Commitment To Equity For Children: Redistributive Effects And Efficiency Of Social Assistance To Households With Children In Belarus

Kateryna Bornukova, Jose Cuesta, Gleb Shymanovich, Uladzimir Valetka [1]

March 24, 2020

Abstract

Children are explicitly targeted by social policy in Belarus, as child-related benefits constitute a major part of the public direct transfers. Despite this, households with children are among the social groups most vulnerable to the risk of absolute poverty and multidimensional poverty in Belarus. This paper seeks to inform the understanding of the distributional impact of taxes and public spending on children in Belarus. The analysis reveals that current child benefits system is geared towards supporting the families with children aged 0-2, which leads to crucial gaps and shortfalls in coverage of the most vulnerable groups: households with three or more children, single-parent households, and children aged 6-9. Besides, households with children often bear a heavier-than-average tax burden as compared to the general public. Therefore, the design of the social assistance to the households with children needs improvement, in particular, by means of development of targeted social assistance and introduction of vulnerable group-specific benefits for, inter alia, households with three or more children, and single-parent households.

Acknowledgements

The research benefitted from the financial support from UNICEF Belarus and the World Bank provided to Dr. Kateryna Bornukova and Gleb Shymanovich. In developing ideas for policy simulations and writing the report they joined forces with Dr. Jose Cuesta and Dr. Uladzimir Valetka. The research process and quality assurance were coordinated by Dr. Uladzimir Valetka. Yuliya Yafimenka provided remarkable research assistance. Authors would like to express their sincere gratitude to Alexander Chubrik, Director of the IPM Research Center, Dr. Kiryl Haiduk and Dr. Alexandru Cojocaru from the World Bank for their guidance and expertise that had a profound impact at the early stage of this study. All errors are our own.

[1] The authors represent BEROC, the World Bank, IPM Research Center and UNICEF respectively.

Executive Summary

The purpose of this study is to understand the distributional impact of taxes and public spending on children in Belarus. Assessing the role and efficiency of the social assistance programs and their interplay with the multidimensional and monetary child poverty would be of interest both to the policy-makers (the major stakeholders being the Ministry of Labor and Social Assistance of Belarus and the Ministry of Finance of Belarus) and to the researchers at academic and international institutions, at UNICEF and the World Bank in particular. The study also includes the first ever attempt to build a multidimensional poverty measure for further use by the State Statistical Committee of Belarus.

The more detailed objectives of the research were as follows: (1) assess how the taxes and benefits system affects the equity, multidimensional poverty and monetary poverty in children; (2) see which households with children bear the tax burden, and who receives the benefits; (3) identify the shortcomings of the fiscal system with regard to children, with a particular focus on child-targeting social assistance.

This study employs the Commitment to Equity for Children (CEQ4C) approach first developed by Cuesta et al. (2018), applying it to the household survey data and administrative fiscal data from Belarus. In addition, the paper also develops the first, to the best of our knowledge, measure of multidimensional child poverty (MDCP) in Belarus. To further substantiate the policy recommendations, we offer simulations of the policies that could improve the coverage of needy children by the social assistance, and run the costs and benefits analysis.

We find that the risk of multidimensional poverty among children (who are more exposed to the risk of monetary poverty) is even higher than among the general public – 16.7%. Households with a single parent or households with three or more children, children aged 6-9 and 10-13 or children living in small cities and rural areas are more likely to be poor and multilaterally disadvantaged.

The fiscal system in Belarus significantly contains monetary poverty among children through the system of child benefits. Without the direct transfers, child poverty would be two times higher (25.8%). Child benefits for children aged 0-2 years play the biggest role in poverty reduction reducing child poverty by 5.7 p.p. Child benefits for children aged 3-18 and associated preferences are also substantial, reducing child poverty by 1.2 p.p. and 1.3 p.p. correspondingly. Interventions that are not child-centered by design also play a significant role: pensions decrease child poverty by 5.1 p.p., indirect utility subsidies – by 6.5 p.p.

However, there are substantial gaps in coverage or comprehensiveness of the social assistance for the most vulnerable groups. For example, 32.8% of single-parent households receive some kind of child-related benefit, and the level of poverty among such households is still high – 15.9%, while 23.8% of these households are in multidimensional poverty. Due to the lack of means-tested and accessible programs, 6.8% of children face either monetary or multidimensional poverty, and are not covered by social assistance.

The policy simulations show that a combination of introducing group-specific benefits to multi-child families and single-parent families and expanding the TSA (targeted social assistance program) availability to households with children could be implemented to meet the SDG target of reducing the national child poverty rate to 5.5% by 2030. In this scenario only 4.2% of children would be either in monetary or multidimensional poverty, and not covered by assistance (compared to the current 6.8%). Further expansion of the TSA availability and raising the lower-limit amount would allow eradicating child monetary poverty altogether at a very low cost, while ensuring greater coverage of households with children in multidimensional poverty. Phasing out inefficient social assistance programs, such as indirect utilities subsidies, would bring in the necessary savings to fund the TSA expansion.

1. Introduction

Belarus has successfully converted the economic growth into prosperity for all (Cojocaru and Matytsin, 2017). Currently the international poverty rates in Belarus are among the lowest in the region. Social assistance in Belarus has a specific focus on families with children, and 1.9% of GDP in 2016 was spent on child-related benefits only (not taking into account other social expenditure like health or education). However, the anemic growth of the economy in the last decade raises questions about the sustainability of the current social assistance expenditure. Moreover, the recent crisis of 2015-2016 revealed the vulnerabilities that the current system does not address (Bornukova et al., 2019). In particular, the national measure of child poverty has increased to 11.3% in 2017, compared to 5.9% for the population in general. All these factors point to the need of the reassessment of the efficiency of different forms of social assistance for children.

This paper applies the CEQ4C analysis (in line with Cuesta et al. 2018) to the household and fiscal data from Belarus. The CEQ4C analysis allows updating the existing fiscal incidence analysis (Bornukova, Chubrik and Shymanovich 2017) with the focus on children. It also takes a more disaggregated look at benefits and preferences targeting the households with children. In addition, the paper also develops the first, to the best our knowledge, measure of multidimensional child poverty (MDCP) in Belarus. To further substantiate the policy recommendations, we offer simulations of the policies that could improve the coverage of needy children by the social assistance, and run the costs and benefits analysis.

The main purpose of the paper is to understand the distributional impact of taxes and public spending on children in Belarus.

More detailed objectives of the research are as follows:

(i) *To Assess the Impact of the Benefits and Tax System on Equity and Multidimensional Poverty of Children*
   a. How much redistribution and poverty reduction is being accomplished in Belarus through social spending, subsidies and taxes at the national, rural and urban levels and specifically for households with children?
   b. How progressive are taxes and benefits overall and for different types of households with children?

(ii) *To See Who Bears the Burden of Taxes and Who Receives the Benefits?*
   a. Which households with children (by child age) are net receivers from/net payers to the fiscal system?
   b. Do children of different ages get a "fair share" of in-kind government benefits (through healthcare and education?)
   c. Does the benefits system have bias towards younger children?
   d. Are benefits (taxes) captured (paid) geared towards households with children facing multidimensional poverty?

(iii) *To Identify the Shortcomings of Tax and Benefit System Towards Children*
   a. Even if enough resources are spent on redistributive programs and policies, redistributive spending allocated *to the children in need, including adolescents* might not be sufficient.

b. Within the limits of fiscal prudence, what could be done to increase equity and decrease multidimensional poverty of children through changes in the fiscal programs, first of all by better targeting the benefits

The CEQ4C approach can reveal to which extent fiscal policy affects children and adolescents, which is relevant as child poverty in Belarus is almost two times higher than the average poverty rate. The analysis highlights important gaps in the coverage of children and suggest ways to reduce child poverty and address multidimensional child poverty in the most cost-efficient way.

The results of the research would be useful for policy makers and international organizations, which would gain a better understanding of how the fiscal system targets the vulnerable children groups, where the important inefficiencies and gaps lie. CEQ4C analysis is an important input towards reaching SDGs 1 (no poverty) and 10 (reduce inequality).

Policy makers from the following line ministries and agencies in Belarus are potentially interested in the results of this research: Ministry of Economy, Ministry of Labor and Social Protection, Ministry of Finance, Ministry of Tax and Duties, Social Security Fund, President's Administration, National Statistical Committee. The list of international organizations present in Belarus, in addition to UNICEF and the World Bank who commissioned the research, potentially interested in the findings includes UNDP, UNFPA, IMF, and Eurasian Development Bank.

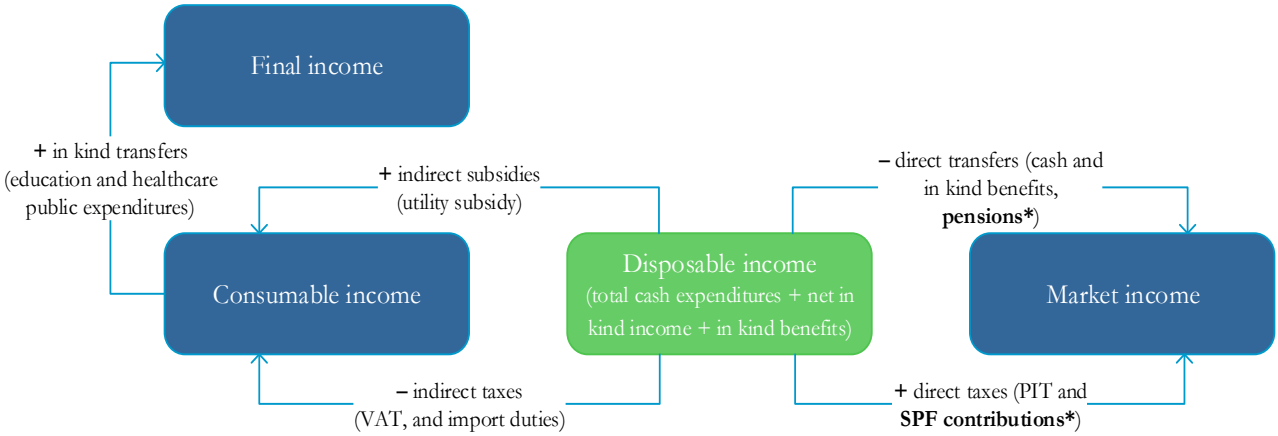
A research review process has taken several forms including research protocol review and quality control by the UNICEF Office of Research – Innocenti and UNICEF Belarus. The research is subject to an external quality review by an LTA company.

2. A child perspective to fiscal policy analysis

Commitment to Equity for Children, or CEQ4C approach, integrates three analytical frameworks, namely, fiscal incidence analysis, multidimensional child poverty analysis and public finance analysis. It has been widely acknowledged that better information on and analysis of child-relevant budgeting, and also tracking its micro-level effects, is of particular importance for improving the outcomes for children. CEQ4C combines the child-relevant budget analysis with household microdata to provide important insights into the role of fiscal policy in alleviating child poverty, including the multidimensional one.

The Commitment to Equity (CEQ) methodology, developed by Lusting et al. (2012), represents a comprehensive fiscal incidence analysis, aimed at determining the effect of taxes and spending on poverty and inequality. The core element of CEQ analysis is calculation of income concepts describing household's welfare prior to and after fiscal and social policy interventions. There are four main income concepts considered within CEQ analysis: market income, disposable income, consumable income and final income (see Figure 1). Starting point of the analysis is the disposable income used for official welfare analysis. By subtracting reported direct transfers from disposable income and adding estimated direct taxes, we calculate the market income — the one available to the household prior to any fiscal interventions. Consumable income, the one describing the value of consumed goods and services, is calculated as disposable income less indirect taxes plus indirect subsidies. In order to arrive at the final income, in-kind transfers in the form of public expenditure on health and education are added to the consumable income.

Figure 1. Construction of income concepts



Note. * Pensions and SPF contributions are included into direct transfers and taxes respectively only within PGT approach.

Source: own elaboration.

CEQ4C focuses the standard CEQ methodology on children by analyzing the child-relevant budget. A child-relevant budget is defined in Cuesta, et al. (2018) "as a budget possessing components that explicitly and directly target children's well-being through investments in children's development". According to this approach, a child-relevant budget encompasses three types of fiscal interventions: spending designed to benefit only children, spending's that target children as one of the beneficiary groups, and fiscal intervention that have an effect on the welfare of the household including children.

Furthermore, CEQ4C expends the standard CEQ methodology by introducing into the analysis a measure of multidimensional child poverty in addition to absolute monetary poverty measures and performing policy simulations to check the impact on the welfare of children. UNICEF stresses that monetary poverty does not fully reflect vulnerability of children as they do not have control over household income and consumption[2]. Besides, there is significant difference in the way poverty affects children of different age. Therefore, a multidimensional approach to child poverty that "measures the actual access of children to goods and services that are fundamental for their full development and essential for the fulfillment of their rights under the Convention on the Rights of the Child (CRC)" is "an essential complement to standard monetary poverty measurement"[3]. Policy simulations in their turn allow discovering the effects and costs of reforming the existing system of public support to households with children for better targeting to the most vulnerable groups of households.

Thus, the CEQ4C Assessment addresses the following questions:

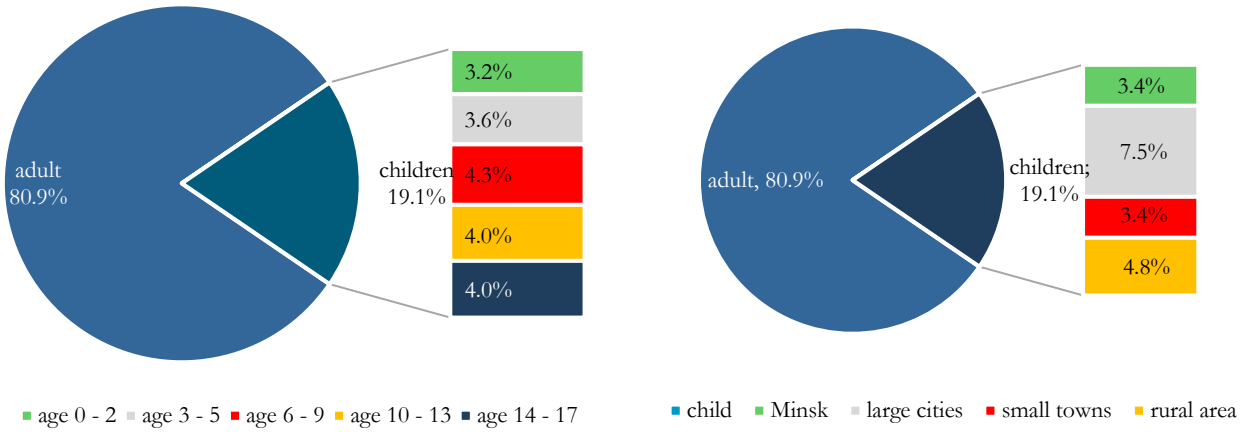
(i) How much income redistribution and poverty reduction is being accomplished through fiscal policy measures related to children? How equalizing and pro-poor are children-related government spending?
(ii) How does the incidence of fiscal programs compare across different types of households with children? How are the child-relevant programs geared towards those facing multidimensional poverty or certain deprivations?
(iii) How effective are tax and transfer policies in fighting multidimensional poverty among children, fiscal resources-wise?

The quality and thoroughness of the CEQ4C analysis and its conclusions rely heavily on data availability. In case of Belarus, fiscal incidence analysis is traditionally based on the Household Budget Survey (HBS) data. It covers all oblasts and Minsk city, and includes observations from around 50

[2] https://www.unicef.org/socialpolicy/files/A_Multidimensional_Approach_to_Measuring_Child_Poverty%282%29.pdf.
[3] https://www.unicef-irc.org/research/multidimensional-child-poverty/.

towns and rural councils. The sample of the survey is set at 6000 households (0.2% of general population). The sample does not cover institutional households, i.e. care homes, students' dormitories, specialized institutions, etc. As any other survey, it does not properly represent the richest and the most marginalized households, who refuse to participate in the survey. The sample is structured to be representative at country level for key population groups and for the total population at oblast level.

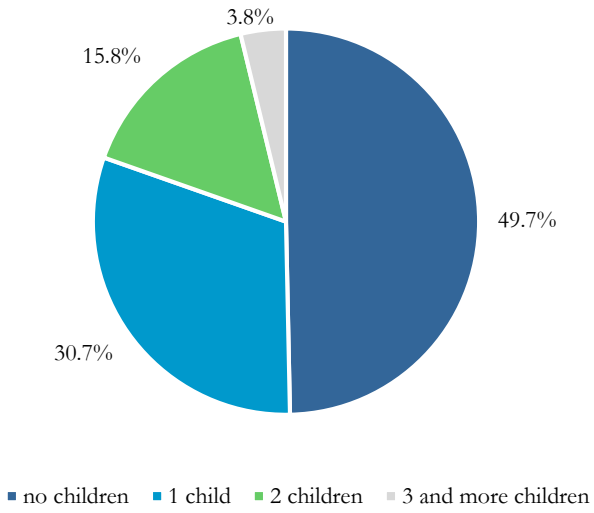
Figure 2. Share of children by age and place of residence in the sample of the HBS survey



Source: authors' own calculations from HBS-2016 data.

HBS data can be used to estimate household welfare and overall macroeconomic effects without additional adjustments as it represents almost the entire population and fully covers household expenditures, except alcohol consumption. Belstat uses this data for absolute poverty and living standard analysis[4].

Figure 3. Share of the households with children in the sample of the HBS survey



Source: authors' own calculations from HBS-2016 data.

The first full-fledged CEQ analysis for Belarus was done by Bornukova, Chubrik, Shymanovich based on data of HBS 2015. This report will largely follow the methodology presented in Bornukova, Chubrik, Shymanovich (2017) applying it to the budget and macroeconomic data of 2016. However, the scope of the analyzed fiscal interventions will be limited to i) benefits and preferences, as they are

[4] Poverty analysis is based on comparison of disposable income of household with absolute poverty line. Disposable income is officially calculated as a sum of total household expenditures, net in-kind income and preferences (in-kind benefits). Hence, it is calculated based on reported expenditures rather than reported income, as it is believed to be underestimated. Absolute poverty line is set at the level of minimum of substance for a member of a household containing two adults and two children.

largely child-related, ii) pensions, which are important source of income for many households with children, iii) indirect utility subsidies, iv) public expenditures on education and healthcare, as well as v) personal income tax, social contributions, VAT, and import duties. Compared to the full-fledged CEQ analysis by Bornukova, Chubrik, Shymanovic (2017), CEQ4C analysis ignores excises, as excise products are not consumed by children and their modelling is rather sophisticated due to significant underreporting of their consumption; and indirect public transport subsidies, as there is no possibility to carve out public costs of subsidizing free public transportation of children.

Another difference is the approach to modelling in-kind healthcare and education transfers. Unlike Bornukova, Chubrik and Shymanovich (2017), we use the budget data with additional regional disaggregation on top of functional disaggregation. For health expenditure, we also give up the approach of allocating healthcare expenditure only to de-facto users – the doctor visits and hospital stays are not reported in HBS-2016 data. Instead, we assume that in the universal healthcare system, which exists in Belarus, every resident benefits equally from the expenditure, and the only source of differences is regional disaggregation.

As a result, construction of the income concepts implied allocation of the 27.3% and 37.6% of the consolidated budget revenue and expenditure, as well as 89.8% of contributions to the SSF and 101.6% of its expenditure[5].

At the core of our analysis is the redistribution effect of child-related fiscal programs: part of direct transfers which includes child-relevant benefits; education and health expenditure. Most of the redistribution analysis is conducted with the focus on i) households with children disaggregated by number of children in the household, and on ii) children, disaggregated by age and place of residence. Shares of related groups in the HBS sample are presented in Figure 2 and Figure 3. Choice of the criteria for disaggregation is informed by the previous research that revealed that number of children in the household, their age and place of residence are key factors determining the risk of poverty of the household with children (Chubrik, Shcherbina, Shymanovich, 2018). In particular, households with several children, children of the primary school age, and children in rural areas are most exposed to the risk of absolute poverty. Another vulnerable group are the households with only one adult and children (they constitute 4% of the total), which is also included in the analysis below.

3. Belarus' fiscal system from a child perspective

The public expenditure in Belarus is managed either through the consolidated budget (which includes the centralized national budget and local budgets) and a number of extrabudgetary funds, the largest being the Social Security Fund (SSF). In total, the state redistributed 38.9% of GDP through the budget and SSF in 2017. Public expenditure categories immediately related to children included 4.7% of GDP spent on education, 0.9% on social assistance designed for families with children and 1.8% on various child-related benefits (see Table 1), which made in total 7.4% of GDP. Additionally, the state also spent 4.1% of GDP on healthcare, from which households with children benefited either directly or indirectly, as well as 11.8% of GDP on pensions and other social policy measures that can potentially be to the favor of households with children.

Table 1. Public expenditure on social issues, % of GDP

	2012	2013	2014	2015	2016	2017	2018
Healthcare	3.72	3.77	3.68	3.89	4.16	4.07	4.00
Education	4.74	4.81	4.57	4.66	4.84	4.65	4.60
Social policy, incl.	12.59	13.93	13.78	14.45	14.72	13.92	13.27
family and children	--	--	0.00	0.19	0.40	0.72	0.27
housing	--	--	0.63	0.72	0.64	0.10	0.32

[5] Overshooting is explained by modeled expenditure on preferences which is actually tax expenditure not reported in the budget.

targeted social assistance	0.08	0.06	0.05	0.06	0.08	0.08	0.08
child-related benefits	1.05	1.45	1.54	1.78	1.87	1.76	1.60
Childbirth allowance	0.19	0.20	0.22	0.24	0.26	0.23	0.20
Childcare allowance, for children up to 3 years old	0.52	0.98	1.05	1.10	1.14	1.08	1.04
Childcare allowance, for children above 3 years old (extended in 2015)	0.11	0.03	0.04	0.19	0.22	0.23	0.31
Maternity aid and benefit for registering with public medical care	0.20	0.21	0.21	0.22	0.21	0.18	0.17
other	0.02	0.03	0.03	0.03	0.04	0.04	0.04

Note. Healthcare and education expenditure, as well as part of the social assistance expenditure (military pensions, support to young families for residential construction, family capital for multi-child households, targeted social assistance) are covered via the budget. Pensions and most of the benefits are financed through the SSF.
Source: authors' own calculations based on Ministry of Finance and SSF data.

Hence, the substantial part of the social protection system of Belarus is designed for the needs of households with children; to boost childbirth the government has been increasing financial support for these households. The following are the main types of social benefits for households with children:

(i) Aimed at covering the consumption after taking maternity leave (maternity aid, pregnancy registration lump-sum benefit, childbirth allowance);
(ii) Aimed at supporting the household incomes during the period of parental leave (childcare allowance for children up to 3, childcare allowance for children above 3);
(iii) Targeted social assistance, TSA;
(iv) In-kind benefits and tax deductions targeting households with children.

The overall design of the above-mentioned social protection elements is described below.

Paid maternity leave is provided for the period of 126 to 140 consecutive days (depending on complications of pregnancy)[6]. The size of **maternity aid** depends on woman's salary (income) during the last 6 months, and on the total period of paying contributions to the Social Security Fund (SSF) by the moment of taking maternity leave. Minimum monthly equivalent of maternity aid is 50% of the biggest value of subsistence minimum during the 2 previous quarters, maximum monthly equivalent of maternity aid is 3 average monthly wages in a month before the month when maternity leave is taken; total maximum amount of maternity aid should not exceed total amount of woman's contributions to the SSF. For the unemployed, the size of maternity aid is set at the minimum level, but a woman should be registered at employment service and attend vocational courses as stipulated by the employment service.

Regardless of the employment status of a mother, **childbirth allowance** is paid in the amount of 10 minimum subsistence budgets (MSB) after her child is born if it is the first child and 14 MSBs if it is the second and subsequent children. In addition, if a woman had been registered with a health care institution prior to the 12th week of pregnancy, she is getting a **pregnancy registration lump-sum benefit** of 1 MSB.

The paid maternity leave is followed by the possibility to take an unpaid parental leave till the moment the child reaches the age of 3. 95% of mothers use this opportunity in Belarus. The biggest share of financial support for families with children comes through **childcare allowance for children under 3**. Coverage of children up to 3 years old with this benefit in 2017 was 95.4%.

[6] For women working or living in the territories affected by radioactive contamination the period of maternity leave varies from 146 to 160 consecutive days.

The size of the benefit does not depend on prior income or track record of payments to the SSF by the eligible recipient (the person who takes parental leave). Prior to 2013 the benefit's size was linked to the MSB, since 2013 – to the average wage (35% of average wage in the economy for the first child, 40% of average wage for the second one[7]). As a result, in 2013 an average childcare allowance almost doubled in real terms, see (Shymanovich, Shcherbina, Chubrik, 2018). The childcare allowance is halved in case the main caregiver returns to work.

In addition, since 2015, the households which raise children up to 3 years old and have older children are entitled for a **childcare allowance for children above 3 years old** in the amount of 50% of MSB per month. Each household is eligible to receive only one benefit for children aged 3-18, regardless of the number of children in the household. Several other household types are also entitled for this benefit: those raising a child with disabilities up to the age of 18; raising a child with HIV; if parents are military conscripts; if both parents or the only parent in a single-parent household are people with group I or II disabilities, or if one of the parents has group I disability and the other one takes care of them and gets respective state allowance. For these types of households, the size of childcare allowance for children above 3 equals 50% of MSB per month, for a child with disabilities – 70% per month. Finally, households where a parent taking care of a child with disabilities up to 18 years old is unemployed or employed part time, get this benefit in the amount of 100% of MSB for a child with health-loss degrees I or II and 120% of MSB for a child with health-loss degrees III or IV.

The targeted social assistance (TSA) is a means-tested program, which unites different forms of social support to those in need: monthly benefit, one-off lump-sum benefit, and certain preferences. The substantial share of TSA is provided to large families (3+ children) and single parent households with a child under 18 (more than 2/3 of total amount of transfers provided under this program was obtained by these types of households).

Monthly social benefits within TSA are means-tested, and provided to households with monthly per capita income below MSB during the previous 12 months (BYN 192.32 in 2017). The benefit is provided for the period of 6 months. Size of the benefit is defined as a difference between MSB and their per capita income. **Lump-sum benefit for households in a difficult life situation** can be secured once in a calendar year by families that "for objective reasons" found themselves in a difficult life situation; it is also means-tested (monthly per capita income in the family should not exceed 150% of MSB). Size of the benefit is decided on a case-by-case basis and could not exceed the amount of 10 MSBs. TSA also include **free food products for children in the first 2 years of life** provided in two cases: i) multiple birth, ii) per capita monthly income of household with a child(ren) does not exceed MSB. Other elements of TSA include reimbursement of actual expenses for purchase of diapers to households raising children with the health-loss degree IV, and purchase of social rehabilitation devices for children with disabilities. According to the SSF data, average monthly social benefit in 2017 amounted to BYN 242.55 (annual average) per recipient, lump-sum benefit for households in a difficult life situation – BYN 105.95 per recipient (annual), reimbursement of actual expenses for purchase of diapers – BYN 257.94 per recipient (annual), provision of free food products for children during first two years of life – equivalent of BYN 788.08 per recipient (annual), and purchase of social rehabilitation devices for children with disabilities – equivalent of 358.92 per recipient (annual).

Finally, as a part of state support of families with children, there are **in-kind benefits in the form of discounts for food** at kindergartens, elementary, basic, and secondary schools, vocational and specialized secondary education institutions for several categories of households, namely large families, families with 2 children, families with disabled children, and economically disadvantaged households. In addition to these preferences, Education Code of Belarus envisages free meals once a day for all year 1-

[7] For families raising children with disabilities the childcare allowance for children up to 3 years old is set at the level of 45% of average wage in the economy.

4 students of all types of schools (with exception of students of the first year of study if they get education on the basis of kindergartens). For students from rural area this privilege remains in force for grades 5-11 years. Several categories of families (large families, families with disabled child, etc.) are subjects for several other preferences (discounts for textbooks, etc.). Children with disabilities under 18 are eligible for free pharmaceuticals. All children are eligible for a lump-sum subsidy for summer camps (once a year).

In addition to preferences, households with children are provided with certain **tax exemptions**. In particular, there is a monthly personal income tax deduction for taxpayers raising children, with the size of deduction depending on the number of children (BYN 27 for one child and BYN 52 for two and more children). Besides, parents are eligible for a deduction equal to expenditures they incurred while their children obtained first higher education degree or secondary specialized or vocational education.

Furthermore, the state claims to support households with children by price regulation and reducing VAT rates. Baby food (along with other food products), as well as baby cribs and diapers are VATed at the rate of 10% (instead of 20%). The state also regulates maximum trade mark-ups set by retailers for baby food at the rate of 11-15%.

In general, the most expensive public program for households with children is the childcare allowance for children under 3 years old (1.1% of GDP). The scale of other programs is much lower (see Table 1).

4. Child Poverty

Important distinction of the CEQ4C analysis is estimation of multidimensional children poverty (MDCP) based on information on deprivations of the households with children and analysis of redistributive effects of fiscal and social policy on the welfare of the households not only at risk of absolute monetary poverty, but also of multidimensional poverty.

MDCP is defined as the share of children reporting several deprivations. Deprivation is defined as lack of access to necessities or basic rights. MDCP may or may not overlap with the monetary poverty definition. In fact, our proposed measure of MDCP also includes the monetary poverty as a measure of income deprivation. Since the deprivations which might be identified from the HBS data are mainly of the material nature, the resulting MDCP measure relates mostly to the involved dimension of children's rights, while the access to services such as health and education, as well as their quality, are not documented.

We explore the viability of the following deprivation indicators which might be derived from the HBS data:

Monetary poverty. Monetary poverty is defined as disposable income per capita lower than the subsistence budget (MSB). The subsistence budget is constructed as means to satisfy basic material needs like food and clothing. Hence, monetary poverty reflects limited means to satisfy those basic needs.

Subjective financial well-being evaluation. While subjective evaluations are not the most reliable indicators of financial well-being, they may become an important source of additional information on the financial state of households, reflecting not only the means, but also the need. HBS data provides quarterly figures of subjective well-being evaluation. We define the subjective well-being deprivation for a household if it is reported as being not satisfied with income for at least two quarters.

Access to infrastructure. Infrastructural variables (access to water supply, hot water, sanitation) are reported in the HBS data, and can be particularly relevant for the residents of rural areas. We construct

a composite infrastructure deprivation variable which is the proxy of no access to any of the utilities (water supply, hot water or sanitation).

Absence of PC. Households report if they own a PC, and since many studies link PC ownership to better learning outcomes (Schmitt and Wadsworth, 2006; Fiorini, 2010), we include the absence of a PC in a household as a deprivation.

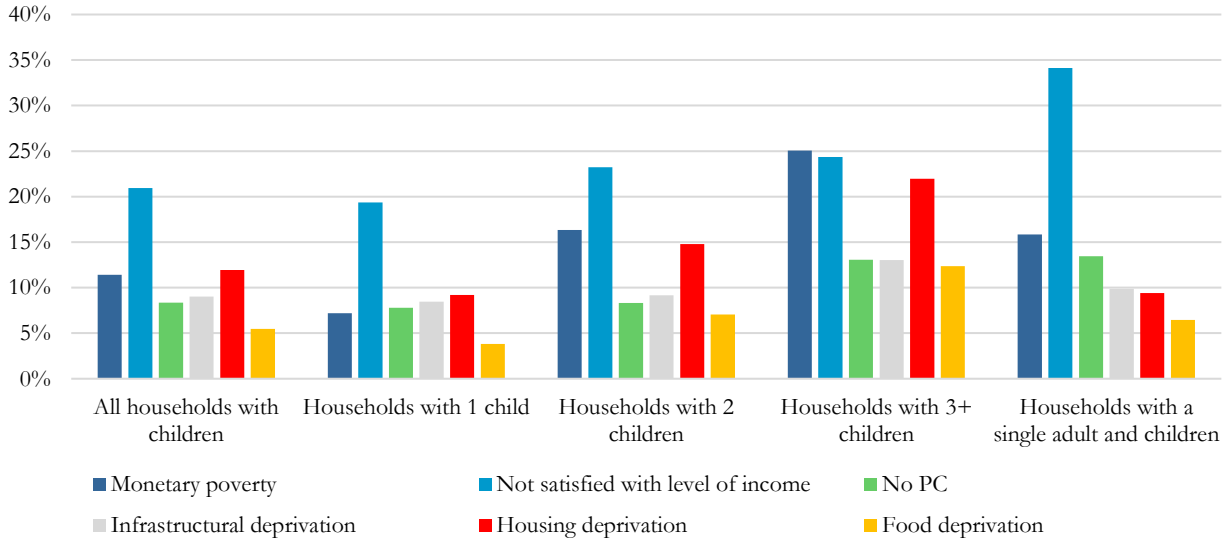
Diversity of food expenditure. While food consumption is not available from HBS, we can evaluate the distribution of food expenditure across major food groups (staples, vegetables, diary, eggs, meat and fish, fruit) to construct a measure of food deprivation. We evaluate the share of food expenditure spent on two crucial groups of foods: meats and fish – major source of protein; and fruit and vegetables – major source of vitamins. If the shares spent on these two groups are both lower than 25th percentile share, we define it as a food deprivation. The constructed measure of food deprivation is negatively correlated to income.

Squared meters per person. This living conditions indicator might be especially important to evaluate deprivations for city residents, and for Minsk residents in particular. We set the deprivation threshold at 10 squared meters per person (the official social norm for the residents of Minsk city).

Figure ***4*** depicts the incidence of the above deprivations for different types of households with children. The risk of monetary poverty for households with children in Belarus is reliably higher than for other type of households (Chubrik, Shcherbina, Shymanovich (2018)). Especially vulnerable to the risk of monetary poverty are households with 2 and more children, households with children in rural area, single-adult households, and household with children in the primary school age.

Households with 2 and more children are vulnerable to the higher risk of housing deprivation (lack of sq. m. per person). These households also report subjective dissatisfaction with the level of income more often. Households with 3 or more children also often face infrastructure deprivations and monetary poverty; and, more importantly, are at risk of food deprivation. Households with a single adult[8] and children report highest levels of dissatisfaction with income.

Figure 4. The incidence of selected deprivations in households with children

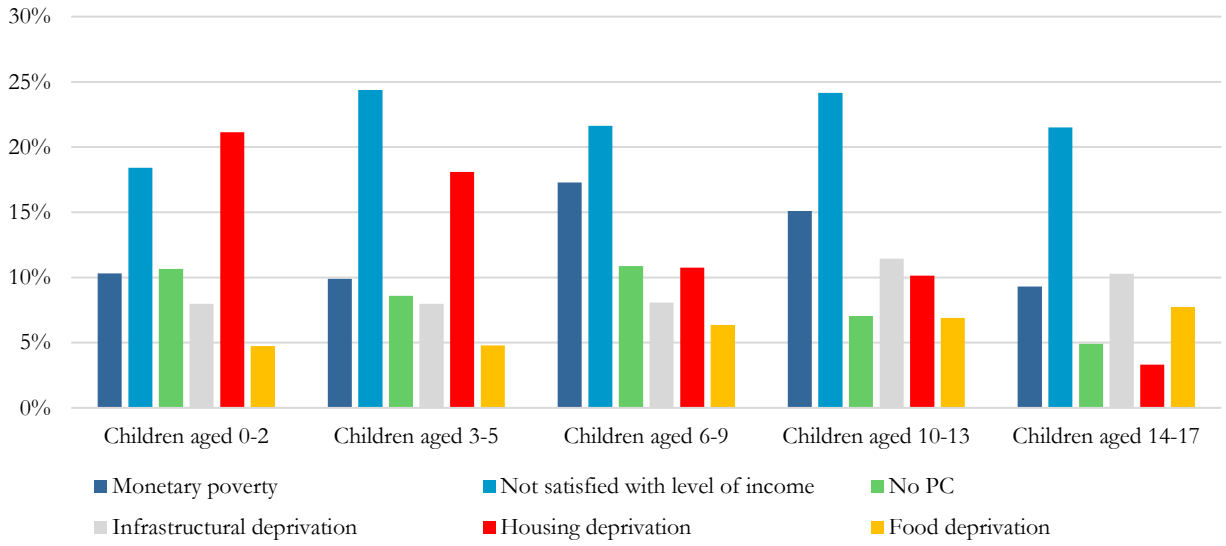


[8] Single-adult households with children are not equivalent to single-parent households. The HBS data does not allow for deriving the exact parentage, and some of the single-parent households, which happen to include other resident adults, for example grandparents, would not be included in our measure of single-adult households with children.

Note: All figures are estimated individually, i.e. households with children represent all people residing in households with children.
Source: own calculations from HBS-2016 data.

Figure 5 shows the incidence of the select deprivations for children of different age groups. Some deprivations show clear age-specific patterns. For example, the housing deprivation is more common for preschool children, affecting most frequently (21.1 percent) the children aged 0-2. The no-PC deprivation is also more common for children in the first decade of life; the PC ownership indicator has a higher share among the adolescents. Food deprivation, quite on the contrary, increases for school-age children, peaking at 7.7 percent for children aged 14-17.

Figure 5. The incidence of selected deprivations by children of different age

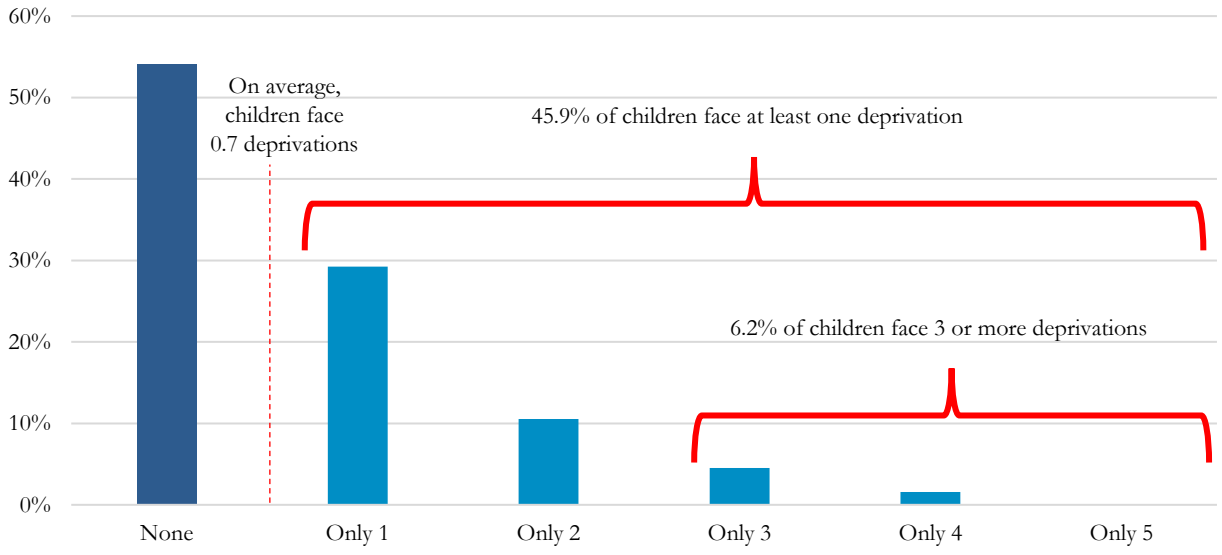


Source: own calculations from HBS-2016 data.

As we can see from

Figure ***6***, only 54.1 percent of children face no deprivations. 29.2 percent face only one deprivation, 10.5 – only two. The remaining 6.2 percent of children face three or more deprivations.

Figure 6. Number of deprivations for children

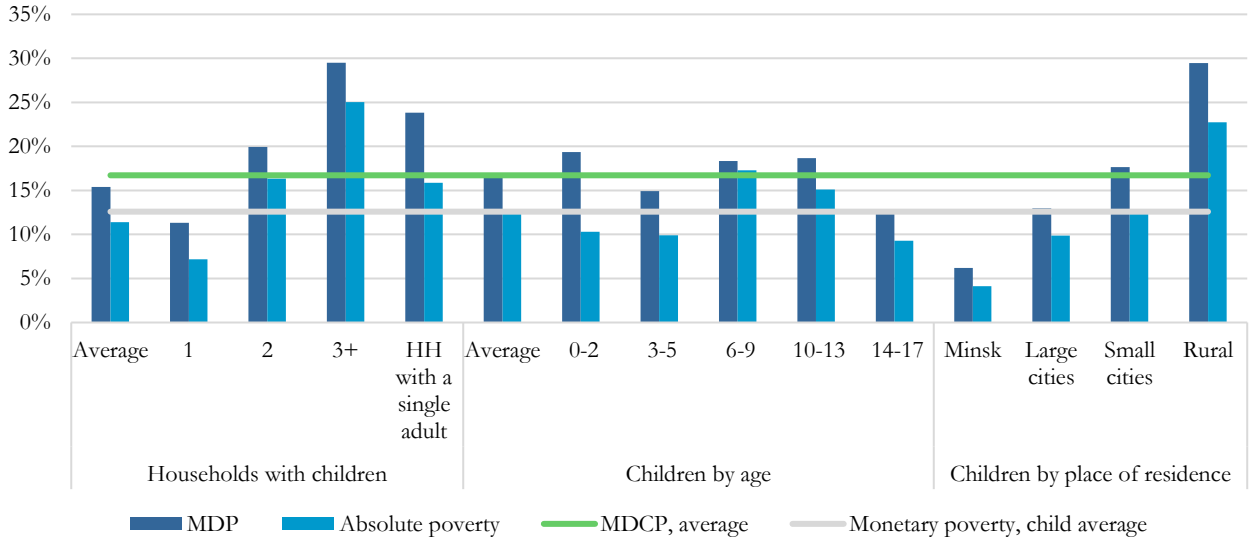


Source: own calculations from HBS-2016 data.

We define multidimensional poverty as being subjected to at least two deprivations. The MDCP (the multidimensional child poverty measure) equals 16.7 percent. It is particularly high for people residing in households with three and more children (29.5 percent); households with a single adult and children (23.8 percent); children residing in rural areas (29.5 percent).

Children aged 0-2 face the highest risks of multidimensional poverty (19.4 percent) defined as at least two deprivations in Belarus (see Figure 7). Children aged 6-9 and 10-13 also face higher than average risks of MDCP – 18.3 and 18.7 percent correspondingly.

Figure 7. Multi-Dimensional Poverty (MDCP) and Monetary (Absolute) Poverty



Source: own calculations from HBS-2016 data

As seen in Figure 7, MDCP generally follows the pattern of absolute monetary poverty for children and households with children. However, important differences come up for certain vulnerable groups. In particular, households with child(ren) and single adults have relatively high risk of MDCP (23.8 percent) – significantly higher than households with two children, which have a slightly higher risk of monetary poverty. Children aged 0-2 also face high incidence of MDCP not suggested by the estimates of monetary poverty for this group. Thus, this suggests that while MDCP tracks monetary poverty quite closely in general, it can highlight vulnerabilities for certain groups, for example for single-parent households.

5. Distributional impacts of fiscal policies relevant for children

5.1. Incidence of fiscal interventions relevant for children

HBS data contains sufficient data on the majority of child-related fiscal interventions described in section 3. However, some of these interventions are provided to very narrow population groups and the survey sample does not cover them to the extent to reliably surmise their impact on income redistribution. Hence, one should exercise own judgment when considering the findings of the analysis of smaller interventions fiscal incidence. Besides, one should note that CEQ and CEQ4C analysis follow the household-centric approach – all fiscal programs are applied to the entire household as a unit and distributed evenly among the household members, hence children technically taxes and receive old-age pensions (if their household has at least one taxpayer or retiree).

Results of the CEQ4C analysis show that, generally speaking, direct transfers are progressive in Belarus. It is largely related to the system of benefits, which are progressive in absolute and relative terms (see Annex, (a, b)). Most of the equalizing effect comes from benefits for children, and in particular those

aimed at compensating the loss of income due to childrencare. Benefits provided to those taking care of children (benefits for children under 3, from 3 to 18 and survival benefits) are progressive both in absolute and relative terms. While the scale of interventions generated by benefits for children aged from 3 to 18 and survival benefits are moderate, the benefits for children under 3 constitute significant part of the disposable income of lower deciles. They accounted for 9.4% of the disposable income of the poorest decile, which underlines their important role in social policy and poverty reduction. In fact, the scale and progressivity of this benefit explains overall progressivity of social assistance in Belarus. On the contrary, benefits aimed to sustain the level of consumption of women during maternity leave are distributed rather evenly in relative terms and progressively in absolute terms. It is related to their design of maintaining the level of consumption during the short period of maternity leave.

Preferences, on average, are progressive only in relative terms. However, child-related preferences are strictly progressive. They target children enrolled in pre-school and basic school education. Children of this age are especially vulnerable to the poverty risk, which explains their progressivity. Moreover, preferences within pre-school education system are provided only for socially vulnerable groups of population (large families, families with two children, families with children with disabilities, poor households with children) which determines their progressivity in absolute terms. However, the scale of these interventions is rather small, which does not change the overall effect of the system of preferences.

Households with children appear to benefit from the social assistance measures more than population on average, as the majority of the direct transfers target households with children. The highest coverage of households with children is guaranteed by the benefits for children under 3. Around one third of households with children receive this benefit (see Table 4). And its contribution to the disposable income of households with children amounts to 6.4%. In case of a large family with 3 and more children, the coverage ratio increases up to 63.3% and its share in the disposable income of the household — up to 13.7% (see Table 2). Remarkably, this benefit does not provide good coverage for single-parent households. It implies that couples prefer not to divorce until children reach the age of 3 – an effect that may be also partly attributed to the system of benefits.

In general, single-parent households are not extensively covered by the system of benefits and preferences. The only transfers that target them are survival pensions and dedicated social assistance for poor households. Still, direct transfers stand for 14.1% of the disposable income of single-parent households, which is above average level for households with children (11.7%, see Table 2).

The most benefiting type of households is a large family. Almost all of them are covered by direct transfers and benefits in particular (87.5% of the households). In addition to the allowance for children under 3, they are often provided with benefits for children aged above 3, as well as dedicated social assistance. Furthermore, they benefit from preferences related to school supplies for children and pre-school attendance of children. As a result, direct transfers stand for 29.7% of their disposable income

There are significant differences in coverage of children by direct transfers depending on their age. Almost every child aged below 3 is covered with the childcare allowance – for children under 3, as well for children aged between 3 and 18 in case there are older children in the household. Preschool-age children age are also covered by direct transfers to a significant extent (70.7%). It is due to the fact that large share of children aged 3-5 have a smaller sibling, which is related to the recent increase of births of second and consecutive children (since 2012) and overall childbearing capacity of women in rural areas. Hence, these households are eligible for benefits for children both over and under 3 years of age.

Children over 6 years face a more limited access to the system of benefits. More often than other children they are provided with dedicated social assistance, which is indicative of their higher risk of poverty, and preferences in the form of subsidized meals at school. Benefits and preferences guarantee

11.3% and 9.6% of the disposable income of the households with children at the age 6–9 and 10–13 respectively.

The system of direct transfers in general does not appear to address specifically the needs of households in absolute poverty and households facing material deprivations in particular. Some focus on the households exposed to the risk of absolute poverty is rooted in monthly benefits for children, preferences related to children, and targeted social assistance. As a result, absolute volume of financial support directed to the children in absolute poverty is lower than for children on average (see Table 3). Children facing multidimensional poverty benefit only slightly more than other children. Still, the role of benefits and preferences in the disposable income of the poor children is much higher than for non-poor children (19.1 and 12.8% for absolutely and MDCP poor children vs 20.7 and 12.2% for non-poor children respectively) due to scarcity of other sources of income for poor children.

According to Annex (m), indirect utility subsidies are regressive in absolute terms: households with higher income typically reside in bigger apartments/houses and receive higher subsidies through subsidized tariffs. In relative terms, however, indirect utility subsidies are progressive: households with lower income get higher share of income through the subsidies.

As documented in the Table 3 below, per capita indirect utility subsidy decreases with the number of children in the household, and the most vulnerable multi-child households receive less than other households. The per capita subsidy grows with the age of the child: as children grow older, the family is much more likely to separate from grandparents and move into a new residence with more square meters per person. The subsidy is also largest in size for children residing in Minsk, and smallest for children in rural areas.

As a result of the above, children in monetary poverty and MDCP (who are also more likely to reside in rural areas and in households with many children) receive a lower-than-average utility subsidy. Moreover, children facing more deprivations receive less of a subsidy. The inefficiency of the indirect utility subsidies and its lack of targeting is well-documented, and this poor targeting also affects children.

As we see from Annex (g, h), health expenditure is somewhat regressive in absolute terms, as households with higher incomes reside in richer regions with slightly higher health expenditure. However, in relative terms health expenditure is progressive, with lower deciles obtaining higher percentage of their disposable income as in-kind health transfers.

According to Annex (i, j), primary and secondary education expenditure are highly progressive both in relative and absolute terms, playing important role for the households in lower deciles, and particularly for households with children.

Table 3 shows the absolute health and education expenditure for different types of households with children, in average monthly BYN value per capita. As we can see, health expenditure is quite egalitarian, without much difference by household type or child's age. However, there are stark regional differences: in-kind healthcare transfer to children in Minsk is significantly larger than in other regions. This reflects the fact that many high-level specialized national healthcare and research centers are located in Minsk, and our methodology allocates all their costs to Minsk, although the residents of all regions use their services when needed.

Education expenditure, on the other hand, shows clear patterns. First of all, education expenditure increases with the number of children in the households. Second, it also increases with the child's age, as secondary and further education is more expensive than the primary and pre-school. Children in smaller cities benefit from higher than average education transfers due to fewer of children attending.

Children at risk of monetary poverty and MDCP benefit from slightly lower than average healthcare in-kind transfers, but higher than average in-kind education transfers. This has to do with the fact that education transfers are the largest for the most vulnerable age groups of children, and also with the relatively high education transfers to children in small cities.

Direct taxes are in general progressive putting higher burden on the upper deciles, despite flat rates on PIT and social contributions. Largely, it is due to the structure of income of the households, as households from lower deciles rely on public transfers rather than market income, therefore they have limited direct tax obligations[9]. Besides, PIT deductions for low-income households and households with children also contribute to the progressivity of direct taxes. In general, tax-related expenditure in the form of PIT deductions appears to be highly progressive favoring primarily the 2 lowest deciles.

Indirect taxes are distributed rather evenly across the households, ranked by disposable income (e, f). Still, VAT can be considered regressive, as relatively poor deciles bear higher costs than rich households. The difference is related to the expenditure structure of the households. Households from the richest decile spend more on real estate, which is VAT-exempt, and make savings, which limits their tax base. Households from poor deciles have higher share of the expenditures going to basic services that are also exempt from VAT. But the scale of these exemptions has reduced substantially recently which resulted in a relatively high overall tax burden. Contrary to VAT, import duties are rather progressive, as upper deciles are taxed more than lower deciles. It implies that wealthier households spend more on imported products than households from relatively poor deciles.

Tax burden on households with children appears to be higher than the average. Primary, it is related to the direct taxation. If measured in relation to disposable income, the burden for households without children is 23.7%, while households with children pay 33.7% of their income as direct taxes (Table 2). The highest burden is observed among households with only one child and households with children aged 14-17. On the contrary, households with three and more children and children aged below 3 bear the lowest burden of direct taxes. The difference is related to the economic activity of households members. Adults in large households and households with children below 3 have fewer employment opportunities due to the burden of housework compared to families with only one child and adolescent children. Consequently, comparison based on the market income approach levels the difference out (see Annex (c, d)).

Indirect taxes are distributed more evenly. Still, it follows the same trend of taxing households with children more than other households, but this burden reduces with the growing number of children. It is related to the structure of consumption and well-being of different types of households. Households without children are, to a large extent, represented by households of retired seniors, which implies their relative low well-fare and high share of non-taxed basic services in consumption and basic food products taxed at lower rates. At the same time households with three and more children are exposed to high poverty risks and therefore also consume less fully taxable goods and services. Regarding the age of children, the highest share of disposable income is spent on paying indirect taxes by households with children under 3 (and under 6 in case of import duties). Their consumption is supported by public transfers, which results in relatively high indirect tax burden.

Tax burden differs based on poverty risk and deprivations faced by the households. Households with higher poverty risk and material deprivations bear lower tax burden than non-poor and non-deprived households. It is explained by the lower share of income from employment in poor and materially deprived households and larger share of non-taxed goods and services in their consumption. VAT is a partial exception, since poor households tend to pay more taxes than non-poor households.

[9] Especially low direct tax obligations are borne by the 4th – 6th deciles, where most retired seniors are concentrated.

5.2. The role of social policy measures in poverty and inequality reduction

The focus of fiscal interventions on vulnerable groups is interrelated with their efficiency in terms of costs of poverty and inequality reduction. Table 5 and Table 6 below provides the necessary calculations, considering reduction in poverty and inequality among children.

Survival pensions are the most efficient among other benefits in both poverty and inequality reduction. Since the survival pensions are provided upon the loss of the breadwinner, they are very well targeted. Free school meals provided to children in primary school and rural areas are also a very efficient intervention, as it benefits children at the highest risk of poverty. However, it is not as well targeted: only 23.8% of the expenditure go to the poor, while 6.4% go to the top income decile. Preferences within preschool education are also much more efficient than other types of preferences.

Allowances for children aged 0-2 and 3-18 are similar in efficiency, although benefits for children aged 0-2 are slightly less efficient in terms of cost of poverty reduction, but more efficient in terms of inequality reduction. It is related to the fact that almost half of the allowance expenditures is transferred to those, who would have been poor without this benefit (income before the intervention). Still, as the allowance for children aged 0-2 is not means-tested, a high percentage of the benefit – 6.4% – goes to the households in the top decile. High efficiency of the benefits for children aged 3-18 probably stems from the fact that by design these benefits go to more vulnerable households with two and more children.

Maternity allowances, as well as childbirth and pregnancy registration allowances are highly inefficient from the point of view of poverty and inequality reduction. Moreover, they actually widen the inequality gap (hence the negative in the Gini reduction column cost). The maternity leave allowance depends on the mother's income before leave, hence this intervention does not do much to decrease inequality. Especially efficient in terms of poverty reduction are those allowances transferred to households with 3 and more children. Besides, the general conclusion that one-off (almost) unconditional payments at birth have very high cost of reducing poverty can be disputed by the fact that our analysis does not factor in the possible increase in the necessary expenditures around the time of childbirth.

In general, efficiency of direct transfers raises if one considers expenditures directed to children and the most vulnerable groups of children in particular: households with three and more children, single-parent household, children residing in rural area and small towns. Benefits and preferences transferred to children facing risk of multidimensional poverty are also more efficient, particular if one considers effect on inequality.

Utility subsidies as well as preferences not directly related to children are, on average, inefficient. Situation changes when one considers utility subsidies transferred to the children. In this case they show even higher efficiency in poverty reduction than benefits for children aged 0-2, especially if utility subsidies are provided to households with two and more children, as well as residents of smaller cities, implying high burden of utility costs for these groups of households. Still, efficiency of utility subsidies in inequality reduction is limited due to weak targeting of the intervention.

Education and health expenditure have rather low efficiency in inequality reduction. Exceptions are public expenditure on pre-school and primary school education, which are transferred to the groups of children not covered by the social security instruments. Besides, efficiency of public education and healthcare services in inequality reduction is high when they are provided to absolutely-poor and MDCP-poor households with children. However, the major objective of health and education expenditures is not reducing poverty and inequality, hence this analysis cannot be used to evaluate the efficiency of these policies.

While taxes are in general inefficient if viewed as instrument of inequality reduction, PIT deductions appear to be rather efficient in poverty reduction. It is especially relevant for the deductions provided to the households with children in rural areas and smaller cities, households with children aged 10-13, as well as MDCP-poor households.

While the efficiency of social policy measures depends largely on the way they target vulnerable population groups, their absolute effect on the level of poverty and inequality is also determined by the size of the intervention. In general, direct transfers reduce poverty among children by 13.1 p.p. (from 25.7 to 12.6%), which is much higher than among the population on average (by 5.4 p.p. from 12.5 to 7.1%). Still, transfers do not reduce the risk of poverty in the households with children evenly. The difference is related to the marginal effect on poverty that benefits for children under 3 have. As they are the largest fiscal intervention and cover pre-school children, the result is that the existing system of social support to households with children is most effective in curbing poverty risk of preschool-age children and less effective in supporting school-age children.

Marginal effects of other benefits and preferences are much lower and are distributed rather evenly across children of different age and different types of households with children. Hence, other groups of households do not benefit that much compared to households with children under 3. Still, distribution of marginal effects of direct transfers depending on the number of children in the household proves that other social assistance expenditures are vital for welfare of households with 3 and more children. Poverty rate of the households with three and more children at the pre-transfer level is 64.6%. Direct transfers have a more-than-twofold risk reduction impact. Another benefiting group are the children at the first stage of secondary school. Despite their small scale, other transfers (different from childcare allowance for children up to 3 years old) substantially (by 3.8 p.p.) reduce poverty risk in primary school-age children.

On the contrary, such vulnerable groups of population as single-parent households and MDCP-poor households with children do not enjoy significant poverty reduction effect from the system of direct transfers.

6. Policy simulations

System of social assistance to households with children effectively reduces child poverty in Belarus. However, it misses several vulnerable groups such as households with three and more children, single-parent households, as well as school-age children, which results in high monetary poverty and MDCP risk among them. Therefore, there is a need to update the social assistance system to households with children in order to increase its cost efficiency and coverage of vulnerable groups. We consider the expansion of availability and coverage of TSA, introduction of group-specific benefits aimed at the households with children at the highest risks of monetary and multidimensional poverty, and increase in PIT child-related deduction to be promising ways to combat child poverty. These new interventions could be financed from savings which generated by phasing out the inefficient utility subsidies. We have run several simulations of the new social policy measures (see Table 9) and changes in the biggest child-related program (maternity leave and childcare allowance for ages 0-2) to see the effect of possible changes.

Targeted social assistance (TSA) is the most efficient policy measure of poverty and inequality reduction. TSA payments are means-tested and provided to households with monthly per capita income below MSB during the previous 12 months. The allowance is currently provided for the period of 6 months only. The size of the allowance is defined as a difference between MSB and their per capita income. We estimated possible costs of improved coverage by monthly TSA combined with the removal of the time limit of provision (now one is only eligible for this assistance during 6 months in a year) for households with children. Simulations show that improved TSA coverage and duration for

households with children (obtained, for instance, through provision of the benefits automatically for those identified as poor instead of the application-based approach) will cost BYN 186.8 mln per year. This expenditure would allow eliminating monetary child poverty completely. However, our analysis does not consider administration costs which might be high for a means-tested intervention. Hence, the cost of 1 p.p. poverty reduction through TSA could be considered the cost-efficiency benchmark. We have also evaluated the full-coverage TSA with the minimal size of the benefit set at BYN50 to provide incentives for the households to apply for assistance.

Table 9. New programs simulation outputs

New program	Reduction in child poverty	Cost of 1 p.p. reduction in child poverty	Total cost, mln BYN	Share to the MDP
TSA provided to every poor HH with children for 12 months	12.59%	14.8	186.84	79.3%
TSA provided to every poor HH with children for 12 months, at least 50 BYN	12.59%	15.7	197.94	78.5%
Introduce group-specific benefits:				
for hh with 3+ ch	1.08%	56.6	60.90	37.3%
for hh with a single parent	1.49%	115.3	172.05	21.1%
for hh with children in small cities and rural areas	3.34%	141.1	471.39	20.6%
Increase the volume of PIT tax deductions (double increase) for `vulnerable hh with ch	0.23%	177.6	40.42	15.0%
Decrease the indirect utility subsidies to 80% recovery level	-0.31%	--	-829	15.0%

Note. Total costs and costs per 1 p.p. are converted to annual basis. The negative sign for total costs means budget savings.
* For comparison, average cost of 1 p.p. children poverty reduction by existing system of children-related benefits is 139.4.
Source: own estimates.

The introduction of group-specific benefits aimed to support the most vulnerable households with children — multi-child families[10], single-parent families and households in rural areas and small cities — are relatively cost-efficient, although less efficient than TSA. Introducing the child benefit of 1 MSB to households with 3 or more children, which also do not receive any other child benefits, would reduce the child poverty by 1.06 p.p. In this case, 37.4% of additional funding would go to families in MDP. Child benefit of 0.5 MSB to single-parent households or to the households with children in small cities and rural areas have the potential to reduce child poverty by 1.34 p.p. and 2.95 p.p. accordingly, but also at higher total cost. Out of the three types of group-specific benefits, allowance for the households with 3 or more children is the most-cost efficient one – only 3.8 times more expensive than the TSA for families with children. The benefits for single-parent households are also among the most cost-efficient ones compared to other alternatives of non-targeted (non-means-tested) interventions, or to the average cost of 1 p.p. children poverty reduction within the existing system of children benefits. Categorical benefit for households in small cities and rural areas has the same cost efficiency as existing system of children benefits.

PIT deductions provided to employed adults from households with children are progressive in absolute and relative terms. However, the scale of this intervention is very small. Hence, we modelled the increase of the deductions provided for households with children to check the efficiency of this measure if scaled up. Simulation revealed that a two-fold increase of the deductions for vulnerable groups of households with children (households in rural area and small cities, single-adult households) still does not have any significant effect on poverty reduction — it only offers 0.25 p.p. of children poverty reduction. This kind of intervention would not increase the efficiency of the current system –

[10] In 2019 Belarus has announced the launch of the automatic information system which would contain information on all households with three and more children. The introduction of this system would make the

the cost of 1 p.p. poverty reduction is 177.6, substantially higher than for the proposed group-specific benefits.

Belarus has committed to the SDG target of reducing the national child poverty rate by half by 2030. Our simulations show that the child poverty reduction to 5.5 through the combination of introduction of group-specific benefits to multi-child families and single-parent families and the expansion of TSA availability to households with children would cost around 304.05 mln BYN in 2016 prices; or around 356.4 mln BYN in 2019 prices (around 0.27% of GDP). These costs would also allow decreasing overall poverty by 2.8 p.p.

We have also modeled the decrease in the household utility subsidies (increasing the cost recovery by tariffs), according to the government plans of phasing out such subsidies. 80% cost recovery (versus 50% in 2016) would imply the child poverty increase of 0.31 p.p. However, it would also imply substantial cost savings. In terms of savings, the partial elimination of utility subsidies would allow funding of all three group-specific benefits together.

Table 10. Simulating changes in maternity leave and the associated allowances

	Child poverty change		
	50% labor force participation	80% labor force participation	100% labor force participation
Allowance 0-1 years (up to 2 years) of 1.5 current amount	-1.3%	-1.7%	-1.7%
Allowance 0-1 year (up to 2 years) of the current amount	-0.3%	-0.4%	-0.5%
Allowance up to 1 year equivalent to the wage	1.1%	0.4%	0.1%
Allowance up to 1.5 year equivalent to the wage	-0.2%	-0.5%	-0.7%

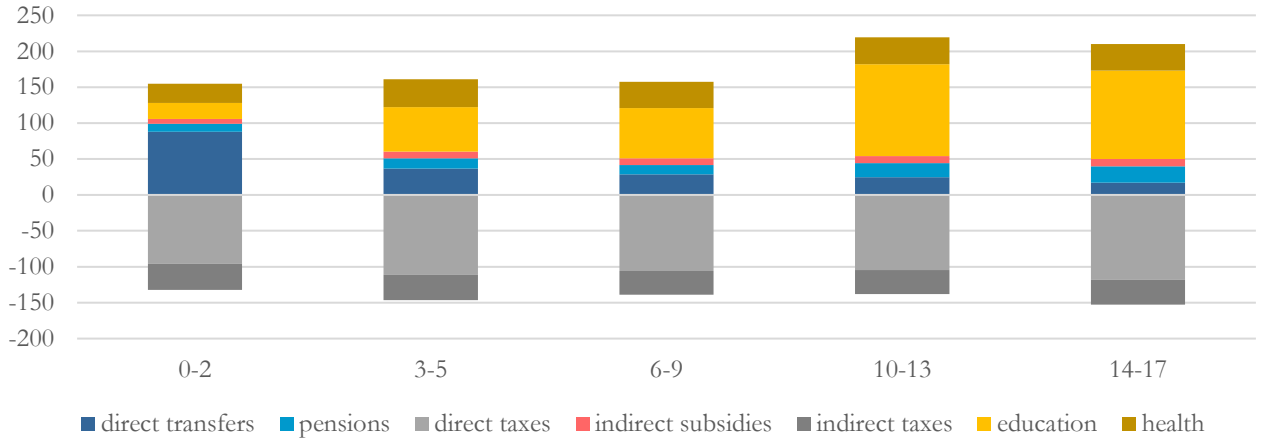
Note. Labor force participation of mothers after the maternity leave is randomly estimated according to the chosen participation level, and it is not endogenous. The labor force participation of women aged 15-64 in Belarus is at 75%, suggesting that our assumption of 80% labor force participation is not a very valid one.
Source: own estimates.

Finally, we have looked at the possible modifications of the most expensive program, three-year maternity leave with the allowance for children aged 0-2. Here we see ever more evidence that lengthy maternity leaves could harm child's social development (Dustmann and Schoenberg, 2011; Canaan, 2019), which justifies looking into shortening the current three-year maternity leave. The Table above presents the effects of four possible policy changes: (1) shortening the maternity leave by one year and paying a larger allowance over the first two years; (2) shortening the maternity leave by one year and paying the same0size allowance over the first two years; (3) equating the size of the allowance to the wage and shortening the maternity leave to 1.5 or (4) 1 year. As we can see, only major shortening of the maternity leave to only 1 year might lead to increases in child poverty. Under other options, child poverty actually decreases as the majority of mothers returning to work would earn more compared to the size of the allowance. Under all options, save for the last one (full wage benefit up to 1.5 years), the expenditure on the allowances would either not increase or decrease. Moreover, there would be additional fiscal gains due to taxes and social security contributions paid by mothers returning to work earlier. It should be noted that the results are very sensitive to the demographic structure of our HBS sample.

7. Conclusions

Children in Belarus, as in many other countries, face higher risks of poverty than the overall population: for children the poverty rate was 12.6% versus 7.1% for the population in 2016[11]. The risk of multidimensional poverty for children is even higher – 16.7%. Some groups are particularly vulnerable. Among households with children, these are households with a single parent or households with three or more children. Among children, children aged 6-9 and 10-13 or children living in small cities and rural areas are more likely to be poor and face multiple deprivations.

Figure 8. Fiscal incidence for children, by child age groups



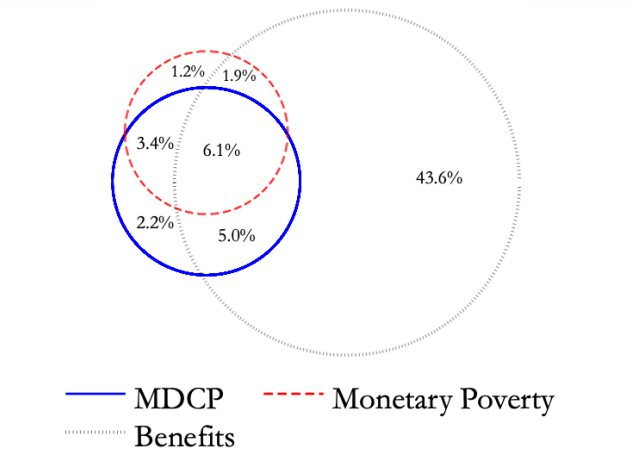
Note. Average size of program, monthly in BYN. The universe is all children.
Source: own estimates.

The fiscal system in Belarus is pro-poor and also effectively reduces poverty among children through the system of child benefits. 46% of children receive some kind of benefit, and 43% have access to preferences. Children aged 0-2 are almost universally served by benefits – the coverage is 99%. Without the direct transfers, child poverty would be two times higher (25.7%). Childcare allowances for children aged 0-2 years play the biggest role in poverty reduction, reducing child poverty by 5.7 p.p. Child benefits for children aged 3-18 and preferences are also substantial, reducing child poverty by 1.2 p.p. and 1.3 p.p. correspondingly. Interventions that are not child-centered by design also play significant role: pensions decrease child poverty by 5.1 p.p., indirect utility subsidies – by 6.5 p.p. Cash transfers are the dominant type for children aged 0-2, at older ages the transfer support is phased out and replaced by in-kind education benefits (see Figure 8).

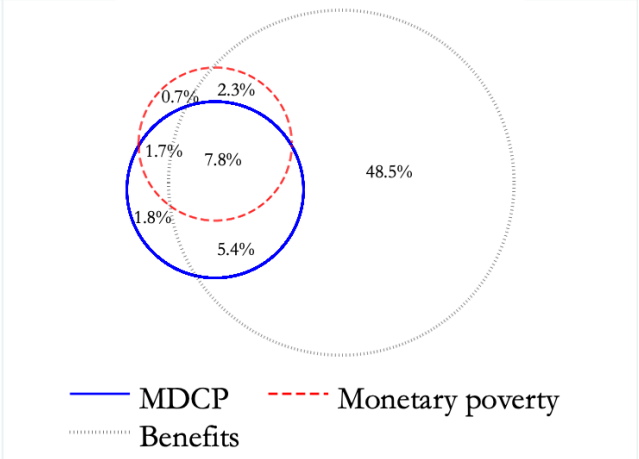
The focus of the current child benefits system on supporting the families with children aged 0-2 leads to important gaps in coverage of the most vulnerable groups. While 87.5% of households with three or more children are covered by the benefits, and 86.4% have preferences, 25% of them where still in poverty in 2016. Only 32.8% of single-parent households receive some kind of child-related benefit, and the level of poverty among these households is still high — 15.9%, while 23.8% of these households are in multidimensional poverty. Only 33.5% of children aged 6-9 are covered by benefits, as a result, this age group faces the highest poverty incidence of 17.3%. Due to the lack of means-tested and accessible programs, 6.8% of children face either monetary or multidimensional poverty, and are not covered by social assistance (see Figure 9.a below).

Figure 9. Monetary poverty, MDCP and coverage by child-related benefits, de-facto and simulation

[11] According to own estimates from HBS data; official estimates might differ.



(a) De-facto benefits coverage of children



(b) Simulation benefits coverage of children

Note. The universe is all children. Benefits in (a) here include child-related benefits (to children 0-2, to children 3-18, disability pension and survival allowance) and child-related preferences (meals and kindergarten costs). In (b), benefits also include the simulation of two group-specific benefits (for multi-child families and for families with a single parent) and TSA expansion to reduce child monetary poverty to 5.5% (SDG target).
Source: own estimates.

While the major types of child benefits (allowance for children aged 0-2 and allowance for children aged 3-18) are relatively cost-efficient, one-off payments at birth are highly inefficient in terms of reducing poverty, and also increase inequality. The majority of preferences, excluding subsidized school meals and preschool preferences, are also highly cost inefficient.

We have also simulated several alternative policies aimed at reducing child poverty. Increasing access to the means-tested TSA for all poor households with children and removing the current 6 months duration restriction would allow to eliminate child poverty completely at a very low cost. Our simulations do not take into account the possible high costs of administering such and intervention. Group-specific benefits to the vulnerable groups – households with three or more children, households with a single parent, households with children in rural areas and small cities – will not require high administrative costs and are cost-efficient (the cost of decreasing the child poverty by means of these benefits is lower than the average cost within the existing system). The planned decrease in the utilities subsidies would bring the savings large enough to cover many of the proposed alternative mechanisms of child poverty reduction. We also show that decreasing the length of the maternity leave and the duration of the associated childcare allowance provision would not lead to child poverty increase.

Figure 9.b displays the simulated changes in coverage if implementing the combination of introduction of group-specific benefits to multi-child families and single-parent families and the expansion of TSA availability to households with children to meet the SDG target of reducing the national child poverty rate to 5.5% by 2030. In this scenario only 4.2% of children would be either in monetary or in multidimensional poverty, and not covered by assistance (compared to the current 6.8%).

8. Key lessons learned and next steps of using findings

– CEQ4C is a powerful approach that delivers many insights into MDCP, monetary child poverty, and their interplay with the fiscal policy (social assistance in particular). While the primary value lies in the assessment of the role of child-targeted interventions, CEQ4C also produces findings on the role of other interventions, which are not directly child-related. For example, in Belarus pensions turn out to be an important program for child poverty elimination – the dynamic that would otherwise be invisible, since it cannot be captured by other approaches. CEQ4C also allows measuring the effects of fiscal interventions on specific socio-economic groups with the focus on vulnerable

populations. This proves very useful for policy simulations in making sure that certain vulnerable groups do not slip through the social safety net.

– At the same time, it is important to recognize the limitations of the CEQ4C. First, it evaluates the efficiency of fiscal interventions by looking at considerations of poverty and inequality reduction only. While this approach is valid for the social assistance programs, other fiscal interventions like pensions, healthcare or education expenditure are geared towards other objectives as well — something to keep in mind when reading this paper. Another limitation is the assessment of the costs of fiscal programs that require complex administration - CEQ4C only allows estimating the direct costs, not administrative costs. The costs associated with age-based programs could also be better estimated on the basis of administrative demographic data. The strength of CEQ4C is in cost estimation for specific socio-economic groups as the household survey data is in many cases the major source of the information on the number of certain household types.

– Our current measure of MDCP is limited by the data available in the household survey. The current measure has some important gaps in coverage of child rights. UNICEF supports the country in producing a methodology for multidimensional poverty measurement under the leadership of the National Statistical Committee – Belstat. The methodology is to be introduced in 2021 as part of its National Statistics Strategy for 2018-2022 and SDG Statistics Roadmap 2018. The first step was initiating a dedicated training commendably delivered by the Office of Research[12]. The team will be validating the MDCP measure developed with Belstat in 2020. This creates a good opportunity for advocacy in improving the regular household survey adjusting the HBS questions to better capture the multidimensional nature of poverty both for children and adults. MICS survey data generated by UNICEF in collaboration with Belstat and the WB would also become a valuable source for building the new MDCP measure.

– Ongoing communication on the intermediate results and research plans with the major stakeholders - the Ministry of Labor and Social Protection (MLSP) and the Ministry of Finance - facilitated by UNICEF has proven very useful, especially for the policy simulations part. The feedback from policymakers made our research results more relatable for the ongoing policy debate. For instance, the preliminary findings have informed the upscaling of the targeted social assistance to mitigate the COVID-19 impact on families with children (Gentelini et al, 2020, p. 67). The team will be further validating the results with the stakeholders during workshops and round-table discussions.

– Another promising identified area of applying the CEQ4C findings is supporting the MLSP in strengthening its database on families with 3+ children to improve cash transfers efficiency and integrating social services to better serve vulnerable families with children. Gathering additional survey data on a representative subsample of families from the database and incorporating the outputs into the existing administrative database will further inform social cash transfers and services, therefore, improving their respective performance. Populating the database with a dynamic survey incorporating the MDCP measure will allow tracking key health and education outcome variables for vulnerable families and use advanced causal methods to make group comparisons to assess the impact of the cash transfer programme and social service enhancement efforts. Comparative research done at 148 Social Care Centres managing the database will enable designing a case management system for such children, providing them with critical services at the community level. Strengthening the government database, which covers over 47% of poor children will ensure better informing and guiding the policymakers to hit the 2030 SDG target of halving child poverty. Ultimately, by increasing the technical rigour of data collection on vulnerable families, UNICEF can support the government's already expressed interest for more sophisiticated data on vulnerable families, and lead to better informed redistributive policies that help fight child poverty.

[12] See via https://www.unicef-irc.org/article/1919-multidimensional-child-poverty-training-introduces-measurement-tools-and-guidance.html.

References

Bornukova, K., Cojocaru, A., Matytsin, M., & Shymanovich, G. (2019). Poverty, Vulnerability, and Household Coping Strategies during the 2015–16 Recession in Belarus. *Policy Research Working Paper 9003,* World Bank.

Bornukova K., Chubrik, A., Shymanovich G. (2017). Fiscal Incidence in Belarus: A Commitment to Equity Analysis, *Policy Research Working Paper* WPS8216, World Bank.

Canaan, S. (2019) Parental Leave, Household Specialization and Children's Well-Being. *IZA Discussion Paper No. 12420*.

Cojocaru, A., M. Matytsin (2017) Poverty and Shared Prosperity in Belarus over the Past Decade Trends, Drivers, and Challenges. *World Bank*, 2017.

Cuesta, J., Jellema, J., Chzhen, Y., Ferrone, L. (2018). Commitment to Equity for Children, CEQ4C: Fiscal Policy, Multidimensional Poverty, and Equity in Uganda, *Innocenti Working Papers* 2018-03.

Chubrik, A., Shcherbina, N., Shymanovich, G. (2018). Poverty and socially vulnerable groups in Belarus: Social Assistance to Families with Children and its Results, *Poverty and Social Exclusion Yearbook,* IPM Research Center.

Dustmann, C., & Schönberg, U. (2012). Expansions in maternity leave coverage and children's long-term outcomes. *American Economic Journal: Applied Economics*, 190-224.

Fiorini, M. (2010). The effect of home computer use on children's cognitive and non-cognitive skills. *Economics of Education review*, 29(1), 55-72.

Gentilini, U. et al (2020) Social Protection and Jobs Responses to COVID-19: A Real-Time Review of Country Measures, *"Living paper" version 11* (June 12, 2020), World Bank and UNICEF.

Schmitt, J., & Wadsworth, J. (2006). Is there an impact of household computer ownership on children's educational attainment in Britain?. *Economics of Education review*, 25(6), 659-673.

Table 2. Incidence of benefits and taxes, % of disposable income

	HH with children, by number of children				single adult HH	children by age					children by place of residence				children at risk of poverty				Child average	Population average
															absolute		MDCP			
	average	1	2	3+		0-2	3-5	6-9	10-13	14-17	Minsk	large cities	small cities	rural	Poor	non poor	poor	non poor		
Transfers	11.71	7.60	15.39	29.68	14.13	31.04	13.47	11.26	9.61	6.33	11.25	13.28	13.29	16.05	19.11	12.82	20.74	12.18	13.61	6.65
Benefits, incl.	10.39	6.62	13.95	26.12	11.86	30.14	12.51	9.44	7.55	4.64	9.93	11.96	12.02	13.87	16.41	11.46	18.23	10.85	12.09	5.56
allowances for childbirth and registration of the pregnancy	0.78	0.43	1.16	2.10	0.40	3.24	0.69	0.60	0.35	0.18	0.63	1.00	0.97	0.98	0.13	1.04	0.91	0.92	0.92	0.39
maternity allowance	0.46	0.17	0.70	1.84	0.30	1.74	0.73	0.47	0.15	0.11	0.40	0.47	0.84	0.74	0.20	0.64	0.73	0.56	0.59	0.24
allowance for children under 3	6.38	4.32	8.63	13.65	5.52	21.48	8.63	4.64	2.93	1.23	6.12	7.78	5.81	7.80	10.59	6.64	11.21	6.32	7.14	3.22
allowance for children aged 3–18	1.21	0.24	2.23	4.84	1.41	2.94	1.56	1.76	1.35	0.86	1.20	1.49	1.79	2.11	2.14	1.58	2.29	1.52	1.65	0.61
attendance benefit	0.37	0.42	0.24	0.52	0.22	0.11	0.20	0.43	0.53	0.41	0.28	0.22	0.59	0.44	0.42	0.34	0.46	0.33	0.35	0.32
survival pension	0.60	0.55	0.51	1.43	2.31	0.30	0.25	0.57	1.40	0.99	0.69	0.47	1.06	0.92	1.38	0.64	1.23	0.63	0.73	0.32
pension for disabled children	0.24	0.17	0.31	0.59	0.44	0.17	0.18	0.44	0.32	0.30	0.38	0.26	0.28	0.30	0.41	0.28	0.36	0.28	0.29	0.13
TSA and other	0.26	0.20	0.16	1.13	1.24	0.15	0.23	0.48	0.37	0.46	0.22	0.26	0.51	0.49	1.15	0.24	0.94	0.23	0.35	0.17
Preferences, incl.	1.32	0.98	1.44	3.56	2.27	0.90	0.96	1.83	2.06	1.68	1.31	1.32	1.28	2.19	2.70	1.36	2.51	1.33	1.53	1.10
free and subsidized meals (at school)	0.53	0.33	0.63	1.83	1.05	0.38	0.34	0.79	0.89	0.81	0.35	0.53	0.62	1.12	1.37	0.56	1.25	0.54	0.66	0.28
within preschool education	0.07	0.01	0.06	0.64	0.09	0.07	0.19	0.16	0.06	0.05	0.07	0.05	0.05	0.26	0.32	0.07	0.26	0.08	0.11	0.04
Old-age pensions	7.45	9.10	5.20	3.40	2.44	4.65	5.28	4.56	7.15	7.99	4.93	6.66	4.79	6.47	8.68	5.58	7.97	5.57	5.97	23.71
Utilities subsidies	3.50	3.47	3.49	3.74	4.54	3.59	3.45	3.68	3.68	3.57	3.17	3.82	3.64	3.51	5.38	3.33	4.51	3.41	3.60	3.62
Education expenditure	29.91	25.06	34.80	48.81	48.65	9.98	24.56	28.83	49.94	43.15	25.05	30.31	39.20	35.64	66.14	27.41	50.53	28.63	32.29	16.85
Pre-primary and primary education	9.07	5.44	13.87	19.11	12.34	6.58	17.25	19.04	7.66	2.82	8.71	10.13	11.15	13.70	24.73	8.95	19.47	9.23	10.97	4.49
Secondary education	15.90	12.82	18.89	29.03	31.26	5.32	6.17	8.18	39.39	28.69	15.46	16.12	22.45	23.25	37.87	16.17	28.64	16.97	18.95	7.87
Post-secondary education	3.10	3.35	2.71	2.66	5.73	0.79	1.03	1.24	1.29	10.76	3.17	3.52	5.10	1.68	5.25	3.00	3.79	3.18	3.28	1.75
Tertiary education	2.84	4.08	0.84	0.95	0.16	1.97	1.08	2.09	2.97	2.19	1.37	3.12	3.44	0.00	3.26	1.92	2.51	2.01	2.09	3.02
Health expenditure	13.70	12.74	14.76	17.00	14.22	10.20	13.92	14.26	14.01	13.17	13.08	12.24	13.31	14.84	23.33	11.78	19.65	11.94	13.23	12.07
PIT deduction	0.56	0.43	0.79	0.65	0.49	0.36	0.61	0.69	0.66	0.60	0.42	0.56	0.66	0.77	0.96	0.56	0.77	0.57	0.61	0.28
Direct taxes	33.71	35.90	31.50	25.20	25.87	26.25	33.39	33.86	33.31	35.20	34.79	34.36	33.50	27.86	28.85	33.21	27.12	33.77	32.66	28.75
PIT	9.09	9.70	8.38	7.17	6.47	7.55	8.88	9.11	8.90	9.24	9.50	9.24	9.00	7.42	7.72	8.94	7.34	9.08	8.79	7.79
SSF	24.62	26.20	23.13	18.03	19.39	18.70	24.50	24.74	24.41	25.96	25.29	25.12	24.50	20.45	21.13	24.26	19.77	24.69	23.87	20.97
Indirect taxes	10.74	10.88	10.63	10.05	11.07	10.83	10.75	10.65	10.69	10.65	11.03	11.15	10.70	9.78	10.38	10.75	10.20	10.81	10.71	10.26
VAT	9.31	9.44	9.21	8.74	9.68	9.29	9.30	9.27	9.32	9.27	9.57	9.68	9.28	8.48	9.08	9.32	8.91	9.37	9.29	8.87
Import duties	1.42	1.44	1.42	1.32	1.39	1.54	1.45	1.37	1.37	1.37	1.46	1.47	1.42	1.30	1.29	1.43	1.29	1.44	1.42	1.39

Source: own calculations from HBS-2016 data.

Table 3. Incidence of benefits and taxes, BYN

	HH with children, by number of children				single adult HH	children by age					children by place of residence				children at risk of poverty				Child average	Population average
															absolute		MDCP			
	average	1	2	3+		0-2	3-5	6-9	10-13	14-17	Minsk	large cities	small cities	rural	Poor	non poor	poor	non poor		
Transfers	32.5	23.6	41.6	66.2	37.8	88.0	36.6	28.8	24.9	17.2	40.0	36.5	35.6	36.4	26.8	38.4	38.7	36.6	36.9	19.2
Benefits, incl.	28.7	20.4	37.6	58.5	31.2	85.7	34.0	23.9	19.2	12.2	35.6	32.4	32.3	31.6	22.7	34.2	34.3	32.4	32.7	15.5
allowances for childbirth and registration of the pregnancy	2.5	1.6	3.9	4.8	1.0	10.7	1.9	1.8	0.9	0.5	2.6	3.2	3.0	2.5	0.2	3.3	2.2	3.0	2.9	1.3
maternity allowance	1.7	1.0	2.4	4.2	0.6	6.4	2.5	1.3	0.4	0.2	1.9	1.9	2.4	1.7	0.3	2.2	1.7	2.0	2.0	0.9
allowance for children under 3	17.0	12.7	22.4	29.8	13.4	59.2	23.4	10.9	6.9	2.8	22.5	19.9	15.2	17.1	14.0	19.5	20.4	18.5	18.8	8.6
allowance for children aged 3–18	3.3	0.9	6.0	11.5	4.1	7.4	4.2	4.5	3.7	2.6	4.0	3.9	5.2	4.9	3.0	4.6	4.2	4.4	4.4	1.7
attendance benefit	1.0	1.1	0.6	1.0	0.8	0.3	0.4	1.1	1.5	1.0	0.7	0.6	1.6	1.1	0.6	1.0	0.8	0.9	0.9	0.9
survival pension	1.6	1.7	1.1	3.4	6.3	0.8	0.6	1.4	3.6	2.8	1.9	1.4	2.4	2.4	2.3	1.8	2.6	1.8	1.9	0.8
pension for disabled children	0.7	0.5	0.9	1.3	1.6	0.5	0.5	1.4	1.0	0.7	1.1	0.7	0.9	0.8	0.6	0.9	0.6	0.9	0.8	0.4
TSA and other	0.7	0.6	0.4	2.3	3.3	0.4	0.5	1.3	0.8	1.3	0.7	0.7	1.1	1.1	1.6	0.8	1.6	0.7	0.9	0.5
Preferences, incl.	3.8	3.2	4.0	7.6	6.6	2.3	2.5	4.9	5.7	5.0	4.4	4.1	3.3	4.8	4.0	4.2	4.3	4.2	4.2	3.7
free and subsidized meals (at school)	1.4	1.0	1.6	3.7	2.6	1.1	0.8	1.9	2.1	2.2	1.2	1.5	1.4	2.5	2.1	1.6	2.2	1.6	1.7	0.8
within preschool education	0.2	0.0	0.2	1.3	0.2	0.2	0.4	0.3	0.1	0.1	0.2	0.1	0.1	0.5	0.5	0.2	0.4	0.2	0.2	0.1
Old-age pensions	20.5	26.1	12.7	7.5	7.8	10.9	14.1	12.9	19.4	22.7	17.7	17.6	12.5	15.6	12.1	16.8	13.9	16.7	16.2	87.9
Utilities subsidies	10.0	10.8	9.0	7.8	13.3	9.8	9.7	9.9	10.1	10.6	11.5	10.9	9.4	8.2	8.0	10.4	8.1	10.5	10.1	12.5
Education expenditure	79.7	74.6	85.0	99.3	133.3	22.2	62.3	69.8	128.0	122.8	84.8	82.2	95.0	77.4	100.1	81.4	86.9	83.1	83.7	45.6
Pre-primary and primary education	23.2	16.4	32.9	39.1	29.7	14.6	45.0	46.5	18.9	6.7	28.3	26.4	26.4	28.3	36.0	25.9	32.1	26.2	27.2	11.5
Secondary education	42.8	38.8	47.1	58.1	87.5	11.7	14.4	19.4	101.8	80.9	52.8	43.9	55.2	51.9	58.4	48.2	50.1	49.4	49.5	21.2
Post-secondary education	8.9	10.4	6.7	6.2	18.0	1.7	2.4	3.0	3.0	32.7	11.7	10.5	12.8	3.6	8.0	9.6	6.2	10.0	9.4	5.0
Tertiary education	7.4	10.8	2.1	2.0	0.4	4.7	2.9	5.1	7.8	6.2	4.3	8.4	7.8	0.0	5.2	5.5	5.1	5.5	5.5	8.7
Health expenditure	37.8	38.5	37.1	35.6	39.1	26.8	38.5	36.5	37.1	37.3	46.0	33.5	33.3	33.0	34.3	35.7	34.5	35.7	35.5	38.6
PIT deduction	1.6	1.4	2.0	1.4	1.3	1.1	1.7	1.8	1.8	1.7	1.6	1.6	1.7	1.8	1.5	1.7	1.4	1.7	1.7	0.8
Direct taxes	112.9	129.7	92.5	62.0	88.6	95.5	111.2	105.9	104.8	117.9	147.1	117.3	95.8	72.0	44.5	116.5	54.5	118.1	107.4	113.9
PIT	30.9	35.6	24.9	18.4	23.2	28.0	30.5	29.1	28.1	31.3	41.1	32.1	25.9	19.4	11.7	32.0	14.6	32.4	29.4	31.1
SSF	82.0	94.1	67.7	43.6	65.4	67.4	80.7	76.7	76.7	86.6	106.1	85.1	69.9	52.6	32.8	84.5	39.9	85.7	78.0	82.8
Indirect taxes	35.5	39.2	30.8	24.6	36.6	36.8	35.4	33.2	33.4	34.8	46.0	37.4	30.6	25.0	15.7	37.3	20.3	37.5	34.6	39.9
VAT	30.7	34.0	26.7	21.3	31.9	31.6	30.6	28.9	29.0	30.3	39.9	32.4	26.5	21.6	13.8	32.3	17.7	32.4	30.0	34.4
Import duties	4.7	5.2	4.2	3.3	4.6	5.2	4.8	4.3	4.4	4.5	6.1	5.0	4.1	3.4	1.9	5.0	2.6	5.0	4.6	5.4
Net modelled effect	32.2	4.7	62.0	129.9	106.2	25.6	14.7	18.8	81.3	57.8	6.7	26.1	59.4	73.6	121.1	28.8	107.3	27.0	40.4	50.1

Source: own calculations from HBS-2016 data.

Table 4. Coverage by benefits and taxes, %

	HH with children, by number of children				single adult HH	children by age					children by place of residence				children at risk of poverty				Child average	Population average
															absolute		MDCP			
	average	1	2	3+		0-2	3-5	6-9	10-13	14-17	Minsk	large cities	small cities	rural	Poor	non poor	poor	non poor		
Transfers	66.55	58.54	74.80	96.98	59.60	98.89	70.66	63.07	65.34	51.94	67.70	67.50	67.58	71.84	73.44	67.94	76.05	67.15	68.64	50.71
Benefits, incl.	43.58	34.83	50.07	87.48	32.84	98.89	59.11	33.53	30.15	21.92	50.11	44.10	45.21	47.23	50.21	45.56	56.06	44.16	46.15	25.61
allowances for childbirth and registration of the pregnancy	6.62	4.04	8.95	17.80	2.58	26.70	5.52	4.76	2.39	1.68	7.32	7.02	8.71	7.31	1.68	8.28	6.70	7.60	7.45	3.33
maternity allowance	4.22	1.65	6.76	14.43	1.48	16.29	5.99	3.69	1.36	0.88	3.24	4.58	6.33	6.61	1.30	5.71	5.88	5.01	5.16	2.14
allowance for children under 3	33.56	24.90	43.22	63.34	16.19	95.30	53.14	22.57	14.50	6.28	41.45	36.71	29.90	32.91	30.55	36.09	40.06	34.45	35.39	16.96
allowance for children aged 3–18	18.15	2.07	38.13	65.05	12.98	45.18	31.74	24.30	15.84	8.40	22.55	22.38	24.17	27.79	20.06	24.66	27.04	23.48	24.08	9.15
attendance benefit	2.51	2.43	2.29	4.13	1.29	1.44	1.52	3.04	3.46	2.52	1.49	1.87	4.29	2.80	2.58	2.45	3.37	2.28	2.46	2.05
survival pension	3.02	3.06	2.16	6.26	7.79	1.18	1.45	2.38	5.56	5.52	2.91	2.43	4.42	4.29	3.78	3.27	4.38	3.12	3.33	1.69
pension for disabled children	1.91	1.12	2.60	5.46	2.07	1.95	1.79	3.19	2.70	1.68	1.50	2.48	2.43	2.49	2.20	2.31	1.88	2.38	2.30	1.01
TSA and other	5.66	2.00	3.88	42.86	11.49	6.85	5.33	9.90	9.34	8.30	7.18	5.44	6.48	14.02	20.68	6.26	15.51	6.58	8.08	4.17
Preferences, incl.	39.97	32.60	43.19	86.39	44.65	32.43	31.22	51.24	54.94	43.05	37.50	40.60	43.46	51.89	54.35	41.80	50.67	41.91	43.38	35.46
free and subsidized meals (at school)	17.46	13.29	19.23	44.00	22.87	12.00	12.47	24.03	25.89	21.50	11.13	18.82	19.21	27.52	24.16	19.06	23.74	18.89	19.70	9.49
within preschool education	8.61	1.62	6.97	72.16	8.74	10.12	12.96	16.37	11.51	10.15	9.37	7.22	10.75	23.73	24.12	10.66	20.23	10.77	12.35	4.33
Old-age pensions	29.81	34.36	23.76	18.15	9.84	20.20	22.93	20.26	27.36	29.42	24.35	25.52	19.88	24.93	25.26	24.01	23.81	24.23	24.16	50.85
Utilities subsidies	93.67	94.04	93.23	92.46	95.38	67.28	93.81	93.29	96.53	95.07	85.45	90.67	91.05	91.69	92.76	89.68	92.32	89.61	90.07	95.43
Education expenditure	88.18	84.54	93.83	94.03	93.54	49.59	96.19	94.38	97.32	90.29	83.53	87.61	91.37	85.13	89.13	86.62	89.04	86.51	86.94	54.04
Pre-primary and primary education	54.04	38.75	76.06	85.96	48.24	28.00	96.19	94.38	47.80	19.64	59.13	55.98	57.79	60.77	67.55	56.69	60.77	57.52	58.06	27.20
Secondary education	33.15	27.85	39.12	51.23	43.80	8.08	13.64	17.26	76.74	55.90	27.53	34.07	41.23	39.76	41.74	34.72	36.64	35.40	35.61	16.69
Post-secondary education	16.42	14.88	17.17	25.80	14.98	7.26	9.68	11.58	8.43	40.36	8.13	12.18	16.00	27.31	25.97	14.47	22.95	14.51	15.92	9.74
Tertiary education	21.37	26.44	13.42	13.47	5.94	17.74	22.70	11.91	17.59	12.82	25.95	21.01	19.00	0.00	15.71	16.36	17.07	16.12	16.28	18.94
Health expenditure	96.77	97.55	95.84	94.34	98.30	68.06	96.19	94.38	97.32	97.06	87.26	92.17	93.02	92.25	93.01	91.25	92.87	91.19	91.47	98.37
PIT deduction	88.35	88.26	88.96	86.55	84.94	54.63	89.43	87.75	92.48	90.52	78.06	85.60	85.94	84.57	76.81	85.11	76.50	85.58	84.06	44.47
Direct taxes	96.73	96.71	96.67	97.17	87.27	92.67	98.03	97.37	96.16	97.00	96.02	96.23	96.52	96.75	90.89	97.16	91.67	97.32	96.37	84.14
PIT	96.36	96.34	96.27	96.88	84.57	91.74	97.77	97.00	95.71	96.61	95.19	95.71	96.37	96.41	89.37	96.85	90.54	96.99	95.91	83.84
SSF	96.73	96.71	96.67	97.17	87.27	92.67	98.03	97.37	96.16	97.00	96.02	96.23	96.52	96.75	90.89	97.16	91.67	97.32	96.37	84.14
Indirect taxes	100.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100	100	100	100.0	100.0
VAT	100.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.00	100.00	100.00	100.0	100.0	100	100	100	100.0	100.0
Import duties	100.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.00	100.00	100.00	100.0	100.0	100	100	100	100.0	100.0

Source: own calculations from HBS-2016 data.

Table 5. Cost of 1 p.p. poverty reduction by intervention, if transferred to children and households with children, BYN m

	HH with children, by number of children				single adult HH	children by age					children by place of residence				children at risk of poverty				Child average	Population average
															absolute		MDCP			
	average	1	2	3+		0-2	3-5	6-9	10-13	14-17	Minsk	large cities	small cities	rural	poor	non poor	poor	non poor		
Transfers	28.3	42.7	27.2	15.2	23.5	33.0	21.9	23.6	21.9	22.6	49.0	28.4	19.8	19.8	--	23.4	22.2	26.7	25.8	32.2
Benefits, incl.	28.5	46.5	27.0	14.7	24.0	33.4	21.6	23.7	20.9	19.6	53.5	26.9	21.0	19.3	--	23.4	21.8	26.6	25.7	29.6
allowances for childbirth and registration of the pregnancy	52.0	296.7	166.2	9.5	6.5	57.7	32.4	18.3	16.6	19.0	--	37.4	27.2	21.5	--	34.6	21.9	38.3	34.9	52.0
maternity allowance	54.0	191.4	184.0	13.4	7.2	59.3	66.7	20.6	20.2	9.2	--	--	15.1	20.5	--	39.2	18.8	49.1	39.9	54.9
allowance for children under 3	33.0	45.1	31.8	18.3	22.7	38.3	23.5	27.3	23.7	17.9	163.2	30.8	26.5	17.2	--	27.1	23.2	31.9	29.9	33.1
allowance for children aged 3–18	38.0	152.8	42.6	22.4	48.9	41.4	23.6	31.8	34.8	63.9	--	45.6	99.1	14.7	--	31.7	23.1	38.4	34.7	38.2
attendance benefit	14.6	15.0	19.8	7.5	--	12.3	8.6	33.5	12.6	17.8	--	14.8	11.8	14.6	--	14.3	6.6	20.5	15.7	19.6
survival pension	20.5	28.6	17.7	10.7	31.2	13.2	8.3	16.7	25.8	25.2	14.5	33.9	15.6	21.1	--	16.9	9.8	29.1	20.1	21.4
pension for disabled children	46.2	66.8	48.6	21.7	--	44.3	21.0	--	20.7	39.0	--	23.3	--	26.4	--	38.1	23.0	47.1	42.0	48.6
TSA and other	49.4	--	--	13.2	86.5	27.1	108.8	31.4	23.7	69.8	--	112.4	--	12.8	--	29.0	15.9	99.0	37.8	75.5
Preferences, incl.	34.5	50.9	40.1	14.4	21.1	34.2	20.9	46.3	27.1	27.3	--	76.2	9.5	21.4	--	26.3	15.6	37.1	30.0	64.6
free and subsidized meals (at school)	19.5	22.5	50.5	8.0	11.8	32.5	9.8	31.6	10.2	27.6	--	32.8	6.3	16.9	--	14.9	10.1	22.3	17.6	20.0
within preschool education	50.4	--	15.3	--	4.2	--	28.5	27.0	--	--	--	--	--	22.1	--	31.3	--	29.7	41.6	50.4
Old-age pensions	30.3	33.0	23.6	22.9	35.1	42.1	34.8	31.0	25.6	24.9	156.3	29.0	18.1	21.6	--	26.1	27.7	29.0	28.8	42.7
Utilities subsidies	29.8	45.4	18.6	14.6	40.4	47.0	23.7	25.5	23.6	33.5	--	26.0	14.0	27.8	--	24.9	18.9	29.9	27.7	59.9
Education expenditure	218.2	604.7	137.2	78.3	202.2	138.9	179.3	94.2	225.5	303.5	3439.0	274.1	219.8	73.5	27.2	--	36.2	1127.9	181.0	216.8
Pre-primary and primary education	204.0	-464.2	176.7	-98.3	-89.6	-14.3	-82.5	-569.7	-31.3	-10.3	-32.1	-150.6	-39.9	-148.6	74.9	-151.3	106.4	-156.3	441.9	204.0
Secondary education	3289.6	-791.9	-542.3	-116.3	-153.3	-10.2	-19.0	-32.0	-212.5	-153.1	-60.0	-131.5	-74.3	-141.8	-122.2	-281.6	-112.0	-304.8	-808.7	3289.6
Post-secondary education	-287.2	-144.9	-51.6	-8.5	-26.1	-1.4	-3.2	-5.0	-4.5	-54.3	-13.8	-28.7	-16.1	-6.5	-8.1	-56.1	-8.3	-55.8	-74.2	-467.1
Tertiary education	-145.0	-124.3	-12.7	-2.8	-0.6	-3.9	-3.9	-7.9	-11.6	-9.3	-4.8	-22.4	-9.4	0.0	-4.5	-32.2	-5.8	-30.8	-36.6	-2606.6
Health expenditure	161.6	174.4	142.1	154.7	256.3	88.8	337.4	147.0	1529.3	244.6	--	196.2	332.6	102.8	31.1	1173.8	40.3	1334.3	215.0	223.2
PIT deduction	118.0	-116.3	-27.3	-3.2	-2.7	-1.3	-3.4	-4.2	-4.5	-4.0	-2.5	-6.4	-3.7	-5.0	-1.8	-23.7	-2.6	-18.4	-26.8	118.0
Direct taxes	138.2	256.1	74.9	39.1	86.3	184.6	167.9	83.7	86.2	164.5	690.6	155.1	84.9	49.5	6.2	--	14.4	367.3	119.3	230.1
PIT	86.8	129.3	52.0	36.5	111.4	96.3	136.5	58.6	57.6	118.0	485.2	98.6	64.3	33.4	4.1	--	10.3	217.3	81.7	143.3
SSF	112.3	200.4	61.8	33.0	72.8	130.4	128.1	70.5	72.3	145.0	497.8	118.8	69.9	43.9	5.2	--	11.9	300.2	97.8	191.1
Indirect taxes	64.8	118.1	38.9	19.3	58.8	109.7	56.1	50.9	44.4	53.0	130.8	100.1	46.7	21.4	8.4	85.3	15.2	79.3	56.1	120.2
VAT	63.4	109.3	37.9	21.8	65.9	110.5	54.7	52.7	41.7	53.5	113.5	99.1	50.2	21.1	10.1	76.7	17.2	73.4	55.5	115.2
Import duties	58.1	86.2	31.3	89.5	80.3	49.6	74.0	41.7	53.8	68.3	69.0	145.7	103.9	17.6	--	52.0	35.8	58.2	54.9	106.7

Note. Calculated as a ratio between total funds transferred to selected type of household with children (children and their household's members) and their marginal effect on poverty. It represents the amount that needs to be spent (not received in the form of taxes) on social group representatives (and their household members) to achieve 1 p.p. poverty reduction among the population. Cost cannot be calculated in case of no poverty reduction effect.

Source: own calculations from HBS-2016 data.

Table 6. Cost of 1 p.p. Gini reduction by intervention, if transferred to children and households with children, BYN m

	HH with children, by number of children				single adult HH	children by age					children by place of residence				children at risk of poverty				Child average	Population average
															absolute		MDCP			
	average	1	2	3+		0-2	3-5	6-9	10-13	14-17	Minsk	large cities	small cities	rural	poor	non poor	poor	non poor		
Transfers	61.6	101.7	58.4	46.9	98.0	85.2	145.9	116.4	174.9	-321.4	-654.9	80.2	119.2	59.6	94.0	67.8	60.7	71.6	60.3	70.0
Benefits, incl.	61.1	102.8	58.1	49.5	115.5	87.8	163.1	156.0	408.8	-98.8	-290.9	80.3	136.4	64.6	155.2	67.8	68.9	71.7	60.6	63.3
allowances for childbirth and registration of the pregnancy	-664.4	-36.3	-70.2	-17.4	-2.7	-28.6	-4.9	-5.5	-2.5	-1.4	-5.7	-19.0	-7.3	-9.2	-0.3	-61.8	-5.2	-47.0	-63.6	-664.4
maternity allowance	-73.0	-17.0	-29.8	-13.9	-1.6	-14.1	-6.0	-3.9	-1.1	-0.7	-4.2	-9.6	-5.7	-6.1	-0.4	-28.8	-3.8	-23.4	-29.8	-74.5
allowance for children under 3	65.8	112.1	68.0	82.4	-151.9	118.0	-1658.4	-86.2	-30.6	-8.9	-77.1	114.7	-107.6	145.5	-91.0	85.4	223.7	93.1	72.0	66.1
allowance for children aged 3–18	143.2	-19.4	2394.4	-74.4	-11.9	-21.8	-11.5	-16.5	-11.4	-7.7	-9.6	-28.8	-14.2	-22.1	-5.6	-215.6	-11.4	-149.1	-769.4	144.6
attendance benefit	-92.8	-42.4	-7.3	-2.7	-2.1	-0.7	-1.0	-3.4	-4.2	-2.7	-1.7	-3.0	-3.9	-3.6	-1.1	-12.8	-1.7	-11.8	-14.7	-1685.5
survival pension	1332.6	-67.8	-16.2	-10.7	-21.8	-1.7	-1.4	-4.4	-11.4	-8.4	-4.4	-7.7	-6.2	-8.7	-4.2	-31.0	-6.4	-26.8	-45.6	691.3
pension for disabled children	-34.0	-11.4	-11.0	-3.6	-4.1	-1.1	-1.1	-4.0	-2.6	-1.9	-2.5	-3.8	-1.9	-2.6	-1.0	-10.8	-1.3	-10.5	-12.4	-36.6
TSA and other	-33.2	-14.0	-4.1	-6.6	-9.3	-0.7	-1.1	-3.8	-2.1	-3.5	-1.7	-3.7	-2.6	-3.5	-2.8	-9.2	-3.7	-8.3	-13.3	-52.2
Preferences, incl.	220.2	-132.8	-97.7	-34.7	-19.9	-5.2	-6.4	-17.3	-18.5	-15.5	-10.3	-25.5	-8.4	-22.4	-8.0	-94.7	-12.4	-79.2	-192.5	397.2
free and subsidized meals (at school)	-162.3	-25.7	-23.5	-11.9	-7.1	-2.4	-1.8	-6.0	-6.2	-6.2	-2.6	-8.2	-3.4	-9.2	-3.7	-23.1	-5.2	-20.7	-32.1	-172.1
within preschool education	-6.0	-0.5	-1.7	-3.6	-0.5	-0.4	-1.0	-1.0	-0.3	-0.3	-0.5	-0.7	-0.2	-1.6	-0.8	-2.3	-0.9	-2.2	-3.2	-6.0
Old-age pensions	61.4	67.5	73.9	-36.2	-25.0	-42.1	-98.8	-98.1	-628.9	1322.7	-57.4	133.4	-85.7	648.0	-55.3	88.9	-307.5	95.5	74.2	74.3
Utilities subsidies	93.5	152.4	104.3	-73.1	-95.7	-26.8	-52.6	-82.3	-74.8	-69.1	-35.0	-978.8	-53.7	-105.8	-38.3	215.2	-60.2	227.3	127.6	300.0
Education expenditure	126.2	168.5	80.2	46.7	133.3	26.7	51.5	54.8	85.6	118.4	248.3	87.8	57.5	50.6	34.0	129.1	38.0	127.1	99.4	143.6
Pre-primary and primary education	90.6	132.1	88.2	89.4	241.4	-93.0	151.8	114.6	-511.1	-35.9	-126.0	151.4	234.4	84.7	75.7	126.6	73.5	131.3	93.1	90.6
Secondary education	198.8	454.0	142.8	93.4	-1102.8	-50.1	-115.3	-441.4	204.5	684.5	-93.8	289.8	217.3	112.4	72.1	355.1	79.0	353.8	181.3	198.8
Post-secondary education	291.0	578.1	-1148.7	-28.3	-83.8	-4.3	-9.8	-15.1	-13.3	-348.4	-31.0	-164.8	-75.7	-21.7	-33.5	-326.5	-35.0	-321.0	-3213.4	219.8
Tertiary education	279.0	301.4	-43.7	-8.2	-1.7	-12.9	-12.2	-29.3	-37.4	-24.9	-13.8	-94.0	-34.8	0.0	-16.5	-138.0	-20.0	-145.8	-250.6	362.0
Health expenditure	123.4	146.4	77.7	39.2	82.2	32.3	47.8	48.7	71.7	80.0	112.0	73.2	43.4	41.4	25.1	120.3	30.9	121.1	100.1	190.3
PIT deduction	-76.2	-25.2	-21.1	-2.6	-2.6	-1.2	-3.1	-3.9	-3.7	-3.6	-2.4	-6.2	-2.8	-4.3	-1.8	-15.3	-2.2	-14.7	-18.5	-76.2
Direct taxes	468.0	-1238.2	163.2	50.0	278.7	292.7	261.4	185.3	182.9	347.0	-222.7	773.6	95.8	67.8	22.3	2518.6	36.0	3389.6	522.7	-775.9
PIT	209.1	399.7	81.2	27.4	54.1	55.6	58.6	56.9	51.3	64.0	156.3	108.6	36.8	33.1	11.5	185.5	18.1	188.2	148.8	-1286.7
SSF	302.3	2077.3	124.1	40.2	145.0	145.4	141.2	118.8	120.4	176.0	-509.7	285.9	71.2	55.2	19.7	467.1	31.0	485.3	275.1	-1049.8
Indirect taxes	160.5	316.9	79.5	33.3	84.2	74.8	72.3	67.8	65.5	74.7	273.6	118.8	44.2	40.1	15.6	165.3	24.3	170.0	130.4	1783.3
VAT	152.0	281.0	75.1	31.1	74.9	65.7	64.2	61.6	59.1	67.1	198.1	106.5	40.5	37.4	14.6	150.7	22.8	154.2	121.2	1548.5
Import duties	89.4	96.7	35.4	9.2	14.7	13.8	14.1	14.6	13.9	14.7	19.3	28.2	10.7	11.6	3.7	52.4	6.3	51.5	50.1	447.3

Note. Calculated as a ratio between total funds transferred to selected type of household with children (children and their households members) and their marginal effect on inequality. It represents the amount that needs to be spent (not received in the form of taxes) on a social group representatives (and their household members) to achieve 1 p.p. Gini reduction..
Source: own calculations from HBS-2016 data.

Table 7. Marginal effects of fiscal interventions on poverty reduction, p.p.

	HH with children, by number of children				single adult HH	children by age					children by place of residence				children at risk of poverty				Child average	Population average
															absolute		MDCP			
	average	1	2	3+		0-2	3-5	6-9	10-13	14-17	Minsk	large cities	small cities	rural	poor	non poor	poor	non poor		
Transfers	5.26	1.55	2.21	1.50	0.56	0.78	0.54	0.48	0.41	0.28	0.25	0.88	0.56	0.80	0.00	2.49	0.51	1.99	2.49	5.44
Benefits, incl.	4.62	1.23	2.01	1.38	0.45	0.75	0.51	0.40	0.33	0.23	0.21	0.83	0.48	0.71	0.00	2.22	0.46	1.76	2.22	4.79
allowances for childbirth and registration of the pregnancy	0.22	0.01	0.03	0.18	0.06	0.05	0.02	0.04	0.02	0.01	0.00	0.06	0.03	0.05	0.00	0.14	0.03	0.11	0.14	0.22
maternity allowance	0.14	0.01	0.02	0.11	0.03	0.03	0.01	0.03	0.01	0.01	0.00	0.00	0.05	0.04	0.00	0.09	0.03	0.06	0.09	0.14
allowance for children under 3	2.37	0.79	1.02	0.56	0.21	0.45	0.32	0.16	0.10	0.06	0.04	0.44	0.18	0.43	0.00	1.09	0.26	0.84	1.09	2.37
allowance for children aged 3–18	0.40	0.02	0.20	0.18	0.03	0.05	0.06	0.06	0.04	0.02	0.00	0.06	0.02	0.15	0.00	0.22	0.05	0.17	0.22	0.40
attendance benefit	0.31	0.21	0.05	0.05	0.00	0.01	0.02	0.01	0.04	0.02	0.00	0.03	0.04	0.03	0.00	0.10	0.03	0.07	0.10	0.42
survival pension	0.36	0.16	0.09	0.11	0.07	0.02	0.02	0.03	0.05	0.04	0.04	0.03	0.05	0.05	0.00	0.16	0.08	0.09	0.16	0.36
pension for disabled children	0.07	0.02	0.03	0.02	0.00	0.00	0.01	0.00	0.02	0.01	0.00	0.02	0.00	0.01	0.00	0.03	0.01	0.03	0.03	0.07
TSA and other	0.06	0.00	0.00	0.06	0.01	0.00	0.00	0.02	0.01	0.01	0.00	0.00	0.00	0.04	0.00	0.04	0.03	0.01	0.04	0.06
Preferences, incl.	0.50	0.17	0.14	0.18	0.11	0.02	0.04	0.04	0.08	0.07	0.00	0.04	0.11	0.10	0.00	0.24	0.08	0.16	0.24	0.52
free and subsidized meals (at school)	0.34	0.13	0.05	0.16	0.08	0.01	0.03	0.02	0.08	0.03	0.00	0.03	0.07	0.06	0.00	0.16	0.06	0.10	0.16	0.34
within preschool education	0.02	0.00	0.02	0.00	0.02	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.01	0.02
Old-age pensions	3.11	2.22	0.78	0.11	0.08	0.08	0.13	0.16	0.27	0.33	0.03	0.42	0.21	0.31	0.00	0.98	0.15	0.83	0.98	18.77
Utilities subsidies	1.50	0.65	0.67	0.17	0.11	0.04	0.13	0.14	0.15	0.11	0.00	0.27	0.19	0.12	0.00	0.58	0.12	0.46	0.58	1.88
Education expenditure	1.68	0.35	0.90	0.44	0.23	0.05	0.11	0.29	0.21	0.15	0.01	0.21	0.13	0.46	0.80	0.00	0.70	0.11	0.80	1.92
Pre-primary and primary education	0.51	-0.10	0.26	-0.13	-0.11	-0.20	-0.17	-0.03	-0.21	-0.23	-0.24	-0.11	-0.19	-0.08	0.10	-0.24	0.08	-0.22	0.10	0.51
Secondary education	0.06	-0.13	-0.12	-0.16	-0.20	-0.23	-0.24	-0.22	-0.17	-0.19	-0.24	-0.21	-0.21	-0.15	-0.10	-0.24	-0.12	-0.21	-0.10	0.06
Post-secondary education	-0.14	-0.20	-0.18	-0.24	-0.24	-0.24	-0.24	-0.22	-0.24	-0.21	-0.23	-0.23	-0.23	-0.22	-0.20	-0.24	-0.20	-0.24	-0.20	-0.10
Tertiary education	-0.23	-0.24	-0.23	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.03
Health expenditure	1.08	0.62	0.38	0.08	0.05	0.09	0.04	0.10	0.01	0.06	0.00	0.12	0.03	0.14	0.24	0.05	0.25	0.04	0.29	1.58
PIT deduction	0.06	-0.03	-0.10	-0.14	-0.17	-0.16	-0.16	-0.16	-0.14	-0.15	-0.17	-0.16	-0.13	-0.14	-0.17	-0.10	-0.14	-0.12	-0.10	0.06
Direct taxes	-3.75	-1.42	-1.79	-0.55	-0.36	-0.15	-0.22	-0.50	-0.44	-0.26	-0.07	-0.52	-0.35	-0.63	-1.57	0.00	-1.10	-0.47	-1.57	-4.52
PIT	-1.64	-0.77	-0.69	-0.17	-0.07	-0.09	-0.07	-0.19	-0.18	-0.10	-0.03	-0.22	-0.12	-0.25	-0.63	0.00	-0.41	-0.22	-0.63	-1.98
SSF	-3.35	-1.32	-1.58	-0.46	-0.31	-0.15	-0.20	-0.43	-0.38	-0.22	-0.07	-0.49	-0.31	-0.52	-1.39	0.00	-0.97	-0.41	-1.39	-3.95
Indirect taxes	-2.51	-0.93	-1.14	-0.44	-0.22	-0.10	-0.21	-0.26	-0.27	-0.24	-0.11	-0.26	-0.20	-0.51	-0.41	-0.67	-0.39	-0.68	-1.07	-3.03
VAT	-2.23	-0.87	-1.02	-0.34	-0.17	-0.08	-0.18	-0.21	-0.25	-0.21	-0.11	-0.22	-0.16	-0.44	-0.30	-0.64	-0.30	-0.64	-0.94	-2.73
Import duties	-0.38	-0.17	-0.19	-0.01	-0.02	-0.03	-0.02	-0.04	-0.03	-0.02	-0.03	-0.02	-0.01	-0.08	0.00	-0.15	-0.02	-0.13	-0.15	-0.46

Note. Marginal effect is calculated as a difference between i) actual poverty at the level of the disposable income and the possible one, if the selected type of household (or child and its household members) did hot receive direct transfers and did not pay direct transfers, ii) poverty at the level of the consumable income and the possible one if the household had to compensate in full the public expenditure on subsidizing utilities and did not pay indirect taxes, iii) poverty at the level of the final income and the possible one if the household had to compensate in full the public expenditure on healthcare and education.

Source: own calculations from HBS-2016 data.

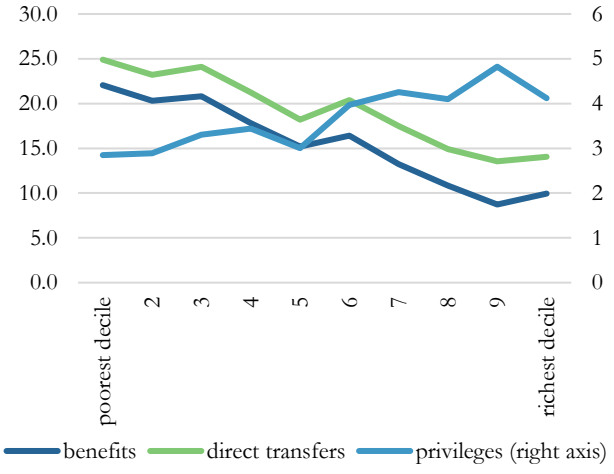
Table 8. Marginal effects of fiscal interventions on Gini reduction, p.p.

	HH with children, by number of children				single adult HH	children by age					children by place of residence				children at risk of poverty				Child average	Population average
															absolute		MDCP			
	average	1	2	3+		0-2	3-5	6-9	10-13	14-17	Minsk	large cities	small cities	rural	poor	non poor	poor	non poor		
Transfers	2.42	0.65	1.03	0.49	0.13	0.30	0.08	0.10	0.05	-0.02	-0.02	0.31	0.09	0.27	0.06	0.86	0.19	0.74	1.07	2.50
Benefits, incl.	2.16	0.56	0.94	0.41	0.09	0.29	0.07	0.06	0.02	-0.05	-0.04	0.28	0.07	0.21	0.03	0.77	0.14	0.65	0.94	2.24
allowances for childbirth and registration of the pregnancy	-0.02	-0.12	-0.08	-0.10	-0.13	-0.11	-0.13	-0.13	-0.13	-0.14	-0.14	-0.12	-0.13	-0.12	-0.14	-0.08	-0.13	-0.09	-0.08	-0.02
maternity allowance	-0.11	-0.17	-0.11	-0.10	-0.13	-0.13	-0.13	-0.13	-0.14	-0.14	-0.14	-0.14	-0.13	-0.12	-0.14	-0.12	-0.13	-0.13	-0.11	-0.11
allowance for children under 3	1.19	0.32	0.48	0.13	-0.03	0.15	0.00	-0.05	-0.08	-0.12	-0.09	0.12	-0.04	0.05	-0.03	0.35	0.03	0.29	0.45	1.19
allowance for children aged 3–18	0.10	-0.12	0.00	-0.05	-0.12	-0.10	-0.12	-0.11	-0.12	-0.13	-0.13	-0.09	-0.11	-0.10	-0.12	-0.03	-0.11	-0.04	-0.01	0.10
attendance benefit	-0.05	-0.08	-0.12	-0.13	-0.14	-0.14	-0.14	-0.13	-0.13	-0.13	-0.14	-0.13	-0.13	-0.13	-0.14	-0.11	-0.13	-0.12	-0.11	0.00
survival pension	0.01	-0.07	-0.10	-0.11	-0.10	-0.13	-0.14	-0.13	-0.11	-0.12	-0.13	-0.12	-0.12	-0.12	-0.12	-0.09	-0.12	-0.09	-0.07	0.01
pension for disabled children	-0.09	-0.13	-0.12	-0.13	-0.13	-0.14	-0.14	-0.13	-0.14	-0.13	-0.14	-0.13	-0.14	-0.13	-0.14	-0.12	-0.13	-0.12	-0.12	-0.09
TSA and other	-0.09	-0.12	-0.13	-0.12	-0.12	-0.14	-0.14	-0.13	-0.13	-0.13	-0.14	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.11	-0.09
Preferences, incl.	0.08	-0.07	-0.06	-0.08	-0.12	-0.13	-0.13	-0.11	-0.11	-0.12	-0.13	-0.11	-0.12	-0.09	-0.11	-0.07	-0.10	-0.08	-0.04	0.08
free and subsidized meals (at school)	-0.04	-0.11	-0.10	-0.11	-0.12	-0.14	-0.14	-0.13	-0.13	-0.13	-0.14	-0.13	-0.13	-0.12	-0.12	-0.11	-0.12	-0.11	-0.09	-0.04
within preschool education	-0.13	-0.14	-0.14	-0.13	-0.14	-0.14	-0.14	-0.14	-0.14	-0.14	-0.14	-0.14	-0.14	-0.13	-0.14	-0.14	-0.14	-0.14	-0.13	-0.13
Old-age pensions	1.53	1.08	0.25	-0.07	-0.11	-0.08	-0.05	-0.05	-0.01	0.01	-0.10	0.09	-0.04	0.01	-0.05	0.29	-0.01	0.25	0.38	10.79
Utilities subsidies	0.48	0.19	0.12	-0.03	-0.05	-0.07	-0.06	-0.04	-0.05	-0.05	-0.09	-0.01	-0.05	-0.03	-0.04	0.07	-0.04	0.06	0.13	0.38
Education expenditure	2.90	1.24	1.53	0.73	0.35	0.24	0.39	0.50	0.54	0.38	0.11	0.64	0.51	0.66	0.64	0.96	0.66	0.95	1.46	2.90
Pre-primary and primary education	1.14	0.34	0.52	0.14	0.04	-0.03	0.09	0.15	-0.01	-0.07	-0.06	0.11	0.03	0.13	0.10	0.28	0.12	0.26	0.46	1.14
Secondary education	0.96	0.23	0.46	0.20	-0.03	-0.05	-0.04	-0.02	0.18	0.04	-0.15	0.10	0.07	0.19	0.17	0.19	0.17	0.18	0.43	0.96
Post-secondary education	0.14	0.05	-0.01	-0.07	-0.07	-0.08	-0.08	-0.07	-0.08	-0.03	-0.10	-0.04	-0.05	-0.07	-0.05	-0.04	-0.05	-0.04	0.00	0.20
Tertiary education	0.12	0.10	-0.07	-0.08	-0.08	-0.07	-0.07	-0.06	-0.07	-0.09	-0.08	-0.06	-0.06	-0.08	-0.06	-0.06	-0.07	-0.05	-0.03	0.22
Health expenditure	1.41	0.74	0.69	0.31	0.17	0.24	0.26	0.29	0.19	0.17	0.13	0.31	0.24	0.35	0.30	0.45	0.32	0.43	0.62	1.85
PIT deduction	-0.09	-0.15	-0.13	-0.17	-0.17	-0.18	-0.17	-0.17	-0.17	-0.17	-0.18	-0.17	-0.17	-0.17	-0.17	-0.15	-0.17	-0.15	-0.14	-0.09
Direct taxes	-1.11	0.29	-0.82	-0.43	-0.11	-0.10	-0.14	-0.22	-0.21	-0.12	0.20	-0.10	-0.31	-0.46	-0.44	-0.07	-0.44	-0.05	-0.36	1.34
PIT	-0.68	-0.25	-0.44	-0.23	-0.15	-0.15	-0.17	-0.20	-0.20	-0.18	-0.08	-0.20	-0.22	-0.25	-0.22	-0.26	-0.23	-0.25	-0.34	0.22
SSF	-1.25	-0.13	-0.79	-0.37	-0.16	-0.14	-0.19	-0.25	-0.23	-0.18	0.06	-0.20	-0.30	-0.41	-0.36	-0.28	-0.37	-0.26	-0.49	0.72
Indirect taxes	-1.01	-0.35	-0.56	-0.26	-0.15	-0.14	-0.16	-0.19	-0.18	-0.17	-0.05	-0.22	-0.21	-0.27	-0.22	-0.34	-0.24	-0.32	-0.46	-0.20
VAT	-0.93	-0.34	-0.51	-0.24	-0.15	-0.14	-0.16	-0.18	-0.18	-0.17	-0.06	-0.21	-0.20	-0.25	-0.21	-0.33	-0.23	-0.30	-0.43	-0.20
Import duties	-0.24	-0.15	-0.17	-0.12	-0.11	-0.11	-0.11	-0.12	-0.11	-0.11	-0.10	-0.12	-0.12	-0.13	-0.12	-0.15	-0.12	-0.14	-0.16	-0.11

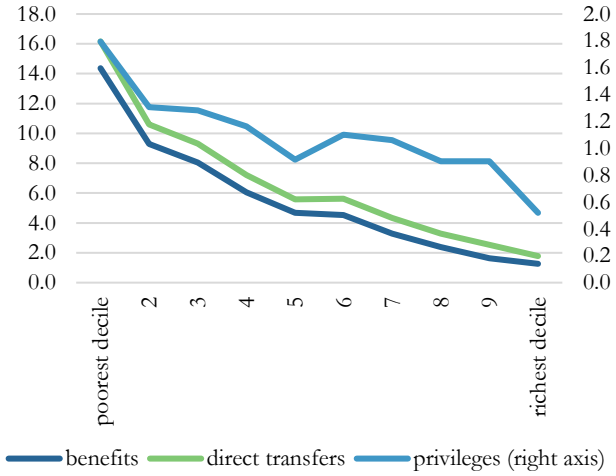
Note. Marginal effect is calculated as a difference between i) actual Gini coefficient at the level of the disposable income and the possible one, if the selected type of household (or child and its household members) did hot receive direct transfers and did not pay direct transfers, ii) Gini at the level of the consumable income and the possible one if the household had to compensate in full the public expenditure on subsidizing utilities and did not pay indirect taxes, iii) Gini at the level of the final income and the possible one if the household had to compensate in full the public expenditure on healthcare and education.

Source: own calculations from HBS-2016 data.

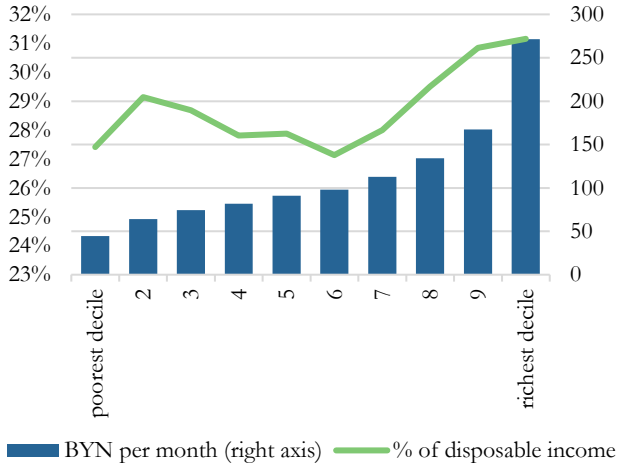
Annex. Incidence curves



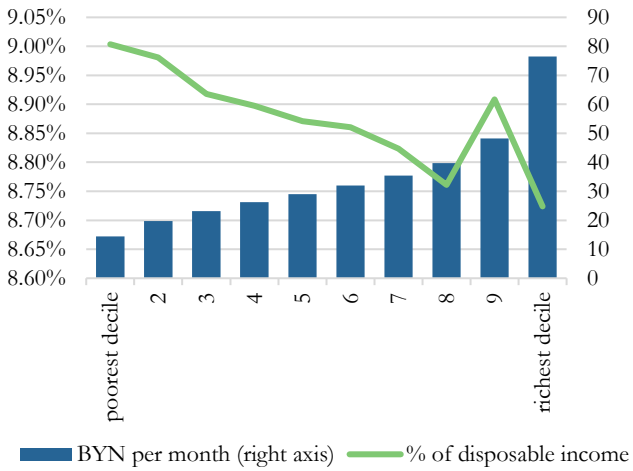
(a) Incidence of benefits and preferences by deciles based on disposable income: Absolute terms, BYN per month



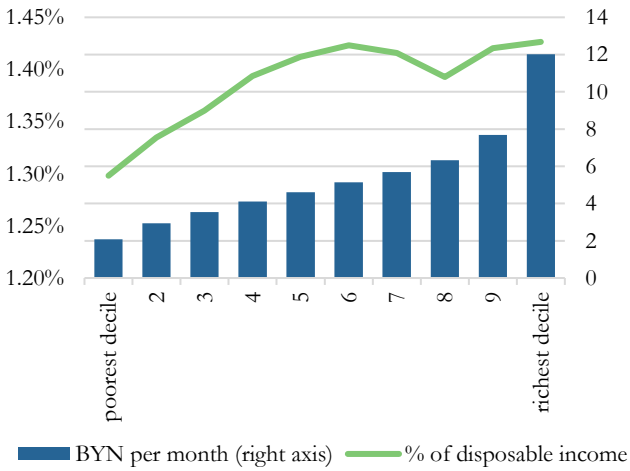
(b) Incidence of benefits and preferences by deciles based on disposable income: relative terms, % of disposable income



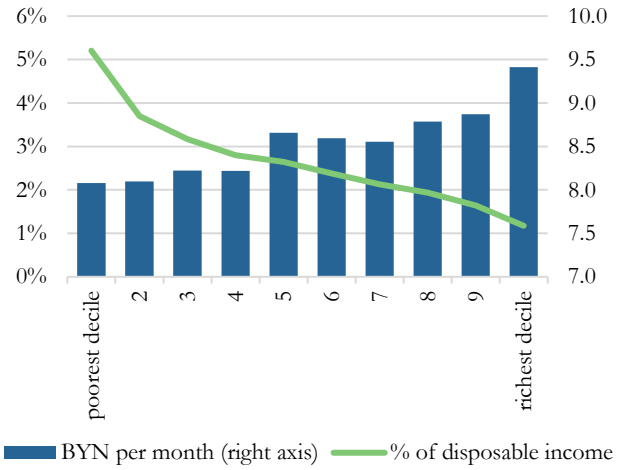
(c) Incidence of direct taxes by deciles based on disposable income



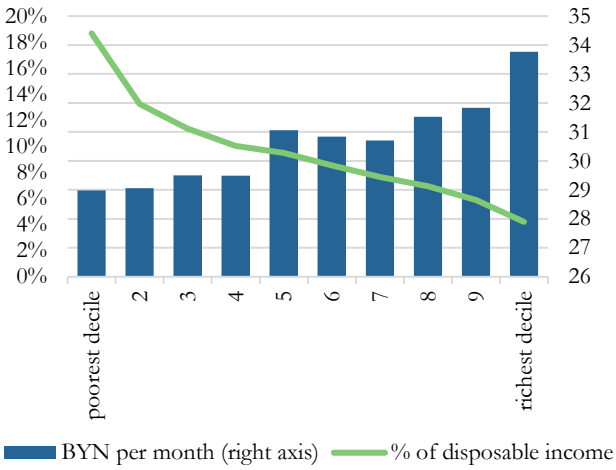
(e) Incidence of indirect taxes by deciles based on disposable income: VAT



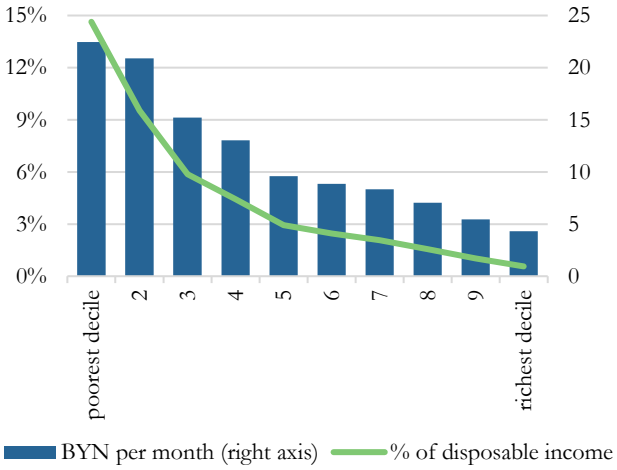
(f) Incidence of indirect taxes by deciles based on disposable income: Import duties



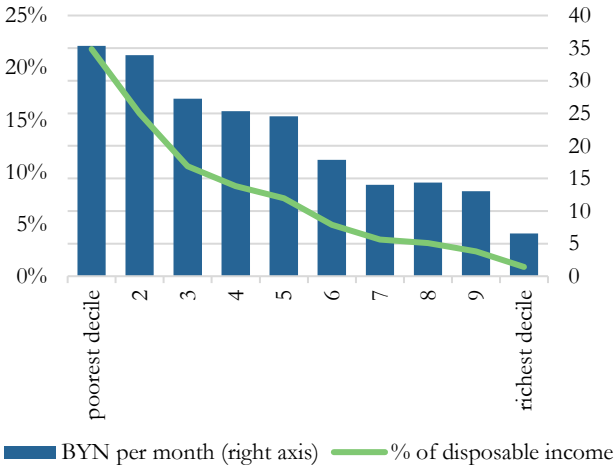
(g) Incidence of health expenditure by deciles based on disposable income: Primary and secondary health expenditure



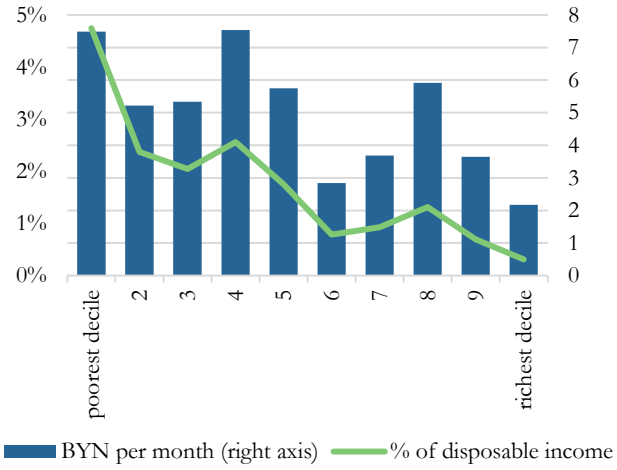
(h) Incidence of health expenditure by deciles based on disposable income: Tertiary health expenditure



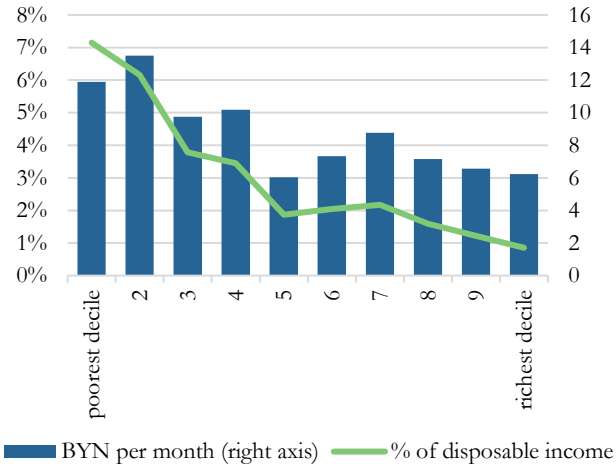
(i) Incidence of education expenditure by deciles based on disposable income: Preschool and primary school education expenditure



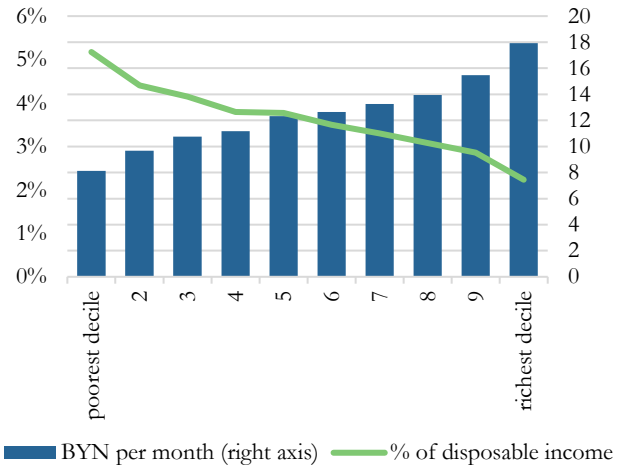
(j) Incidence of education expenditure by deciles based on disposable income: Secondary school education expenditure



(k) Incidence of education expenditure by deciles based on disposable income: Continued secondary education expenditure



(l) Incidence of education expenditure by deciles based on disposable income: Tertiary education expenditure



(m) Incidence of utility subsidies by deciles based on disposable income