Reconstruction of the Social Cash Transfers System in Poland and Household Well-being: 2015-2018 Evidence

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1. Introduction

In this study effects of the changes in the system of social cash transfers in Poland between 2015 and 2018 are examined. In April 2016 the state family support program, which seriously changed volume and structure of social benefits, has been launched. It is referred to as "Family 500+" and ensures monthly unconditional support of tax-free 500 PLN (26% of mean equivalent income in 2016) per each child in families with two or more children and means tested support of same amount for families with one child. The effects of the abovementioned social policy reconstruction are examined by observing changes in standards of living, especially monetary and multidimensional poverty. Impact of the benefits on economic activity of the recipients is also explored. The findings confirm considerable reduction in poverty accompanied by decreasing economic activity of the recipients for 2016-2017 period. In 2018 some of those trends reversed. The analysis suggests, inter alia, that this type of child allowance did not lead to unpredictable results and generally has been in line with the effects of the cash transfers observed for some post-communist countries

2. Conceptual framework

The individual data come from the household budget surveys collected annually by the Statistics Poland. Those utilised in the present study encompass, inter alia, information on household disposable income and its components, expenditures, assets, durables, dwelling conditions, demographic and socio-economic attributes, and answers to subjective income questions. There are two-year panel components included in the samples.

There are reasons to assume that for some households their incomes are misreported. The problem of "contaminated" data is tackled by income imputations using methods created primarily for missing data estimation. The "suspicious" incomes are replaced by imputed ones. Some observable variables that may be assumed to be more reliable and stable in time are used to provide the estimates.

Household equivalent disposable income is used as a monetary well-being indicator. Multidimensional poverty/well-being indicator comprises three dimensions: i/ income, ii/ housing (including dwelling size and quality as well as equipment), and iii/ subjective evaluations of own standard of living. For continuous (e. g. equivalent income or dwelling size) and discrete ordinal (e. g. subjective evaluation of own economic conditions) variables the concept of well-being indicator is derived from the "Totally Fuzzy and Relative" (TFR) approach to multidimensional poverty.

The final effect of the transfers are gauged by comparing actual poverty indices (incidence and depth) and pre-transfer. Moreover, elasticity of the effect with respect to poverty threshold is evaluated using graphical methods. The calculations are also performed using imputed incomes. Static evaluation of the transfers is supplemented by dynamic one aimed at answering two questions: how well the non-poor are protected from falling into poverty and to what extent transfers allow the poor to leave the poverty zone.
Finally, impact of the transfers on mean well-being and economic activity is assessed. It is also performed in a static and a dynamic version. The static one is based on two treatment effect evaluation methods: matching estimation and inverse probability weighted regression adjustment (IPWRA). In a dynamic approach changes in outcome variables of interest are regressed on changes in transfers using two year panels.

3. General review of the social benefits in Poland: descriptive statistics
Distribution of the social transfers is explored by means of concentration curves and coefficients. They are estimated for family and for remaining types of benefits, applying ranking people, by equivalent income and by multidimensional well-being. At lower ranges of distribution 'other benefits' are more "pro-poor" than family ones, as the latter are only partly means tested. All concentration coefficients are negative but absolute values for family allowances dropped considerably in 2016.

4. Impact of the transfers on incidence and depth of the poverty
Comparisons of actual and simulated indices of poverty lead to two general conclusions: i/ impact of the transfers increased sharply in 2016 and then in 2017, ii/ the lower poverty line, the stronger impact. For multidimensional poverty changes in indices were predicted conditionally on changes in income. To check the bias resulting from the data errors identical estimates were obtained for corrected (imputed) incomes. In that case transfer effects appeared to be stronger. It may be assumed that due to removing some "fake poor" from the sample (more precisely: moving them to higher ranges of the distribution) those estimates of the effects are more reliable. In estimation of promotion and protection effects two types of those changes are considered: i/ removing all social benefits, ii/ leaving them unchanged in succeeding year. Most of the protection/promotion effects are positive and they are stronger for the first type of simulation. Removing all benefits would result in stronger decline of protection/promotion than if there had been no change in benefits between years under comparison. This is especially true when poverty line is set at first decile. Effects for multidimensional poverty are stronger than those for income poverty.

5. Changes following the cash transfers
Household responses to receiving this type of cash transfer are investigated, by means of univariate and multivariate analyses, using two year panel data. Not surprisingly, increases in the transfers' volume resulted in reduction of economic activity of the recipients, especially in first two years of Family 500+ running. In 2018 this trend reversed. This resulted also in lower than might be expected increases of the well-being due to receiving the transfers, although the analysis based on regression models and on estimates of treatment effect did not provide univocal conclusions. The only robust result is a strong and negative impact of the benefits, of any type, on employment and self-employment incomes. Impact on the total incomes is also negative when the set of control variables is applied, however evaluation of its intensity vary

between the methods. Comparing impact of Family 500+ and the social benefits altogether yields very similar conclusions. Estimates of multilevel treatment effects, when statistically significant, claim it.