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EVALUATION OF THE KEY COMMODITIES AVAILABILITY FOR UKRAINIAN HOUSEHOLDS WITH DIFFERENT AVERAGE PER CAPITA EQUIVALENT INCOME

ABSTRACT

The article is devoted to the development of tools for evaluating the level and dynamics of Ukrainian households' well-being, by considering the availability of key groups of goods for households with different levels of per capita income. The results should contribute to taking into account a greater number of essential aspects of the households lifestyle and economic capabilities for assessing the achieved level of well-being, its dynamics, the differences of its components for different population groups, allowing to make policy and programs for its implementation more sensitive to the real needs of different aim groups.

Engel's curves (defined by the linear form of consumption dependence on income – Working's function) and income elasticity of consumption were used to assess the degree of satisfaction of needs in two commodities, which are key for assessing the households' well-being. It was evidenced, that the still high (more than two times higher than in developed countries) income elasticity of food consumption indicates the extreme limitation of the resource provision for investing in the development of human capital by the households. At the same time, the propensity of households to invest additional income in the purchase of goods created in healthcare is quite high – at the level of developed countries. More affluent households (which were expected to have a higher income elasticity of healthcare goods consumption) are more actively using the advances of insurance medicine, while less affluent households still rely only on "out-of-pocket" healthcare costs. So, relatively poorer households are faced a clear lack of resources to meet their needs: the absolute amount of healthcare goods consumption for the least wealthy households is reduced against the background of the increase in the share of relevant expenses in the composition of consumer spending.

Keywords: consumer spending, Engel curves, well-being, household income, concentration of consumer spending

JEL Classification: D12, H52, I31

INTRODUCTION

The population well-being evaluation (both at the general level and the differentiation between groups of households) is an important prerequisite for state policy development. Since, it is the growth of the population's well-being that is the policy's ultimate goal (policy outcomes), accordingly, the well-being assessment is generalizing characteristic of any policy implementation effectiveness. At the same time, the more meaningful, directly related to the features of the desired lifestyle, such an assessment will be - the better conditions are created for ensuring effective feedback: from the principles of the policy, through the levers of its implementation, to the expected change in the target well-being characteristics and its actual indicators deviations from such expected (planned) values. Such chains serve as a basis for updating both the policy itself and the levers of its implementation (depending on the causes of the observed deviations). Therefore, the development of tools for assessing the economic capabilities of households, creating characteristics and improving models that will allow an understanding of the complex relationships between nominal incomes, price fluctuations for

various groups of goods and the ability of households to meet their needs, improve their situation and invest in human capital accumulation is an urgent task of scientific work. This article contains an attempt to apply the apparatus of Engel's curves to the statistical information available in Ukraine in order to specify the stage of welfare growth at which different groups of Ukrainian households are located according to Engel's "trajectory of improving economic opportunities." After all, depending on which part of households overcomes the high concentration of consumer spending around food, prerequisites are formed for the activation of non-governmental, commercially motivated investment in the development of human capital and the growth of labour productivity.

LITERATURE REVIEW

A. Sen's concept of "well-being as freedom" [1; 2] interprets well-being as freedom from neediness, from diseases, from violence or coercion, from obstacles to the realization of one's own economic potential or political rights and freedoms. Such a vision creates almost the most favourable methodological prerequisites for evaluating the social results of state policy, resource, structural or institutional shifts occurring in the economic life of society. Within this concept, the availability of goods is of critical importance for assessing the economic prerequisites of well-being, which for each population group is determined by the ratio of their incomes and prices, which are mainly formed in the process of the market interaction between producers and consumers. A similar ratio (of incomes and average prices of certain goods) is in the focus of T. Piketty [3], as a tool for measuring welfare dynamics. Both authors, as well as the Nobel laureate A. Deaton, draw attention to a number of advantages of this approach, compared to the widespread analysis of welfare based on the dynamics of real income [4; 5]. In particular, the problem of taking into account the qualitative characteristics of goods whose prices are compared in the process of evaluating price dynamics becomes more and more important as the research period lengthens. To some extent, the solution to this problem in the context of welfare assessment is facilitated by the apparatus of Engel curves. In particular, Engel's curves allow, on the basis of empirical information, to classify goods into groups, each of which has a specific role in the process of the economic conditions of household well-being formation. In particular, if the rate of growth of real amounts of consumption of a good (a certain group of goods) is ahead of the growth of incomes, then the good is classified as a "luxury good" (luxuries) and the expansion of the share of consumer expenditures on such goods is interpreted as a sign of qualitative positive changes in his economic well-being [6; 7].

If the absolute amounts of good consumption grow with the growth of the consumer's economic capabilities, but the relative rate of growth of consumption is lower than the relative rate of real income growth, then we are dealing with goods of standard quality. The "orthodox" scenario of household well-being growth assumes that the specific weight of expenditures on such goods slowly decreases with the growth of incomes [6; 7]. Goods whose real amounts of consumption remain approximately constant with income growth (respectively, the share of expenditure on such goods decreases with income growth) are classified as essential goods. A classic example can be food in families where the desired (normal) level of satisfaction with nutritional needs has already been achieved. Actually, this thesis became a theoretical embodiment of the leading microeconomic development mechanism of the second half of the 19th century and the first third of the 20th century: societies that manage to turn industrialization into a source of general well-being achieve a rapid reduction in the number and share of the population suffering from a lack of food, which is manifested in overcoming the concentration of consumer spending around food and in the diversification of household spending with an increase in the specific weight of spending that has the character of "investment in human capital" [8; 9]. Thus, by characterizing the consumer behaviour of households through the coefficients of income elasticity of certain commodities consumption, we can determine at what stage of welfare growth they are: has it been possible to overcome the concentration of consumer spending around food? Do households have enough resources freed from basic needs satisfaction to invest in improving their human capital stock? This approach makes it possible to assess inequality between households not by the size of real income, but more meaningfully by the characteristics of the dynamics of the consumption of various goods: food, education, medicine, recreation and culture, etc.

Research of a similar focus [10-12] mainly operates with data on the specific weight of aggregate goods groups in total consumer spending, accordingly, the dynamics of the dependent variable reflect the influence of not only the absolute amount of consumption but also real income and relative prices. However, in the context of assessing well-being, indicators that depend only on the real amount of goods consumption provide a more meaningful description of welfare. Apart from the cases of "undesirable goods", or "goods of lower consumer quality", which consumers tend to give up in the process of economic opportunities growth, the increase in the consumption of goods, in itself, can be interpreted as a sign of positive dynamics of household well-being.

Accordingly, this article examines the characteristics of the consumer behaviour of Ukrainian households in the context of evaluation the general level and differentiation of their well-being, using the apparatus of Engel's curves in combination

with data on changes in their real purchasing power, assessed not only by the dynamics of real income but also through "availability coefficients" of key commodities, the provision of which forms both the current (achieved) level of well-being and the conditions for its improvement through the yield of investments in human capital. In addition, we will carry out a comparative analysis of the consumption structure of households with relatively lower incomes (according to 2020 data, 74.6% of all households in Ukraine with an average per capita equivalent income of up to UAH 7,000 per month) and households with relatively higher incomes (17.2% of Ukrainian households with average per capita equivalent incomes above UAH 8,000 per month).

AIMS AND OBJECTIVES

The aim of the article is to develop the tools for the evaluation of the Ukrainian household's well-being, which will allow to take into consideration the range of important parameters, which remained unaccounted for when real income indicators are used to assess welfare. To do this, we will assess the degree of satisfaction with the need for food products (as a basis for releasing the purchasing capacity for investing in human capital) and the propensity (and ability) of households, receiving different per capita incomes, to use the increase in income for investments in human capital, in particular for improving the provision of benefits created by the health care.

METHODS

The focus of our article is on the study of the relationship between "real income – the amount of consumption of a certain group of goods" as a prerequisite for assessing the well-being of households with different levels of economic opportunities. The apparatus of Engel's curves is used in its primary form [6], i.e., the costs of purchasing a certain good (goods of a certain group) are interpreted as a dependent variable and real income is taken as an explanatory variable. At the same time, the size of spending for different years is calculated in the prices of the base year, so change in the dependent indicator directly characterizes the absolute amounts of consumption of a certain group of goods: the influence of the price factor is eliminated.

Accordingly, as a dependent variable, consumer spending on widely aggregated goods groups, calculated in the prices of the base (2014) year, is used, the data source is [13]. Cumulative price indices of the corresponding groups of goods relative to the base (2014) year were used to convert nominal indicators into real ones, the data source of price indices is [14]. Thus, the differentiation of these indicators between groups of consumers with a certain size of income reflects only the impact of changes in absolute amounts of consumption, which is relevant to the objectives of the research.

The availability of data on the structure of consumer spending by groups of households with different average per capita equivalent incomes [13] made it possible to obtain 11 values of the dependent variable for each year, so, a database of 77 observations was formed over a 7-year retrospective period for each group of good.

This database is divided into two groups - by households with average per capita equivalent incomes up to UAH 7,000 (a group with relatively lower incomes) and households with incomes above UAH 8,000 (a group with relatively higher incomes). The boundaries for dividing the total number of households into these two groups are chosen based on the desire to obtain a significant differentiation of the aggregate monetary expenditures size between the groups. According to the data of 2020, the average aggregate consumer expenditures weighted by the number of households for the first group are UAH 7603,0 and for the second group – UAH 13527,4, which is close to a two-fold increase. Accordingly, enough high differentiation of absolute size of consumer spending is observed to allow as verify the "Engel's Law in a strong formulation". It doesn't mean that only a two-fold increase in real consumer spending is required as empirical evidence, but less differentiation leads to a lower probability of assessments obtained. Since Engel's law states that a two-fold increase in real consumer spending leads to a reduction in the share of food expenditure by 10 percentage points sufficient variability of income size is desired for obtaining reliable estimates [7].

The database of the factor indicator is formed on the basis of data on the average equivalent per capita incomes of certain groups of households in Ukraine. In particular, according to the statistical collection "Expenditures and Resources of Ukrainian Households" in 2020, 1,208,000 households (8.2% of the total number) had an average per capita equivalent total income of up to UAH 3,000. month; 2625.3 thousand (17.8%) - more than 3000 thousand and up to 4000 thousand UAH. month; 3117.8 thousand households (21.1%) - more than 4000 thousand UAH. and up to UAH 5,000. per month and so on. Per capita equivalent total income above UAH 12,000. per month had 589.5 thousand households (4.0% of their total number). The average of the upper and lower limits was taken as the quantitative value of income for each

range. Cumulative consumer price indices were used to convert nominal incomes into real ones (real incomes are expressed in base prices - 2014).

The mathematical form of displaying the dependence of the physical volumes of consumption of goods on the real income of the household:

$$Q = a + b \times I + \varepsilon, \quad (1)$$

where: a – the free term of the function, reflects the autonomous, income-independent amount of consumption (to be estimated); b – coefficient near the variable "real household income"; reflects the marginal increase in the absolute amount of consumption as a result of changes in the real households' income (to be estimated); I – the real income of the household; ε – stochastic component of the model (deviation of the calculated value of the dependent variable from the actual value).

The function (1) was adapted by authors from the Working function [18] by refusing algorithmically reflection of the factor variable since the dependent and factor variable in our database have the same dimension.

For such a function, the first derivative (equal to the coefficient "b") characterizes the marginal change in consumption as a result of a minimal change in real income. The elasticity, calculated for a linear function by formula (2), characterizes the percentage (relative) growth in the consumption of goods of a certain commodity group in response to a one-per-cent increase in real income. Accordingly, it is the elasticity coefficient that should be used to classify the goods of the relevant commodity group as "necessary goods" (for them, the elasticity coefficient of such a function should be close to zero – in case where the relevant need is mainly satisfied); "goods of standard quality" (less than one); the good of "luxury" (close to one or greater than it).

The formula for calculating the coefficients of elasticity of consumption volumes from income [15]:

$$E_i = \frac{a_i \times \bar{x}}{\bar{y}} \quad (2)$$

where: E_i – coefficient of dependent variable elasticity on the explanatory one; x – is the average value of the factor variable; Y – is the average value of the dependent variable.

Since both the dependent and explanatory variables have the same dimension (monetary units), and the increase of the explanatory variable is, in fact, distributed among the increases of the group of dependents, the hypothesis that the variation of the dependent variable is proportional to the relative rather than the absolute changes of the explanatory is rejected, accordingly, we refuse the using logarithm of real income, as in the original Working function.

To determine the parameters of the function, we used the 1MLS method [15] and implemented calculations using operations with matrices:

$$A = (X^*X)^{-1} (X^*Y) \quad (3)$$

where: A – is a vector of function parameters; X – matrix of values of explanatory variables; X^* – transposed matrix of values of explanatory variables; Y – matrix of values of dependent variables.

RESULTS

Expenditures on food products still dominate the structure of Ukrainian households' consumer expenditures. In 2020, on average, this product category accounted for 44.3% of household monetary expenditures. According to the three groups of households with the lowest equivalent per capita income (up to UAH 5,000 per month), the share of expenditure on food products is higher or close to 50% and ranges from 48.1% to 54.6%. These three groups of households account for 47.0% of the total number of Ukrainian households. Only three groups of households with the highest incomes (equivalent monthly incomes of more than UAH 10,000 per person) overcome the "limit" of 40% of the specific weight of expenditure on food, and such three groups account for only 8.4% of the total number of households.

During the studied period (2014-2020), in the system of relative prices, food became cheaper by 7.1% (this means that the price of food products increased by an average of 7% slower than the aggregated consumer price index for the same period). At the same time, the nominal increase in the food price for the retrospective period reached 121% (the cumulative

food price index in 2020 was equal to 2.21 compared to the level of 2014). Over the same period, household nominal consumer spending increased by 139% (the cumulative consumer spending index for all households in 2020 compared to 2014 is 2.39). Accordingly, on average, food products became more available for households by an average of 8.4% (consumer expenditure index divided by the price index). However, this indicator averages out the picture, and for 8.2% of the poorest households (in 2020, their average per capita equivalent income was less than UAH 3,000 per month), food became less accessible by 22.5% (food availability index in 2020 compared to 2014 is 0.775).

During the period 2014-2020, absolute amounts of food consumption increased by only 3.4% on average, and for 8.2 of the total number of households that received the lowest incomes, the amount of food consumption decreased by 17.4%.

It is possible to more accurately assess the degree of satisfaction of food needs achieved by households with different incomes by determining the parameters of Engel's line [16-18] (mathematical specification as a Working function [19 – 20]). The simulation results for households with relatively lower incomes (up to UAH 7,000 per month) are shown in Table 1.

Table 1. The analytical form of the Engel curve for food, based on the data for 74,6% of Ukrainian households having equivalent per capita income up to UAH 7000 per month. (Source: authors calculations)

Indicators	Commodity "food"
The share in monetary spending of households, 2014 / 2020, %	55.4 / 47.8
The coefficient "a"	771.54
Standard error	32.84
t statistics for coefficient «a»	23.49
Coefficient «b»	0.211
Standard error	0.009
t statistics for coefficient «b»	23.14
Determination coefficient	0.942
Fisher's criteria	535.41 (bigger than the table value)

A graphic displaying of the Engel curve for food for 74,6% of Ukrainian households having equivalent per capita income up to UAH 7000 per month is shown in Figure 1.

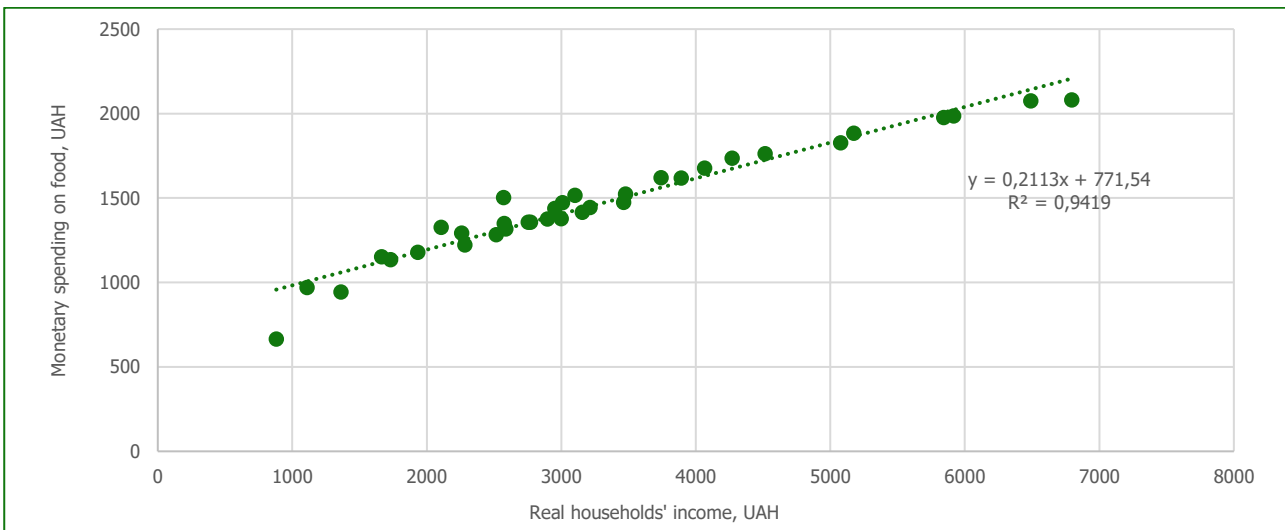


Figure 1. A linear function of the absolute size of food costs dependence on real household income (households with lower incomes, both indicators in 2014 prices).

The income elasticity of food consumption for the 74,6% of Ukrainian households having equivalent per capita income up to UAH 7000 per month is 0.474.

Similar calculations for data on 17.3% of the total number of Ukrainian households with the highest average per capita incomes are shown in Table 2.

Table 2. The analytical form of the Engel curve for food, based on the data for the 17.3% of the total number of Ukrainian households with the highest average per capita incomes.

Indicators	Commodity "food"
The share in monetary spending of households, 2014 / 2020, %	43.8 / 37.8
The coefficient "a"	1073.53
Standard error	58.56
t statistics for coefficient «a»	18.33
Coefficient «b»	0.149
Standard error	0.009
t statistics for coefficient «b»	15.74
Determination coefficient	0.882
Fisher's criteria	247.76 (bigger than the table value)

A graphic displaying of the Engel curve for food for relatively reached households is shown in Figure 2.

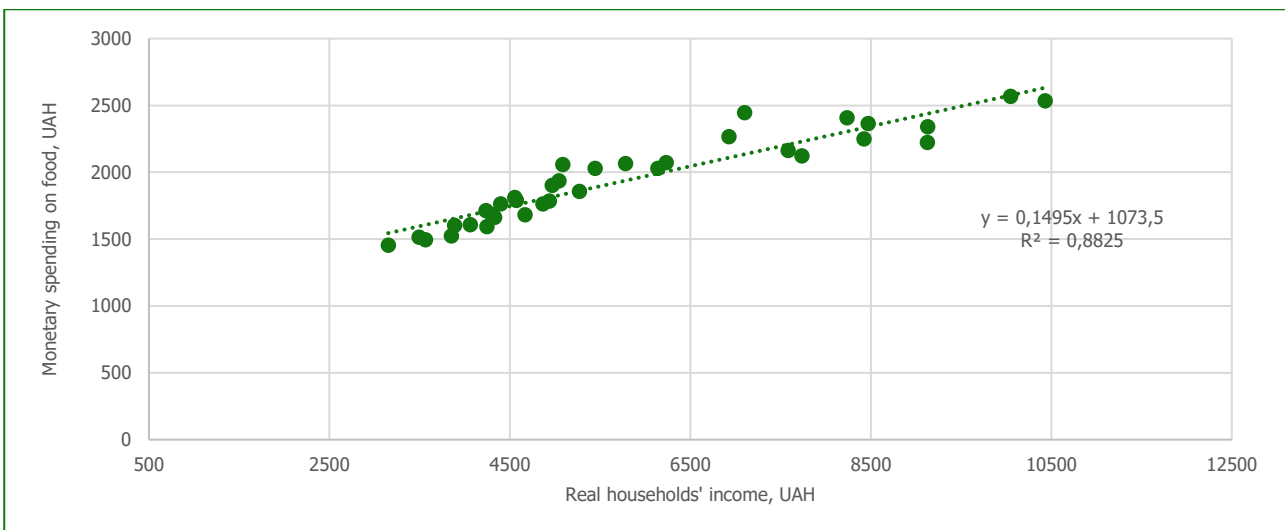


Figure 2. A linear function of the absolute size of food costs dependence on real household income (households with higher incomes, both indicators in 2014 prices).

The income elasticity of food consumption for the 17.3% of Ukrainian households having an equivalent per capita income of more than UAH 8000 per month is 0.448.

The income elasticity of the consumption of goods that traditionally, according to the Cross-Country Demand models, belong to the group of "luxuries" [12] was also calculated.

We constructed Engel curves for the commodity "healthcare" for both household groups identified earlier. The calculation results are given in Table 3 (for 74.6% of households with relatively lower per capita incomes) and Table 4 (for 17.3% of households with relatively higher per capita incomes), with graphic illustrations in Figures 3 and 4.

The income elasticity of "healthcare" consumption for the 74,6% of Ukrainian households having equivalent per capita income up to UAH 7000 per month is 1,070.

DISCUSSION

Qualitative changes in the Ukrainian households' situation are possible only in the case of overcoming the consumer expenditures concentration around food products: directing about half of consumer spending on meeting primary needs severely limits the possibilities of investing in improving human capital stocks (in particular improving health services), and makes the majority of households vulnerable to fluctuations in food prices.

Table 3. The analytical form of the Engel curve for food, based on the data for 74,6% of Ukrainian households having equivalent per capita income up to UAH 7000 per month.

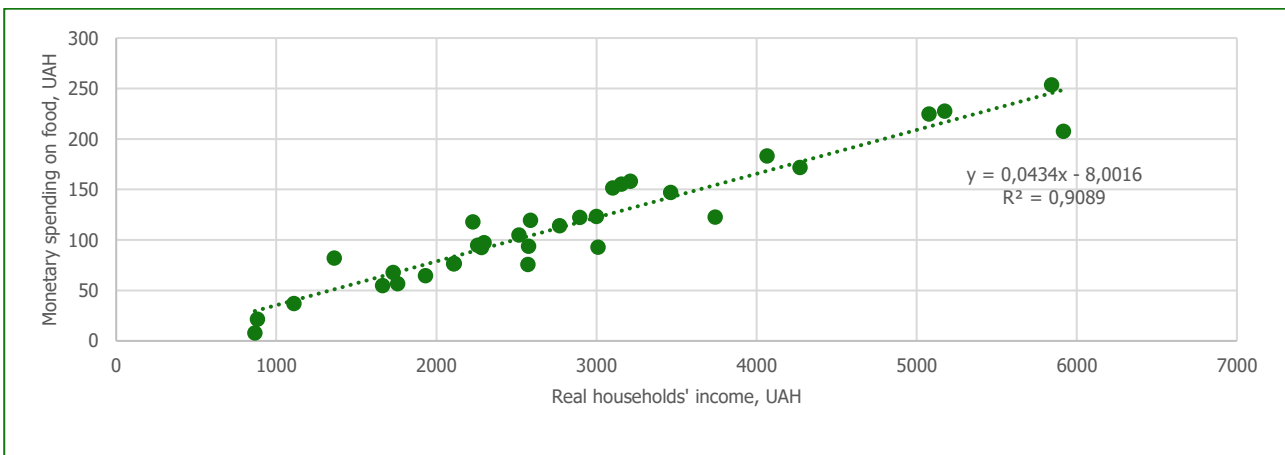
Indicators	healthcare
The share in monetary spending of households, 2014 / 2020, %	3.25 / 4.65
The coefficient "a"	-8.002
Standard error	7.672
t statistics for coefficient «a»	-1.043
Coefficient «b»	0.043
Standard error	0.002
t statistics for coefficient «b»	17.59
Determination coefficient	0.909
Fisher's criteria	309.447 (bigger than the table value)

Both the observed increase in the absolute amount of food consumption by several groups of households with different sizes of the average per capita equivalent income and the general (for all households) positive dynamics of food consumption require a cautious attitude.

Table 4. The analytical form of the Engel curve for "healthcare", based on the data for the 17.3% of the total number of Ukrainian households with the highest average per capita incomes.

Indicators	healthcare
The share in monetary spending of households, 2014 / 2020, %	3.91 / 4.09
The coefficient "a"	40.366
Standard error	19.75
t statistics for coefficient «a»	2.04
Coefficient «b»	0.031
Standard error	0.003
t statistics for coefficient «b»	9.7
Determination coefficient	0.741
Fisher's criteria	94.269 (bigger than the table value)

The income elasticity coefficient of consumption of "healthcare" goods for wealthier Ukrainian households is 0.818.


Figure 3. A linear function of the absolute size of spending on "healthcare" dependence on real household income (households with lower incomes, both indicators in 2014 prices).

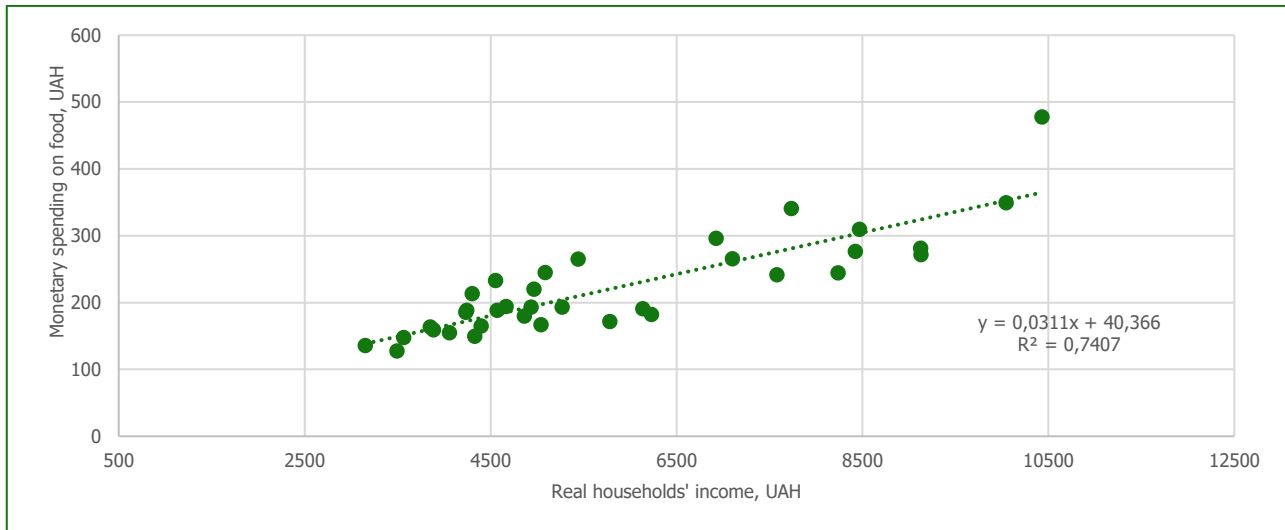


Figure 4. A linear function of the absolute size of spending on "healthcare" dependence on real household income (households with higher incomes, both indicators in 2014 prices).

First, 2014 as a basis for comparison, it is far from the best period in terms of well-being even in modern Ukrainian history. Secondly, our estimates of the dynamics of food consumption are based on the food price index, which summarizes the price dynamics of thousands of individual types of such products, with great differences in price dynamics. However, the spending of the poorest households is naturally concentrated within the groups of the cheapest and most necessary for satisfying physiological needs [21], and the price elasticity of demand on such food products is relatively lower. Accordingly, almost always the price index for such (cheapest) food products, which form the basis of the food balance of the least wealthy families, is ahead of the average price index for all types of food products [22], which is confirmed by numerous studies that use the Florida-Slutsky model to estimate price and income elasticity of demand for certain types of food products [10-12]. Therefore, the obtained estimates of the dynamics of the amount of food consumption may significantly overestimate the real characteristics of food needs satisfaction for three groups of households with the lowest per capita incomes (for them, the share of food expenses is close to 50%).

According to the data in Tables 1 and 2 and the results of the income elasticity estimation for food consumption, the elasticity of demand for food concerning to the richer households is expectedly lower than for poorer ones, but it is quite high for both groups. For comparison with the data of the cited publications, which also evaluate the income elasticity of demand for food products, the elasticity coefficients obtained by us can be converted into a dimension that will correspond to the dimension of the dependent indicator used in the Florida-RI functions. Since in these functions, the dependent variable is expressed as the share of food expenditures in total consumer spending, we must recalculate our estimates of the elasticity coefficient. The change in the absolute size differs from the change in the share through two indexes. First, the index of the relative price of the corresponding commodity (the larger it is, the more the index of the share exceeds the index of absolute size, other things being equal). Secondly, the index of the total size of consumer expenditures (the larger it is, the smaller the change in the share of expenditures will be than the change in the absolute amount of consumption). Accordingly, the difference between the change in the absolute amount of consumption and the change in the share of spending for the purchase of a certain good is determined, in fact, by the index of real purchasing power (change in the amount of a certain group of goods available to the recipient of a certain income). With regard to food products for the retrospective period, such an index can be defined as the cumulative index of real income (1.187 for the period 2014-2020) divided by the cumulative index of the relative price of the commodity "food" (0.941 for the period 2014-2020). Accordingly, the food availability index for the average Ukrainian household is 1.261, that is, the amount of food available to the average household increased in 2020 by 26.1%, compared to 2014. Thus, by multiplying the elasticity coefficients obtained by us by the food availability index, we obtain the income elasticity coefficient of the share of spending on food, which can be compared with the results of articles [12; 23]:

- for 74.6% of households with lower per capita incomes: $0.473 \times 1.261 = 0.598$ (60.0% change in the share of food expenditures in response to a 1% change in real income);
- for 17.3% of households with higher per capita incomes: $0.448 \times 1.261 = 0.565$ (56.5% change in the share of food expenditures in response to a 1% change in real income);

Both of these indicators are slightly lower than the indicator calculated by American authors for Ukraine based on the data of the International Comparison Program (ICP) in 1996 [23], which may indicate a very moderate positive dynamic in meeting the population's needs for food products. It is important that the absolute amount of food consumption by Ukrainian households has not undergone positive changes over the period since the mid-1990s. Accordingly, the reduction of the share of expenditure on food products and the decrease in the income elasticity of such share may be the result of the displacement of some spending for the satisfaction of the primary needs, by others, which is not accompanied by qualitative changes in the households' well-being. A confirmation of this interpretation of the recorded dynamics can be a significant increase in the share of the spending on commodity "Housing, water, electricity, gas and other fuels": from 9.8% to 15.2% of the total consumer expenditures in 2014 – 2020.

It is also important that even according to the ICP data of 2005 the average share of expenditures on food, as well as beverages and tobacco products in low-income countries was 48.5%, in countries with an average level of income – 31.1%, and in high-income countries – 20.4% [12]. That is, even for less than 20% of the wealthiest Ukrainian households, the share of expenditure on food, reached by middle-income countries back in 2005, has not yet been reached (indicators of wealthier Ukrainian households in 2020 are 6.7 percentage points higher). Accordingly, the data obtained by us regarding the income elasticity of food consumption of wealthier households look reliable: the relatively high elasticity seems justified, considering that the stage of stabilization of consumption amount, the stage of satisfying needs has not yet been reached.

In addition, the closeness of the elasticity indicators for groups of households with significantly different incomes does not support a positive interpretation of the reduction in the income elasticity of the share of food expenditures. According to "Engel's law in a strong formulation", a doubling of real income causes a decrease in the share of expenditure on food products by 10 percentage points. And the indicators of the share of food expenses for selected groups of households fit perfectly into this law: the almost two-fold excess of the real per capita income of 17.3% richest households over the per capita income of 74.6% of the poorest is accompanied by a difference in the share of food expenses by about 10 percentage points (see the data of the first row of tables 1 and 2). However, the income elasticity of the share of food expenses is very close for richer and poorer households, which indicates that the unachieved amount of food consumption determines the constant over time level of elasticity.

Extremely negative in the context of social welfare evaluation is a significant reduction in the consumption of food by the poorest 8.2% of Ukrainian households (with a shower income of up to UAH 3,000 per month), observed for the period 2014-2020.

Accordingly, the development of Engel's curves based on data on the absolute amount of food consumption better characterizes the relationship between "income-consumption" in the context of welfare evaluation. The using of data on the share of spending is more appropriate in the context of the goods classification, but even in this case, it is important to take into account the influence of cross-price elasticity, which is provided by a special element of the Florida-PI and Florida-Slutsky functions [10-12].

The results of Engel's line plotting regarding the good traditionally classified as a "luxury good" significantly differ from the expectations based on the results of similar studies [10-12].

First, during the period 2014-2020, the share of expenditures on "healthcare" for poorer households grew faster than for wealthier ones, and as a result, in 2020 poorer households had a higher proportion of "healthcare" expenditure than wealthier ones (see data in the first row of Tables 3 and 4). At the same time, the absolute amount of healthcare goods consumption for 8.2% of the poorest households decreased more than twice (1), despite the fact that the average for all households increased by 50.6%. Accordingly, the state of meeting the needs of the poorest households in the goods of "healthcare" can be defined as "catastrophic".

At the same time, the other four groups of households with the lowest size of the average per capita income, significantly increased the amount of consumption of healthcare goods (by 177.4%, by 142.0%, by 145.5% and by 107.0% in the sequence of growth of per capita income). These growth rates exceed the rate of expansion of the consumption of healthcare goods in wealthier groups of households (they range from 31.5% to 77.6% of the increase).

At first glance, one can see a sign of a decrease in the inequality of access to the goods of "healthcare" for households with different income levels (if we refuse to take into account the catastrophic state of households with per capita income below UAH 3,000 per month). However, in reality, it is important to consider that used data on "healthcare" expenditures reflects only expenditures that are defined as "out-of-pocket" in the practice of welfare analysis, i.e., "from the payer's pocket". We must emphasize, that reducing the share of such expenditures in the total resource provision of the national healthcare system is considered an important direction of its development [24; 25]. Accordingly, the recorded data indicate

that there are qualitative positive changes for wealthier households: "out-of-pocket" expenses are replaced by expenses due to health insurance fund payments, and households with lower incomes remain trapped in a lack of own funds to finance the desired level of provision of goods "healthcare".

The second feature of the analysis results is related to mentioned above: the income elasticity of consumption of the "healthcare" goods is higher for poorer households (the coefficient is 1.070 – a fairly prevailing size according to the results of research based on "Cross-Country Demand" models [10-12]) than for the more affluent – 0.818. Taking into account that the availability of this group of goods increased significantly during the research period (the affordability index for the goods of the "healthcare" is 1.45, i.e., the average nominal income of 2020 allows you to buy 45% more goods of the "healthcare" than in 2014) the given data testify to qualitative transformations taking place in the mechanisms of financing the healthcare consumption for wealthier households (out-of-pocket expenses are replaced by medical insurance payments) and a high unsatisfied need to expand the consumption of healthcare services by the majority of households in Ukraine.

CONCLUSIONS

The increase in the availability of food for all Ukrainian households, which was observed during 2014-2020, did not ensure a qualitative change in the consumer priorities of the majority of the Ukrainian population: the tendency to spend additional income on expanding the consumption of basic necessities remains high, both in relation to poorer households (the vast majority of the total number) and for households with relatively higher per capita incomes. The main reason for this situation was the fact that the amount of food consumption increased in 2020 compared to 2014 by only 3.4%, and the majority of the "underutilized" potential created by the growth of incomes and the lowering of food prices was "absorbed" by the rise in prices for utility services - the share of expenses for such commodity increased during 2014 - 2020 from 9.8% to 15.2% of total household consumer spending. An important consequence of such a situation is the high vulnerability of households' well-being to fluctuations in income and prices, and the extreme limitation of their resources for investing in the accumulation of human capital, which increases the burden on the also underfunded budgetary sector of the social sphere.

Inequality of access to food did not undergo significant changes during the retrospective period, however, the poorest households reduced the absolute amount of food consumption against the background of an increase in the share of expenditures on this product group in the composition of aggregate consumer expenditures.

The amount of consumption of "healthcare" goods for the period 2014-2020 on average across all households in Ukraine, was increased, significantly outpacing the growth of real income (150.6% growth in the amount of consumption against 118.7% growth rates of real income), which is characteristic of goods that belong to the "luxuries" category. At the same time, the amounts of consumption of these goods in relation to poorer households grew faster than a similar indicator for wealthier ones. However, a more reliable evaluation of changes in the inequality of access to the paid healthcare sector requires further research, due to the fact that the database used reflects only "out-of-pocket" spending, which underestimates the amount of consumption and spending of the group of wealthier households.

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ОЦІНЮВАННЯ ДОСТУПНОСТІ КЛЮЧОВИХ ГРУП БЛАГ ДЛЯ УКРАЇНСЬКИХ ДОМОГОСПОДАРСТВ ІЗ РІЗНИМ СЕРЕДНІМ ЕКВІВАЛЕНТНИМ ДУШОВИМ ДОХОДОМ

Стаття присвячена розвитку інструментарію оцінювання рівня й динаміки добробуту українських домогосподарств за допомогою врахування доступності ключових груп благ для домогосподарств із різним рівнем душевого доходу. Результати мають сприяти врахуванню більшої кількості суттєвих аспектів способу життя та економічних можливостей домогосподарств у процесі оцінювання досягнутого рівня добробуту, його динаміки, відмінностей окремих його компонентів для різних груп населення, дозволяючи робити політику та програми з її реалізації чутливішими до реальних потреб різних груп домогосподарств.

Для оцінки міри задоволення потреб у двох ключових для оцінки добробуту домогосподарств благах використані криві Енгеля (лінійна форма залежності – функція Воркінга) та відповідні таким функціям коефіцієнти еластичності споживання за доходом. Установлено, що досі висока (більш ніж у два рази вища за відповідну в розвинутих країнах) еластичність споживання харчових продуктів свідчить про граничну обмеженість ресурсної бази інвестування в розвиток людського капіталу з боку домогосподарств. При цьому схильність домогосподарств інвестувати додаткові доходи в придбання благ, створюваних у сфері охорони здоров'я досить висока – на рівні розвинутих країн. При цьому більш заможні домогосподарства (щодо яких очікувалася вища еластичність споживання благ охорони здоров'я за доходом) активніше користуються перевагами страхової медицини, у той час як менш заможні домогосподарства досі спираються лише на «out-of-pocket» витрати на охорону здоров'я, стикаючись із явною нестачею ресурсів для задоволення потреб: фізичні обсяги споживання благ охорони здоров'я для найменш заможних домогосподарств скорочуються на тлі зростання частки відповідних видатків у складі споживчих витрат.

Ключові слова: споживчі витрати, криві Енгеля, добробут, доходи домогосподарств, концентрація споживчих видатків

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