	**0.77**
4	0.00	0.57	0.02	0.10	-0.02	0.00	0.00	-0.10	**0.58**
5	0.00	0.39	0.04	0.09	-0.02	0.00	0.00	0.00	**0.51**
6	0.00	0.32	0.02	0.06	-0.02	0.00	0.00	0.08	**0.45**
7	0.00	0.29	0.03	0.04	-0.02	0.00	0.00	0.12	**0.47**
8	0.00	0.22	0.02	0.03	-0.02	0.00	0.00	0.22	**0.48**
9	0.00	0.20	0.02	0.02	-0.02	0.00	0.00	0.35	**0.57**
10	0.00	0.13	0.02	0.01	-0.01	0.00	0.00	0.39	**0.53**
Total	**0.00**	**0.36**	**0.05**	**0.07**	**-0.02**	**0.00**	**0.00**	**0.11**	**0.58**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Denmark): Policy effects in 2019-2020, using the CPI-indexation, %
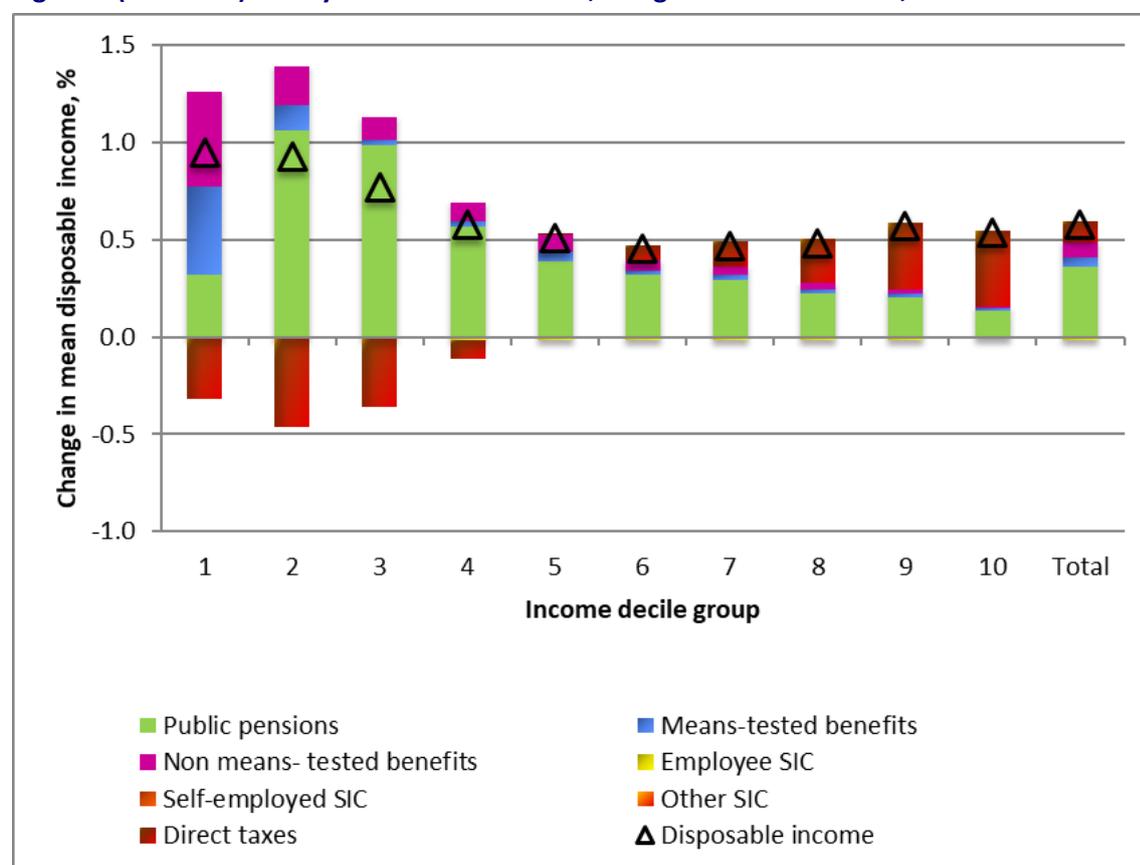
Germany

In 2019-20, the average household disposable income increased by 1.24%. A look at the effects across decile groups reveals that the policy effect was overall progressive. The biggest impact can be found at the second decile of the distribution, where the increase reached 3.28%, and it was the smallest at the tenth decile of the distribution, where the increase amounted to just 0.40%. Two policies were mostly responsible for the increase in household disposable income: public pensions, which contributed on average to a 0.58% increase in household disposable income and non means-tested benefits, which contributed on average to a 0.50% increase. In the case of non means-tested benefits the increase is mainly due to higher child benefits. In the case of public pensions, the increase in household disposable income which we observe in Table 1 is due to the fact that the German legislated pension value grew more than the CPI projection.

Changes in means-tested benefits in 2019-2020 contributed to an overall increase in disposable income of just 0.11%, but this increase is concentrated in the lower half of the income distribution. On the contrary, social insurance contributions contributed to a small decrease in household disposable income in all income groups (0.18% when summing all three types of SIC). Finally, changes in means-tested benefits, non-means tested benefits and public pensions in 2019-2020 are responsible for the progressive effect on the distribution of household disposable income.

Table 1 (Germany): Policy effects in 2019-2020, using CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	1.00	0.69	1.14	0.13	-0.02	-0.23	0.06	**2.76**
2	0.00	1.07	0.89	1.19	0.00	0.00	-0.15	0.28	**3.28**
3	0.00	1.23	0.30	0.84	-0.04	-0.01	-0.16	0.29	**2.45**
4	0.00	1.12	0.17	0.75	-0.07	-0.01	-0.14	0.19	**2.00**
5	0.00	0.90	0.06	0.68	-0.07	-0.02	-0.11	0.25	**1.69**
6	0.00	0.66	0.05	0.58	-0.10	-0.01	-0.08	0.27	**1.37**
7	0.00	0.50	0.01	0.49	-0.11	-0.02	-0.06	0.27	**1.07**
8	0.00	0.43	0.00	0.38	-0.14	-0.01	-0.06	0.19	**0.79**
9	0.00	0.32	0.00	0.29	-0.13	-0.03	-0.05	0.24	**0.64**
10	0.00	0.16	0.00	0.17	-0.13	-0.01	-0.03	0.24	**0.40**
Total	**0.00**	**0.58**	**0.11**	**0.50**	**-0.09**	**-0.01**	**-0.08**	**0.24**	**1.24**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Germany): Policy effects in 2019-2020, using CPI-indexation, %
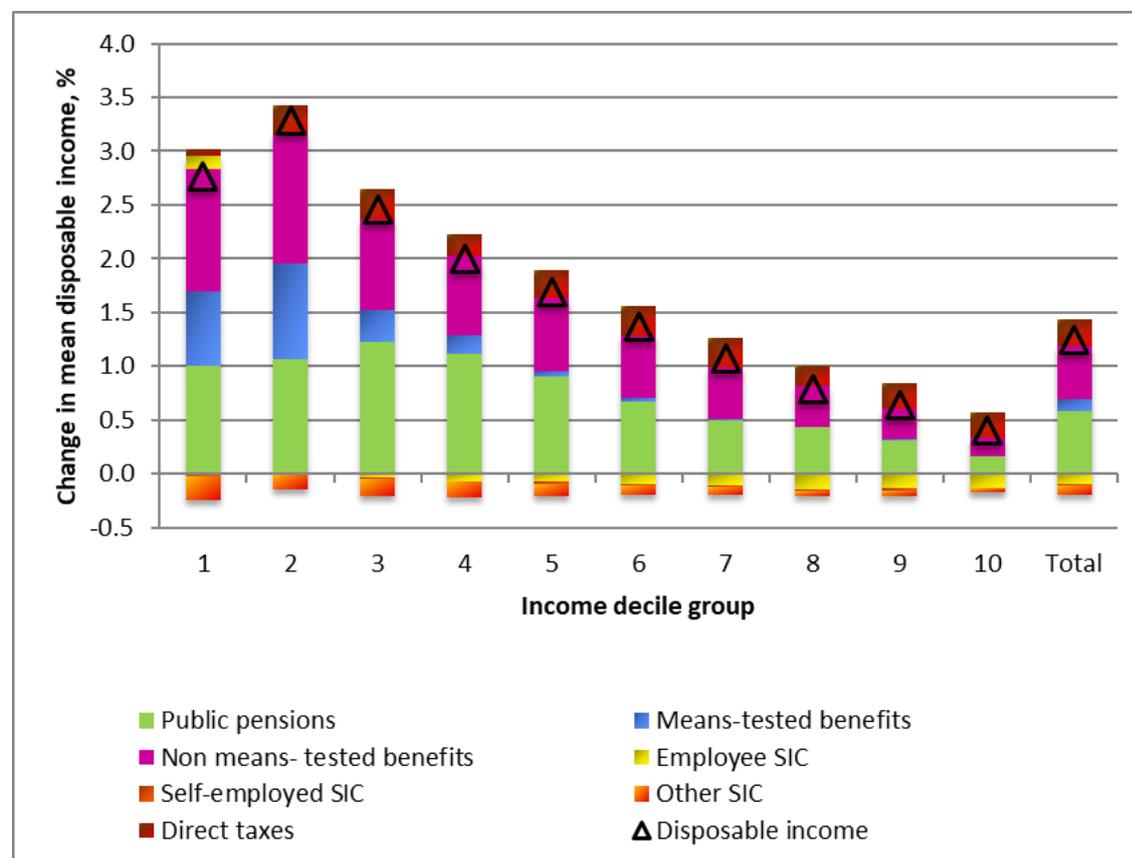
Estonia

In comparison to 2019 policies, (deflated) 2020 policies increased mean household income by 1.11%. All income decile groups gained on average and relative gains were larger for first three income groups (3-4%). Income gains are mainly related to the indexation of pensions. The real value of public pensions increased as these were indexed by 8% in 2020 compared to the inflation of 0.7%. Owing to the location of the pensioners in the income distribution, it was the first, second and third deciles which gained the most in relative terms.

Income gains also resulted from changes in non means-tested benefits (0.29%). Among non means-tested benefits, income gains were mainly due to higher parental benefits (0.18%). Increases in parental benefits are due to higher (reference) wages and an increase in minimum wage, which also provides the floor for parental benefit. However, the first three decile groups do not benefit as much as other deciles (about 0.1% vs 0.2%) due to the composition of households. The bottom decile group had a negative effect (-0.36%) from subsistence benefit as the income limit did not changed.

On the other hand, the basic tax allowance which was kept nominally constant (€500) had a negative effect for every decile group (averagely -0.25%) and especially for second and third income groups.

Table 1 (Estonia): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	3.87	-0.36	0.23	0.00	-0.05	0.00	-0.08	**3.61**
2	0.00	4.55	0.03	0.12	0.00	-0.01	0.00	-0.66	**4.02**
3	0.00	3.31	0.00	0.26	0.00	0.00	0.00	-0.52	**3.04**
4	0.00	1.47	0.00	0.30	0.00	-0.01	0.00	-0.29	**1.46**
5	0.00	1.01	0.00	0.20	0.00	0.00	0.00	-0.21	**1.00**
6	0.00	0.87	0.00	0.28	0.00	0.00	0.00	-0.26	**0.89**
7	0.00	0.66	0.00	0.30	0.00	0.00	0.00	-0.26	**0.70**
8	0.00	0.54	0.00	0.31	0.00	0.00	0.00	-0.26	**0.59**
9	0.00	0.44	0.00	0.31	0.00	0.00	0.00	-0.20	**0.55**
10	0.00	0.26	0.00	0.35	0.00	0.00	0.00	-0.12	**0.49**
Total	**0.00**	**1.08**	**-0.01**	**0.29**	**0.00**	**0.00**	**0.00**	**-0.25**	**1.11**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).

Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Estonia): Policy effects in 2019-2020, using the CPI-indexation, %
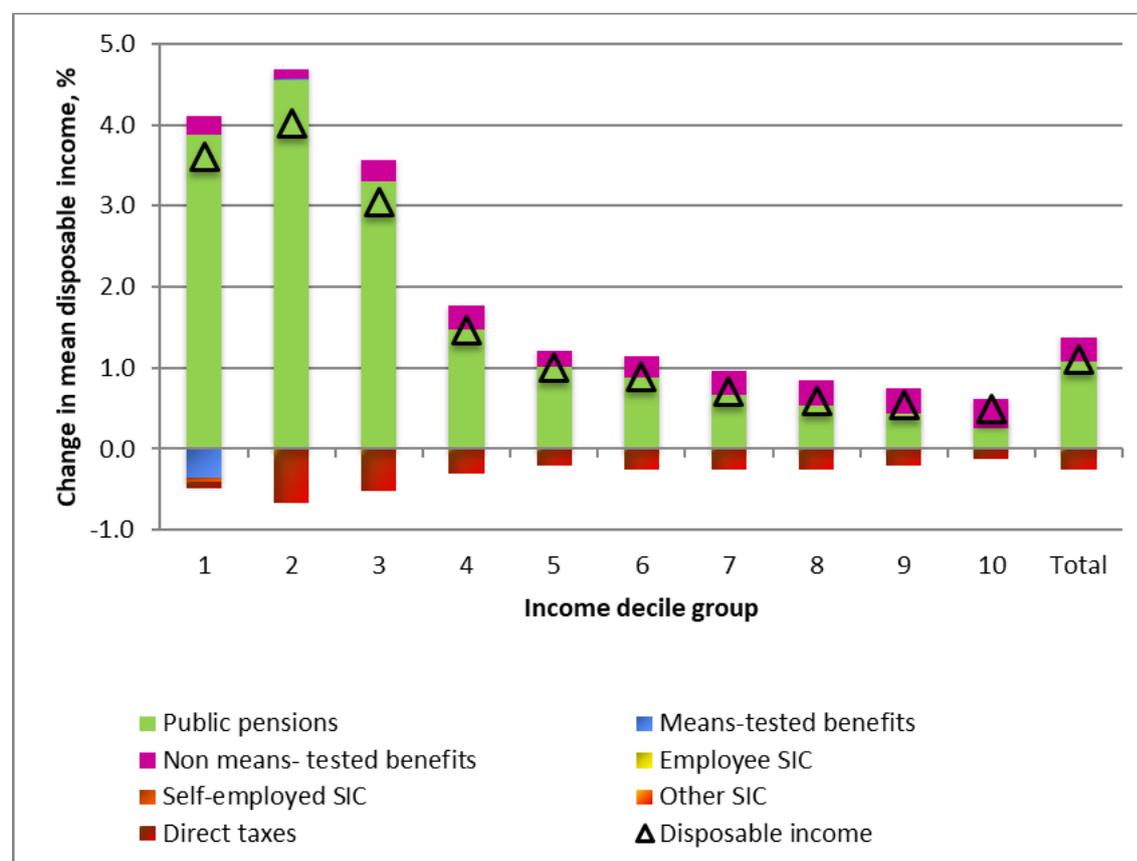
Ireland

In total, mean equivalised household disposable income (EHDI) is 0.05% lower under the 2020 system than under the 2019 system. Other than the lowest decile, looking at individual deciles this change is somewhat regressive as low-income households are generally losing more than higher income households.

Changes in means-tested benefits account for a 0.21% loss in mean EHDI, with a particularly large loss in the lower income deciles – specifically, a 1.36% loss in the second to lowest decile and a 0.56% loss in the third decile. The lowest decile experiences a gain of 0.59% in mean EHDI. Increase in public pensions account for a 0.12% increase in EHDI. On par with public pensions, changes in direct taxes also account for a 0.12% increase in mean EHDI, with only a slight loss in the bottom decile of 0.04%.

The mean income losses here may be due to a combination of factors related to policy changes between 2019 and 2020. Results shown are in line with post budget analysis by the Economic & Social Research Institute which predicted that income would be lower in 2020 compared to a price indexed 2019 budget. The reduction in mean income is mainly driven by changes in means-tested benefits which did not keep pace with inflation.

All other income components have only a small effect on average equivalised household disposable income.

Table 1 (Ireland): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	0.33	0.59	0.05	0.00	0.00	0.00	-0.04	**0.94**
2	0.00	0.93	-1.36	0.03	0.00	0.00	0.00	0.06	**-0.34**
3	0.00	0.27	-0.56	0.03	0.00	0.00	0.00	0.08	**-0.18**
4	0.00	0.19	-1.11	0.04	0.00	0.00	0.00	0.12	**-0.76**
5	0.00	0.09	-0.05	0.03	0.00	0.00	0.00	0.16	**0.23**
6	0.00	0.04	-0.24	0.02	0.01	0.00	0.00	0.14	**-0.02**
7	0.00	0.05	-0.35	0.02	0.01	0.00	0.00	0.13	**-0.14**
8	0.00	0.05	0.01	0.01	0.00	0.00	0.00	0.15	**0.24**
9	0.00	0.03	0.03	0.01	0.00	0.00	0.00	0.14	**0.21**
10	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.11	**0.14**
Total	**0.00**	**0.12**	**-0.21**	**0.02**	**0.00**	**0.00**	**0.00**	**0.12**	**0.05**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Ireland): Policy effects in 2019-2020, using the CPI-indexation, %
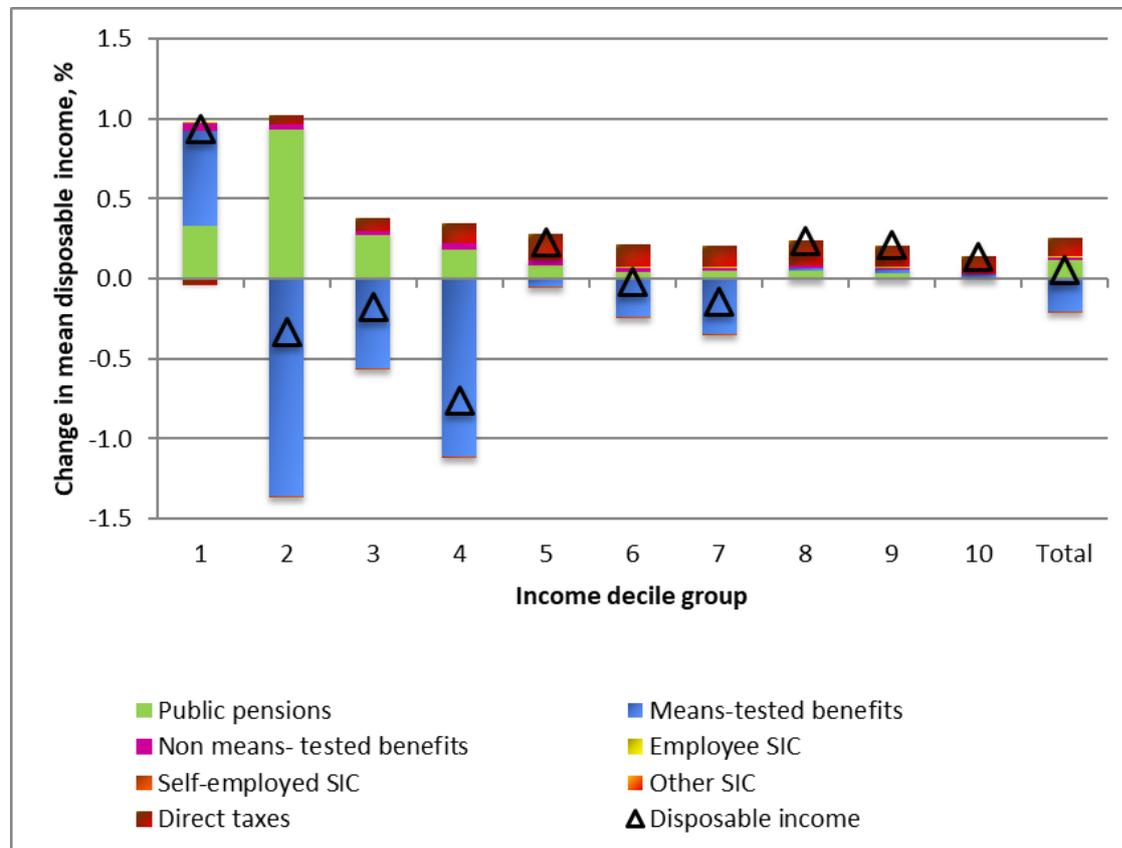
Greece

Table 1 and Figure 1 account for all policies, including the 2019 social dividend (which, at the time of writing of this report, has not been provided in 2020). Policy changes in 2020 have a regressive effect on the income distribution.

The overall disposable income increases by 2.3 percent but decreases for the poorest 20% of the population. This is mainly due to the following reasons: (a) 13th pension and social dividend only being provided in 2019 and (b) the reform in self-employed and farmers' SIC, which were reverted to the previous situation of insurance classes (i.e. lump-sum amounts irrespective of self-employment/farming income). Another (minor) reason is the abolishment of pensioners' social solidarity benefit (EKAS) that took place in 2020 (from only €12 per month in 2019).

The increase in disposable income caused by direct taxes is due to the substantial PIT reform which took place in 2019, affecting 2020 incomes. Increases in household disposable income driven by non means-tested benefits are mainly due to the 2-month extension in the provision of unemployment insurance benefits that were due to expire in 2020 and the provision of a special lump-sum unemployment benefit equal to two months of the unemployment assistance benefit's worth in 2020, due to the Covid-19 crisis. Finally, moving to the impact of employees' SIC, the decrease in the SIC rates for unemployment and other benefits is to be held responsible for the small increases in the disposable income of all deciles.

Table 1 (Greece): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	-1.24	-0.96	0.38	0.11	-1.86	0.09	1.69	**-1.79**
2	0.00	-1.67	-0.69	0.38	0.14	-0.52	0.12	1.43	**-0.81**
3	0.00	-1.57	-0.36	0.29	0.17	-0.11	0.11	1.62	**0.15**
4	0.00	-1.36	-0.36	0.36	0.19	-0.01	0.11	1.58	**0.51**
5	0.00	-0.83	-0.03	0.30	0.20	0.22	0.09	1.44	**1.39**
6	0.00	-0.68	0.06	0.33	0.20	0.31	0.09	1.58	**1.89**
7	0.00	-0.43	0.10	0.23	0.22	0.43	0.07	1.70	**2.32**
8	0.00	-0.11	0.10	0.16	0.22	0.67	0.06	1.71	**2.81**
9	0.00	0.21	0.18	0.15	0.22	0.91	0.06	1.61	**3.34**
10	0.00	0.38	0.02	0.04	0.22	3.18	0.03	0.21	**4.08**
Total	**0.00**	**-0.38**	**-0.05**	**0.20**	**0.20**	**0.98**	**0.07**	**1.27**	**2.30**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Greece): Policy effects in 2019-2020, using the CPI-indexation, %
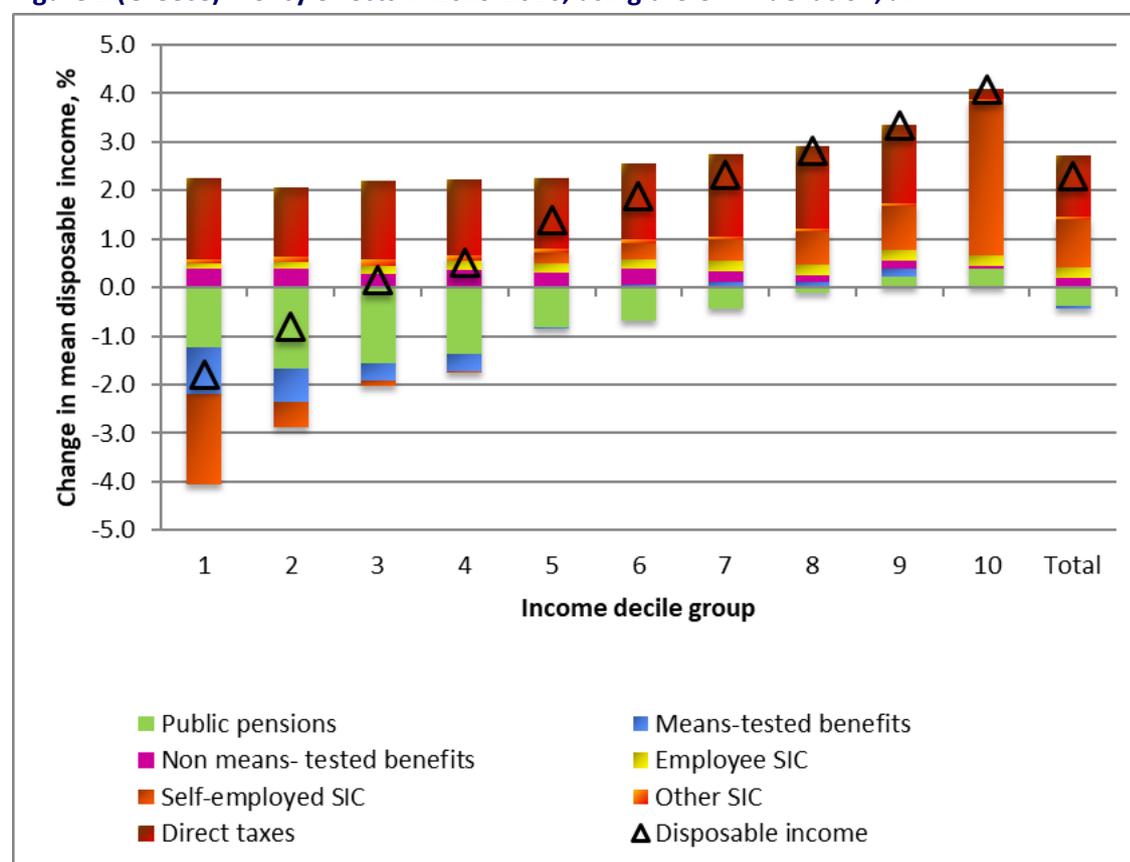
Spain

In 2019-2020, households experienced, on average, a small disposable income growth of 0.74% due to policy changes between both years. Although the increase was felt among all decile groups, the first decile experienced, undoubtedly, the highest increase (over 22%). As a consequence, policy changes in 2019-2020 depict a clear pro-poor pattern.

The substantial positive effect experienced by the bottom decile was mainly driven by changes to means-tested benefits. In particular, in 2020 a new national-wide minimum income was introduced in Spain. This new scheme provides a minimum guaranteed income level for the whole territory of 462 EUR per month, which increases by 30% for each additional member of the family unit up to a maximum threshold of 220%. The simulation of this new benefit in EUROMOD assumes full take-up, so its effect should be interpreted as the one it would have if the scheme will work at its full potential.

Along with the positive effects derived from changes in means-tested benefits, changes in non means-tested benefits and public pensions generated slight additional income gains. The positive effects were, on average, very small (of 0.04% and 0.21%, respectively) and they can be explained by a greater indexation of pensions and non-means tested benefits than the inflation (e.g. pensions were indexed by 0.9% in 2020 while there was almost no price growth between 2019 and 2020). In the case of non means-tested benefits, it's worth mentioning that the minimum wage increased from 900 EUR to 950 EUR per month. Although the minimum wage is not simulated in the baseline (i.e. its simulation is switched off), its increase might eventually expand the generosity of benefits linked to this index (e.g. the means-test of the unemployment assistance benefit uses the minimum wage to assess the eligibility to this benefit).

Finally, changes in social insurance contributions (SICs) and taxes had a very slight negative effect on household disposable income. In this sense, between 2019 and 2020 the minimum contribution bases for employees increased by around 5% as result of the increase in the minimum wage, whereas the personal income tax did not undergo any significant reform. However, the slight negative results in this case (-0.05%) reflect some potential fiscal drag. i.e. the fact wages increased to some extent while tax brackets remained unchanged leading, eventually, to higher average tax rates.

Table 1 (Spain): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	0.10	22.23	0.06	-0.21	0.00	0.00	0.00	**22.17**
2	0.00	0.18	-0.08	0.07	-0.12	0.00	0.00	-0.01	**0.04**
3	0.00	0.27	0.17	0.05	-0.08	0.00	0.00	-0.02	**0.38**
4	0.00	0.26	0.12	0.06	-0.07	0.00	0.00	-0.04	**0.32**
5	0.00	0.25	0.05	0.10	-0.05	0.00	0.00	-0.05	**0.30**
6	0.00	0.24	0.03	0.07	-0.04	0.00	0.00	-0.05	**0.24**
7	0.00	0.23	0.02	0.03	-0.03	0.00	0.00	-0.05	**0.19**
8	0.00	0.21	0.01	0.03	-0.02	0.00	0.00	-0.06	**0.17**
9	0.00	0.20	0.01	0.02	-0.01	0.00	0.00	-0.06	**0.16**
10	0.00	0.16	0.00	0.03	-0.01	0.00	0.00	-0.05	**0.13**
Total	**0.00**	**0.21**	**0.58**	**0.04**	**-0.04**	**0.00**	**0.00**	**-0.05**	**0.74**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Spain): Policy effects in 2019-2020, using the CPI-indexation, %
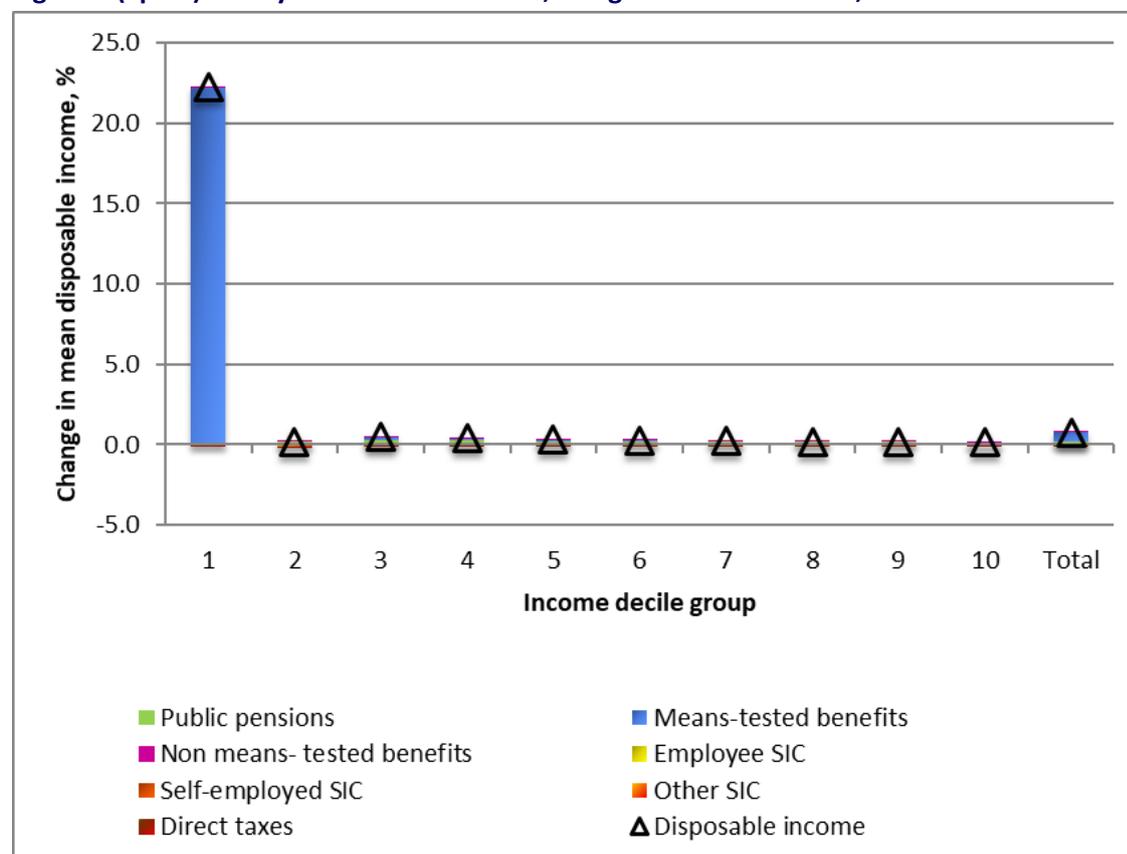
France

On average, 2020 policy changes led to an increase in disposable income of 0.77%. The most important effects are due to a reduction in direct taxes (+0.40% of the total disposable income), an increase in non means-tested benefits (+0.21%) and in means-tested benefits (+0.13 %) and to a lesser extent to an increase in public pensions (+0.03 %).

Several social measures have been taken in France to reduce the effects of the Covid-19 crisis including an exceptional solidarity aid for poor households for beneficiaries of RSA, ASS or APL and the postponement of planned reforms (see the France Country Report's specific section on this for details). These measures impacted the means-tested benefits and combined with the annual increase of this type of benefit (around 1.4%) led to an increase in the disposable income concentrated on low-income households (the effects decrease with the decile increase, the most important increases are for the first (1.1 %), second and third decile.

The increase in non means-tested benefits reflects the Covid-19 measures to support the self-employed as well as small increases in family support allowance and in universal child benefit to. The increase is higher for the lowest deciles (particularly for the first decile and a little less for the second and third).

The increase due to public pensions is the consequence of the re-indexation to inflation for low-income retirees (pensions less than 2000€ per month), the effect is then visible for the first five deciles (especially for the third) and, to a lesser extent, for the four next deciles (with a slight negative impact for the higher).

The reform of the personal income tax implemented in 2020 (change in income brackets and reduction of the marginal tax rate for the second bracket from 14 to 11%) leads to an increase in disposable income for all deciles but more particularly for the middle classes (fifth decile and after) and even more for the highest deciles (except the very highest whose increase is less important).

The relative contribution to the increase in disposable income over the deciles is reversed for direct taxes and means-tested benefits. For the high deciles, the impact of the direct taxes on disposable income is high and the impact of means tested benefits is low; conversely, for low deciles, the impact of the means-tested benefit on disposable income is high and the impact of direct taxes is low.

In distributional terms, 2020 policy changes delivered an increase in disposable income for all deciles, but higher in the three first deciles and in the upper half (deciles 7-9); deciles 4 and 10 show the smallest increases (respectively 0.55% and 0.34%), while deciles 1, 2, 3, 8, 9 show the largest (from 2% to 0.7% for the low deciles and around 1% deciles 8-9). The higher increase in disposable income takes place in the first decile and is essentially due to benefits. Changes in direct taxes also show largest effects on the high deciles (to a lesser extent for the highest decile), while changes in means-tested and non means-tested benefits impact more the lowest deciles. Finally, as might be expected with the reform, the impact of pensions on disposable income decreases when we move up through the income deciles.

Table 1 (France): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	0.07	1.14	0.78	0.00	0.00	0.00	0.02	**2.00**
2	0.00	0.09	0.62	0.32	0.00	0.00	0.00	0.08	**1.10**
3	0.00	0.11	0.32	0.29	0.00	0.00	0.00	0.07	**0.77**
4	0.00	0.09	0.18	0.20	0.00	0.00	0.00	0.08	**0.54**
5	0.00	0.07	0.10	0.29	0.00	0.00	0.00	0.27	**0.72**
6	0.00	0.04	0.02	0.19	0.00	0.00	0.00	0.46	**0.72**
7	0.00	0.02	0.01	0.16	0.00	0.00	0.00	0.66	**0.85**
8	0.00	0.01	0.03	0.21	0.00	0.00	0.00	0.80	**1.05**
9	0.00	0.01	0.01	0.13	0.00	0.00	0.00	0.78	**0.92**
10	0.00	-0.01	0.00	0.13	0.00	-0.01	0.00	0.23	**0.33**
Total	**0.00**	**0.03**	**0.13**	**0.21**	**0.00**	**0.00**	**0.00**	**0.40**	**0.77**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (France): Policy effects in 2019-2020, using the CPI-indexation, %
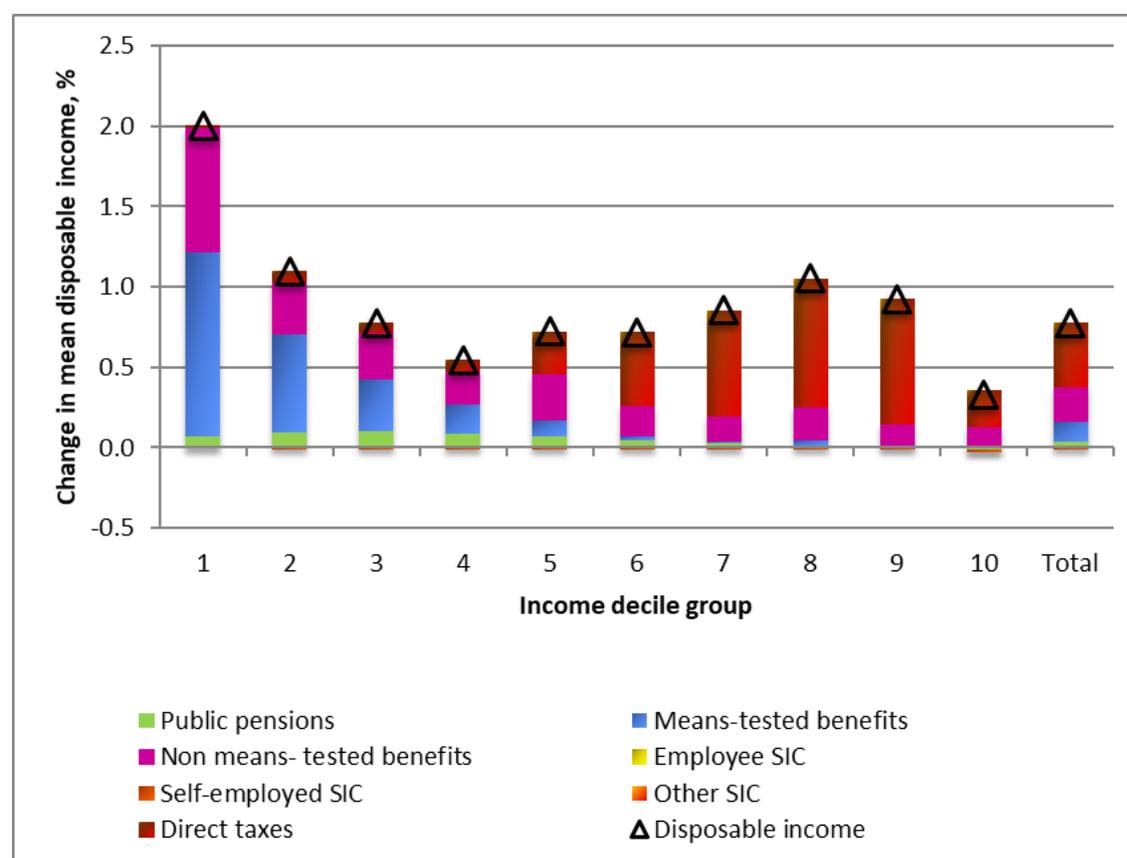
Croatia

The HICP is projected to rise only by 0.4% between 2019 and 2020. Public pensions are adjusted using the "current value of pension", which increases by about 2.7%, i.e., much more than the HICP. Therefore, pension income increases in real terms for all groups: between 0.4% of disposable income in the top decile group and 1% for the two bottom decile groups.

In contrast, means-tested benefits (Child benefit and Subsistence benefit) are not inflation-adjusted, and their real value falls due to the increase in the price level. The largest fall is felt by the first decile group, which is most dependent on means-tested benefits; its disposable income decreases by 0.2%.

The only major policy changes between 2019 and 2020 occurred in the PIT system: (a) basic personal allowance is increased from HRK 3,800 to HRK 4,000; (b) tax relief is introduced for employment income of workers younger than 30. Except for the bottom two decile groups, all income groups experience a rise in disposable income. However, this rise in income has a regressive pattern, i.e., the relative gains for the top decile groups are much larger than the gains of poorer decile groups. The total effect due to PIT changes is 0.8% of disposable income.

The maximum amount of Parental leave benefit is increased by 42% in 2020. This change is mostly registered in the decile group 7, whose real disposable income increases by 0.1% (see column "Non means-tested benefits").

Overall, disposable income increases by 1.3% on average in real terms (1.4% in nominal terms). While the favourable indexation of pensions brings larger relative advantage to the lower income groups, the opposite is true for the PIT changes. Thus, for example, the top decile group's disposable income increases by 1.9%.

Table 1 (Croatia): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	0.96	-0.18	0.05	-0.01	-0.06	0.00	0.05	**0.81**
2	0.00	1.04	-0.04	-0.01	-0.01	-0.04	0.00	0.01	**0.94**
3	0.00	0.84	-0.02	0.00	-0.01	-0.07	0.00	0.13	**0.87**
4	0.00	0.71	-0.02	0.02	-0.01	-0.06	0.00	0.18	**0.81**
5	0.00	0.53	-0.03	0.05	-0.01	-0.07	0.00	0.27	**0.74**
6	0.00	0.55	-0.02	0.05	0.00	-0.08	0.00	0.43	**0.92**
7	0.00	0.45	-0.09	0.11	-0.01	-0.05	0.00	0.80	**1.21**
8	0.00	0.43	0.00	0.05	0.00	-0.05	-0.01	1.13	**1.55**
9	0.00	0.37	0.00	0.04	-0.01	-0.04	-0.01	1.09	**1.45**
10	0.00	0.40	0.00	0.04	-0.03	-0.05	-0.01	1.52	**1.86**
Total	**0.00**	**0.53**	**-0.02**	**0.05**	**-0.01**	**-0.06**	**0.00**	**0.81**	**1.28**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Croatia): Policy effects in 2019-2020, using the CPI-indexation, %
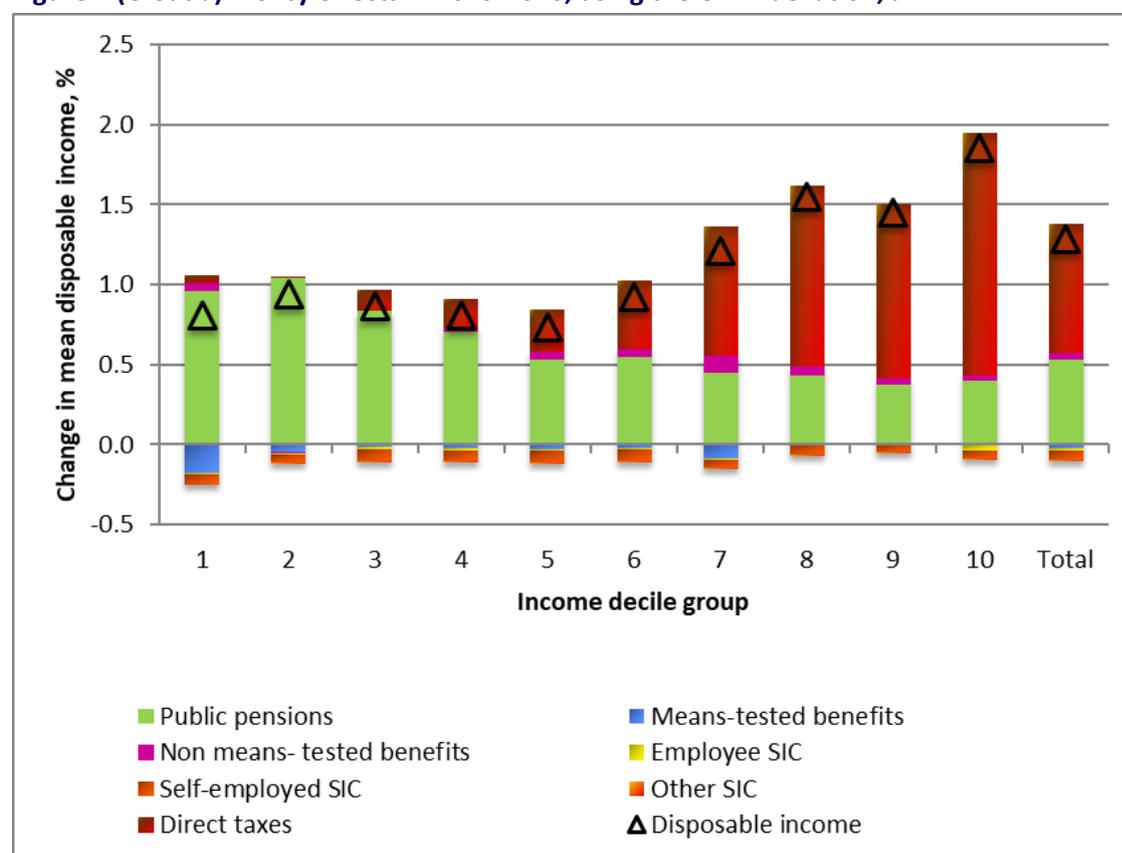
Italy

In 2020 the *Reddito di Cittadinanza (RdC)* is paid for 12 months (rather than 9 months as in 2019). In addition, *the Reddito di Emergenza (ReM)*, introduced to contrast the economic crisis due to COVID-19, is simulated as active for 2 months. The effect on disposable income (assuming full take-up) is clear in Figure 1 (blue bar) for those in the first income decile group who experience a positive change of around 5%.

As part of COVID-19 reaction, the government introduced a bonus paid to the self-employed (600€ per months in April and May + 1000€ in June) and a bonus paid to employees working in March at the premises of their firm (100€). The effect on disposable income is clear (pink bar) for those in the first income decile group who experience a positive change of around 4% and visible along the income distribution.

Note that the effect of the more generous "Bonus IRPEF" is not visible because it is in place since 1 July 2020 and these analysis refers to the system in place at 30 June 2020.

Other changes are negligible.

Italy

Table 1 (Italy): Policy effects in 2019-2020, using CPI indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	0.10	5.02	4.03	-0.02	0.00	0.00	-0.01	**9.12**
2	0.00	0.22	0.74	1.78	-0.02	0.00	0.00	-0.01	**2.71**
3	0.00	0.26	-0.06	0.95	-0.01	0.00	0.00	-0.01	**1.13**
4	0.00	0.24	-0.03	0.91	-0.01	0.00	0.00	-0.01	**1.11**
5	0.00	0.28	-0.01	0.97	-0.01	0.00	0.00	-0.01	**1.22**
6	0.00	0.26	0.01	0.77	-0.01	0.00	0.00	-0.01	**1.03**
7	0.00	0.21	0.03	0.70	-0.01	0.00	0.00	0.00	**0.93**
8	0.00	0.21	0.03	0.65	-0.01	0.00	0.00	-0.01	**0.87**
9	0.00	0.20	0.03	0.58	-0.01	0.00	0.00	-0.01	**0.78**
10	0.00	0.17	0.00	0.41	-0.01	-0.01	0.00	-0.03	**0.54**
Total	**0.00**	**0.21**	**0.16**	**0.79**	**-0.01**	**0.00**	**0.00**	**-0.01**	**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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Italy): Policy effects in 2019-2020, using CPI indexation, %
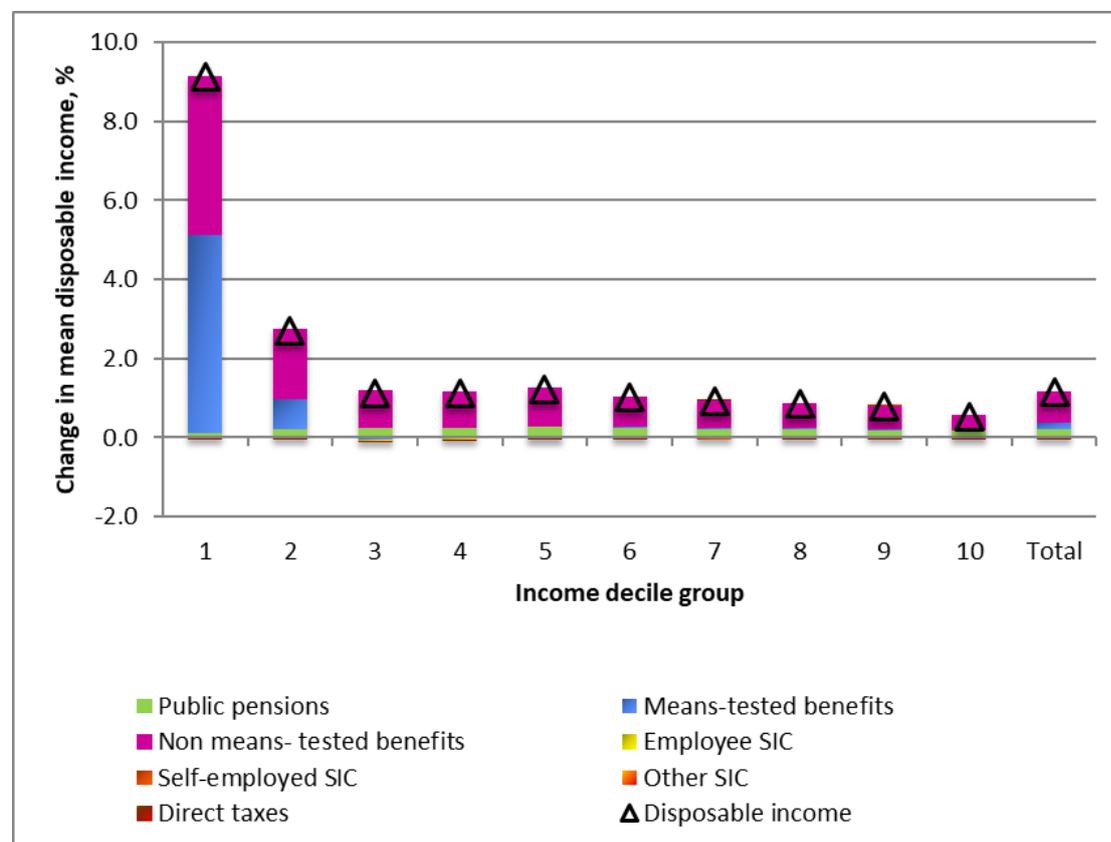
Cyprus

The overall estimated effects of policy changes from 2019 to 2020 are relatively small, and considerably smaller than those between 2018 and 2019 (see previous report). This might be explained by that the policy changes that took place in 2020 were only marginal, while most benefit levels, income thresholds, and tax rates have remained unchanged. The exemption, and main driver of the overall decrease of disposable income – by around 0.5% – is the increase in the contribution to the General Health System. The negative effect on disposable income is estimated to be larger for the median income groups (around 0.8%). This can be explained by the way the GHS is designed, where after a certain amount of income the obligation for paying contributions is stable.

The decreases due to the new Social Insurance contributions (which includes the contribution to GHS) are to some extent counterbalanced by lower taxes (at the top of the distribution), and higher means-tested benefits (at the bottom of the distribution). The contribution base for the calculation of the income tax is earnings after SIC, hence the lower taxes.

Table 1 (Cyprus): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	0.11	1.66	-0.02	-0.30	-0.14	-0.17	0.00	**1.13**
2	0.00	0.23	0.35	-0.03	-0.36	-0.14	-0.37	0.01	**-0.31**
3	0.00	0.17	0.29	-0.02	-0.48	-0.18	-0.28	0.03	**-0.45**
4	0.00	0.10	0.23	-0.02	-0.60	-0.18	-0.18	0.03	**-0.62**
5	0.00	0.07	0.09	-0.02	-0.68	-0.22	-0.12	0.08	**-0.81**
6	0.00	0.07	0.04	-0.02	-0.74	-0.18	-0.13	0.13	**-0.82**
7	0.00	0.06	0.03	-0.02	-0.78	-0.17	-0.11	0.20	**-0.80**
8	0.00	0.09	0.03	-0.02	-0.80	-0.11	-0.15	0.29	**-0.68**
9	0.00	0.11	0.01	-0.02	-0.83	-0.10	-0.19	0.41	**-0.62**
10	0.00	0.16	0.01	-0.02	-0.79	-0.07	-0.30	0.61	**-0.40**
Total	**0.00**	**0.12**	**0.14**	**-0.02**	**-0.71**	**-0.13**	**-0.21**	**0.28**	**-0.53**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Cyprus): Policy effects in 2019-2020, using the CPI-indexation, %
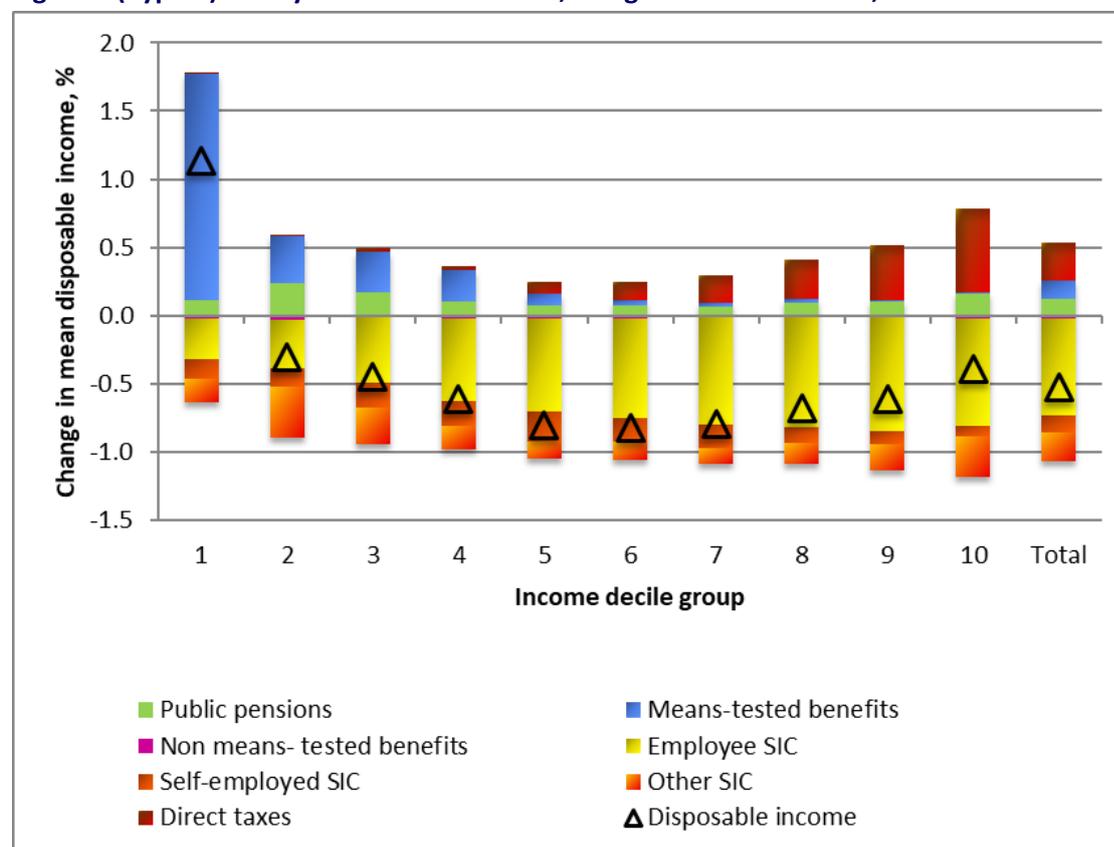
Latvia

The effect of policies implemented in 2020 was clearly progressive and the progressivity was mainly ensured by public pensions and means tested benefits. The effect of means tested benefits was driven by the increase in the standard level of guaranteed minimum income (GMI) across the country and GMI level for children in Riga. Change in public pensions had a progressive effect on income mainly due to pension indexation rules, which imply a larger proportional increase in low pensions.

In 2020 the maximum size of the non-taxable allowance which is applied to low wage earners was further increased, while the income level above which the basic allowance is not applied was increased. This had a progressive positive effect on disposable income, however, the effect in the bottom deciles is weaker as the share of employed individuals in the bottom deciles is relatively small and due to the fact that for many low wage earners their income was fully covered by non-taxable allowances that were effective before the reform.

Table 1 (Latvia): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	3.94	1.95	0.09	0.00	0.00	0.00	0.36	**6.34**
2	0.00	4.38	0.10	0.08	0.00	0.00	0.00	0.67	**5.23**
3	0.00	3.36	0.02	-0.06	0.00	0.00	0.00	1.12	**4.44**
4	0.00	1.80	0.00	-0.03	0.00	0.00	0.00	1.41	**3.18**
5	0.00	1.28	0.00	0.04	-0.01	0.00	0.00	1.42	**2.73**
6	0.00	0.92	0.00	-0.04	-0.01	0.00	0.00	1.14	**2.02**
7	0.00	0.81	0.00	-0.02	-0.01	0.00	0.00	0.88	**1.67**
8	0.00	0.62	0.00	0.05	0.00	0.00	0.00	0.65	**1.31**
9	0.00	0.48	0.00	0.02	-0.01	0.00	0.00	0.37	**0.86**
10	0.00	0.26	0.00	-0.03	0.00	0.00	0.00	0.14	**0.38**
Total	**0.00**	**1.06**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.68**	**1.79**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Latvia): Policy effects in 2019-2020, using the CPI-indexation, %
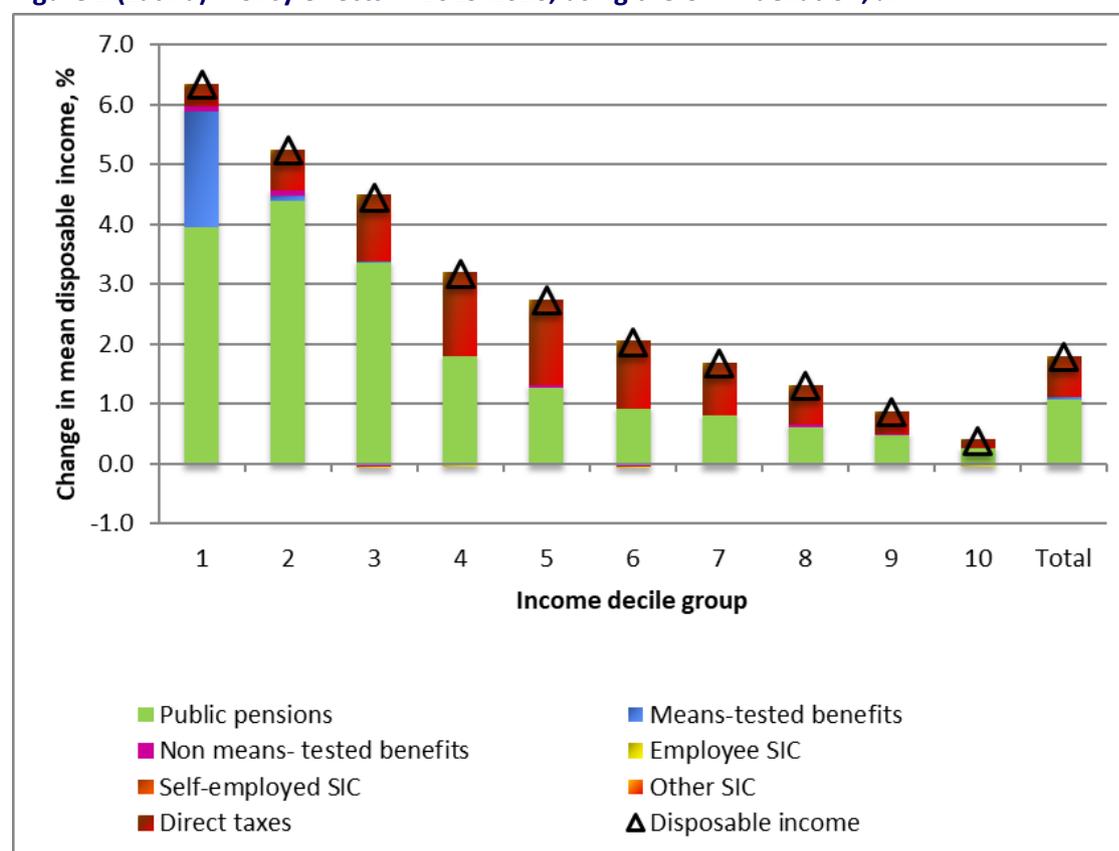
Lithuania

In general, we see progressive change across the income distribution due to policy reforms between 2019-2020. The positive effect is the highest for the lower income deciles, amounting to 21.53% for the bottom decile. The effect declines with the deciles but is still positive for the top decile. On average the analysed policy reforms increased disposable income by 4.78% in real terms between 2019-2020.

The largest positive contributions to incomes of the lower income deciles are provided by increases in non means-tested benefits, public pensions and means-tested benefits.

The main changes to non means-tested programmes included more generous universal child benefits and an increase in the amount of the pregnancy grant (from 2 BSA in 2019 to 6.43 BSA in 2020). In addition, to counteract the impact of the Covid-19, the government has introduced the following allowances: temporary jobseeker's benefit of 200 EUR (or 42 EUR for those receiving unemployment benefit) paid for maximum 6 months and lump-sum benefits of 120 EUR for all children eligible to receive the universal child benefit.

The positive changes in pensions are related to the increased amount of pension bonus (difference between 100% MVPD and a sum of pensions). Increased amounts of assistance pensions base, basic monthly pension and pension indexation have also resulted in a positive change in public pensions for all income decile groups. Due to the Covid-19, the lump sum pension bonus of 200 EUR was paid to all pension recipients, i.e. the elderly and disabled.

The positive effect of means-tested benefits is associated with more generous additional child benefits, increased payment period of student's childcare benefit and social benefits. The amount of state-supported income (SSI) used in the system of social assistance was increased between 2019-2020 up to 125 EUR since 1 January 2020. In addition, this effect is likely due to several new temporary policy measures, introduced as a response to the Covid-19: the additional lump-sum benefit of 80 EUR for all families receiving the additional child benefit and more generous social benefit conditions (increased amount of state supported income, eased eligibility conditions, increased income disregards, etc.) due to the pandemic.

The changes in direct taxes have had relatively small but positive impact on mean disposable income. While the nominal personal income tax (PIT) rate remained the same, tax allowances were increased. The positive effects are higher for the middle part of the income distribution (as those without earnings and the self-employed are not eligible for tax allowances).

Our results demonstrate a small reduction in disposable income due to social contributions paid by both employees and self-employed persons. This is due to a gradual increase of contributions paid to the funded pension funds (II pillar pensions) in Lithuania. There were also more people paying the higher 3% rate in 2020 compared to 2019, which is also reflected in the simulations.

Overall the changes in the abovementioned policies between 2019 and 2020 have had a positive impact throughout the distribution, especially so for the bottom deciles, i.e. had a pro-poor orientation.
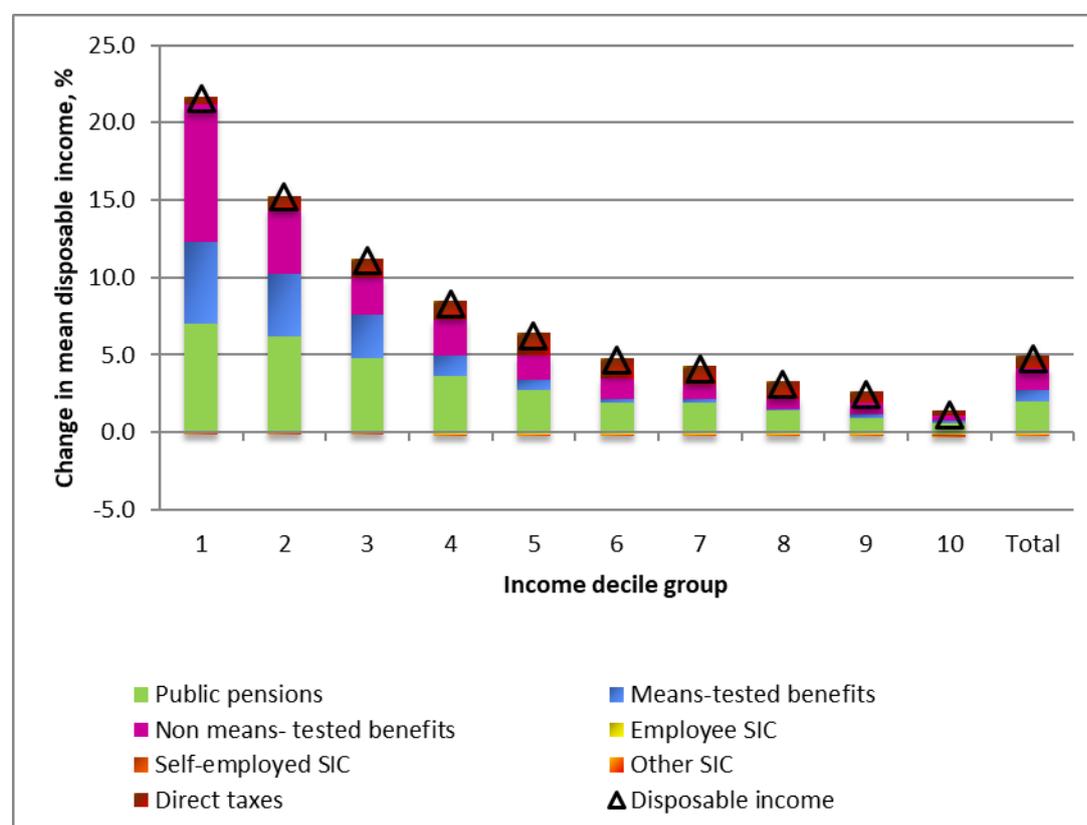
Table 1 (Lithuania): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	7.01	5.28	8.89	-0.05	-0.02	-0.06	0.47	**21.53**
2	0.00	6.18	4.07	4.09	-0.04	-0.01	-0.03	0.91	**15.17**
3	0.00	4.78	2.79	2.42	-0.10	-0.01	-0.03	1.23	**11.07**
4	0.00	3.60	1.32	2.30	-0.16	-0.02	-0.02	1.30	**8.32**
5	0.00	2.73	0.63	1.60	-0.16	-0.01	-0.02	1.45	**6.23**
6	0.00	1.93	0.26	1.30	-0.17	-0.01	-0.01	1.33	**4.63**
7	0.00	1.86	0.28	0.94	-0.17	-0.01	-0.02	1.24	**4.12**
8	0.00	1.37	0.12	0.69	-0.18	-0.02	-0.01	1.10	**3.07**
9	0.00	0.95	0.24	0.73	-0.18	-0.01	-0.01	0.71	**2.44**
10	0.00	0.60	0.11	0.39	-0.16	-0.08	-0.01	0.28	**1.14**
Total	**0.00**	**2.01**	**0.74**	**1.34**	**-0.16**	**-0.03**	**-0.01**	**0.89**	**4.78**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Lithuania): Policy effects in 2019-2020, using the CPI-indexation, %

Luxembourg

The analysis of the effects of policy changes between 2019 and 2020 shows that overall policy effects were very modest - mean disposable income has, on average, increased by 0.36%.

Changes attributable to public pensions accounted for most of the positive change, alongside a large uplift for the lowest decile coming from means-tested benefits. On the other hand, there were decreases attributable to direct taxes (decrease by, on average, 0.37%). The effect from all the other components was negligible.

Table 1 (Luxembourg): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	0.17	4.17	-0.06	-0.12	0.00	-0.02	-0.68	**3.45**
2	0.00	0.38	-0.40	-0.05	0.00	0.00	0.01	-0.10	**-0.16**
3	0.00	0.37	-0.01	-0.02	-0.01	0.00	0.00	-0.19	**0.13**
4	0.00	0.47	0.10	-0.02	-0.02	0.00	0.00	-0.24	**0.29**
5	0.00	0.64	0.04	0.00	-0.03	0.00	0.00	-0.31	**0.35**
6	0.00	0.75	0.04	0.00	-0.04	0.00	0.00	-0.41	**0.33**
7	0.00	0.82	0.02	-0.01	-0.06	0.00	0.00	-0.45	**0.32**
8	0.00	0.71	0.02	0.00	-0.06	-0.01	0.00	-0.44	**0.23**
9	0.00	0.48	0.01	0.02	-0.06	-0.01	0.00	-0.35	**0.08**
10	0.00	0.76	0.00	0.01	-0.11	-0.03	0.00	-0.41	**0.23**
Total	**0.00**	**0.61**	**0.19**	**-0.01**	**-0.06**	**-0.01**	**0.00**	**-0.37**	**0.36**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Luxembourg): Policy effects in 2019-2020, using the CPI-indexation, %
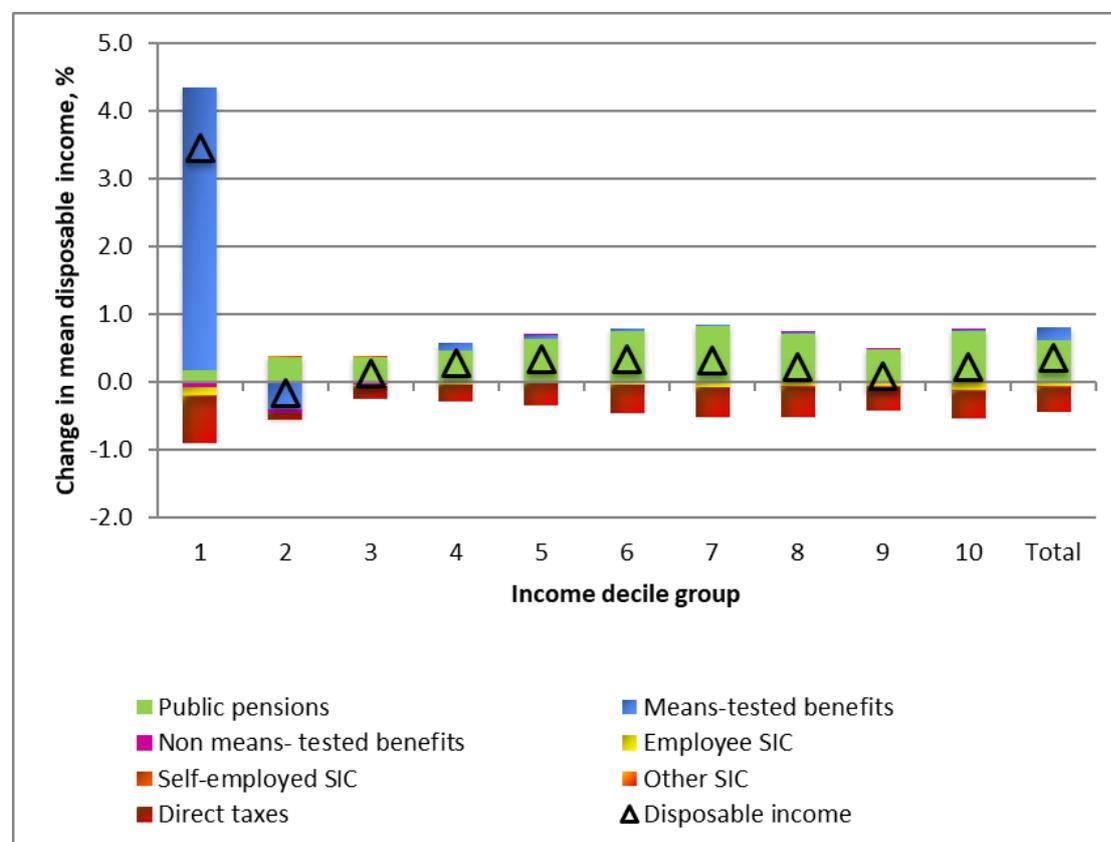
Hungary

The analysis shows that changes in the tax-benefit system between 2019 and 2020 yield an average overall negative effect of 0.33% in equivalised disposable income. This was driven by reductions in real terms of non-means tested benefits (an average effect of -0.08%) and public pensions (-0.70%), but was countered to a lesser extent by decreased self-employed social insurance contribution (SIC) (+0.08%) and a reduction in direct taxes (+0.43%).

Overall the largest contribution to the decrease in disposable income is due to public pensions (-0.70%), the reason of this is the CPI, the uprating factor of the consumption price index is larger than the indices of the public pension. The non means tested benefits decrease the results too (-0.08%), although there were no structural changes to benefits calculations between 2019 and 2020, amounts of non means-tested benefits - such as social assistance for old age, the regular social assistance benefit and the stand-by allowance - and amounts of non means-tested benefits - such as child care allowance, child raising support, family allowance and maternity grant - depend on the National Minimum Pension value. National Minimum Pension has remained unchanged in nominal terms over time, resulting in a cut in real terms of any benefit linked to it (although almost negligible considering the very small changes in the price index). On the other hand, the National Minimum Wage, used as a base value for the calculation of selected benefits - such as unemployment benefits and job seekers allowance - has increased. This increase is much higher than the increase registered by the consumer price index, hence balancing out the negative effects due to freezing of National Minimum Pension. On the other hand, this also means that self-employed SIC for those on National Minimum Wage (or under) increase faster than inflation, hence the negative effect on household income observed between 2019 to 2020.

Across the income distribution the effect is the most negative in the fifth decile (-0.91%) - mainly driven by public pensions relative change (-0.94%) - whilst other decile groups gradually lose less of their income.

The above mentioned minor policy changes implemented between 2019 and 2020 have positive effects only for the first and tenth income decile groups who gain respectively 2.49% and 0.10% on average. Other income groups loss gradually in a range varying between -0.02% and -0.91%.

In summary, on average not all income groups were net losers, but the very poorest benefitted more than the richest from the policy changes. The top decile in fact gains on average a very small positive change of their disposable income against the more than 2% gain by the bottom decile. However, middle-income earners lose disposable income, leaving them worse off than those in the top decile.

Table 1 (Hungary): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	-1.26	-0.39	-0.34	-0.01	0.20	0.00	4.29	**2.49**
2	0.00	-0.82	-0.08	-0.18	-0.03	0.14	0.00	0.95	**-0.02**
3	0.00	-0.91	-0.05	-0.17	-0.08	0.04	0.00	1.10	**-0.06**
4	0.00	-0.87	-0.02	-0.11	-0.01	0.03	0.00	0.39	**-0.59**
5	0.00	-0.94	-0.02	-0.07	-0.03	0.04	0.00	0.12	**-0.91**
6	0.00	-0.71	-0.02	-0.08	-0.02	0.06	0.00	0.16	**-0.61**
7	0.00	-0.63	-0.01	-0.10	-0.09	0.05	0.00	0.19	**-0.59**
8	0.00	-0.80	-0.01	-0.06	-0.04	0.04	0.00	0.25	**-0.63**
9	0.00	-0.69	0.00	-0.05	-0.01	0.09	0.00	0.20	**-0.46**
10	0.00	-0.42	-0.01	-0.03	0.00	0.14	0.00	0.42	**0.10**
Total	**0.00**	**-0.70**	**-0.02**	**-0.08**	**-0.03**	**0.08**	**0.00**	**0.43**	**-0.33**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Hungary): Policy effects in 2019-2020, using the CPI-indexation, %
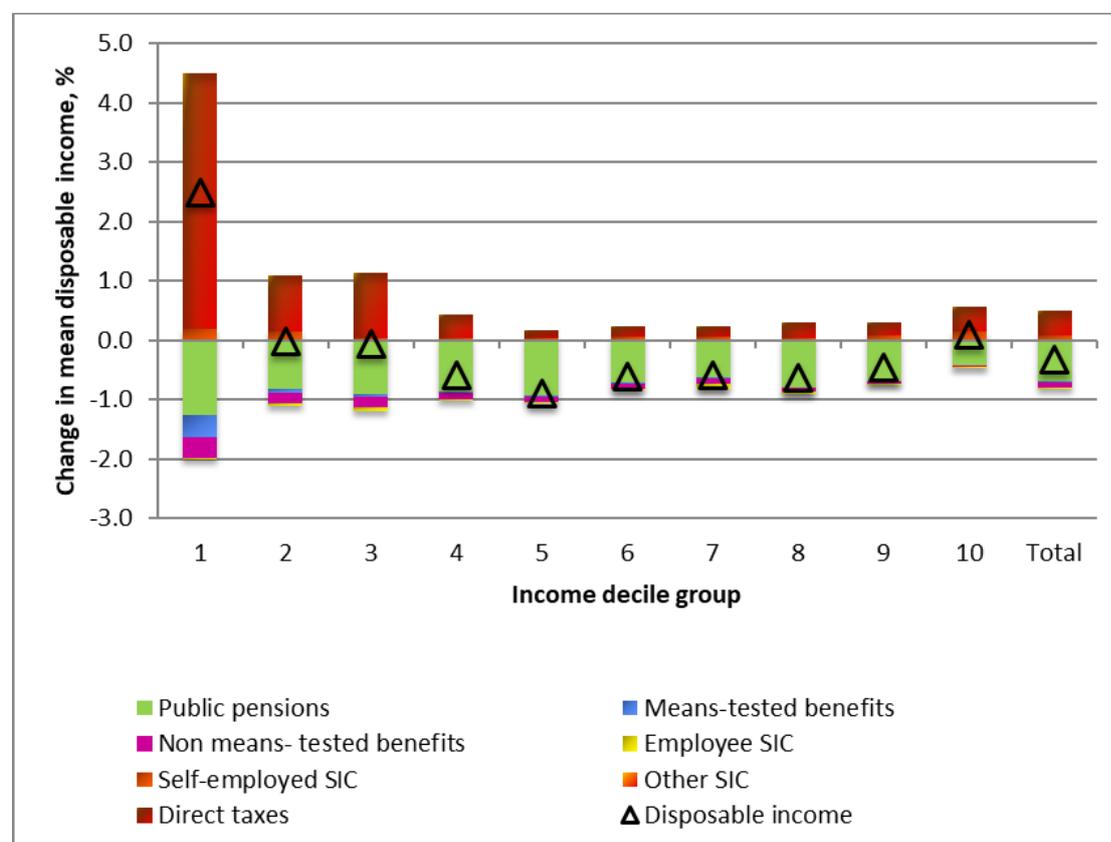
Malta

Measured in real terms, policy changes led to an overall increase in the average household disposable income by around 0.54%. The increase in household disposable income was driven by changes in public pensions (around 0.38% in total), means-tested benefits (around 0.15% in total) and non-means-tested benefits (around 0.11% in total). This is attributed to the discretionary increase in public pensions, tax rebates on pensionable income, the reform of in-work benefits, extension of the housing benefit and the introduction of the birth grant and additional bonus.

The policy effect for the lower deciles is estimated to be positive, with the largest increase of 3.09% occurring for the lowest decile. The increase in disposable income is overall felt by all deciles with the exception of the tenth decile and the magnitude of this increase declines toward the higher deciles, indicating a more equal distribution.

Moreover, the positive contribution of public pensions and means-tested benefits to the overall change in disposable income for households above the median income was slightly cancelled by direct taxes and SIC. This is because in this scenario the taxation and SIC parameters are indexed with the HICP.

Overall, the mean policy effects of different components were very small and staying mainly within the range of -0.06% to 0.38%.

Table 1 (Malta): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	1.21	1.24	0.24	0.00	-0.01	0.00	-0.01	**2.67**
2	0.00	1.47	0.61	0.22	0.02	-0.01	0.00	-0.01	**2.29**
3	0.00	0.91	0.53	0.18	0.03	-0.01	0.00	0.00	**1.63**
4	0.00	0.76	0.31	0.15	0.01	-0.01	0.00	0.00	**1.21**
5	0.00	0.53	0.13	0.15	-0.01	-0.01	0.00	-0.04	**0.75**
6	0.00	0.37	0.05	0.11	-0.05	-0.01	0.00	-0.06	**0.42**
7	0.00	0.23	0.04	0.10	-0.06	-0.02	0.00	-0.06	**0.23**
8	0.00	0.18	0.01	0.10	-0.10	-0.01	0.00	-0.05	**0.14**
9	0.00	0.14	0.01	0.07	-0.11	-0.01	0.00	-0.03	**0.08**
10	0.00	0.06	0.00	0.06	-0.10	-0.01	0.00	-0.04	**-0.04**
Total	**0.00**	**0.39**	**0.15**	**0.11**	**-0.06**	**-0.01**	**0.00**	**-0.03**	**0.54**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Malta): Policy effects in 2019-2020, using the CPI-indexation, %
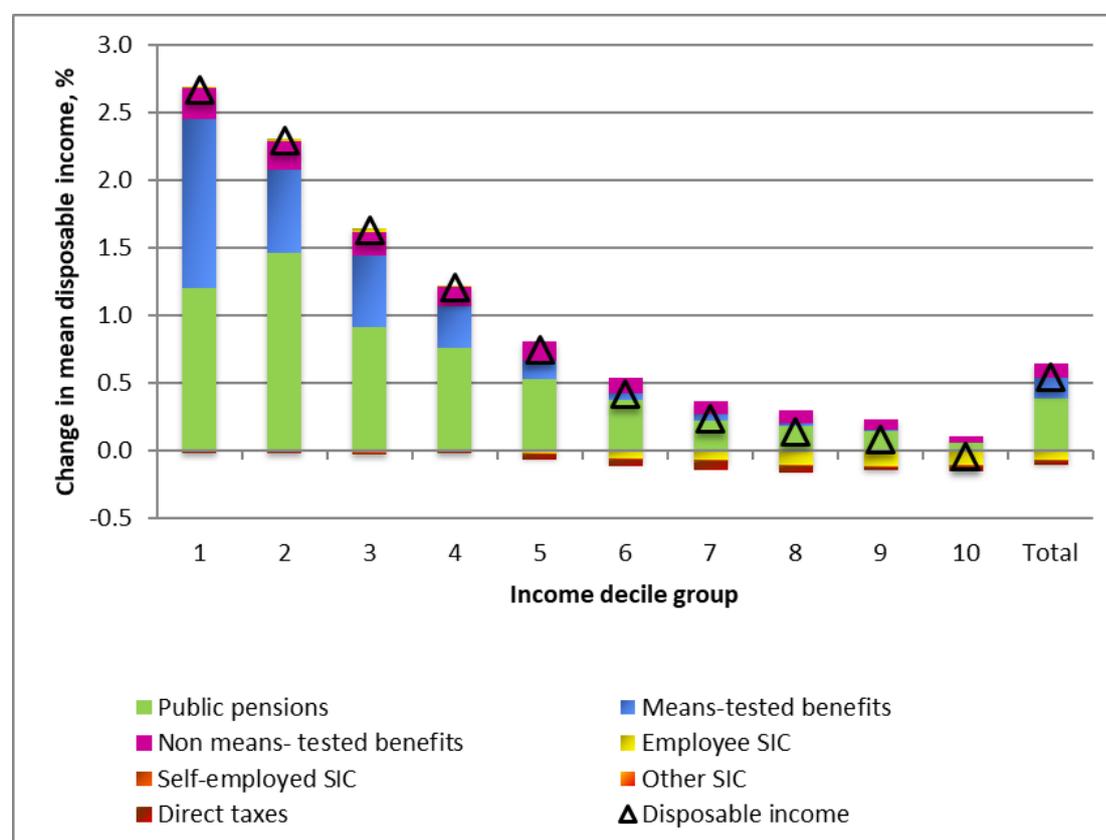
The Netherlands

The total effect of (deflated) 2020 policies is an increase in disposable income of 1.75%. This is mainly driven by a decrease in direct taxes (+0.69%) and employee SICs (+0.48%). Although the policy effect across the income distribution is positive for all decile groups, the increase in disposable varies in a range between 1.47% and 3.81%, with the sixth decile seeing the lowest increase and the first decile the highest.

For most decile groups, the increase in disposable income is mainly the result of decreases in direct income tax and employee SICs. In the lowest deciles, higher means-tested benefits make up the largest part of the increase in disposable income. This is particularly true for the lowest decile where the policy effect of means-tested benefits alone is an increase in disposable income of more than 4%.

Notably, about half of this effect is caused by the simulated effect of the emergency measures of the government to mitigate the effects of the reduction in income of self-employed caused by the Covid-19 crisis. Because in EUROMOD the loss of income is taken into account via the uprating factor – in other words: all self-employed are assumed to suffer the same percentage loss in income – the resulting policy effect cannot be expected to be a very accurate representation of reality.

Table 1 (Netherlands): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	0.09	4.19	0.12	-0.39	0.00	0.01	-0.20	**3.81**
2	0.00	0.29	0.78	0.14	0.49	0.00	0.04	0.18	**1.92**
3	0.00	0.45	0.54	0.11	0.45	0.00	0.06	0.25	**1.87**
4	0.00	0.40	0.49	0.09	0.49	0.00	0.07	0.32	**1.86**
5	0.00	0.23	0.18	0.07	0.60	0.00	0.05	0.45	**1.59**
6	0.00	0.11	0.06	0.07	0.62	0.00	0.05	0.55	**1.47**
7	0.00	0.14	0.06	0.06	0.64	0.00	0.05	0.57	**1.53**
8	0.00	0.07	0.02	0.05	0.64	0.00	0.05	0.68	**1.51**
9	0.00	0.08	0.02	0.05	0.59	0.00	0.04	0.77	**1.54**
10	0.00	0.04	0.01	0.03	0.28	0.00	0.03	1.43	**1.82**
Total	**0.00**	**0.15**	**0.32**	**0.07**	**0.48**	**0.00**	**0.04**	**0.69**	**1.75**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Netherlands): Policy effects in 2019-2020, using the CPI-indexation, %
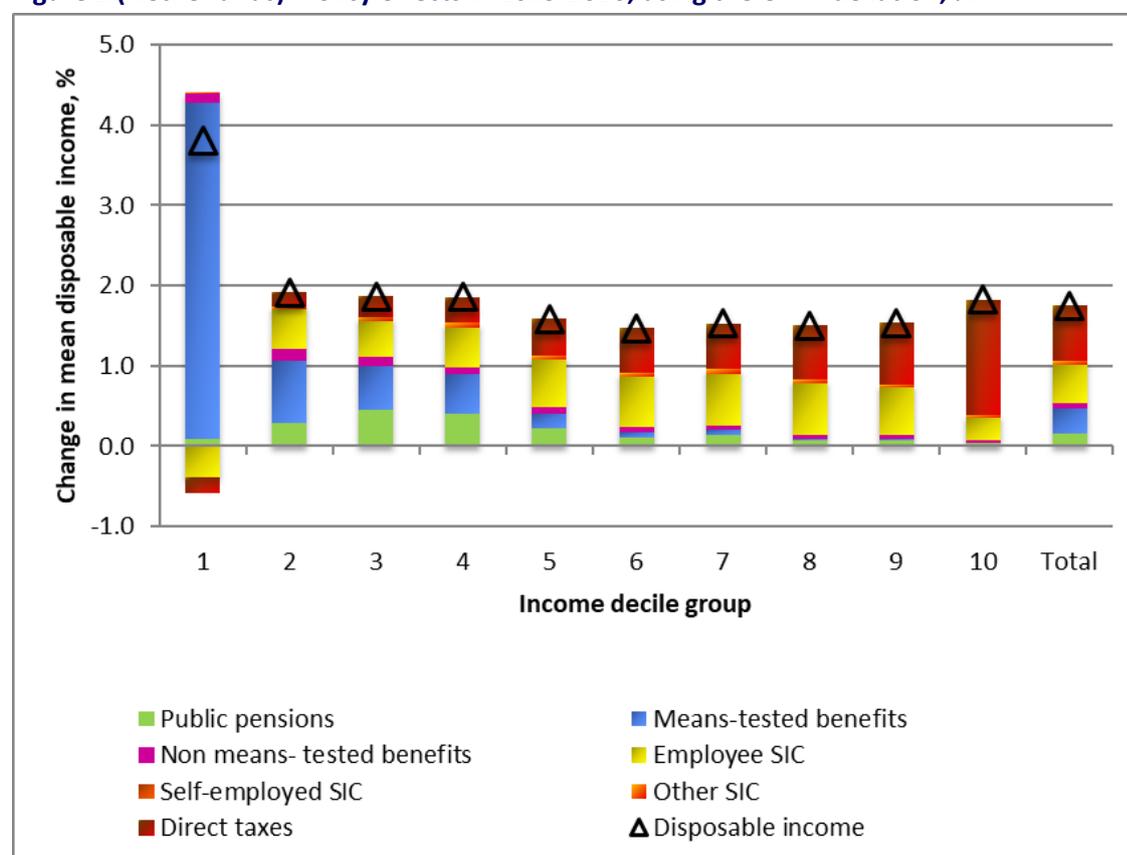
Austria

In 2019-20, households experienced on average a real terms increase of around 1.9%. The policy effect was clearly progressive with an increase of 3.97% in the lowest decile and an increase of 0.83% in the highest decile.

The income increase in all decile groups was to a large extent driven by the decrease in direct taxes (on average 0.88%; COVID-related early decrease of the lowest marginal tax rate and measures related to commuter's tax credit, pensioner's tax credit as well as negative tax), an increase in non-means tested benefits (on average 0.59%; extra universal payment for children entitled to family allowance related to the COVID-crisis) and the indexation of pensions (on average 0.45%). In lower income groups also the increase of means-tested benefits played an important role.

The progressive increases in disposable income related to direct taxes are due to the introduction of the supplement to the commuter's tax credit as well as both the introduction of the social insurance bonus (further increased as COVID-related measure) and the increase of negative tax for pensioners as two extensions of negative tax. In addition the pensioner's tax credit was increased and the tax rate of the first bracket reduced from 25% to 20% (the latter at least partly relevant for all persons with a taxable yearly income of at least €11,000 and fully relevant with a taxable yearly income of at least €18,000).

The increase in terms of non-means tested benefits is due to an extra universal payment of €360 per child entitled to family allowance as COVID-related measure.

The increase in terms of means tested benefits in the first and second decile is due to the indexation of minimum income benefit according to the indexation of minimum pension top-up which is clearly above the CPI. In addition, an income limit related to childcare benefit was raised.

The small gains in the lower deciles related to employee's social insurance contributions seem to be due to above-average increase of the income-limits for reduced contributions to unemployment insurance. The small losses in the higher deciles are due to the increase of the lower and upper contributions limits above the CPI

The small increases in the lower deciles related to social insurance contributions of self-employed could be due to the decrease of the minimum contribution base in the pension insurance and reduction of the contribution rate for health insurance.

In terms of employers' social insurance contributions the contribution rate to the insolvency fund was decreased.

Table 1 (Austria): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	0.34	0.89	1.91	0.07	0.02	-0.02	0.76	**3.97**
2	0.00	0.56	0.20	1.54	0.02	0.01	-0.03	0.99	**3.30**
3	0.00	0.51	0.07	1.15	0.02	0.00	-0.02	1.22	**2.95**
4	0.00	0.51	0.02	0.81	0.03	0.01	-0.02	1.15	**2.51**
5	0.00	0.53	0.01	0.74	0.04	0.00	-0.02	1.07	**2.38**
6	0.00	0.50	0.01	0.59	0.02	0.00	-0.02	1.08	**2.17**
7	0.00	0.41	0.02	0.46	0.00	0.00	-0.02	1.04	**1.90**
8	0.00	0.43	0.00	0.37	-0.02	-0.02	-0.02	0.93	**1.67**
9	0.00	0.38	0.00	0.25	-0.04	-0.03	-0.01	0.75	**1.30**
10	0.00	0.41	0.00	0.16	-0.11	-0.05	-0.02	0.44	**0.83**
Total	**0.00**	**0.45**	**0.06**	**0.59**	**-0.02**	**-0.01**	**-0.02**	**0.88**	**1.92**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Austria): Policy effects in 2019-2020, using the CPI-indexation, %
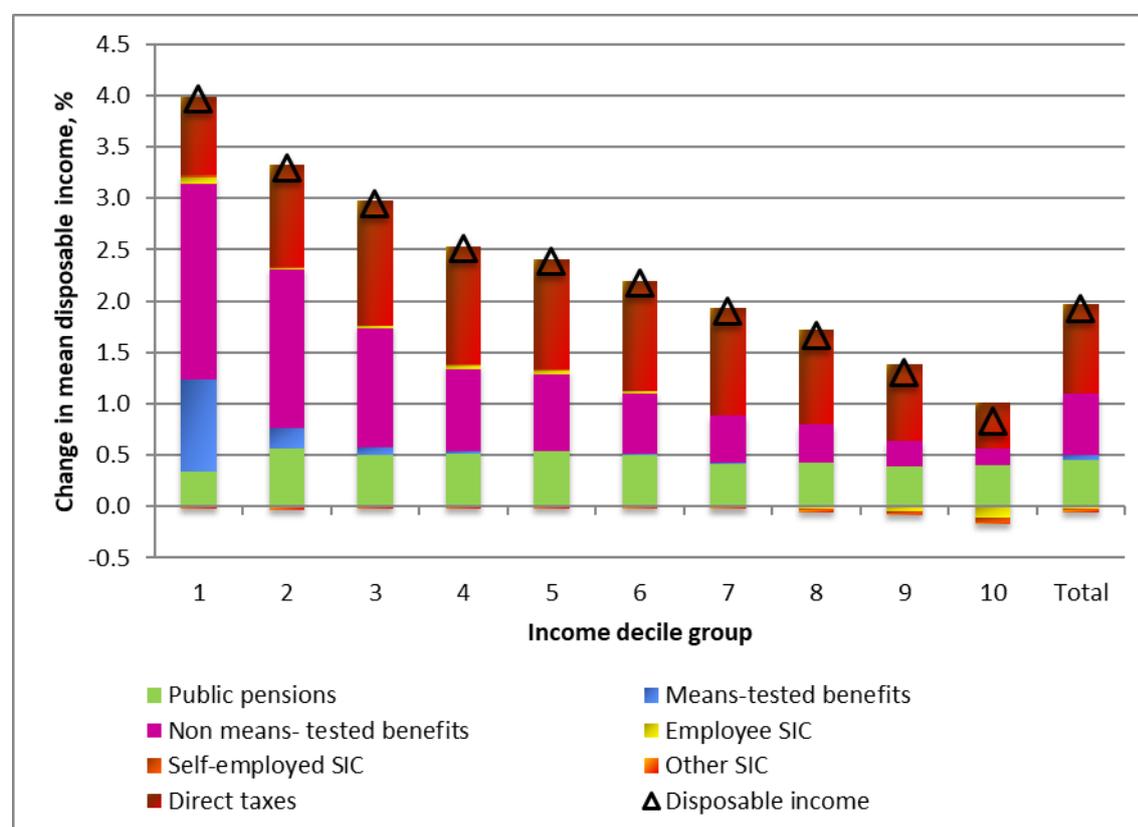
Poland

Table 1 and Figure 1 show that between 2019 and 2020 the average equivalised household disposable income (EHDI) - measured in real values - increased by 5.02%. This change was mainly driven by an increase of non-means tested benefits - more specifically, the removal of means testing for the first child in the childcare allowance. Whilst the effect is positive for the whole distribution, this change was most pronounced in the lowest deciles. The income group which gained the most was the first income decile with an average increase of equivalised HDI of 12.06%. However, this does not translate to an actual increase in disposable income of 12.06%, since the gains are offset by the elimination of the means tested programme to avoid double counting in the model. The net increase in disposable income from benefits in the first decile, where the change is most pronounced, comes to 4.90%. This includes nominal increases in existing benefits, as well as the introduction of a means tested benefit of 500 PLN per month for disabled adults in low income households in addition to the expansion of the childcare allowance.

Although smaller, the most visible negative changes in mean equivalised HDI are associated with changes in public pensions. On average public pensions decreased household incomes by 0.44%, reflecting that pension indexation was lower than growth in the CPI. However, this is offset by a reduced tax burden which increased equivalised HDI – on average by 1.61%. This results from a cut in the bottom income tax rate from 18% to 17%, and a cut to 0% for employees under the age of 26.

Table 1 (Poland): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	-0.87	-7.16	12.06	0.49	-0.35	0.00	1.07	**5.24**
2	0.00	-0.75	-6.20	10.59	0.68	-0.33	0.00	1.39	**5.38**
3	0.00	-0.69	-6.14	10.15	0.74	-0.15	0.00	1.57	**5.48**
4	0.00	-0.63	-4.54	8.52	0.87	-0.12	0.00	1.62	**5.72**
5	0.00	-0.56	-4.38	8.13	0.90	-0.06	0.00	1.66	**5.69**
6	0.00	-0.52	-2.80	6.45	0.87	0.01	0.00	1.70	**5.70**
7	0.00	-0.45	-2.37	5.65	0.97	-0.02	0.00	1.79	**5.58**
8	0.00	-0.37	-1.70	4.64	0.95	0.01	0.00	1.86	**5.38**
9	0.00	-0.28	-1.50	4.02	0.97	0.01	0.00	1.72	**4.95**
10	0.00	-0.21	-0.79	2.42	0.71	0.01	0.00	1.39	**3.52**
Total	**0.00**	**-0.44**	**-2.80**	**5.86**	**0.84**	**-0.05**	**0.00**	**1.61**	**5.02**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Poland): Policy effects in 2019-2020, using the CPI-indexation, %
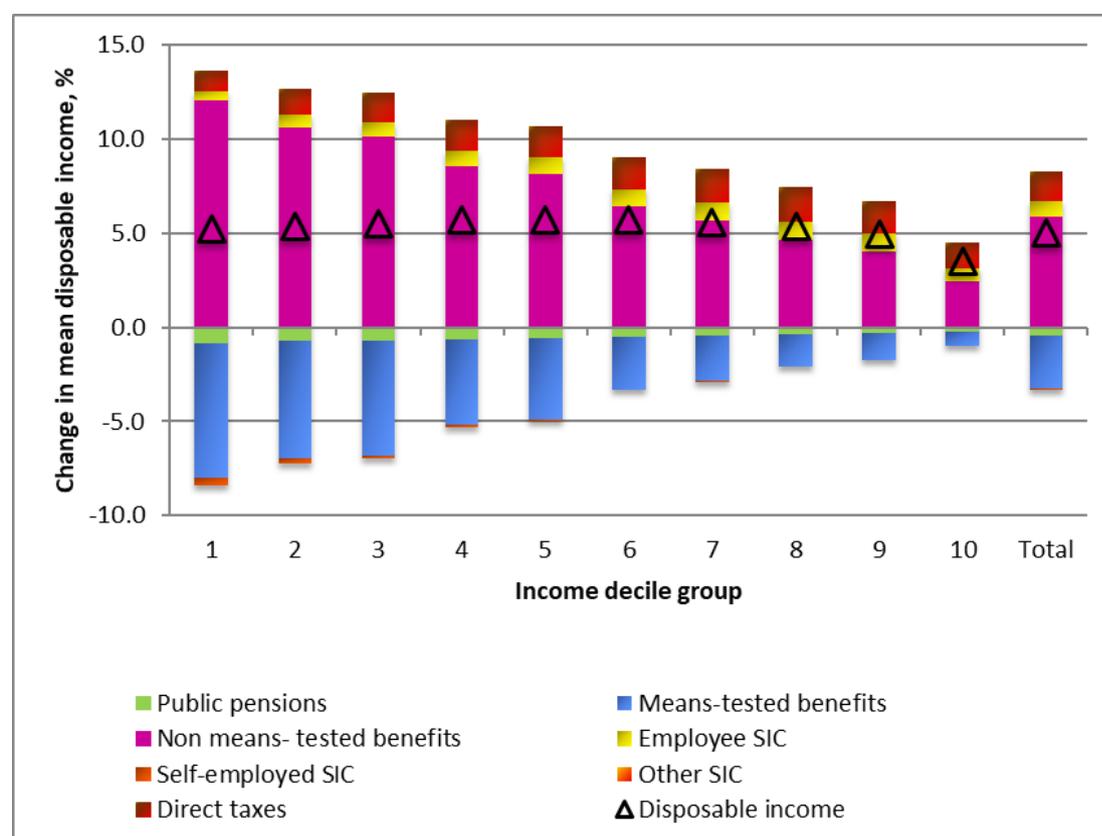
Portugal

Policy changes in 2020 have, on average, a small positive effect across the income distribution. In general, households' disposable income is increased by 0.35%, with the bottom income deciles recording the greatest increments (increase in the first decile of 0.66%). This behaviour is coherent with the kind of policy changes implemented and simulated in 2020, mostly parametric (which have implied, for instance, an overall slight increase on pensions income and on total disposable income).

Still, when looking at the changes in income broke down by decile, there are some results that reflect the impact of some of the other policies. For instance, means-tested benefits grow larger in the first deciles (0.28% in the first decile, compared to an overall 0.05%) – this is the expected outcome of increasing child benefits for toddlers, especially in the lower income families, or of the partial relief in the family solidarity income component in the solidarity supplement for the elderly.

In contrast to what was observed last year, in 2020 social insurance contributions (SICs) – both paid by employees and self-employed – had no effect on the income distribution, as no changes occurred.

The increase in income from the middle to top deciles was mainly due to the alleviation of direct income taxes. The effect of direct taxes on mean household disposable income was positive (0.08%). The main explanation driving the income gains rely on the update of the income bracket limits, alongside new and extended tax credits – relating to dependent children still studying; young people in the first three years of work; and higher tax credits regarding taxpayers and their dependent children). In this regard, the intermediate income deciles (specifically the sixth to eighth income deciles) were the ones experiencing the higher income gains on average (from 0.10 to 0.12%).

Table 1 (Portugal): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	0.28	0.28	0.09	0.00	0.00	0.00	0.01	**0.66**
2	0.00	0.38	0.12	0.06	0.00	0.00	0.00	0.02	**0.58**
3	0.00	0.32	0.13	0.07	0.00	0.00	0.00	0.02	**0.54**
4	0.00	0.26	0.12	0.05	0.00	0.00	0.00	0.04	**0.47**
5	0.00	0.20	0.08	0.08	0.00	0.00	0.00	0.07	**0.42**
6	0.00	0.16	0.06	0.04	0.00	0.00	0.00	0.11	**0.36**
7	0.00	0.14	0.04	0.03	0.00	0.00	0.00	0.12	**0.34**
8	0.00	0.13	0.03	0.03	0.00	0.00	0.00	0.10	**0.30**
9	0.00	0.12	0.01	0.03	0.00	0.00	0.00	0.10	**0.27**
10	0.00	0.13	0.00	0.02	0.00	0.00	0.00	0.08	**0.22**
Total	**0.00**	**0.18**	**0.05**	**0.04**	**0.00**	**0.00**	**0.00**	**0.08**	**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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Portugal): Policy effects in 2019-2020, using the CPI-indexation, %
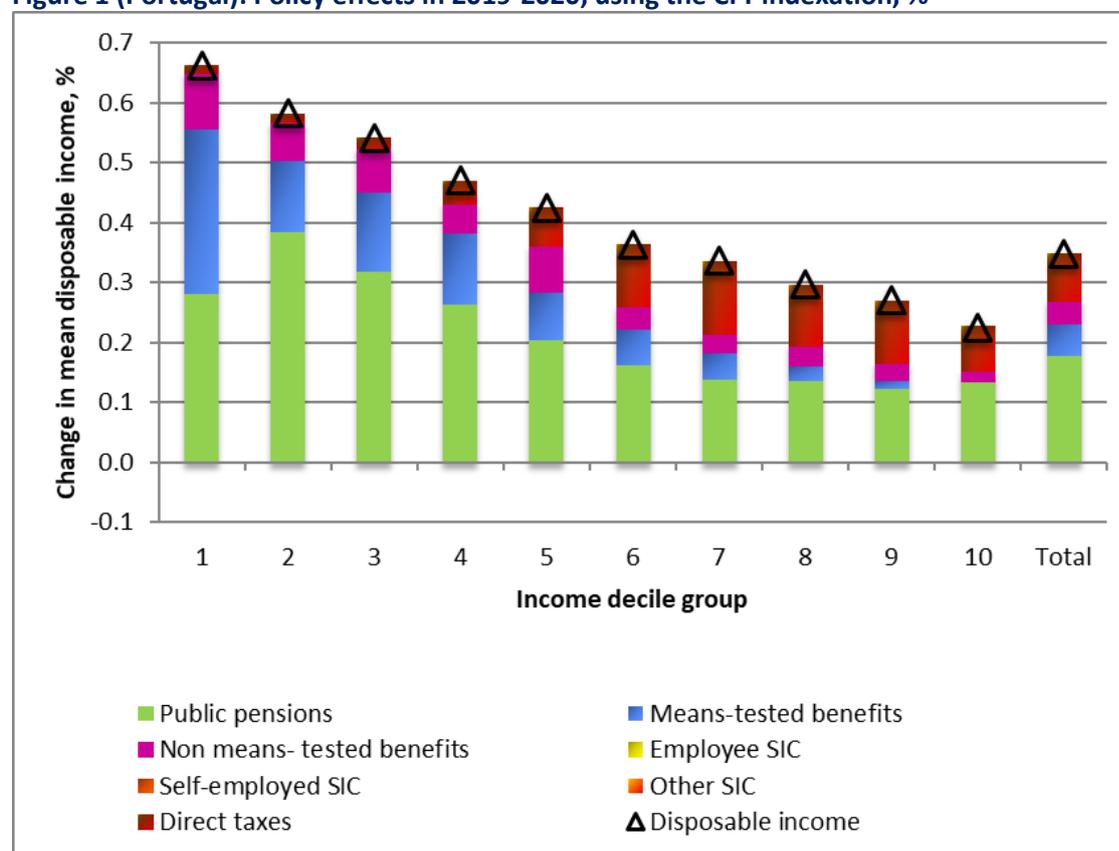
Romania

The disposable income of all households has increased on average by approximately 2.6%, as a result of policy changes between 2019 and 2020. There were only few policy changes in 2020 compared to 2019: (1) the minim social pension setting a lower limit on every public pension has been raised by 10%, and (2) the indexation of public pensions by a coefficient equal to 15%. Besides these, no other changes have been modelled.

Income changes are positive for all deciles, except for the poorest decile which experiences an income loss of 0.32%. The changes are very similar for the middle deciles, but with lower increases for the richer ones. The income increase is driven by the public pensions (approximately a 2.9% raise for all households), as a result of applying an indexation coefficient higher than the consumer prices index. The increase in pension income is more pronounced for the middle deciles, where most of the pensioners belong.

The decreases of both means-tested and non means-tested benefits can be attributed to the fact that the thresholds of the former and the values of the later have remained nominally the same between 2019 and 2020, while the CPI was above 1.

The negative effects that we observe for disposable income in the case of the poorest decile can be attributed to their comparatively greater reliance on both means-tested and non means-tested benefits as compared to other deciles. This is also the reason why relative income losses from benefits (except pensions) are regressive with income level.

However, means-tested benefit losses might have been to some extent counterbalanced not only in the first decile, but in general in the poorest deciles, by the increase of the minimum social pension's threshold.

On the other hand, the amounts for self-employed social contributions increased on average by 0.02%, their values being linked with the minimum statutory wage, which has increased by 7.2%.

Table 1 (Romania): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	1.31	-0.94	-0.60	0.00	-0.15	0.00	0.06	**-0.32**
2	0.00	5.48	-0.78	-0.21	0.00	0.12	0.00	-0.05	**4.57**
3	0.00	4.04	-0.28	-0.21	0.00	-0.06	0.00	-0.10	**3.40**
4	0.00	3.64	-0.15	-0.15	0.00	0.02	0.00	-0.11	**3.25**
5	0.00	3.62	-0.10	-0.11	0.00	-0.01	0.00	-0.12	**3.28**
6	0.00	4.10	-0.04	-0.09	0.00	0.01	0.00	-0.14	**3.84**
7	0.00	3.13	-0.03	-0.06	0.00	-0.05	0.00	-0.19	**2.80**
8	0.00	2.64	-0.01	-0.05	0.00	-0.01	0.00	-0.19	**2.37**
9	0.00	2.62	0.00	-0.03	0.00	-0.01	0.00	-0.20	**2.38**
10	0.00	1.65	-0.01	-0.03	0.00	-0.03	0.00	-0.15	**1.45**
Total	**0.00**	**2.91**	**-0.10**	**-0.08**	**0.00**	**-0.02**	**0.00**	**-0.15**	**2.56**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Romania): Policy effects in 2019-2020, using the CPI-indexation, %
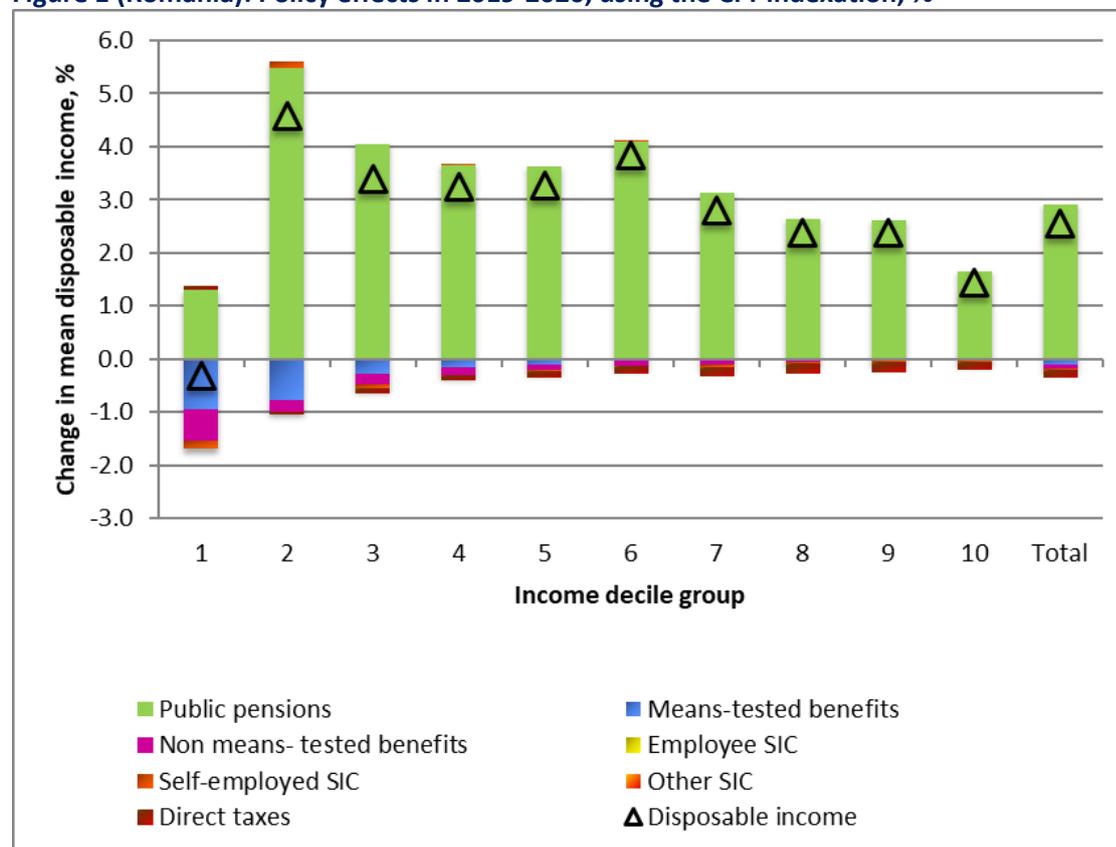
Slovenia

Table 1 and Figure 1 show the effects of policy changes in 2019-2020 on mean equivalised household disposable income by income component and income decile group in Slovenia. Disposable income for the total population increases by 1.59% and while the effects of tax/benefits changes are moderate, they are however quite heterogeneous along the distribution of disposable income. In fact, all deciles experience an increase in disposable income which is highest at the two ends of the income distribution with the lowest decile benefitting from a 2.02% increase and the highest decile the next highest beneficiary in percentage terms (1.83%).

All deciles experienced a small increase in disposable income due to non means-tested benefits and a similar sized decrease attributable to self-employed social insurance contributions. Means-tested benefits have a varying influence on disposable income across deciles, showing the highest impact in the lowest two deciles where disposable income is increased by 0.44% and 0.38%. Other deciles benefit by a smaller percentage rise, disappearing to zero for the highest decile. The positive impact of means-tested and non means-tested benefits on the disposable income is driven by a very low CPI compared to the increase of benefits' level. The effect of employee's social insurance contributions and other social insurance contributions on disposable income growth are negligible across all income deciles.

Public pensions drive the highest increase in disposable income for all deciles between 2019 and 2020, with an annual growth of 0.90% for the total population and with higher growth experienced by the poorest deciles. These results can be explained mostly by indexation, which make public pensions increase in real terms, especially for the lowest deciles, where the share of pensions in disposable income is larger.

Finally, the lower amount of direct taxes collected, mainly personal income taxes, is a factor contributing to disposable income across all income deciles. In total, the disposable income is higher by 0.62% for the total population due to lower taxes collected. This effect is regressive due to decreased tax rates for the second and third income tax brackets in 2020.

Table 1 (Slovenia): Policy effects in 2019-2020, using CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	1.61	0.44	0.08	0.00	-0.13	-0.01	0.04	**2.02**
2	0.00	1.28	0.38	0.09	0.00	-0.10	-0.01	0.10	**1.73**
3	0.00	1.30	0.21	0.07	0.00	-0.06	-0.01	0.16	**1.67**
4	0.00	1.24	0.08	0.04	0.00	-0.04	0.00	0.23	**1.56**
5	0.00	0.99	0.07	0.05	0.00	-0.04	-0.01	0.36	**1.42**
6	0.00	0.83	0.04	0.03	0.00	-0.04	0.00	0.46	**1.32**
7	0.00	0.82	0.04	0.03	0.00	-0.02	0.00	0.54	**1.40**
8	0.00	0.73	0.01	0.03	0.00	-0.03	0.00	0.69	**1.43**
9	0.00	0.69	0.01	0.02	0.00	-0.02	0.00	0.91	**1.60**
10	0.00	0.64	0.00	0.01	0.00	-0.02	0.00	1.19	**1.83**
Total	**0.00**	**0.90**	**0.08**	**0.04**	**0.00**	**-0.04**	**0.00**	**0.62**	**1.59**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Slovenia): Policy effects in 2019-2020, using CPI-indexation, %
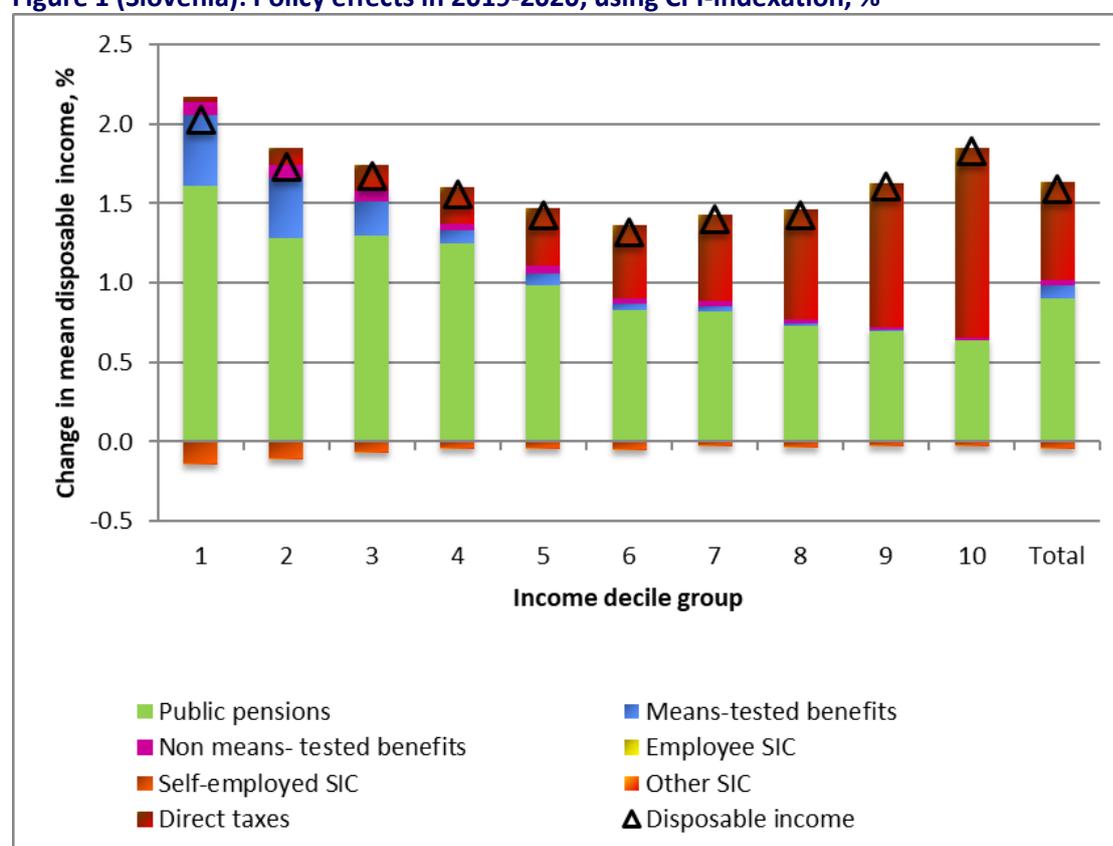
Slovak Republic

In comparison to 2019 policies, (deflated) 2020 policies increased mean household disposable income by approximately 1.67% in total. The change in household disposable income by deciles shows a progressive pattern, i.e., lower income groups gain more in relative terms. Households located in the second income decile experiment the second highest increase in disposable income across the income distribution (2.47%), led only by the third decile (2.78% increase). The total increase of mean household disposable income is mainly due to changes in non means-tested benefits and public pensions along with a decrease of paid taxes.

First, changes in means-tested and non means-tested benefits accounted for an increase in household disposable income of 0.01% and 0.54% respectively. The effect is most likely driven by more generous amounts for these benefits in comparison with the smaller growth of CPI. In this regard, the Minimum Subsistence Level (MLS), on which tax allowances and social benefits eligibility depend, increased by 2.5% in 2020, from €205 to €210 per month for single-person households, compared to inflation of 1.9%. Moreover, the parental allowance increased significantly in 2020, from €220.70 to €270 per month, and up to €370 for those who were in receipt of the maternity benefit before claiming the allowance.

Second, changes in public pensions also contributed to the increase in disposable income as the real value of public pensions increased. This means that the indexation of pensions[8], of around 5.6%, was higher than the inflation of 1.9%. The distribution of gains across income deciles reflects where recipients of public pensions are located.

Finally, on the one hand, changes in social insurance contributions (SICs) caused income losses of -0.05% for self-employed, while the effect for employees was null. The income losses for the self-employed were most likely due to the increase in the average wage in the economy (lagged 2 years) which is used to calculate the maximum assessment base SICs. On the other hand, the increase in 2020 in the basic tax allowance[9], together with the new treatment of self-employment incomes under the personal income tax[10], resulted in less taxes paid. As a result of changes in direct taxes, household disposable income rose across all deciles (on average by 0.46%) accounting for about a quarter of the total income gain between 2019-2020.

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[8] Pensions in the model are indexed based on year-over-year change in the average monthly pension.

[9] Since 2020, the tax allowance is increased from 19,2*MLS to 21*MLS

[10] Self-employment income is treated as a complete separate tax base in 2020. Besides, two alternatives tax schedules were introduced depending on the annual turnover. If the annual turnover is below €100,000, self-employment incomes are taxed at a reduced tax rate of 15%. Otherwise, a progressive rate applies.

Table 1 (Slovak Republic): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	0.68	-0.30	1.85	0.02	-0.24	-0.02	0.28	**2.27**
2	0.00	1.17	0.00	1.00	-0.02	-0.10	-0.04	0.46	**2.47**
3	0.00	1.30	0.08	0.91	0.03	-0.07	0.03	0.50	**2.78**
4	0.00	1.03	0.04	0.61	0.01	-0.08	-0.01	0.58	**2.16**
5	0.00	0.96	0.06	0.66	0.01	-0.06	0.00	0.65	**2.28**
6	0.00	0.75	0.04	0.66	0.00	-0.04	-0.01	0.63	**2.02**
7	0.00	0.68	0.01	0.40	0.02	-0.05	0.00	0.58	**1.65**
8	0.00	0.51	0.01	0.40	0.00	-0.02	-0.01	0.50	**1.38**
9	0.00	0.43	0.01	0.22	0.00	-0.03	0.00	0.51	**1.13**
10	0.00	0.40	0.01	0.21	-0.03	-0.02	0.00	0.11	**0.68**
Total	**0.00**	**0.72**	**0.01**	**0.54**	**0.00**	**-0.05**	**-0.01**	**0.46**	**1.67**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Slovak Republic): Policy effects in 2019-2020, using the CPI-indexation, %
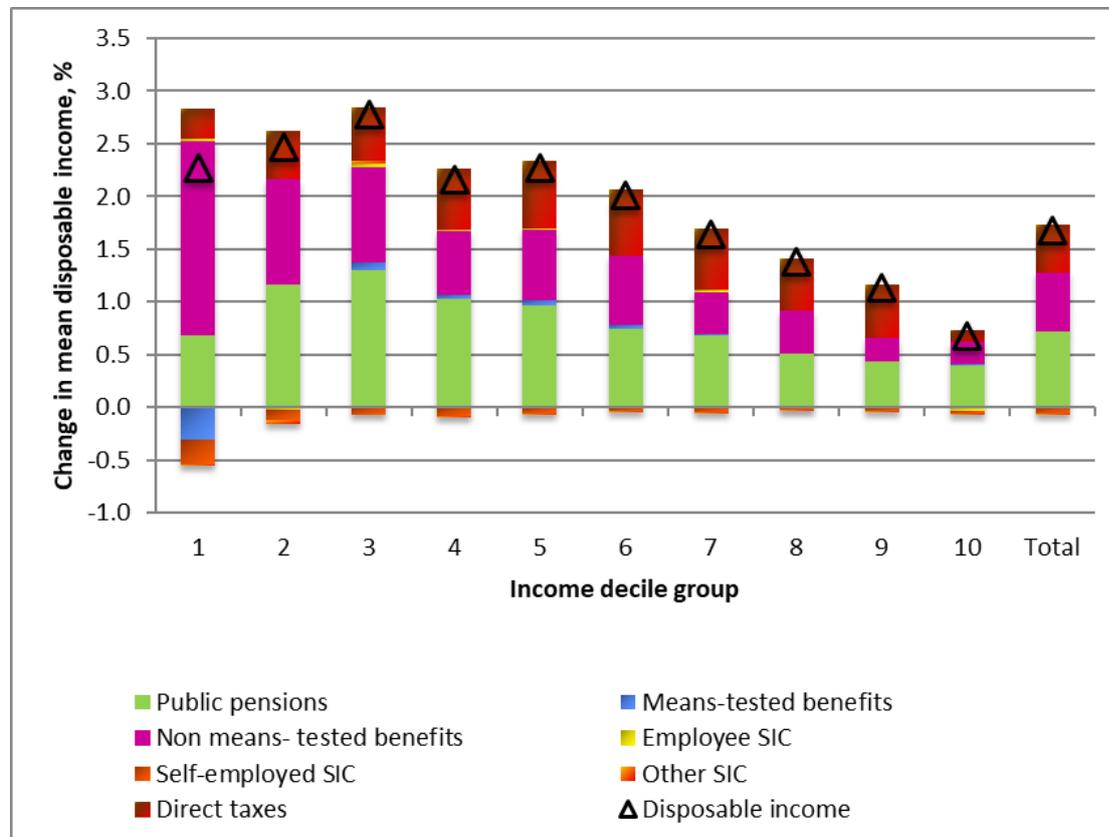
Finland

In 2020, the policy changes had a slightly progressive effect on the disposable income. The first eight deciles experience an increase in disposable income. The top income decile decreases by 0.2%. However, the magnitudes of the changes are relatively small. The mean disposable income increases by around 0.3%. The strongest positive effect is experienced by the first and second deciles, that increase by around 1%. The changes in public pensions are the main driver of this rise. The most relevant negative effect to the top part of the distribution is instead caused by changes in direct taxation.

Table 1 (Finland): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	0.40	0.24	0.29	0.01	0.00	0.00	0.04	**0.98**
2	0.00	0.45	0.23	0.25	0.03	0.01	0.00	0.04	**1.02**
3	0.00	0.38	0.14	0.21	0.08	0.01	0.00	-0.03	**0.80**
4	0.00	0.29	0.08	0.15	0.12	0.02	0.00	-0.10	**0.56**
5	0.00	0.24	0.05	0.11	0.14	0.02	0.00	-0.18	**0.38**
6	0.00	0.19	0.05	0.09	0.17	0.02	0.00	-0.22	**0.30**
7	0.00	0.17	0.02	0.07	0.19	0.01	0.00	-0.28	**0.20**
8	0.00	0.15	0.02	0.06	0.21	0.02	0.00	-0.33	**0.13**
9	0.00	0.13	0.01	0.04	0.22	0.02	0.00	-0.40	**0.01**
10	0.00	0.11	0.00	0.02	0.22	0.02	0.00	-0.57	**-0.20**
Total	**0.00**	**0.21**	**0.06**	**0.10**	**0.17**	**0.02**	**0.00**	**-0.28**	**0.26**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Finland): Policy effects in 2019-2020, using the CPI-indexation, %
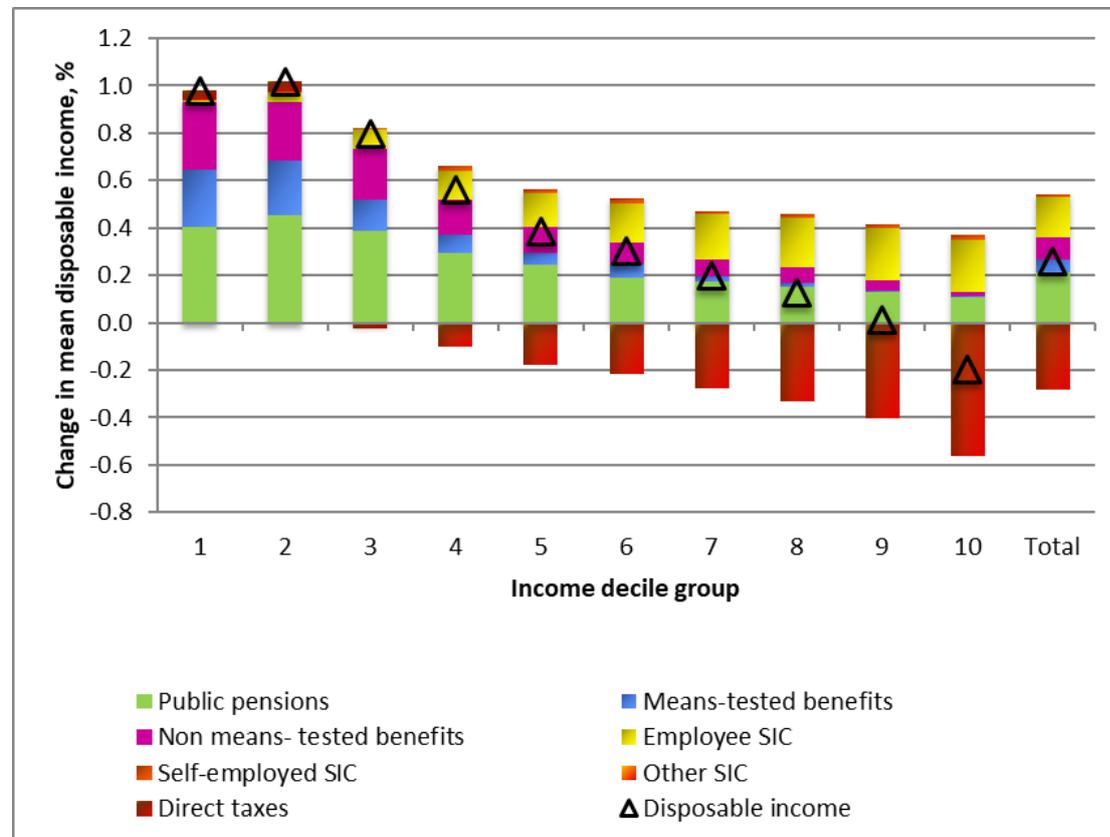
Sweden

In comparison to 2019 policies, (deflated) 2020 policies increase mean household income by 1.65% in total. This total increase was progressive. Changes in public pensions accounted for most of the increase in household disposable income (+0.73%). This reflected that pension indexation was higher than growth in CPI and the position of pensioners in the income distribution. The total effect of these changes occurred along the whole distribution but was stronger at the bottom and top. Changes in direct taxes came second (+0.58%), which is consistent with the elimination of the 25% maximum tax rate of the government income tax. Changes in means-tested benefits affected the first and second deciles, which also contributed to the progressivity of the total changes. This is consistent with a temporary increase in housing benefits for families with children and the fact that housing benefits for pensioners stopped depending on income. Changes in non means-tested benefits and self-employed social insurance contributions (SIC) were of similar size but more distributed across the distribution. This corresponded to temporary measures increasing unemployment benefits and reducing those SIC. Other tax and benefit instruments have only a very minor distributional impact.

Table 1 (Sweden): Policy effects in 2019-2020, using the CPI-indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	0.32	0.80	0.43	-0.01	0.59	0.00	-0.07	**2.06**
2	0.00	1.52	1.49	0.28	-0.01	0.21	0.00	-0.22	**3.26**
3	0.00	1.57	0.23	0.24	-0.01	0.19	0.00	-0.16	**2.07**
4	0.00	1.15	0.05	0.25	-0.02	0.17	0.00	-0.01	**1.59**
5	0.00	0.89	0.02	0.19	-0.03	0.16	0.00	0.12	**1.34**
6	0.00	0.67	0.00	0.15	-0.03	0.09	0.00	0.17	**1.06**
7	0.00	0.54	0.00	0.13	-0.05	0.12	0.00	0.35	**1.10**
8	0.00	0.52	0.02	0.07	-0.06	0.08	0.00	0.60	**1.23**
9	0.00	0.55	0.00	0.06	-0.09	0.04	0.00	0.96	**1.52**
10	0.00	0.48	-0.01	0.03	-0.10	0.06	0.00	1.60	**2.06**
Total	**0.00**	**0.73**	**0.13**	**0.14**	**-0.05**	**0.12**	**0.00**	**0.58**	**1.65**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (Sweden): Policy effects in 2019-2020, using the CPI-indexation, %
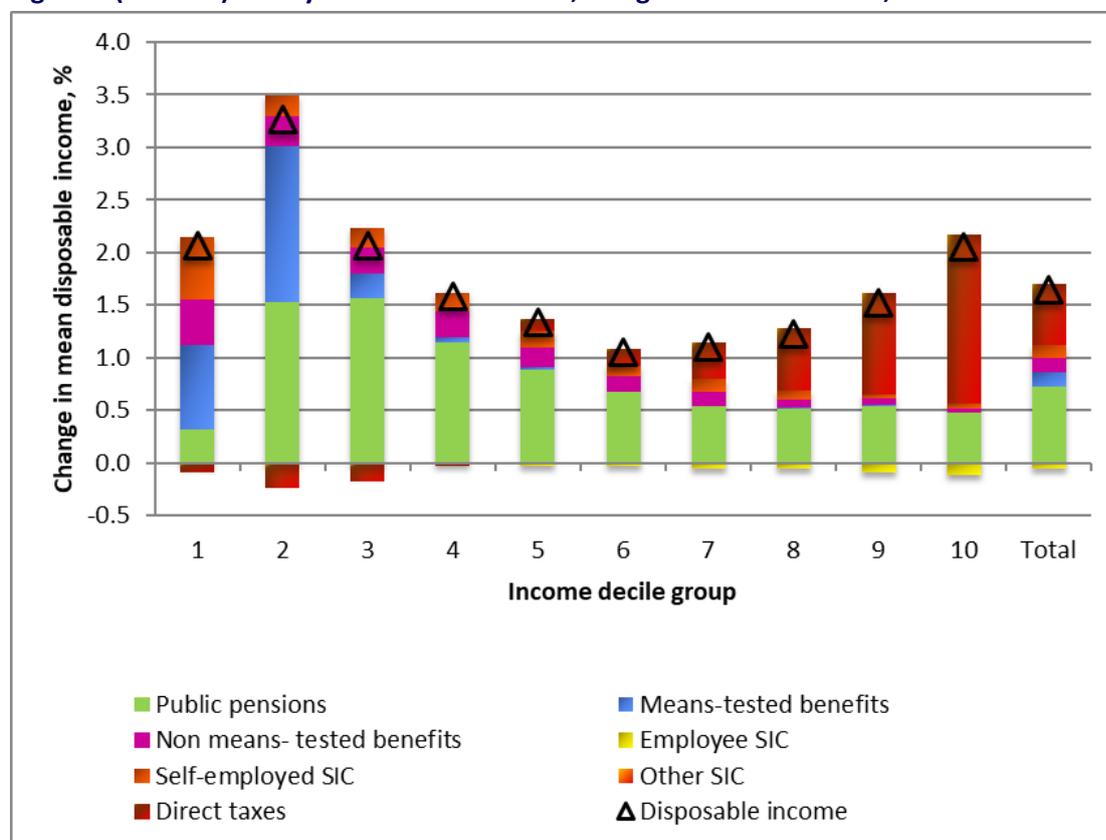
United Kingdom

Table 1 shows that, abstracting from changes to original (gross) market incomes, household net income will increase, by around 0.9% on average, due to policy changes in 2019-2020. Net incomes will increase across almost the entire distribution, with the biggest income gains of between 3.7% and 3.8% in deciles 1 and 2. Households in the richest decile will overall see little/no change to their incomes due to policy effects. The income gains across the distribution will be mainly due to increases to means-tested benefits (+0.70% on average) and public pensions (+0.16% on average) and reductions to employee and self-employed National Insurance Contributions (NICs) (+0.25% and +0.02% on average). These gains will be slightly offset by increases to direct taxes (-0.24% on average). Changes to non-means-tested benefits will have a negligible effect on average incomes (+0.01%).

As we abstract from changes to original incomes and hence from the Covid-19 labour market shocks, it is of no surprise to see that net incomes will grow across the distribution and these gains will be mainly due to increases to means-tested benefits. This is primarily the result of the Covid-19 benefit emergency package which the government introduced in response to the pandemic. The standard allowance of Universal Credit (UC) and the basic allowance of Working Tax Credit (WTC) were increased substantially both in nominal and real terms. Furthermore, the Local Housing Allowance (LHA) rates used to calculate the rent component of UC and Housing Benefit (HB) were also increased in nominal and real terms, as they were re-aligned to the 30th percentile of the distribution of private rents. The HB Earnings Discount also went up raising entitlements to HB and Council Tax Reduction. All of these changes will result in larger benefit entitlements and gains in net income, which are highest at the bottom of the distribution where most benefit claimants are.

State Pensions will also have a positive impact across the income distribution, with bigger increases concentrated in the lower-income deciles. This reflects the fact that pensioners are concentrated in the bottom of the income scale, and changes in pension amounts make a bigger difference proportionally on their overall income. State pensions increases are regulated by the 'triple lock' index, which means that they always increase by at least 2.5%. In 2020 they increased faster than inflation, hence the positive impact on incomes.

There will be gains across the income distribution due to reductions in employee NICs. Employee NICs will go down as the primary threshold at which employed workers (Class 1) start to pay NICs increased in real terms, thus reducing the number of people paying NICs and the amounts paid. The gains in net income will be biggest for decile groups 4 to 9 (between 0.25% and 0.31%).

Similarly, self-employed NICs will go down and lead to small income gains, of between 0.02% and 0.03%, at all parts of the distribution. Self-employed NICs will fall in real terms mainly because the lower profits limit for Class 4 workers will increase in real terms, thus raising the threshold at which self-employed start to pay NICs; while the upper profits limit, which was nominally frozen, will fall in real terms and so, lower the maximum amount of earnings at which NICs are levied.

Changes to non-means-tested benefits will overall have a small effect on net incomes. They will lead to small income gains at the bottom of the distribution, of up to 0.05% in deciles 1 and 3; losses of -0.01% in deciles 9 and 10; and no change in deciles 7 and 8. The gains at the bottom of the distribution are likely to stem from real increases to the value of e.g. the Child Benefit and contribution-based

Jobseeker's Allowance. The losses at the top will occur as the threshold at which the Child Benefit is withdrawn for higher-income families falls in real terms (it has been nominally frozen in 2019-2020).

Direct taxes include Income Tax and Council Tax. The negative figures mean people will pay more in taxes, resulting in net income losses of between 0.20% and 0.25% across the income distribution. Focusing on Income Tax first, the Personal Tax Allowance as well as the basic and higher rate limit of the UK (excluding Scotland) tax schedule were nominally frozen and hence, fell in real terms. As a result, some individuals will creep into a higher income bracket and pay more in taxes. In Scotland, the starter and basic rate limits increased in real terms, lowering tax liabilities at the bottom of the distribution; but the intermediate and higher rate limits fell in real terms similarly as in the rest of the UK. Although we do not simulate Council Tax, we apply a growth factor equal to the growth in the average of Council Tax Band D. Between 2019 and 2020, Band D will increase faster than prices which will lead in additional income losses.

Table 1 (United Kingdom): Policy effects in 2019-20, using CPI indexation, %

Decile	Original income	Public pensions	Means-tested benefits	Non means-tested benefits	Employee SIC	Self-employed SIC	Other SIC	Direct taxes	Disposable income
1	0.00	0.47	3.27	0.05	0.13	0.03	0.00	-0.26	**3.68**
2	0.00	0.37	3.38	0.04	0.16	0.03	0.00	-0.20	**3.78**
3	0.00	0.32	2.33	0.04	0.21	0.02	0.00	-0.22	**2.71**
4	0.00	0.27	1.56	0.03	0.25	0.02	0.00	-0.22	**1.92**
5	0.00	0.25	0.97	0.03	0.27	0.02	0.00	-0.24	**1.30**
6	0.00	0.20	0.54	0.01	0.29	0.02	0.00	-0.24	**0.82**
7	0.00	0.14	0.24	0.00	0.31	0.02	0.00	-0.24	**0.48**
8	0.00	0.11	0.05	-0.01	0.30	0.02	0.00	-0.24	**0.23**
9	0.00	0.08	0.16	-0.01	0.27	0.02	0.00	-0.25	**0.28**
10	0.00	0.04	0.02	-0.01	0.19	0.02	0.00	-0.26	**0.01**
Total	**0.00**	**0.16**	**0.70**	**0.01**	**0.25**	**0.02**	**0.00**	**-0.24**	**0.89**

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 2019, using the modified OECD equivalence scale. Each policy system has been applied to the same input data, deflating monetary parameters of 2020 policies by Eurostat's Harmonized Index of Consumer Prices (HICP).
Key (shaded cells): 1.00 represents increase in income >= 1%; 3.00 represents increase >= 3%; 1.00 represents reduction in income >=1%; 3.00 represents reduction >=3%.

Figure 1 (United Kingdom): Policy effects in 2019-20, using CPI indexation, %
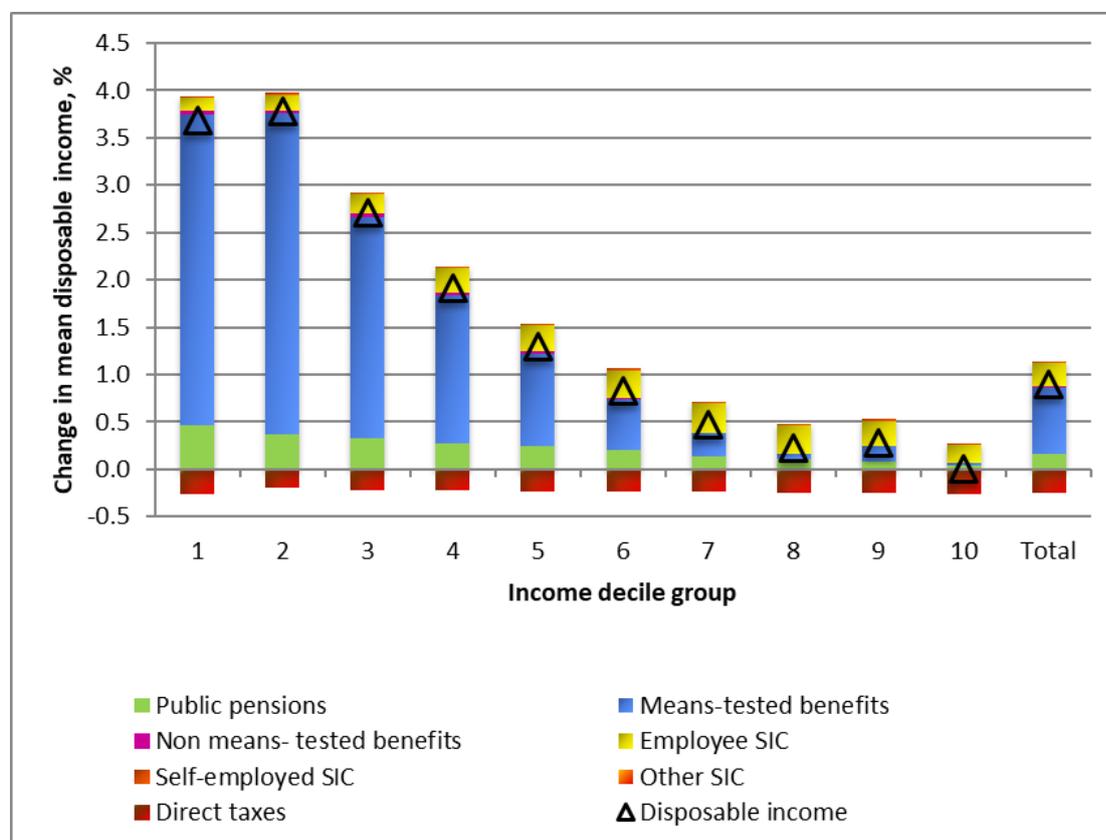
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