



# POVERTY & EQUITY NOTES

MARCH 2019 · NUMBER 14

## How effectively does the fiscal system in Ukraine address poverty and inequality? A Commitment to Equity (CEQ) analysis

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*Are taxes in Ukraine progressive? Do social protection programs in Ukraine help reduce poverty and inequality? Which programs are more effective in alleviating poverty, per hryvnia allocated to them? These are the questions that a recent Commitment to Equity analysis for Ukraine aims to address. This brief lays out the main aspects of the CEQ approach<sup>2</sup>, and the main results. The analysis finds, for instance, that household at the bottom of the income distribution derive most of their final income from transfers of various types. The tax benefit system overall is quite progressive and contributes significantly to the reduction of poverty and inequality. However, not all programs are equally efficient in reducing poverty and inequality. Direct transfers, in particular means-tested poverty benefits, as well as child benefits have larger poverty and inequality impact per hryvnia allocated to them, than some of the indirect subsidies. Efficiency of HUS depends on the choice of the poverty threshold. There is room for improvement in program design.*

The Government of Ukraine collects roughly a third of GDP in tax revenues, on par with countries with similar levels of development, such as Poland (34 percent), Latvia (30 percent), Czech Republic (34 percent) and Estonia (35 percent). Social expenditures are a priority for the Government of Ukraine, and 19 percent of GDP are allocated in the form of total social expenditures of the general government in 2017. This is on par with the OECD average, but higher than in countries like Estonia (18 percent), Canada (17 percent), the Netherlands (17 percent) or Latvia (16 percent).

Is the fiscal system effective in alleviating poverty and protecting low-income households? This question is especially relevant in light of the economic

contraction following the Maidan and the continued conflict in Eastern Ukraine, as expenditures on defense, public order and safety amounted to 5.5 percent of GDP in 2016-2017. Poverty rates decline notably, from more than three quarters of the population in 2002 (according to World Bank methodology) to 14 percent in 2013, but poverty spiked to 26.7 percent by 2016. While the period up to 2013 has been associated with an expansion of a population group that can be deemed as economically secure (above the PPP USD 15/day threshold), who have a low associated probability of falling into poverty, this group contracted notably after 2013, such that based on most recent data, more than three quarters of the population are either poor or vulnerable to poverty.

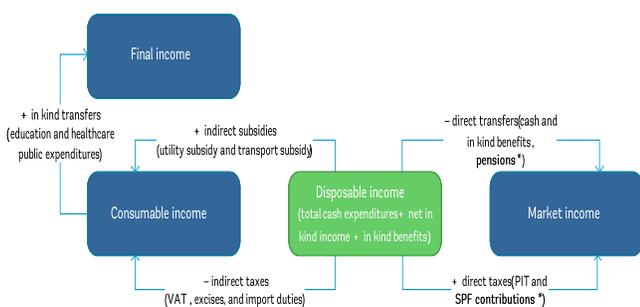
<sup>1</sup> This policy brief is based on Bornukova, Kateryna; Leshchenko, Nataliia; Matytsin, Mikhail. 2019. Fiscal Incidence in Ukraine: A Commitment to Equity Analysis (English). Policy Research Working Paper; No. WPS 8765. Washington, D.C.: World Bank Group.

<sup>2</sup> Lustig, Nora and Sean Higgins (2013). Commitment to Equity Assessment (CEQ): Estimating the Incidence of Social Spending, Subsidies and Taxes. Handbook. CEQ Working Paper 1, Center for Inter-American Policy and Research, and Department of Economics, Tulane University and Inter-American Dialogue.

## Examining Fiscal Incidence – The CEQ Approach

Against the background of significant financing needs in the near term, and existing social vulnerabilities, it is instructive to examine the incidence of the fiscal system in Ukraine, to see how household welfare is affected once all taxes are paid and all benefits for which the household is eligible are received. The CEQ approach (Lustig and Higgins, 2013) zooms in on fiscal incidence by defining, in Household Budget Survey data, a set of income concepts (Figure 1), starting from market income, and then moving to disposable income (which accounts for direct taxes like the income tax and direct cash transfers), then to consumable income (which subtracts indirect taxes like VAT and adds indirect subsidies and finally, to final income (which also includes the cash equivalent of the cost of public health and education services).

Figure 1: The CEQ income concepts

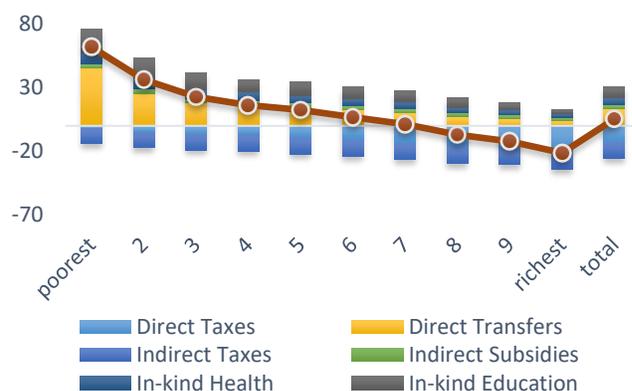


The income concepts allow us to calculate the incidence, for each income type, of that income across the population, as well as measures of poverty and inequality. In this way, we can gauge (i) which population groups are the main recipients of particular social programs; (ii) how various taxes are distributed across the population; and (iii) how poverty and inequality levels change once you move from one income concept to another.

## How Progressive are Taxes and Transfers in Ukraine?

The degree of reliance on the tax-benefit system in Ukraine varies considerably across the population, but the benefits do increase as market incomes decrease. If we consider pensions as a source of deferred income, rather than pure transfer, and we line households up in deciles according to their market income (from poorest to richest), then we can see that in the bottom decile a full 62 percent of the final income is generated by net transfers (total benefits received minus total taxes paid). If we also take into account pensions, the share of transfers inclusive of pensions in the first decile accounts for 97 percent of final income, meaning that only 3 percent of final income in the bottom decile comes from market income.

Figure 2: Incidence of main components of tax-benefit system, share of final income, percent.



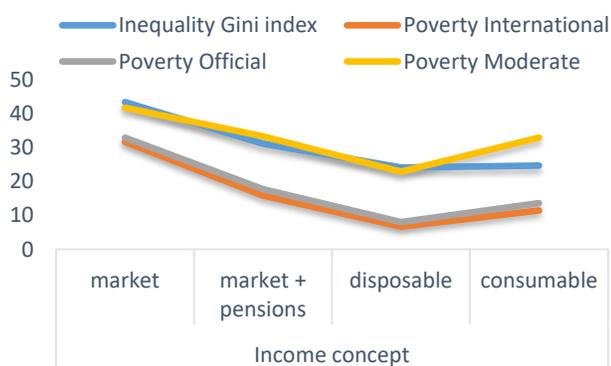
Notes: Deciles based on market+pensions income.

Much of the income (45 percent) comes from direct transfers, with in-kind education and health services also making a notable contribution. Given low levels of market income, most of the tax outlays in the bottom decile are in the form of indirect taxes. For comparison, in the 6<sup>th</sup> decile only 6.7 percent of final income comes from net transfers (exclusive of

pensions), because household both receive less in transfers and pay more in taxes. Households in the richest 10th decile pay more in taxes, particularly in direct taxes, than they receive in transfers, such that they are net contributors into the fiscal system.

Given the incidence of taxes and transfers, the overall impact of the fiscal system is that of reducing poverty and inequality. Direct non-pension transfers and direct taxes together, relative to market income + pensions, reduce the Gini index of inequality from 0.33 to 0.24, or by 27 percent. Poverty after direct transfers (exclusive of pensions) and taxes is 10 percentage points lower than that associated with the market+pensions income concept. Notably, poverty increases when we move from disposable to consumable income, indicating that the net impact of indirect transfers and indirect taxes at the bottom of the income distribution is negative. This is because the effect of indirect taxes (VAT, excises) is to increase poverty, while the indirect subsidies are not very well targeted and their impact on poverty is marginal.

Figure 3: Changes in poverty and inequality measures after various fiscal interventions



The redistributive effect of the fiscal system in Ukraine is broadly comparable to that in some of the neighboring countries for which a CEQ analysis has been undertaken recently. In Ukraine, but also in countries like Belarus, Poland, and Russia, the Gini index of inequality falls considerably, when going

from inequality in the space of market incomes to inequality in the space of market income + pensions. This is not surprising, given that for many recipients of old-age pensions, this may be the only source of income. What is notable in Ukraine, is a relatively significant further reduction in inequality from market+pensions to disposable income. This is also observed in Poland, but not in Belarus or Russia – in Ukraine the net effect of direct transfers and direct taxes is much more inequality-reducing. In all countries, indirect taxes and transfers, on net, increase inequality. Finally, the redistributive effect of in-kind education and health benefits in Ukraine appears to be fairly subdued vis-à-vis comparator countries, where these in-kind benefits produce a greater reduction in the Gini index of inequality.

### Efficiency of various programs in reducing poverty

A program may be effective in reducing poverty simply on account of having a large budget, even if the allocation of this budget is suboptimal. Other programs may have a small effect on poverty largely because the amount of money they disburse, however well targeted, is very small. An interesting question to ask is that of program efficiency – how much reduction in poverty (or inequality) can be obtained per Hryvna allocated to that program.

We compute, for each transfer, the total program budget that would be necessary in order to achieve a 1 percentage points reduction in either the official or (separately) moderate poverty. Here, a smaller budget is indicative of higher program efficiency – it takes less money to reduce poverty by the same amount. On this measure, the most efficient transfers in reducing poverty, focusing on the moderate poverty concept, are the last resort social assistance program, as well as scholarships, child benefits, and

HUS. If the same exercise is instead repeated in reference to the official poverty threshold, as opposed to the moderate poverty threshold, then there are several important differences, namely HUS and scholarships become very inefficient, whereas means-tested poverty benefits, child benefits and unemployment benefits continue to perform well. In other words, HUS does worse in reaching households with very low incomes (the official poverty threshold is lower). Utility privileges and other privileges are rather cost-ineffective, at either poverty threshold – it takes a much larger budget in order to reduce poverty by 1 p.p. This is because a relatively smaller share of the program budgets is allocated to the bottom 40 percent, and a fairly high share of the program budget goes to the richest, 10<sup>th</sup> decile.

In a similar fashion, we can compute how much money can be collected, in taxes, for a 1 p.p. increase in the poverty rate. Such an exercise reveals that the Personal Income Tax (PIT) is the most efficient direct tax in terms of redistribution effects – it decreases inequality and has the highest tax collection for 1 p.p. of poverty increase. Other direct taxes, as well as pension SSC contributions, because they do not have exemptions or deductions for low-income and vulnerable households, would be associated with a greater simulated increase in the poverty rate for a dollar of tax collected.

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## Conclusions

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The fiscal incidence analysis reveals that in Ukraine the tax-benefit system is quite pro-poor – the bottom six deciles of the population are net recipients of the

system, and the top four deciles are net payers into the tax-benefit system. Household at the bottom of the income distribution derive most of their final income from transfers. Most of the components of the tax-benefit system in Ukraine (pensions, other direct transfers, direct taxes and pension contributions and in-kind health benefits) are progressive. Given the incidence of taxes and transfers, the tax benefit system contributes to a notable reduction in inequality, as well as an amelioration of spatial disparities. Poverty also is considerably lower after fiscal interventions.

Not all programs are equally efficient in reducing poverty and inequality, and there is room for improvement. Currently, many programs designed to support low-income groups transfer non-negligible shares of their budgets to the top income decile. Restricting access of the top decile to direct transfers, total savings could amount to UAH 8,890 million annually. Eliminating this inefficiency in indirect subsidies would save another UAH 4,710 million.

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