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Principles and methods of targeted social assistance: Recommendations for Ukraine

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Principles and methods of targeted social assistance: recommendations for Ukraine

Executive Summary

Ukraine lacks an efficient system of social assistance. Most social benefits are provided either as in-kind benefits or on a universal basis. The urban population benefited more from the strong economic growth in recent years than the rural population. Poverty became more rural.

The only existing social program stated to be explicitly targeted to the poor - the so called payments to low income households – shows against any poverty threshold miserable results. The programs exclusion rate of poor households is at the level of 87% and above. The leakage to the non poor against the poverty line 60% e-median reaches more than 75% so that the program is highly regressive.

Given the fiscal constraints of the government it is important to improve the targeting of social assistance. Among the biggest challenges is the proper identification of the poor. We propose to introduce a mixed system based on a combination of self-selection through workfare and proxy means testing based on indicators, which co-vary with poverty.

Workfare would be a suitable approach especially for Ukraine's rural areas. As regards proxy means testing a central agency should be set up with the task of developing the poverty indicator/ proxy means test. Proxy means testing will require continuous analysis of empirical data. The household budget survey of Derzhkomstat could be used for that.

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1. Introduction

A functioning social safety net aimed at reducing the harshness of poverty is an important element of any modern market economy as all individuals face during their life certain markets risks and other misfortunes, which may cause loss of income. Further, poverty and its interrelated phenomena like diseases, crime and social neglect significantly impact on the main society and economic development. Hence, a functioning system of social assistance serves besides ethical and political interests also economic considerations.

There should be certain prioritizing in conduct of the policy aimed at poverty reduction. First of all poverty reduction is most effectively achieved within a framework of sound economic policies that facilitate sustainable economic growth and macroeconomic stability and keep inflation low[1]. Ukraine's current consumer inflation rate of above 20% is a serious setback for poverty reduction, as inflation hurts a poor household disproportionately more than a richer one. Hence, the starting point for any social policy should be policies that foster both sustainable economic growth and macro-economic stability.

Second, social policies should be designed to assist those who have been left behind by economic growth, so that they get a chance to re-enter the market. Therefore social policies should aim at increasing the productivity of the poor. Public spending programs on education and healthcare both are in the medium and long run important factors for human capital accumulation and increased productivity of the poor.

Third, poverty reduction needs to be complemented with social assistance policies aimed at consumption smoothening through income transfers. Because the Ukrainian government has limited resources, which thus should be used most efficiently, the design of the social transfer system is an important issue. Under fiscal constraints it is vital that available funds for poverty alleviation are not mistakenly given to the non-poor, but well targeted to the poor.

However, it is not so easy to identify the poor directly. It is especially difficult in Ukraine, given the widespread shadow economy, the underreporting of incomes and rather weak administrative capacity. However, international experience suggests several methods to improve targeting despite limited information available about the applicants real income.

In the paper we outline the principles and methods of targeting social assistance to the poor. Then we undertake a brief assessment of Ukraine's present social safety system. Finally, on the basis of our analysis policy recommendations for Ukraine are provided.

2. Principles of targeted social assistance

Poverty is commonly defined as the inability of individuals to achieve politically acceptable standards of living and adequate participation in society. It is by definition connected to income and spending needs. In order to measure, compare and assess poverty in an objective manner, various socio-economic thresholds, often called 'poverty lines', are commonly used. Poverty lines try to capture a predefined level in the income distribution, below which individuals are considered as `poor´ and would qualify for special attention. Poverty has absolute and relative components and, hence, different thresholds were developed.

Social assistance can be provided either universal to every citizen or targeted specifically to the poor. Targeting social assistance is a means of increasing program efficiency to achieve more poverty reduction with less expenditure. The objective is to maximize the reduction in poverty or respectively an increase in social welfare (see also Appendix 1).

[1] For discussion of inflation see: Inflation in Ukraine: Results and Policy Implications of an Empirical Study, Robert Kirchner, Enzo Weber, Ricardo Giucci, Policy Paper 05, October 2008.

But it is important to recognize that targeting is not costless. On the one hand, it imposes administrative costs that reduce the amount of money available for actual social assistance. These costs vary with the degree and fine tuning of targeting. On the other hand, targeted social assistance is prone to two errors:

- ✓ Under coverage occurs when intended beneficiaries are not able or permitted to participate in the program (error of exclusion). Under coverage is usually measured as the proportion of poor households that are not included in the program.
- ✓ Leakage occurs when social assistance is reaching individuals who were not intended to be beneficiaries (error of inclusion). Leakage is measured as the proportion of those reached but classified as non-poor.

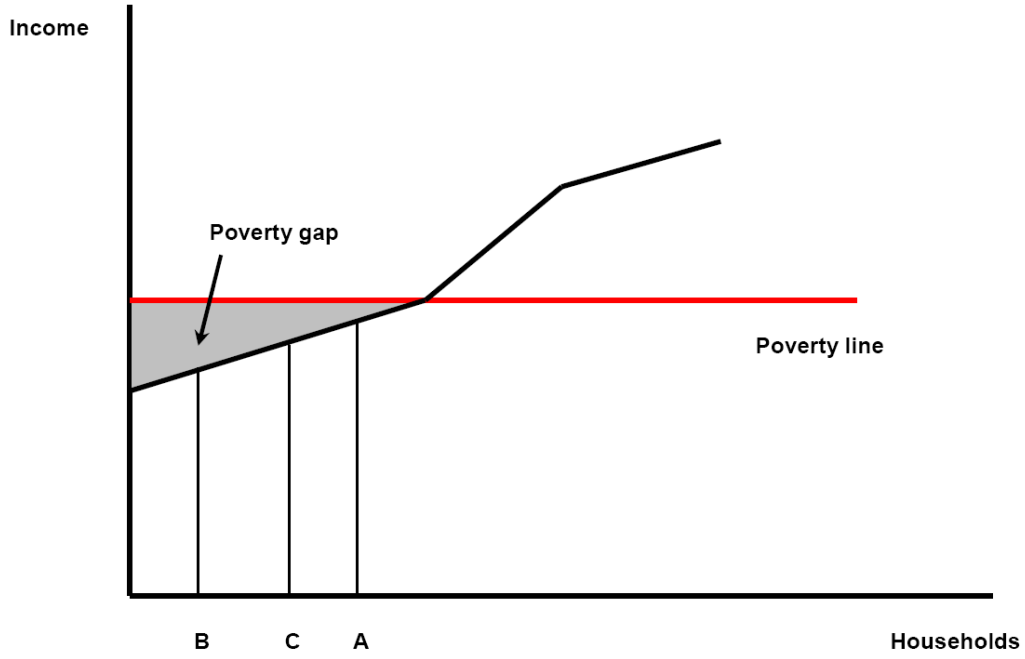
Hence, targeting is efficient only when the benefits associated with additional reductions in poverty outweigh the additional costs associated with doing so. Therefore it is of utmost importance to define the social policy objective and to assess it against this benchmark.

Targeted poverty reduction policies seek to lift low-income (poor) households over a set/predefined income threshold - the poverty line. If the income is less than the poverty line, the household is considered poor. Accordingly, one objective of targeting is to achieve the greatest decrease in the percentage of poor households.

However, this indicator is not always the best indicator for assessing poverty reduction. Let's consider the following example. In Figure 1 the horizontal axis is ranking households from poor to rich. The vertical axis displays the household income. The horizontal line is the poverty line. The income of the household A is just below the poverty line, while the income of household B is significantly below the poverty line. Suppose enough income would be transferred from B to A so that the household A is lifted above the poverty line. The measure 'percentage of poor households' would register an improvement, even though the poorest household has been made worse off. Hence, the percentage of poor households would be in this case a misleading indicator.

Figure 1:

Stylized distribution of poverty



Source: own drawing

An alternative way of measuring poverty is the poverty gap – the grey area in the Figure 1. The poverty gap would be the total amount of income transfers needed to eliminate poverty among all households. In the above example of transfers from B to A, although the percentage of poverty would decline, the poverty gap would increase. In other words, social assistance should be directed towards reducing the poverty gap.

Now consider a second example: the income of household C is below the poverty line, and household B's income is even lower. Transferring small amounts of income from B to C causes both individuals to remain below the poverty line. Despite the fact that B is now in more severe poverty, the percentage of poverty as well as the poverty gap would remain unchanged. Hence, to avoid such errors more weight to a reduction in poverty among the poorest households – the reduction of severe poverty - should be applied. In appendix A2 a formula for estimating the three measures and an example for calculation are provided.

In sum, the targeted social assistance policies should focus especially on the reduction of severe poverty, second on the reduction of the poverty gap and only then on decreasing the percentage of poor households.

3. Methods for targeting social assistance

Identifying and targeting the poor require proper methods. Commonly targeting methods are distinguished between administrative targeting and self targeting.

3.1 Administrative targeting

Administrative targeting means, that the participation of a household in a social assistance program depends on a decision by a bureaucracy based on a certain set of criteria. This can be further distinguished as means testing and indicator based testing.

Means testing

Means testing is a form of individual assessment of an applicant household income and the resources it controls. The assessment is made against a threshold, usually the poverty line. Means testing requires on the one hand the collection and verification of information on the total income of households. The standard approach to means testing involves verifying information provided by the applicant with information provided by third parties like income tax records, wage information from the employer, or financial information from banks. On the other hand, the range of information collection should be further extended to include ownership of real estate and other property and expenditures like car registration, mobile phone bills or utilities.

In case of a difference between the benchmark and actual income, the applicants receive the proper amount of their social assistance. Such targeted social assistance can be provided via cash transfers, food stamps, coupons, or in-kind benefits.

While means testing would ensure, that each applicant receives exactly the amount necessary to be lifted above the poverty line (threshold), it carries significant costs connected to collection and verification of information. Widespread shadow economic activity would further increase the administration costs and errors of inclusion (leakage). Furthermore, means testing requires a rather high administrative capacity, in the sense that information sharing among different government agencies is not a problem, and corruption and nepotism do not influence decision making.

Proxy means testing / indicator based targeting

Because of difficulties associated with collecting and verifying detailed household income information proxy means tests were developed as alternatives. In 1980 Chile was the first country to introduce a proxy means test. Since then, this targeting tool has been monitored, refined and implemented elsewhere. Proxy means tests, also called indicator based targeting proceeds in two steps.

In the first step of proxy means testing the poverty indicator is constructed. A central agency uses statistical information on households, like for example the Household Budget Survey by Dezhkomstat, to perform a statistical analysis on determinants and co-variables of poverty. The aim is to find indicators that are less costly to identify but are still sufficiently correlated with income. Proxy means tests use a relative small number of household characteristics to calculate a score indicating the welfare of a household in order to minimize administrative costs keep leakage lower than it would be under a universal scheme. As a result more poverty reduction could be achieved with the same resources. The poverty indicator then determines the eligibility of a household for social assistance and the level of benefits based on the scorings achieved.

While designing the proxy means test it is important to select few variables that are well correlated with poverty. The variables should have the following characteristics:

- ✓ Variables should be few enough that it is feasible to apply the proxy means test to a significant share of population that may apply for social assistance.
- ✓ Variables selected must be easy to measure or to observe.
- ✓ Variables should be relatively difficult for the applicant household to manipulate just to enter the social assistance program.

According to international best practice variables selected include information on expenditures, employment, education, health, family structure, the location and quality of housing, ownership of durable goods etc. Often up to two dozen variables are used.

Once the variables have been chosen, statistical methods are used to associate a weight with each variable. One common approach is to use regression analysis and to regress total household income and/or expenditure on selected variables[2]. These regressions should be run separately by region (e.g. by oblast/ rayon or urban/ rural) so that variable weights differ across regions. The procedure is often iterative in that variables initially selected are chosen on the basis of a more comprehensive statistical analysis that evaluates their predictive power, i.e. how closely they are correlated with household income. For practical reasons the weights are rounded to facilitate the calculation of scores by social assistance bureaucracy. Based on the results of the statistical analysis a poverty indicator is developed.

In the second step of the proxy means test the applicant household provides the information required for calculating its poverty score. It seems to be advisable not to make the scoring system public to avoid strategic behavior of households. Due to the formula based nature of proxy means test keeping the scoring system secret does not conflict with equity and democratic transparency requirements. Because the information used is straightforward to collect and simple to interpret via the indicator scoring this approach delivers replicable results. Similar households (in terms of chosen variables) will receive the same treatment (transfers) independent of the administrative person dealing with the application.

Training of social assistance administration staff on a computer based proxy means test could be fairly simple. Moreover, the extent to which the targeted social assistance program works can be monitored quantitatively. This is especially important in societies with perceived high corruption levels or intense politicization.

The administrative costs of the proxy means testing are lower in comparison to means testing. The disadvantage of the formula based proxy means tests is that it does not take into account

[2] An alternative procedure would be, for instance, a principal component analysis.

special circumstances of a particular household, as the formula will be correct only on the average.

A well-implemented targeted social assistance program based on both, means tests and proxy means tests should regularly - say once a year - recertify beneficiaries to ensure, that those whose welfare has improved are removed from the system. Recertification provides also the opportunity for updating the scoring system.

3.2 Self-targeting of social assistance

Self-targeting is an alternative to administrative targeting. Under self-targeting social assistance is in principle available to anyone wishing to participate. However, the assistance program is designed in a way that it is attractive only to poorer households. In this paper we will discuss only the classic example of workfare[3].

Workfare

The word "workfare" is a combination of work and welfare. However, the "work-part" rests on the assumption that time is costly in terms of foregone earnings. The poor have lower opportunity costs of labor time than others and hence are ready to trade it for social transfers. Hence, self-targeting occurs. A workfare scheme operates by making a claimant for social assistance give up labor time in exchange for income transfer. Hence, the time exchanged for transfers could be "used" in ways to improve the productivity of the poor. The work or participation requirements of workfare may be designed in a way that they increase the productivity of the poor by encouraging the poor to invest in skill formation or better health that makes it less likely that they will require social assistance in the future. So, under workfare only households who provide labor to public works or who for example are attending meetings with local health staff, participate in computer courses or in meetings with agricultural extension workers receive social benefits.

Workfare requires careful project design, as it could be not interesting even to the poor because participation costs outweigh the benefits. On the other extreme, due the too generous benefits it could attract also non-poor household members. Finally, careful attention is needed that public works do not compete on the market and crowd out private business.

To sum up, self-targeting and proxy means testing both are methods of targeting under limited information available about the applicant household income. Both should be viewed as rather complementary methods and could be combined in a social targeting scheme.

4. Poverty in Ukraine: Decline or not?

During recent years of robust economic growth Ukraine achieved a remarkable progress in poverty reduction if poverty is measured in absolute terms.[4] From 2001 to 2006 the poverty incidence declined against the absolute poverty line (PL) "one dollar a day" from almost 31% of population to below 1% in 2006 (see Table 1). In addition to strong economic growth several other factors caused "absolute" poverty to decline against the "one-dollar" benchmark, including:

- Sharp administrative increases of public sector and minimum wages;
- Sharp increases of minimum pensions;
- The real exchange rate appreciation of the Hryvnia against the US-Dollar.

[3] Self targeting schemes could be also designed in a way that self selection occurs through stigmata attached to consuming a certain service or product or by providing sub-standard lower quality products/ services.

[4] The description of poverty lines is presented in the Appendix A3.

It might be expected that in 2007 the poverty incidence measures using the 'one-dollar per day' poverty line declined further.

But, if measured against a relative poverty line poverty seems to remain unchanged. Basically, while according to the PL '60% e-median' the poverty incidence declined by only 0.5 p.p. to 13.5%, according to the PL '75% median' it even increased by 0.1 p.p. and reached 27.5%. At the same time, the patterns of poverty changed. In particular, rural households became relatively poorer, while urban households were relatively better off in 2006 as compared to 2001. This change illustrates the lack of structural reform in rural development.

If the PL 'subsistence minimum' is considered, the poverty incidence declined dramatically. In 2006 42% of the households were accounted as poor according to this PL, while in 2001 the poverty incidence was at around 77% of households. The poverty incidences declined twice in urban areas, and to a lesser extend in rural.

Table 1:

Poverty lines and poverty incidence (in %)

	'one dollar per day'		**'60% e-median'***		**'75% median'****		**'Subsistence Minimum'**	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
2001								
Rural	35.23	35.29	16.36	36.11	32.08	36.25	80.93	32.53
Urban	29.02	64.71	13.01	63.89	25.35	63.75	75.43	67.47
Ukraine	**30.9**	100	**14.00**	100	**27.4**	100	**77.1**	100
2004								
Rural	11.17	44.61	16.53	39.56	30.8	38.24	64.72	35.43
Urban	6.38	55.39	11.63	60.44	22.91	61.76	54.31	64.57
Ukraine	7.89	100	13.17	100	25.4	100	57.59	100
2006								
Rural	1.4	51.31	18.91	43.59	36.26	41.1	52.32	38.84
Urban	0.6	48.69	11.09	56.41	23.58	58.9	37.31	61.16
Ukraine	**0.9**	100	**13.52**	100	**27.53**	100	**41.99**	100

Note: (1) Indicates poverty incidents in either rural or urban area
(2) Indicates the distribution of poverty incidents among rural or urban areas.
* For estimating the poverty incidence the equivalent expenditures are used.
** For estimating the poverty incidence the conditional expenditures are used.
Source: Household budget survey of Derzhkomstat, own estimations

Thus, according to most poverty lines the poverty incidence declined between 2001 and 2006. However, changes differ across the poverty lines. While according to the absolute poverty lines the poverty reduced significantly, according to the relative poverty measures it remained almost the same. Most of poor households live in urban area, due to Ukraine's high and increasing level of urbanization with currently 68% of population living in cities. Though, in rural areas the poverty incidence higher and even increased according to relative poverty lines. Therefore, the positive spill-over effects from economic growth and redistributive policies impacted on the urban population, while rural Ukraine was left behind. The measures of poverty suggest that the choice of the poverty line is a really sensitive issue in Ukraine and needs careful estimation and persistent evaluation.

In order to assess the actual depth of poverty we calculate poverty gap and severity of poverty (see Table 2).

Table 2:

Household poverty depth in 2004 and 2006

		'one dollar per day'	'60% e-median'	'75% median'	'Subsistence minimum'
Poverty gap, %	2004	0.14	2.75	6.54	11.74
	2006	1.82	2.94	10.98	19.53
	Change in 2006 as compared to 2004, %	-92.31%	-6.46%	-40.44%	-39.89%
Severity of poverty, %	2004	0.04	0.84	2.26	4.64
	2006	0.60	0.94	4.36	8.68
	Change in 2006 as compared to 2004, %	-93.33%	-10.64	-48.17%	-46.54%

Source: Household budget survey of Derzhkomstat, own estimations

According to both poverty gap and severity of poverty indicators, poverty in Ukraine declined from 2004 to 2006. At the same time, the extent of poverty alleviation depends on the poverty line used. In particular, both poverty gap and severity of poverty reduced the most for the poverty line 'one dollar per day' (both indicators in 2006 were at around 10% of the 2004 indicators). The reduction was the least for the poverty line '60% e-median'. The interesting fact is that while the poverty incidence reduced significantly according to the PL 'subsistence minimum', the poverty depth according to this poverty line changed less than for the PL '75% median'. This indicates a redistribution of income from households just above the 75% e median towards individuals just below that poverty threshold.

Table 3:

Individual income gap ratio in 2006

		'one dollar per day'	'60% e-median'	'75% median'	'Subsistence minimum'
Poverty line (monthly basis), UAH		151.5	424.3	452.8	463.7
Income gap ratio (monthly basis), %	2006	16.7	19.3	23.3	27.9
	2004	*21.1*	*19.4*	*23.1*	*32.7*
Monthly transfers necessary to lift a person above the poverty line, UAH		25.3	81.8	105.6	129.3
Annual fiscal transfer required, UAH bn		0.2	5.9	18.0	35.0
People affected, % of population		1.4	13.4	31.3	49.7

Source: Household budget survey of Derzhkomstat, own estimations

Table 3 presents the calculation of the individual income gap ratio, which shows to what extent a poor person on average fall below the respective poverty line.[5] We use this measure for the

[5] The Income gap ratio (IGR) is defined as follows: $IGR = \sum_{i=1}^{n} \frac{(P - \exp_i)}{n * P}$, where P is a poverty line, exp_i are the expenditures of the i^{th} person, and n is the number of persons in poverty. The IGR multiplied by poverty threshold shows what amount of transfer is needed to lift the average poor person out of poverty.

estimating of monthly transfers necessary to lift a person above the poverty line as well as the annual fiscal expenditures required for targeted social policies.

The income gap ratio at the poverty line `60% e-median´ indicates that on average poor households in this group are 19.3% below the poverty threshold. In order to lift them out of poverty, average monthly payments of UAH 81.8 per person would have been necessary. This would amounts to annual aggregate fiscal transfers required for lifting out of poverty 13.4% of total population at amount UAH 5.9 bn.

Therefore, the poverty incidence declined between 2004 and 2006 if we apply all above-mentioned poverty line, except for the '75% median'. The biggest change was for the absolute poverty lines 'one dollar per day' as well as for the 'subsistence minimum'. If relative poverty lines are used, the change is not significant. However, the more meaningful for the description of poverty decline indicators - poverty gap and severity of poverty – show a bit different results. The poverty depth reduced the least if the poverty line '60% e-median' is applied, while the change in poverty is not significant if the PL 'subsistence minimum' is applied. The comparison of income gap ratios for 2006 and 2004 suggests that poverty depth reduced between these years, though if the relative poverty lines are used the decline is not significant.

5. Who is poor in Ukraine?

Table 4 illustrates that the poverty incidence is the highest among the households with an unemployed household head. Then go households headed by pensioners. Despite rapid increases of pension benefits from 2004 to 2006 the relative poverty incidence in households with pensioner head increased. At the same time, the largest share of poor households is headed by the pensioners.[6] In particular, according to the PL '60% e-median' the poverty incidence of households with unemployed head increased by 2.5 p.p. to 24.6% in 2006, while it increased for households headed by pensioners to 18.4%. In 2006 53.2% of poor households were headed by pensioners, 27.0% - by employees, and 13.5% - by unemployed persons.
Source: Household budget survey of Derzhkomstat, own estimations

Using a probit estimation on poverty indicates that in 2006 one of the important determinants of poverty remains the number of children in the households (Table 5). Female headed households with children are among the most vulnerable ones. In urban area the household headed by unemployed individual is under a high risk of becoming poor, while for rural area this is not a significant factor of defining the household as poor.

For reducing the probability of being poor the (high) education of household head is important factor as well as the fraction of working individuals in the household. Another important factor reducing poverty for rural households is being headed by pensioner, most likely, due to the fact that pensioners have a stable sure source of cash income. Besides, household head on unpaid family job is likely to lift household living in rural area from the poverty.

So, when elaborating the indicator based proxy means test such factors like the number of children in the household, share of working household members, educational attainment and status of a household head, etc. should be included.

[6] The fact that most of poor households are headed by pensioners can be expained not only by poverty patterns in Ukraine, but also that there are many extanded families. Usually, the oldest member of the household is named as its head, though his/her income might not be the most important.

Table 4:

Poverty incidence by occupation of household head

	'one dollar per day'		'60% e-median'**		'75% median'*		'Subsistence minimum'	
	2004	**2006**	**2004**	**2006**	**2004**	**2006**	**2004**	**2006**
Poverty incidence by occupation (%)								
Unemployed	19.4	2.5	22.1	24.6	40.7	49.3	73.4	63.0
Pensioner	6.3	0.7	17.1	18.4	27.6	30.6	58.6	42.4
Unpaid family job	9.0	n.a.	10.5	4.8	29.1	17.2	49.6	34.4
Employee	6.7	0.8	8.1	8.0	20.2	21.9	53.5	38.3
Employer	5.8	1.2	5.4	4.3	14.0	15.0	36.1	24.4
Structure of poor households (%)								
Unemployed	21.7	21.5	14.8	13.5	14.1	13.3	11.3	11.1
Pensioner	31.8	29.9	51.8	53.2	43.4	43.5	40.6	39.5
Unpaid family job	2.1	n.a.	1.5	0.8	2.1	1.37	0.1	1.8
Employee	37.4	40.6	27.0	27.0	34.9	36.1	40.9	41.4
Employer	0.6	1.38	0.3	0.3	0.4	0.55	0.5	0.6

Table 5:

Determinants of poverty in 2006

Factors and probabilities of poverty increases (in %)					**Factors and probabilities of poverty reductions (in %)**				
Factors increasing poverty	**60% e-median**		**subsistence minimum**		**Factors reducing poverty**	**60% e-median**		**subsistence minimum**	
	Urban	Rural	Urban	Rural		Urban	Rural	Urban	Rural
Household size			10.0	12.9	Working share of household	10.4	7.9	25.9	13.2
Age of household head	0.1*	0.2		0.2*	Household head with high education	6.6	8.8	15.9	14.6
Number of children under 16		2.7*	6.6	8.1	Household head is pensioner		11.7		13.9
Female head of household	2.2	5.5			Head of household is an employer			15.8*	60.3
Unemployed household head	12.2		27.7		Household head on unpaid family job		18.7		34.0
Household head is pensioner			9.5		Household headed by an employee				13.3
Household headed by an employee			6.4						

Note: * significant at 5%, otherwise significant at 1%
Source: Household budget survey of Derzhkomstat, own estimations

6. The present system of social assistance in Ukraine

Currently, the officially approved poverty line in Ukraine is the '75% median'. However, it seems that this is a *de jure* poverty line, while *de facto* it is not applied in social policy. Instead for

identifying the living standards the subsistence minimum, based on the rather outdated consumption basket, is used. In principle, legislation usually foresees the application of this particular measure for providing social assistance. The subsistence minimum is defined annually in the State Budget Law for different demographic groups as an aggregate measure. However, as it was shown in sections 4 and 5 the subsistence minimum is too high for fiscally sustainability for providing social assistance. As a result, the so-called 'secured level of the subsistence minimum' is used for defining the eligibility for providing cash benefits to low-income households. The size for 2008 (2006) of the secured level of subsistence minimum per person are:

- for working able individuals – UAH 133 (UAH 110) or significantly less than 1 US-Dollar per day.
- for not working able individuals - UAH 187.5 (UAH 155);
- for disabled individuals – UAH 200 (UAH 165).

The size of the secured level of the subsistence minimum is defined by the Cabinet of Ministers on rather arbitrary basis and is approved annually in the State Budget Law.

Most social benefits in Ukraine are provided in kind or on a universal basis. Universal social benefits include subsidized staple foods or public utilities consumed for households. But the universal benefits are rather expensive, as subsidized food and utilities are consumed also by non-poor households. Given the fiscal constraints of the Ukrainian government it is important not to allocate available funds to the non-poor, thus to avoid leakages.

Box:

Social privileges in 2007

In the State Budget Law for 2007 the Government suspended some privileges and restricted the eligibility for receiving privileges foreseen in legal acts of Ukraine. For instance, it restricted the eligibility for privileges, compensations and guarantees to public sector employees and military servants related to discounted prices for housing, phone calls, utility services, etc. for those with incomes lower than 1.4 times subsistence minimum set for working able individuals. Second, the maximum amount of assistance was capped by this level.

However, on July 11, 2007, the Constitutional Court of Ukraine ruled the respective provisions of the Law as unconstitutional. Similar decisions were approved in previous years as well (in particular, in 1999, 2002, 2004 and 2005. The basis for the Constitutional Court's decisions has been the notion that the termination of privileges and reduction of their size is a limitation of rights and freedoms of Ukrainian citizens. Such an interpretation of the term 'privilege' may become an obstacle for future social welfare system reforms.

According to the Ministry of Finance the required financing of all privileges defined in the legal acts would have been be equal to UAH 70 bn or 40% of total consolidated fiscal expenditures in 2007. Because of their enormous size many privileges remain not financed and the burden of providing social privileges is laid on firms. This negatively impacts on the firms' financial state and the quality of services provided. According to the national railways "Ukrzaliznytsia" in 2007 only 42.2% of the costs of railroad transportation of privileged passengers were compensated from the state budget, and for the first 5 months of 2008 – 33.8% respectively.

Hence, Ukraine should introduce a moratorium on any new privileges or the increase of existing one's.

Ukraine social assistance system is characterized by numerous in-kind social privileges, such as discounted payments for utility services and housing, fuel and gas, electricity, transportation,

setting and use of fixed phone lines, purchase of certain drugs, sanatorium treatments, etc. No limits are set for the usage these privileges (in particular transportation). Among those entitled for such social assistance are pensioners, veterans of labor, veterans of war and their families and persons directly affected by the Chornobyl catastrophe. Other beneficiaries are state employees such as civil servants, policemen and military personnel and individuals with recognized outstanding merits for the fatherland. Therefore, privileges at the moment are provided to different groups of population on the basis of their loyalty to the state rather than income status. Besides, housing and utility privileges are extended to close family member of the person entitled for such privileges (e.g. spouse, children under 18 years old, unmarried adult children that are disabled, person living and taking care of a disabled person entitled for a privilege, disabled parents), which increases the number of beneficiaries. The legislation on the social privileges is spread over more than 40 legal acts. This complicates the procedure of privilege entitlement and increases the administration costs.

According to the Ministry of Labor in 2008 12.6 m individuals use the privilege in transportation services, while 7.6 m individuals are eligible for utility and housing payment privileges. The Government plans to spend UAH 6.5 bn and UAH 7.0 bn for privileges in 2008 and 2009, respectively (see Table 6, rows 2-4). In total, consolidated fiscal expenditures for social protection and social provision are planned at UAH 70.7 bn for 2008, which is 22.9% of total consolidated fiscal.

The administration of privileges was complicated by the absence of the unified register of beneficiaries of different privileges. According to the Ministry of Labor the register has been almost completed, which is a positive move towards the social welfare reform. The law on introducing the Unified Social Tax submitted to the Verkhovna Rada should be adopted, as it would allow for better information sharing and cross checking. This would significantly reduce administrative costs of social policies.

Table 6:

Subventions to local authorities for financing social benefits and privileges, UAH bn

		2008 plan	2009 plan
1	Benefits to families with children, low-income families, disabled persons from the childhood, temporary state assistance to children	13.0	18.0
2	Privileges and housing subsidies for utility payments, etc.	4.5	4.8
3	Privileges and subsidies for purchase of liquid and solid fuel, etc.	0.7	0.7
4	Privileges for telecommunication services and other privileges foreseen in the legislation	1.3	1.5

Source: the State Budget Law for 2008, the Draft State Budget Law for 2009

Thus, so far Ukraine has limited experience with targeted social assistance. The only one social assistance program explicitly targeted to the poor – are so-called "payments to low income households". For the purposes of this cash payment the Government uses the so-called 'secured level of subsistence minimum', which is lower than defined subsistence minimum. Therefore, the Government tries to address the poorest households with this policy. However, the assessment of the efficiency and effectiveness of the program as regards leakage to the non-poor and the under coverage of the poor suggests that this measure of the social policy is not effective (Table 7).

For any poverty line applied there are extremely high under-coverage rates. The exclusion of the poor from the program varies from 87% (for the lowest PL of 'one dollar per day') to almost 96% (for the PL '60% e-median'). An explanation for the high exclusion rate of poor might be prohibitive high participation costs. For example, single mothers with children, will not be able to allocate much time for waiting in line, collecting different documentation to proof their eligibility.

The outcome is that participation in the program is weakly related to the income, a rather surprising result for a means testing social assistance program policy.

Table 7:

Ukraine: Distribution of low-income benefits by welfare status of households in 2006, %

	'one dollar per day'	'60% e-median'**	'75% median'*	'Subsistence minimum'
Included poor households	0.11	0.50	1.41	1.76
Excluded poor households	0.76	13.02	26.13	40.23
Included non-poor households	1.96	1.57	0.66	0.31
Excluded non-poor households	97.17	84.91	71.81	57.70
Total number of households	100.00	100.00	100.01	100.00
Total number of households included	2.07	2.07	2.07	2.07
Total number of poor households	0.87	13.52	27.54	41.99
Under-coverage (exclusion error),	**87.36**	**96.30**	**94.88**	**95.81**
Leakage (inclusion error)	**94.69**	**75.85**	**31.88**	**14.98**

Source: Household budget survey of Derzhkomstat, own estimations

Concerning the leakage of the program to the non-poor there is a significant decrease in line with increasing generosity of the poverty line. The turning point, when more poor than non-poor are included, is between the two relative measures '60% e-median' and '75% median'.

This shows that the system of low income benefits is highly regressive as the poorest households receive a rather small share. One reason for such high levels of leakage might be related to corruption and nepotism.

7. Policy recommendations for Ukraine

For improving the present social assistance system the Government of Ukraine should develop and approve a long-term *Strategy on poverty reduction*, which should foresee gradual reform of current social privileges system and the further development of the targeted social assistance.

Developing an efficient targeting system is an iterative process with continuous checks, data analysis and policy adjustments. It will require several years. Ukrainian policy makers should be committed to this process. Over time, the objectives of the social assistance system and the methods used will need to alter.

The present system of social assistance in Ukraine is highly regressive, even within the group of the poor. So, the government should start improving the system of targeted social assistance for the poor and enhance its efficiency.

The Government should target households in severe poverty. For this, the targeting of the existing low-income benefits program should be radically improved. This would redirect fiscal spending towards poor households. The objective should be reducing severity of poverty first, then closing the poverty gap and in a later stage reducing the share of poor households.

The absolute poverty line of 'one-dollar per day' captures the households in extreme poverty. This poverty line or the existing so called "secured level of subsistence minimum" should be used for targeting extreme poverty, especially when children live in such households. For other social policies the economic development of Ukraine suggests switching later when targeting is working at acceptable levels to a relative poverty line like "60% e-median".

At the same time, the PL 'subsistence minimum' should not be used as a poverty measure or guideline for social policies, since almost half of the households lives below this poverty line. Under such circumstances the introduction of social assistance seems to be not feasible given the existing fiscal constraints.

Because of its weak administrative capacity, Ukraine should not rely on strict income means testing. Instead, we recommend developing a mixed system based on self-targeting via workfare programs and proxy means testing.

For the start self targeting workfare programs should be developed. Workfare might be especially suitable for the rural Ukraine, especially as empirical data show that rural areas are lagging behind urban economic growth and rural Ukraine is supplying most of Ukraine's labor migrants[7].

However, for many poor workfare may not be an suitable option, as for example single mothers with children will not be able to exchange labor time for social assistance. Hence, the development of an indicator based proxy means test needs to complement targeted social assistance.

The actual design and estimation of such proxy means tests is way beyond the scope of such a policy paper. This work will require a larger team of experienced economists and statisticians. We recommend to the government of Ukraine to approach international donor organizations, like the World Bank, for funding and project development.

In general, a central agency should be set up with the task of developing the poverty indicator/ proxy means test. Proxy means testing will require continuous analysis of empirical data. The household budget survey of Derzhkomstat could be used for that.

The actual proxy means test for individuals should be based on a computerized scoring system. This would allow existing governmental institutions across Ukraine, like the regional departments of the Ministry of Labour, to perform the proxy means test.

The introduction of proxy means testing should start in some selected test regions before it is extended to all of Ukraine. This will allow a better refinement of the proxy means test and a better estimation of fiscal funds required.

The Ukrainian Government also should in parallel develop a monitoring system to track the implementation of the Strategy of poverty reduction, the progress in poverty alleviation and the changes in characteristics of poor. Such monitoring would provide policymakers with the information necessary for improving poverty programs.

[7] See also: Should I stay or should I go? Ukrainian migration in economic perspective. Policy Paper W11.

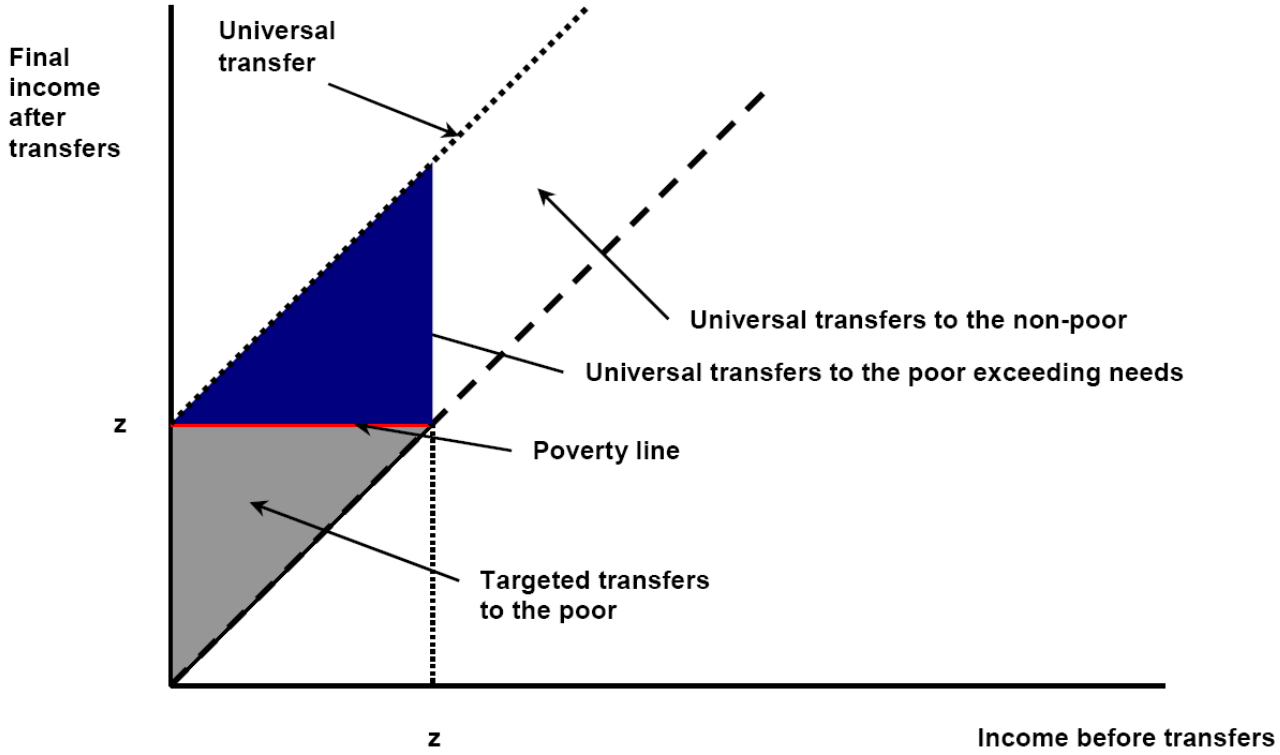
Appendix

Appendix A1 Benefits of targeted social assistance

The differences between universal and targeted social assistance are illustrated in figure A1. Income is ordered from lowest to highest household income. The initial ordering of households is represented by the dashed black 45 degree line. Z is the poverty threshold (poverty line).

Figure A1:

Benefits of targeted social assistance



Source: own drawing, following Timothy Besley and Ravi Kanbur (1993): Principles of targeting in: Michael Lipton and Jaques van der Gaag (eds.). Including the Poor. Washington DC

Under a universal social benefit scheme aimed at overcoming poverty every household would receive the same universal transfer represented by the dotted line. But the universal transfer produces excessive expenditure with payments to the poor in excess of their needs (dark triangle) and transfers to the non-poor indicated by the white space between the dashed and dotted lines. However, the universal transfers are tax financed and hence paid by the same citizens receiving the universal transfer, minus the costs and inefficiencies of the government.

Now, let's consider instead a targeted intervention. The poor would receive only the transfers necessary to get to the (horizontal) poverty line. The costs for these targeted transfers are indicated by the grey shaded area. It is obvious the fiscal funds required for the targeted transfers are significantly less than the fiscal necessary for the universal transfer.

Appendix A2 Formula for estimating different poverty measures

Consider the following formula:

$$P(\alpha) = (1/n)\sum_{i=1}^{q}[(z - y_i)/z]^{\alpha}$$

when n is the number of households; y_i is the measure of income for the i-th household; z represents the poverty line; q is the number of poor households; and α is the weight attached to severity of poverty.

Giving no weight to severity of poverty is equivalent to assuming that α = 0. The formula collapses to P(0) = q/n, or the percentage measure.

Giving equal weight to severity of poverty among all poor households is equivalent to assuming that α = 1. Summing the numerator gives the poverty gap; dividing this by z expresses this figure as a ration.

Giving more weight to severity of poverty among the poorest households is equivalent to assuming that α > 1. A common approach is to set α = 2, yielding

$$P(2) = (1/n)\sum_{i=1}^{q}[(z - y_i)/z]^{2}$$

Consider the following example of available income among five households (Table A1): The annual poverty line is assumed to be UAH 2,200.

Table A1:

Example calculating P0, P1, and P2

Household	Annual income in UAH	Poor (yes/ no)	Poverty gap in UAH	Severity of poverty, $[(z - y_i)/z]^2$
1	2,325	No (=0)	0	0
2	1,900	Yes (=1)	300	0.018
3	2,100	Yes (=1)	100	0.002
4	1,700	Yes (=1)	500	0.052
5	2,200	No (=0)	0	0
Sum		3	900	0.07

Source: own estimations

P(0): percentage of poor: in Table A1 there are 3 poor households, so P(0) = 3/5 = 0.6

P(1): poverty gap is (1/5)*(900/2,200) = 0.08.

P(2): severity of poverty is (1/5)*0.07 = 0.014

Which measure to select depends on the objective of targeting. If the objective is to reach out to the poorest of the poor, then P(2) is the proper metric.

Appendix A3. Poverty lines

In the paper we estimate and discuss the following measure of absolute poverty:

- **Poverty line `one dollar per day´**. A household spends less than one US-dollar per day. This is a global poverty threshold used by the World Bank for international comparisons. According to the World Bank, the PPP exchange rate should be used. At the same time, we use the official exchange rate, since the PPP one is lower than official one and is not relative for Ukraine.

Because absolute poverty was widely eradicated in Western Europe most countries in the EU are using relative poverty thresholds. The most common is:

- **Poverty line `60% e-median´**. Per capita expenditures are lower than 60% of median equivalent expenditures.[8] This threshold takes into account the development of incomes (including wages) in an economy. This poverty line is used among others by the European Commission.

But also Ukrainian ministries approved a relative measure of poverty, in particular:

- **Poverty line `75% median´**. Conditional per capita expenditures[9] are lower than 75% of median total expenditures of the population. This is the official threshold defined by the Order of different Ukrainian ministries.[10]

At the same time, the most popular measure named for estimating living standards in Ukraine is:

- **Poverty line `Subsistence minimum´**. Per capita expenditures are lower than the subsistence minimum based on the price of a predefined consumption basket set by the Ukrainian parliament.

This measure of poverty cannot be strictly named either absolute or relative. On the one hand, it does not directly takes into account the income distribution of population, which would make this measure an absolute poverty line. On the other hand, it is taken into account while setting such important standard as pensions and other social payments. For defining the level of minimum wage the subsistence minimum set for working able individuals is also taken into account. At the same time, the revision of the subsistence minimum is based on the inflation. Therefore, the subsistence minimum indirectly influences the development of income of population, primarily of the poorer households. This indirectly makes the subsistence minimum a relative measure of poverty.

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[8] Equivalent total expenditures are calculated as household expenditures divided by equivalent household size according to the modified OECD scale, which gives a weight of 1.0 to the first adult, 0.5 to other persons aged 14 or over and 0.3 to each child aged less than 14 (see 'Laeken' indicators for more details). This equivalent scale takes variations in needs (for example for food) across different age groups as well as economies of scale in household consumption (an apartment that is heated for one individual is automatically warm for a second individual) into account.

[9] Conditional per capita expenditures take into account 'savings on scale', they are calculated as total HD expenditures divided by (1+0.7*(number of people in HD – 1)).

[10] The Methodology of complex estimation of poverty is approved by the Ministry of Labor and Social Policy of Ukraine, the Ministry of Finance of Ukraine, the Ministry of Economy of Ukraine, etc.

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