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**Working Paper**

## Research note: Illustrating the distributional implications of measures from the 2016 budget for Malta

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**EM 12/16**

**Research note: Illustrating the  
Distributional Implications of Measures  
from the 2016 Budget for Malta**

Simon Bugeja, Godwin Mifsud and Pauline Saliba

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# Research note: Illustrating the Distributional Implications of Measures from the 2016 Budget for Malta<sup>1</sup>

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## Abstract

This paper examines the main measures as announced in the 2016 Budget for Malta and their redistributive impact. The measures considered include the minimum pension measure, the in-work benefit and the income tax measure. EUROMOD, a tax-benefit micro-simulation model was used to simulate these measures and arrive at the results by looking at deciles of equivalised household disposable incomes. The overall result shows that the combined effect of these measures, redistribute income from higher to lower and middle income groups whilst lowering the at-risk-of-poverty rate. Whilst the retirement pension benefitted the bottom three decile groups, the income tax reform benefitted mostly the fourth, fifth and sixth decile groups. The in-work benefit, which was an extension of an existing benefit, mostly affected the lower income groups.

**JEL:** D31, H24, H53

**Keywords:** EUROMOD, budgetary impact, income redistribution

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## 1. Introduction

Budgetary programmes address multiple objectives, including supporting economic growth as well as addressing distributional concerns. Economic growth without consideration to equitable distribution could pose both social and economic repercussions.

The Budgets of recent years were targeted at incentivizing work effort. Measures such as the tapering system - where benefits are not immediately withdrawn upon entering employment - and the In-Work benefit scheme strive to strike a balance between equitable distribution of income and efficiency along with that of encouraging work. In December 2015, 1,731 persons were benefitting from the tapering system, compared to 497 persons in December 2014.

The Budgetary measures introduced in 2016 followed the same objective of incentivising work effort thus reducing dependency, whilst ensuring that the benefits of economic growth are felt by the widest possible spectrum of the Maltese society. In light of concerns on the number of households that are considered to be at risk of poverty, Government sought to introduce measures that address this problem. Consequently, a number of measures introduced in the Budget for 2016 were aimed at ensuring a more equitable distribution of income, focusing on the more vulnerable groups, such as the single earner families with children, youths and the elderly.

This paper provides an analysis of the impact of the budgetary measures introduced in 2016 with a particular focus on the measures targeting families. In order to assess the distributional impact, EUROMOD, a micro simulation model, is used. The output obtained reflects the dynamics of the income distribution as a result of the budgetary measures. In addition, the output from EUROMOD presents the change in the at-risk-of-poverty rate and the Gini coefficient as a result of the simulated policies.

All output tables presented are based on own calculations with EUROMOD version 3.0+<sup>2</sup>. Input data used is SILC2014 and the source of the benefit rates is the Department of Social Security (DSS)<sup>3</sup> within the Ministry of the Family and Social Solidarity (MFSS).

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2 (Sutherland, H. and F. Figari, 2013)

3 (Department of Social Security, 2016)

## **2. Budgetary measures introduced in the Budget for 2016**

Though the Budget for 2016 has enacted a number of measures intended to ensuring a more equitable distribution of income, this paper will focus on three main measures which were selected on the basis of the expected a priori impact on income distribution. The measures being simulated include the increase in the Minimum Pension, the income tax reform and the extension of the in-work benefit. The following description of the measures announced in the Budget for 2016 are presented in the Budget Document for 2016 (Ministry for Finance Malta, 2015), the Draft Budgetary Plan (Ministry for Finance Malta, 2015), and the Update of the Stability Programme for Malta (Ministry for Finance, 2016).

### **2.1. Measures impacting Families**

#### ***2.1.1. Income tax rates***

One of the measures which broadly affects the redistribution of income, is the income tax regime. In the Budget for 2016 the tax-free income thresholds for the single, married and parental computations were increased. This measure is specifically designed to reduce the burden of taxation on persons that have not benefited from the widening in the income tax brackets legislated in 2013-2015. By specifically targeting lower to middle income earners, this measure ensures that more working individuals with a relatively low income will be exempt from paying any income tax over a larger portion of chargeable income whilst supporting the work effort of the low to middle income earners. Persons that benefited from past widening in the income tax brackets, such as single persons above the €19,501 threshold, remained unaffected by the change thereby this measure favours those who earned less than the mentioned threshold, giving the system a more progressive element. Table 1 below illustrates the difference between the income tax rates before and after the reform.

**Table 1: Income tax rates before and after the reform (annual amounts)**

| Before Reform         |          |          |                | After reform          |               |                       |                             |
|-----------------------|----------|----------|----------------|-----------------------|---------------|-----------------------|-----------------------------|
| <b>Single Rates</b>   |          |          |                | <b>Single Rates</b>   |               |                       |                             |
| Tax Brackets (€)      |          | Rate (%) | Difference (€) | Tax brackets (€)      |               | Rate <sup>4</sup> (%) | Difference <sup>5</sup> (€) |
| From                  | To       |          |                | From                  | To            |                       |                             |
| -                     | 8,500    | -        | -              | -                     | <b>9,100</b>  | -                     | -                           |
| <b>8,501</b>          | 14,500   | 15%      | 1,275          | <b>9,101</b>          | 14,500        | 15%                   | <b>1,365</b>                |
| <b>14,501</b>         | 60,000   | 25%      | 2,725          | 14,501                | 19,500        | 25%                   | <b>2,815</b>                |
| -                     | -        | -        | -              | 19,501                | 60,000        | 25%                   | 2,725                       |
| <b>60,001</b>         | and over | 35%      | 8,725          | 60,001                | and over      | 35%                   | 8,725                       |
| <b>Married Rates</b>  |          |          |                | <b>Married Rates</b>  |               |                       |                             |
| Tax Brackets (€)      |          | Rate (%) | Difference (€) | Tax Brackets (€)      |               | Rate (%)              | Difference (€)              |
| From                  | To       |          |                | From                  | To            |                       |                             |
| -                     | 11,900   | -        | -              | -                     | <b>12,700</b> | -                     | -                           |
| <b>11,901</b>         | 21,200   | 15%      | 1,785          | <b>12,701</b>         | 21,200        | 15%                   | <b>1,905</b>                |
| <b>21,201</b>         | 60,000   | 25%      | 3,905          | 21,201                | 28,700        | 25%                   | <b>4,025</b>                |
| -                     | -        | -        | -              | 28,701                | 60,000        | 25%                   | 3,905                       |
| <b>60,001</b>         | and over | 35%      | 9,905          | 60,001                | and over      | 35%                   | 9,905                       |
| <b>Parental Rates</b> |          |          |                | <b>Parental Rates</b> |               |                       |                             |
| Tax Brackets (€)      |          | Rate (%) | Difference (€) | Tax Brackets (€)      |               | Rate (%)              | Difference (€)              |
| From                  | To       |          |                | From                  | To            |                       |                             |
| -                     | 9,800    | -        | -              | -                     | <b>10,500</b> | -                     | -                           |
| <b>9,801</b>          | 15,800   | 15%      | 1,470          | <b>10,501</b>         | 15,800        | 15%                   | <b>1,575</b>                |
| <b>15,801</b>         | 60,000   | 25%      | 3,050          | 15,801                | 21,200        | 25%                   | <b>3,155</b>                |
| -                     | -        | -        | -              | 21,201                | 60,000        | 25%                   | 3,050                       |
| <b>60,001</b>         | and over | 35%      | 9,050          | 60,001                | and over      | 35%                   | 9,050                       |

Source: Inland Revenue Department

<sup>4</sup> Higher non-taxable income thresholds apply only to those earning income of less than €19,500 for single computation, €28,700 for married couples and €21,200 for parents in the reform scenario.

<sup>5</sup> The difference column shows the amount which is to be deducted after computing the amount of tax due in each income bracket. E.g. An individual under single computation earning €20,000 per annum incurs (€20,000 x 25%) less **€2,725** = €2,275 in income tax.

### *2.1.2 In-Work Benefit*

The In-Work Benefit (IWB), which is a benefit introduced in 2015 to aid low-income earning families, was extended to those families who are dependent on a single earner, declaring an income in the range between €6,600 and €12,700. The scope of extending this benefit was to top up income for single-earner households whilst the structure of the benefit retains a strong incentive for the second earner to enter into employment. Indeed, if both parents enter work, the benefit would increase substantially. Both the income tax measure and the extension of the IWB were expected to impact positively single earner families with children, which according to statistics from the Survey on Income and Living Conditions (SILC) (NSO, 2016), tend to be at a relatively higher risk of poverty or social exclusion.

### *2.1.3 Social Assistance and other Non-Contributory Benefits*

With respect to social assistance, the budget measures for 2016 eased the means tested criteria by not requiring that children's income features in the means test of the main earner. This measure was targeting lower income households with the objective of supporting efforts to continue working whilst remaining entitled to welfare, subject to satisfying the other means testing conditions. This measure is estimated to affect around 2,000 families. Other redistributive measures include the extension of unemployment benefits to cater for those individuals living with their parents and an extension of unemployment benefits for those who wish to continue studying. These are all aimed at ensuring the fair treatment of those unable to find a job whilst ensuring that sufficient opportunities are being given to those who are truly unable to find work.

Furthermore, the extension of assistance is being given in the form of social security contribution credits to persons that left work in order to take care of their children and for those who continued to study and specialise. This measure will ensure that future pensioners will not be penalised in terms of their pension entitlement.

### *2.1.4 Youths*

With respect to youths, Government continued to adjust stipends in line with a pro-rata increase in Cost of Living Adjustment (COLA). Furthermore, mature students became entitled to receive a stipend. Such measures, including also the grant being given to the Institute for

Tourism Studies (ITS) students, were aimed at promoting participation in higher education and also to serve to support students who, due to their studies, are unable to engage in a full-time job.

The Budget for 2016 also extended the exemption from stamp duty on property for first time buyers in order to relieve some of the burden that is borne by young adults in setting up a home. It was estimated that this measure will relieve first time buyers up to €5,000 worth of taxes. Furthermore, Government also reduced stamp duty on property purchased in an 'Urban Conservation Area' from 5 per cent to 2.5 per cent whilst announcing that new housing estates shall be developed to meet the increasing demand for social accommodation.

## **2.2 Budgetary Measures Impacting the Elderly**

Statistics from SILC (National Statistics Office Malta, 2015), indicate that households with no dependent children with one person above the age of 65 years or two persons, one of which is 65 years or older, tend to experience a relatively higher risk of poverty or social exclusion when compared to the national benchmark. Consequently, the Budget for 2016 raised the minimum pension to €7,280 per annum in the case of a person that fulfils the contributory record. With respect to beneficiaries entitled to a minimum pension for married couples, these experienced an increase in their pension of around €4.15 per week. From this measure, it was estimated that more than 12,000 beneficiaries were expected to be impacted positively.

In addition, survivors became entitled for the higher between their own pension and the pension of their deceased spouse, if they are entitled to a contributory pension in their own right. The Budget for 2016 also raised the amount of service pension not taken into consideration for Social Security pension assessment purposes by another €200 thus enhancing the adequacy of pensions for this group of pensioners.



Furthermore, the Carers' Pension and the Social Assistance for Carers' schemes became merged with the objective of extending the number of persons eligible for assistance and thus ensuring that more elderly persons remain living in their homes.

A pilot project was also launched whereby in the case of families with a dependent elderly requiring constant care, Government subsidises up to half the minimum wage upon engaging a qualified carer. Such measure was intended to ensure that the elderly remain living in their community whilst reducing the pressure on state long-term care institutions.

### **2.3 Measures impacting other vulnerable groups**

Various measures were introduced to cater for persons with disabilities. For instance, as from the Budget for 2016, persons entitled to the disability pension started to receive a pension equivalent to the non-contributory old age pension. Furthermore, other measures include the establishment of a call centre by the National Commission Persons with Disability aimed at enhancing the delivery of services as well as the development of a hub aimed towards the holistic provision of services, based on a one-stop shop.

### **2.4 Other measures and programmes**

Other efforts at the redistribution of income are planned through improved access to healthcare services. Such measures include improvements to the the primary healthcare services, reductions to waiting lists, screening for cervical cancer, increases in the bed stock at the acute care hospital, and measures improving access to medicines for those suffering from diabetes and rare diseases and an increase in the financial assistance to coeliacs.

### 3. Measures to be Analyzed

The table below shows the main budgetary measures modelled for the purpose of this paper:

**Table 2: Measures to be simulated**

| <b>Measure</b>         | <b>Details</b>  | <b>Method</b>  |
|------------------------|---|--|
| <b>Income Tax</b>      | Higher non-taxable income thresholds. Only applicable to those earning income of less than €19,500 for single computation, €28,700 for married couples and €21,200 for parents. | Increased the tax free threshold for the tax free bracket. Introduced a lump sum tax to those earning above the indicated thresholds to reflect the scenario where only those in the lower income brackets benefit from the reduction in the overall income tax. |
| <b>Minimum Pension</b> | Increase in Minimum pension to a new level of €7,280 p.a. for those on a single pension. Those earning a joint pension receive an increase of €4.15 per week                    | Added new measure in EUROMOD to account for the increase   |
| <b>In-Work Benefit</b> | Extended from 2015 to cater for families with one income earner earning between €6,600 and €12,700  | Added new measure in EUROMOD   |

The income tax measure is expected to redistribute income from the highest income tax brackets, to those who fall in the lower income tax brackets, and thus further enhancing the progressivity of the income tax system in Malta. The minimum pension reform on the other hand was specifically aimed at reducing the at-risk-of-poverty rate among the elderly.

## 4. Methodology Used for the Distributional Impact

### 4.1 EUROMOD

In order to assess the distributional impact of the income tax reform and the minimum pension reform, EUROMOD will be used. EUROMOD is a static micro simulation model aimed at assessing the impact of redistributive measures on the economy using SILC data. The model applies user- defined tax and benefit policy rules to harmonised micro-data on individuals and households. The model uses these rules to calculate their effects on household income by producing an output at a micro level. Generally, the instruments which are simulated by EUROMOD include:

- Income Taxes
- Social contributions payable by employees, self-employed and employers
- Family benefits
- Housing benefits
- Social Assistance
- Other income related benefits

Model limitations however stem from the fact that the use of static SILC data for 2014 undermines an ever changing economy. That being said, behavioural changes in particular are not modelled, only the impact on income distribution assuming static behaviour is modelled.

### 4.2 Scenarios Considered

In order to capture the effect of structural measures both separately and their impact as a whole, different scenarios were considered.

- Scenario for 2016 which includes no new budgetary measures: this reflects the 2015 scenario (without the child supplement), updated to include the increase in COLA for pensioners. No further measures were added. This scenario is to serve **as a baseline** for the rest of the measures.
- Scenario for 2016 which includes all three measures mentioned previously in the paper (income tax, in work benefit extension and Minimum pension).

- Scenario for 2016 which solely includes the minimum pension reform over and above the baseline scenario
- Scenario including only the income tax reform for 2016 over and above the baseline.
- A scenario including only the extension of the in-work-benefit reform for 2016 over and above the baseline scenario for 2016 with no other new measures.

#### **4.3 Disposable income and benefits considered**

The income being referred to in this analysis and as presented in the results, refers to the equivalised household disposable income. Whereas household disposable income is gross income net of any taxes and inclusive of any subsidies, the equivalised value is essentially an adjustment to reflect household family size. Typically, the equivalised value uses a set of weights as specified by the OECD, in which the reference person takes a value of one, all other adults in the household take a value of 0.5 each and children take a weighting value of 0.3.

It is also to be noted that in this study public pensions include disability/invalidity pensions, survivor pensions, simulated contributory pension, and senior citizenship grants. Furthermore, means tested benefits include: means tested child allowance, age pension, special unemployment benefit, unemployment assistance, social assistance, supplementary assistance, energy benefit, sickness assistance, social assistance for single parents, bonuses, and the in-work benefit.

## 5. Results

In establishing the effect of the aforementioned policy measures on various poverty indicators, a baseline year is chosen for comparative purposes. In this case the scenario for 2016 without including any new measures, and only accounting for COLA adjustment for pensioners, served as the baseline year for comparing the overall effect of the measures being made and the separate effect of each reform. To note however, is the exclusion of the one-off child supplement grant given in 2015 due to issues of comparability and consistency.

### 5.1 Results – Main Poverty Indicators

Before delving into the analysis of various basic poverty indicators it is important to note that these figures are relative, so a decrease in the poverty level of a particular social group, for instance that of the elderly, may lead to an increase in the poverty rate of another. Therefore, increases in the poverty rate may not necessarily imply a deterioration in the absolute level of income but rather it reflects developments in the level of income of a particular category relative to that of others.

#### 5.1.1 *The Poverty Line and its link to the at-risk-of-poverty-rate*

To illustrate the complexity of analyzing the at-risk-of poverty rate, an analysis on the poverty line itself is conducted. The poverty line is calculated as being 60 per cent of the median equivalised household disposable income. There are three main scenarios where the at-risk-of-poverty rate changes:

- Changes in the poverty line itself: When the median income rises, the poverty line increases proportionately to it.
- Changes in the level of income of those around the poverty line: If the equivalised disposable income of those just below/above the poverty line increases/decreases whilst the poverty line remains fixed (that is: the median income remains the same), then the at-risk of poverty rate changes.
- A combination of the above.

These three factors bring about a somewhat complex interaction. For the at-risk-of poverty rate to decrease there has to be either:

- A decrease in the median equivalised household disposable income, whilst maintaining the incomes of those around the poverty line fixed.
- Or; An increase in the incomes of those (just) below the poverty line in such a way as to surpass the increase observed in the median income.
- Or; Both.

The changes in the level of the poverty line are shown under table 3 in Appendix A. Under all reform scenarios the poverty line increases in tandem with the median equivalised household disposable income.

### **Income Tax Reform and the poverty line**

In the case of the income tax reform, the change in the poverty line is as a priori expected, given that the gains are expected to be reaped by the middle income cohorts and thus increasing the median income. Visibly, chart 3 indicates that the equivalised disposable income of the fifth decile (where the median income lies) records a higher increase than the lower income cohorts, namely the first and the second income deciles, which are considered to be below the poverty line.

### **Minimum pension measure and the poverty line**

With respect to the minimum pension measure, an increase in the equivalised household disposable income of the fifth cohort, which coincides with the median income, led to an increase in the poverty line (albeit by a marginal amount). In this respect, however, the poverty rate decreased substantially. Given that the minimum pension measure increased the disposable income of the lower income cohorts (namely that of the bottom three deciles) to a greater extent than that of the fifth cohort, in which the median income lies, the result is a lower poverty rate. Chart 2 in Appendix B reveals this clearly.

### *5.1.2 Overall impact of 2016 measures*

The overall impact from the inclusion of the main budgetary measures announced for 2016 can be found in table 3 in appendix A. The results from the simulation indicate a decrease in the poverty rate from 15.03 per cent to 14.95 per cent when comparing the baseline scenario with the scenario of 2016 all measures scenario. The Gini coefficient for disposable income dropped to 0.2756 from 0.2768 therefore indicating a more equal distribution of income. A reduction in the poverty rate was also noted amongst the elderly. When comparing the scenario for 2016 encompassing all the measures, with previous years, one notices an overall drop in the poverty rate amongst the elderly, most of which is attributed to the minimum pension measure.

### *5.1.3 Minimum Pension Measure*

When comparing the baseline scenario of 2016 without any measures and the scenario including only the minimum pension reform as announced in the 2016 budget, the overall poverty rate decreases from 15.03 per cent to 14.78 per cent. To note here, is that the poverty rate for the elderly declines substantially as expected from 19.52 per cent to 18.25 per cent. At face value therefore the simulated effect of an increase in minimum pension was a decrease in the elderly poverty rate. To note also is the drop in Gini coefficient, which indicates a drop in the overall income inequality.

### *5.1.4 Income Tax Measure*

With respect to the simulation of the income tax reform as compared to the baseline scenario, the overall poverty rate increases slightly mostly due to the increase in the elderly poverty rate. It is to be noted that an increase in the poverty rate across all relevant groups, except for children is observed. This can be explained by the nature with which the poverty line is calculated. If the poverty line increases as a result of a relatively bigger increase in the median household disposable income over and above that of lower income earners, the poverty rate will increase. In fact, the poverty line related to such a measure increases the poverty line from €679.93 to €683.08. Given that such a measure should in theory affect middle income earning households, this is to be expected. The Gini coefficient on the other hand decreases in this

respect reflecting a decrease in inequality taking place, that is, the shift of income from the higher income cohorts to the middle income cohorts.

#### *5.1.5 Extension of the In-Work benefit reform.*

The simulation which covered the extension of the IWB reform essentially showed gains in disposable income mainly for the first decile group, with the second and third also benefitting but to a lesser extent. Although the impact of the IWB reform was minimal, it still reduced the poverty rate from 15.03 per cent to 15.01 per cent.

### **5.2 Results – Distributional Impact on equivalised household disposable income**

Analysis conducted on the changes in the equivalised household disposable income is carried out at the decile level of income. Any changes will be reflected in ten different income cohorts enabling the disaggregation of the impact of each of the simulated measures.

#### *5.2.1 Overall Impact*

Chart 1 in Appendix B indicates the percentage gains/losses of equivalised household disposable income by decile groups from the baseline scenario. The highest increases were enjoyed mostly by the first three deciles. Higher decile groups also saw an increase in their disposable income but to a lesser extent. One can therefore generally conclude that the measures simulated for 2016 generally distribute gains mostly to the lower and middle income groups.



### *5.2.2 Minimum Pension reform*

The simulated pension reform as announced in the Budget for 2016, is expected to increase incomes for the first, second and third deciles in a significant manner whilst in the richer income deciles the change is not so pronounced. As expected this policy should increase the income of those present in the lowest income cohorts. Chart 2 in Appendix B shows the change in the equivalised disposable income from the baseline scenario simulating only the minimum pension reform.

### *5.2.3 Income Tax reform impact*

The simulation for the income tax reform measure can be divided into two:

- Its effect on household disposable income
- Its effect on government revenue

With respect to disposable income, the income tax reform mainly benefits the fourth, fifth and sixth deciles of the distribution, whose equivalised disposable income would increase by around 0.45 percent 0.48 per cent and 0.46 per cent respectively. Higher income cohorts benefit to a lesser extent, whilst the lowest income cohorts are minimally affected by the reform. In this respect, chart 3 in Appendix B provides a detailed picture regarding the distributive impact of this reform.

#### *5.2.4 In Work Benefit Impact*

The IWB reform mainly benefitted the first income decile, whose disposable income increased by around 0.26 per cent. This is illustrated in Chart 4, presented in Appendix B.

### **6. Households under the poverty Line – Characteristics**

As aforementioned, those households which are considered to be at-risk of poverty, have to have an equivalised disposable income which is below the poverty line. Analysis using Stata was conducted on these households in order to arrive at some of their characteristics. Tables 4 and 5 in Appendix C show some of these characteristics before and after the reform scenarios. Some conclusions which can be drawn from these tables include the fact that most households under the poverty line receive some form of means tested benefit, whilst 91.9 per cent of families with children receive some form of non-means tested benefits.

Also, after the 2016 reforms there were 57 per cent of households under the poverty line which received some form of earned income. At the same time 82 per cent of children under the poverty line are living in households which earn some type of employment income. Furthermore, 36.7 per cent of these households receive some sort of pension.

## 7. Concluding Remarks

This paper set out to outline the various measures as announced in the Budget for 2016. The measures covered various aspects of the economy, including measures targeting families, and the elderly and other measures which are more general in nature such as the reform in the income tax.

Three main measures were analysed in this paper: the minimum pension reform which increased the minimum pension to a new level of €7,280 p.a. for those on a single pension, whilst those earning a joint pension are to receive an increase of €4.15 per week. The second measure analysed was the change in the income tax regime, which raised the lower income tax bracket in a way to benefit solely the lower income groups. The third measure modelled was the extension of the IWB scheme which now covers families with one income earner earning between €6,600 and €12,700.

Various scenarios were also considered to assess both the overall impact of the measures and individual reform impact. The year 2016 excluding any measures was considered to be the base scenario, where this system included all the measures for 2015 (except the one-off child supplement) adjusted for the increase in COLA. Results obtained for all the measures were then compared with the base year.

Results indicated that the overall impact of the measures favoured mostly the bottom three income cohorts and with the higher income cohorts benefitting to a lesser extent. Furthermore, the overall poverty rate is expected to record declines especially due to the minimum pension reform. The income tax reform on the other hand increased the at-risk-of-poverty rate, given that it is expected to increase the poverty line and subsequently increase the number of people with incomes below such reference point. The income tax reform benefits mostly the fourth, fifth and sixth income deciles in terms of equivalised disposable income.

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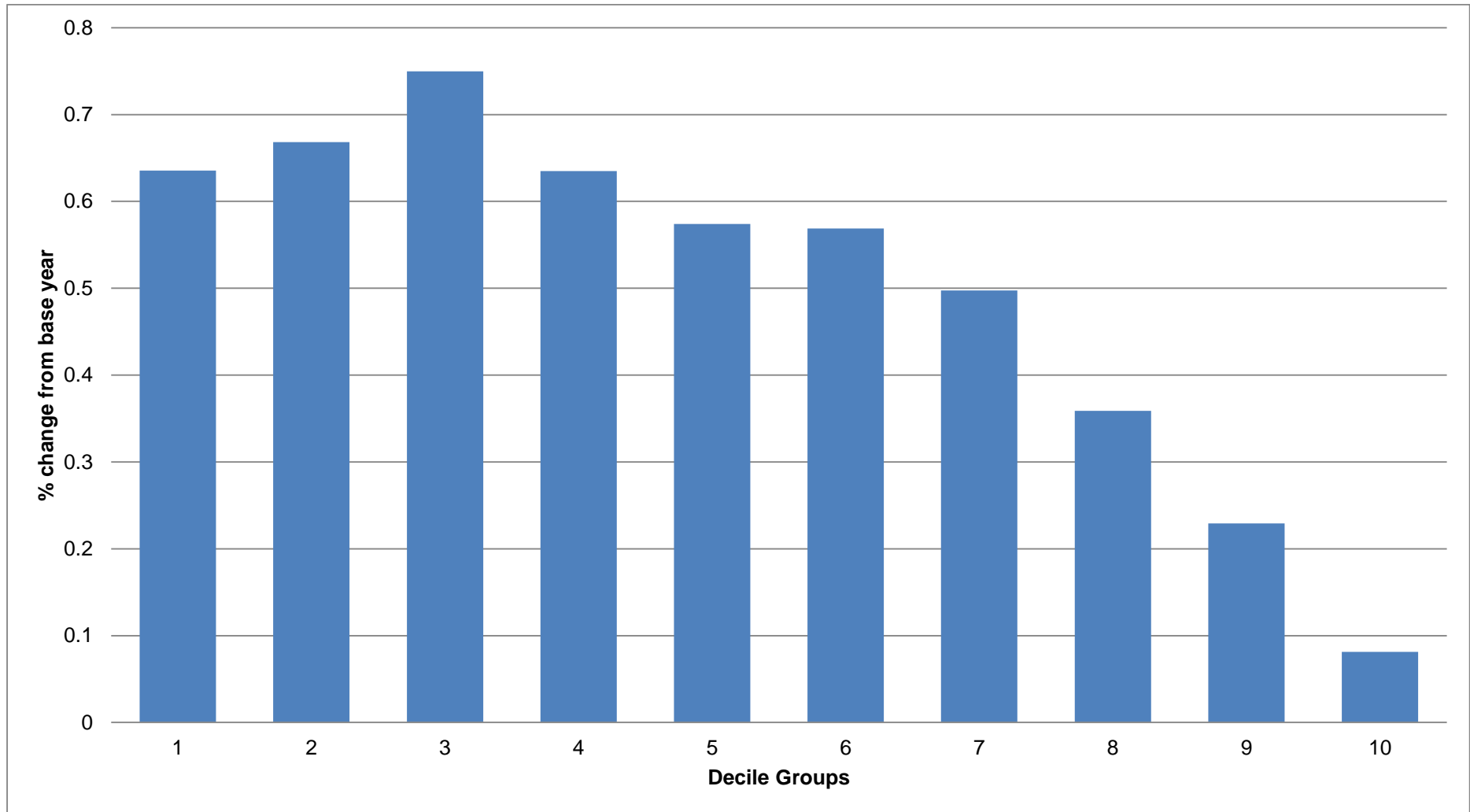
## Appendix A - Tables

**Table 3: Simulation Results – Main Poverty Indicators –EUROMOD output**

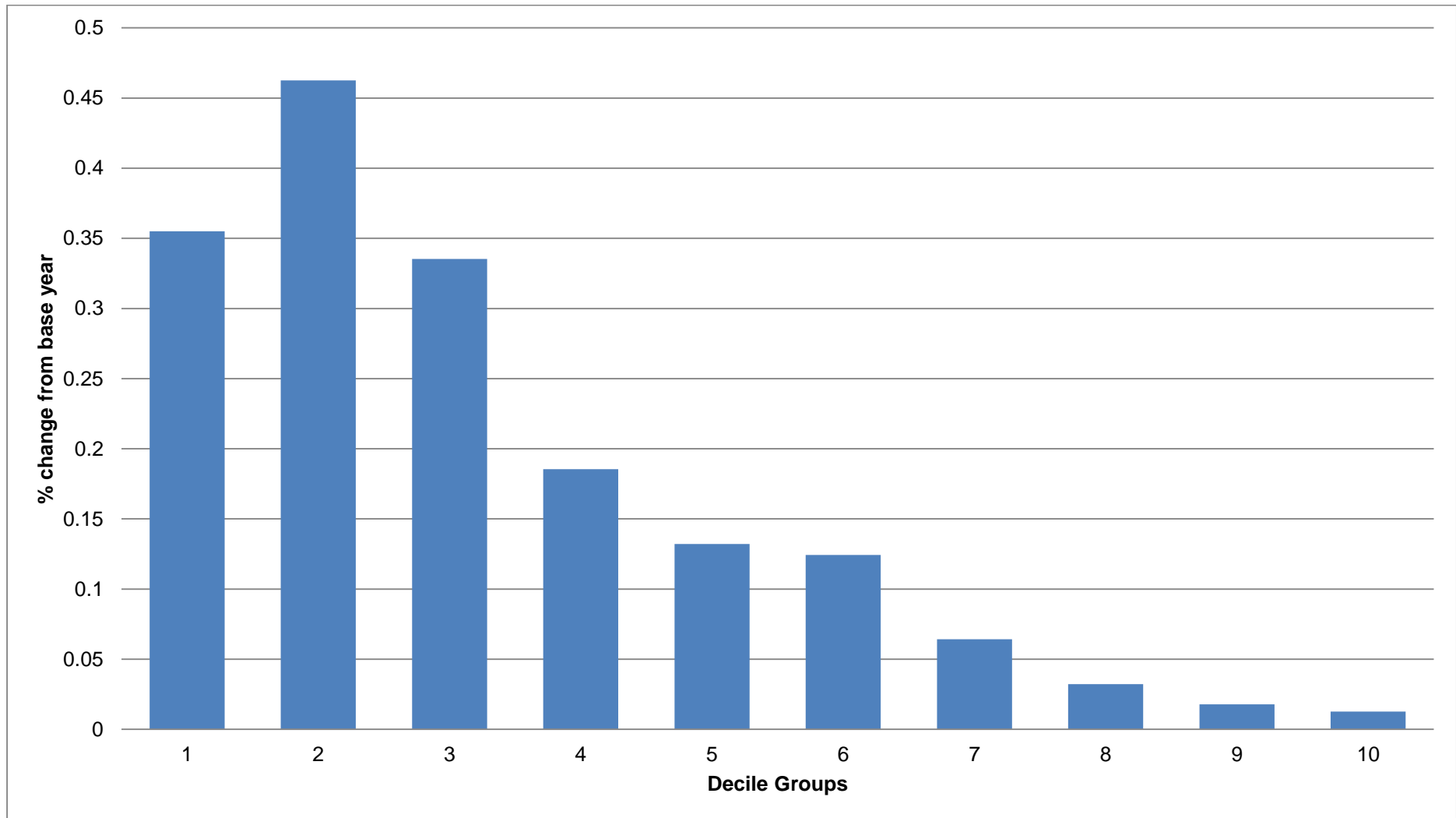
| <b>Indicator</b>                               | <b>2016<br/>(No Measures)</b> | <b>2016<br/>(All Measures)</b> | <b>2016<br/>(Minimum<br/>Pension)</b> | <b>2016<br/>(Income tax)</b> | <b>2016<br/>(In work<br/>benefit<br/>Reform)</b> |
|--|-------------------------------|--------------------------------|---------------------------------------|------------------------------|--|
| <b>Overall Poverty Rate:</b>                   | 15.03%                        | 14.95%                         | 14.78%                                | 15.21%                       | 15.01%   |
| <b>Children</b>                                | 17.68%                        | 17.61%                         | 17.68%                                | 17.61%                       | 17.62%   |
| <b>Working age</b>                             | 12.99%                        | 13.05%                         | 12.95%                                | 13.10%                       | 12.98%   |
| <b>Working age and economically<br/>active</b> | 6.79%                         | 6.75%                          | 6.78%                                 | 6.79%                        | 6.78%  |
| <b>Elderly</b>                                 | 19.52%                        | 18.96%                         | 18.25%                                | 20.27%                       | 19.52%   |
| <b>Gini coefficient</b>                        | 0.2768                        | 0.2756                         | 0.2762                                | 0.2764                       | 0.2767   |
| <b>Poverty Line</b>                            | <b>679.93</b>                 | <b>684.17</b>                  | <b>681.12</b>                         | <b>683.08</b>                | <b>679.93</b>                                    |
| <b>Median income</b>                           | 1133.22                       | 1140.28                        | 1135.20                               | 1138.47                      | 1133.22  |

## Appendix B - Charts

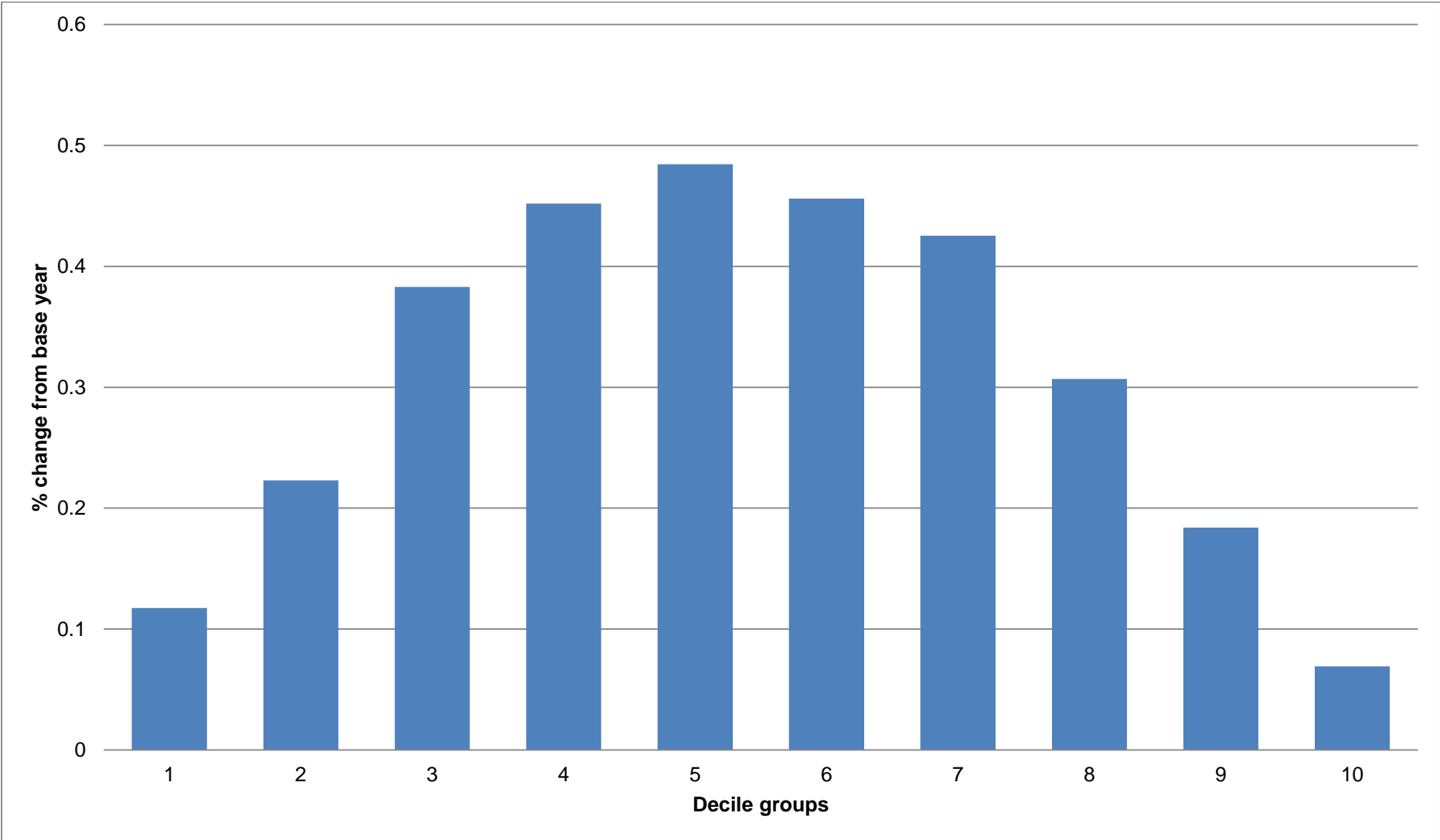
Chart 1: % Change in equivalised disposable income from baseline scenario including all the 2016 Measures by decile groups



**Chart 2: % change in the household disposable income (by decile groups) from baseline scenario providing solely for the minimum pension reform**

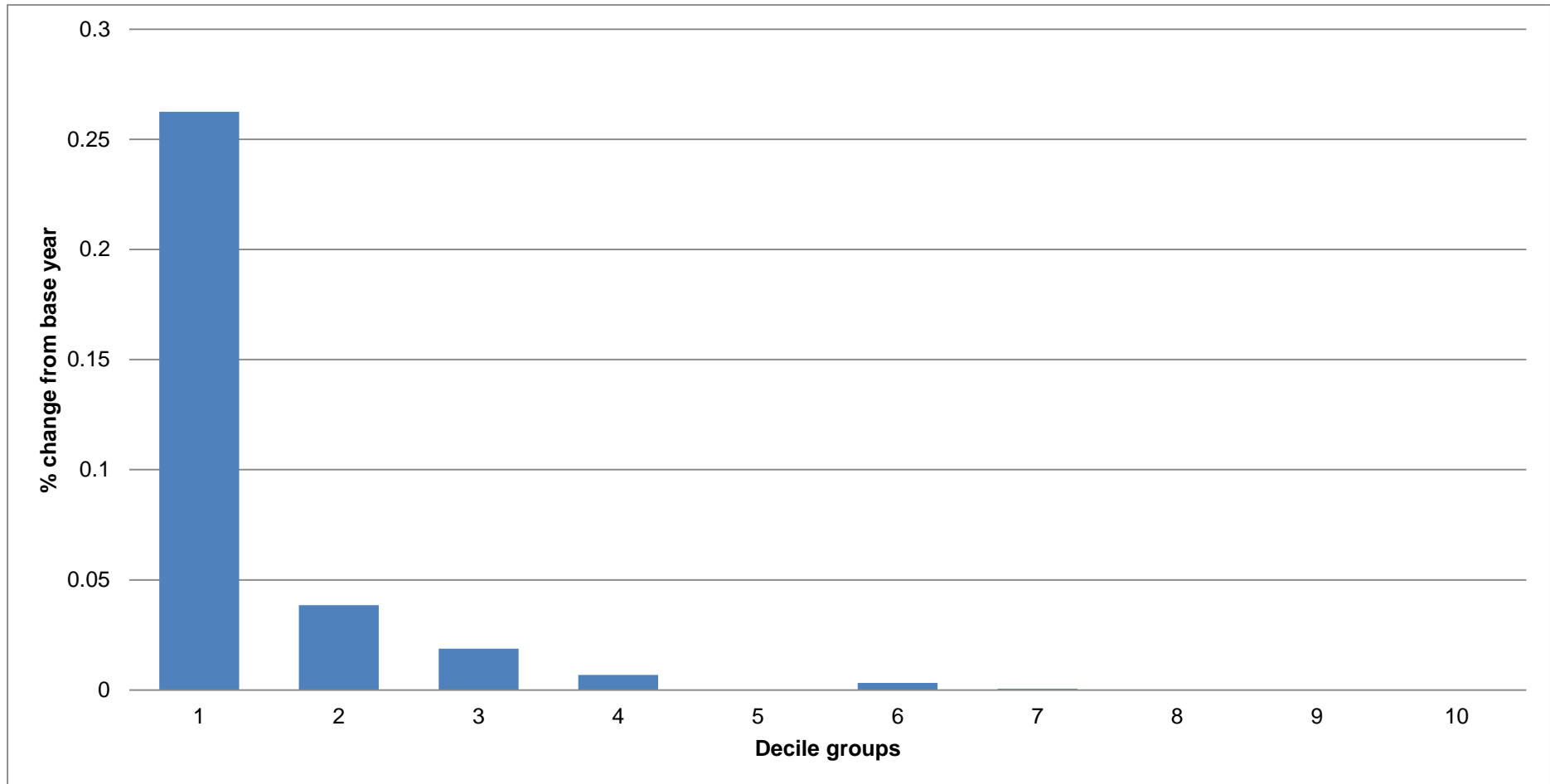


**Chart 3: % change in the equivalised household disposable income from the baseline scenario including only the income tax reform**





**Chart 4: % change in the equivalised household disposable income from the baseline scenario including only in work benefit reform**



## Appendix C – Below the Poverty Line: Household Characteristics<sup>6</sup>

**Table 4: Characteristics of households under at-risk-of-poverty threshold after reform**

| 2016 with reforms                                      |                    |                        |                                |          |                  |
|--|--------------------|------------------------|--------------------------------|----------|------------------|
|  | Elderly population | Working age population | Economically active population | Children | Total Population |
| <b>People at-risk-of-poverty</b>                       | 19.4%              | 12.8%                  | 6.9%                           | 17.6%    | 15.0%            |
| <b>Of Which:</b>                                       |                    |                        |                                |          |                  |
| <b>Earn a wage<sup>7</sup></b>                         | 12%                | 69%                    | 100%                           | 82%      | 57%              |
| <b>Receive a pension<sup>8</sup></b>                   | 90.4%              | 23.1%                  | 11.5%                          | 6.9%     | 36.7%            |
| <b>Receive a means tested benefit<sup>9</sup></b>      | 100.0%             | 92.7%                  | 89.6%                          | 98.7%    | 95.9%            |
| <b>Receive a non means tested benefit<sup>10</sup></b> | 4.8%               | 55.0%                  | 65.9%                          | 91.9%    | 50.2%            |

<sup>6</sup> All Variables are considered at a household level. As an example 82 per cent of children are living in households who earn a form of wage.

<sup>7</sup> Wage: any employment income or self-employment income

<sup>8</sup> Pensions include: Disability/ invalidity pensions, survivor pensions, simulated contributory pension, Senior Citizenship grants

<sup>9</sup> Means tested benefits include: Means-tested child allowance, Age Pension, Special unemployment Benefit, Unemployment assistance, Social assistance, Supplementary assistance, Energy benefit, Sickness assistance, Social assistance for single parents, Bonuses, In work benefit

<sup>10</sup> Non means tested benefits include: Unemployment benefit, Sickness and injury benefit, flat-rate child allowance.

**Table 5: Characteristics of households under at-risk-of-poverty threshold before the reform**

| <b>2016 without reforms</b>               |                           |                               |                                       |                 |                         |
|---|---------------------------|-------------------------------|---------------------------------------|-----------------|-------------------------|
|   | <b>Elderly population</b> | <b>Working age population</b> | <b>Economically active population</b> | <b>Children</b> | <b>Total Population</b> |
| <b>People at-risk-of-poverty</b>          | 19.9%                     | 12.7%                         | 6.9%                                  | 17.6%           | 15.0%                   |
| <b>Of Which:</b>                          |                           |                               |                                       |                 |                         |
| <b>Earn a wage</b>                        | 11.6%                     | 68.9%                         | 100.0%                                | 81.6%           | 56.8%                   |
| <b>Receive a pension</b>                  | 90.6%                     | 23.0%                         | 11.8%                                 | 6.9%            | 37.0%                   |
| <b>Receive a means tested benefit</b>     | 100.0%                    | 92.9%                         | 89.8%                                 | 98.7%           | 96.0%                   |
| <b>Receive a non means tested benefit</b> | 4.7%                      | 55.2%                         | 65.9%                                 | 92.0%           | 50.0%                   |