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UDC 338.439.62:64.031.6



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Affordability of food as a key condition of food security of households

Abstract. Introduction. An analysis of available statistical information gives grounds to assert that the right of a significant number of Ukrainian citizens to adequate and affordable food is systematically violated. We mean those people who are in the state of constant food insecurity due to excessive costs required to purchase food.

The problem of food security of the population, and thus food safety, has deep social background. Food insecurity, viewed as a lack of food safety, is inextricably linked with another equally pressing problem which is poverty.

The purpose of the research is to find evidence that excessive costs that Ukrainian households spend on purchasing food (objectively as well as in comparison with the other countries) is an obvious sign that they are in a state of food insecurity and to conduct a critical analysis of the official boundary value indicator of affordability of food as a key condition of food security of Ukraine.

Results and Conclusion. Poverty is the root cause of malnutrition and hunger. According to the methodology developed by the United Nations, about 78% of the population in Ukraine was below the line of poverty in the second half of 2016. The poverty of the Ukrainian population automatically generates the problem of food affordability: the value of the affordability of products indicator did not fall below 50% in the period from 1999 to 2016 (except for 2008).

The 60% regulatory limit of the value of the affordability of products indicator is unreasonably high. This is confirmed by the comparative analysis of the practical experience of food security of the population and the methodology for determining the threshold of food affordability in other countries and international organisations.

Keywords: Food Security; Poverty; Hunger; Affordability; Insecurity; Threshold; International Experience

JEL Classification: H41; I30; Q18

DOI: <https://doi.org/10.21003/ea.V168-11>

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Економічна доступність продуктів харчування як ключова умова продовольчої безпеки домогосподарств

Анотація. У статті досліджено економічну доступність продуктів харчування як головний індикатор продовольчої безпеки. Стверджується, що надмірні витрати незаможних українських домогосподарств на придбання продовольства є очевидною ознакою того, що вони перебувають в стані продовольчої небезпеки. На основі порівняльного аналізу практичного досвіду продовольчого забезпечення населення та методики визначення порогового значення економічної доступності продовольства в інших країнах і міжнародних організаціях робиться висновок про те, що нормативне граничне (порогове) значення українського індикатора «економічна доступність продуктів» на рівні 60% є необґрунтовано завищене.

Ключові слова: продовольча безпека; бідність; голод; економічна доступність; небезпека; порогове значення; міжнародний досвід.

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Экономическая доступность продуктов питания как ключевое условие продовольственной безопасности домохозяйств

Аннотация. В статье исследовано экономическую доступность продуктов питания в качестве главного индикатора продовольственной безопасности. Утверждается, что чрезмерные расходы малоимущих украинских домохозяйств на приобретение продовольствия являются очевидным признаком того, что они находятся в состоянии продовольственной опасности. На основании сравнительного анализа практического опыта продовольственного обеспечения населения и методики определения порогового значения экономической доступности продовольствия в других странах и международных организациях, сделан вывод о том, что нормативное предельное (пороговое) значение украинского индикатора «экономическая доступность продуктов» на уровне 60% является необоснованно завышенным.

Ключевые слова: продовольственная безопасность; бедность; голод; экономическая доступность; опасность; пороговое значение; международный опыт.

1. Introduction

According to the Constitution of Ukraine (Part 1, Article 3), an individual, his life and health, honour and dignity, inviolability and security shall be recognised in Ukraine as the highest social value. Thus, the right to basic life support factors is guaranteed to the Ukrainian citizens by the main Law of our country. The right to quality and safe food in a quantity corresponding to scientific and reasonable requirements for a healthy and active life is one of the most important among them. This is because «without solving the food problem a person is completely indifferent to any problems of other populations, countries or the world» [1, 17].

An analysis of available statistical information makes it possible to state that the right of a considerable part of the Ukrainian citizens to adequate and affordable food is systematically violated. This includes those who are in the state of constant food insecurity due to excessive costs required to purchase food.

2. Brief Literature Review

Since the second half of the twentieth century, issues related to food security have been one of the mainstreams in foreign and domestic studies. The problem of the close relationship between poverty and hunger has been studied in works by well-known experts in food security such as I. Clay (2003) [2], J. Staatz (2009) [3], D. Dawe and P. Timmer (2012) [4], J. Wilkinson (2015) [5], N. Tirivayi, M. Knowles and B. Davis (2016) [6], H. Cirillo, M. Györi and F. Soares (2017) [7], M. Stavropoulou, R. Holmes and N. Jones (2017) [8], O. V. Shubravskaya [9] and others. However, despite the considerable scientific research, the relevant issues are far from being resolved. The reason is that food security has a complex hierarchical structure and is a function of many interrelated factors occurring in the changing internal and external environment. Its condition depends on the type of the economic model of the national economy and the level of its integration into the global economy, climatic conditions, the level of agri-food production, economic conditions, political culture, the level of social protection, the level of development of democratic institutions, the country's involvement in military conflicts, food culture of the population, etc.

The problem of food security of the population, as well as food safety as a way of its formal definition has deep social roots. Food insecurity is closely connected with another equally urgent problem, which is poverty. Basically, food insecurity derives from the latter. In particular, I. J. Clay (1981) notes that «food security ... as a human problem is primarily one of the weaknesses of the material support of certain categories of people ...» [10]. K. Eicher (1990) points out that «the connection between food availability, poverty and access to food can be viewed as two sides of

the equation of food security ... Poverty is a central cause of hunger and malnutrition ...» [11, 506]. In the final report of the Symposium on Food Security in Africa in 1991 in the city of Dakar, it is stated that «... food security is directly related to structural problems of poverty» [12]. The same is found in the works by the Indian scientist N. K. Khadka (1990) who emphasises that «food insecurity in South Asia is closely related to poverty and hunger. Therefore, eliminating poverty and hunger and achieving regional food security will enable the poor to buy enough food because of possibilities of generating employment and redistribution of income and property ...» [13]. O. V. Shubravskaya stresses that «food security has a direct connection with the problem of poverty» [9, 119].

3. The purpose of the research is to find evidence that excessive costs that Ukrainian households spend on purchasing food is an obvious sign that they are in a state of food insecurity and to conduct a critical analysis of the official boundary value indicator of affordability of food as a key condition of food security of Ukraine.

4. Results

According to the State Statistics Service of Ukraine, the population with the average equivalent general income per month below the subsistence level was 5% at the end of the third quarter of 2016, having reduced compared with the previous year by 3 percentage points [14]. In contrast, according to the calculations carried out with the use of the methodology developed by the United Nations Organisation, 78% of people were under the poverty line in Ukraine in the second half of 2016 [15]. By the standards of this organisation, if a person spends less than USD 5 (EUR 4.6) a day and less than USD 150 (EUR 138) a month on accommodation and food, the person lives below the poverty line. Meanwhile, according to the Law of Ukraine «On the State Budget of Ukraine for 2017», the minimum subsistence income per capita per month in 2017 is determined in the amount of: UAH 1,544 (EUR 53.14) from 1 January 2017, UAH 1,624 (EUR 55.89) from 1 May 2017 and UAH 1700 (EUR 58.51) from 1 December 2017 it [16].

There is no chronic malnutrition or famine in Ukraine (excluding certain areas of Donetsk and Luhansk regions) in terms of the daily energy value in the human diet. The average value in 2015 at the level of 2,799 calories is above the critical level of 2,500 kcal [18]. However, despite a satisfactory level of the indicator of daily energy value, it only creates an illusion of security. This is because poor households are compelled to save for most of their needs in order to ensure a satisfactory level of food consumption, especially if they have minors. If such households face contingencies caused by illness, injury, accident, loss of property, etc.,

they will have to check their diet decreasing the portion size or a number of meals to use limited budget resources to fund unforeseen expenses. In such a case, there is a situation of temporary malnutrition which may be eventually turned into permanent malnutrition or chronic hunger. The average value at the level of 2,799 calories per day per 1 person (2015) points out that cases of insufficient intake of food energy (less than 2,500 kcal per day per 1 person) by some Ukrainian households were taken into account when forming the concept. Thus, in 2015 the energy value of the average daily intake was 2,072 kcal in households with the average monthly income from UAH 480.1 to UAH 840 (from EUR 19.82 to EUR 34.67), while it was 2,265 kcal for households with the average monthly income from UAH 840.1 to UAH 1,200 UAH (from EUR 34.67 to EUR 49.53). As a result, in 2015 members of all households included in the first decile (10%) group by income level periodically faced with a situation of temporary malnutrition. This means that the average energy value of their diet was 2,436 calories per 1 person [19]. The poverty of the Ukrainian people automatically raises the issue of economic food accessibility. This is the fourth official indicator of Ukraine's food security. Its threshold is 60%.

Analysing the dynamics of the quantitative value of the studied indicator (Figure 1) over the past 18 years, it should be noted that its maximum value was in 1999. It was the last year of the 1991-1999 economic crisis. In contrast, the lowest value was recorded in 2008. It was the last year of relatively strong economic growth of the Ukrainian economy in the period of 2000-2008. As can be seen, the quantitative value of the analysed indicator did not fall below 50% even in the most favourable periods for the development of the national economy (except 2008). At the current trend the actual value of the studied parameter can reach 54.8% in 2017. The question is whether 54.7% as the average value of the 1999-2016 period and 60% as the threshold for this indicator is sufficient to make food affordable or not?

According to the EU statistical database (Table1), countries of the former socialist camp have the highest relative costs related to purchasing food products. It is the population of countries with a relatively weak economy that undergo reforms. Yet, even among them there is no economy with food costs similar to those in Ukraine. It is important to note that the potential of the agri-food sector in Ukraine is greater than the potential of the same sector in the relevant countries. This is evident even from the fact that Ukraine is among the five largest grain exporters. However, this factor does not affect the affordability of food for Ukrainian households.

In our opinion, the 60% threshold value of the affordability of products indicator is unreasonably high. According to the FAO methodology, households that send 40% of their income to purchase food are called low-income and food-insecure. Given that poor households do not make savings, 40% is the share of expenditure on food in the structure of total household expenditures [22, 10].

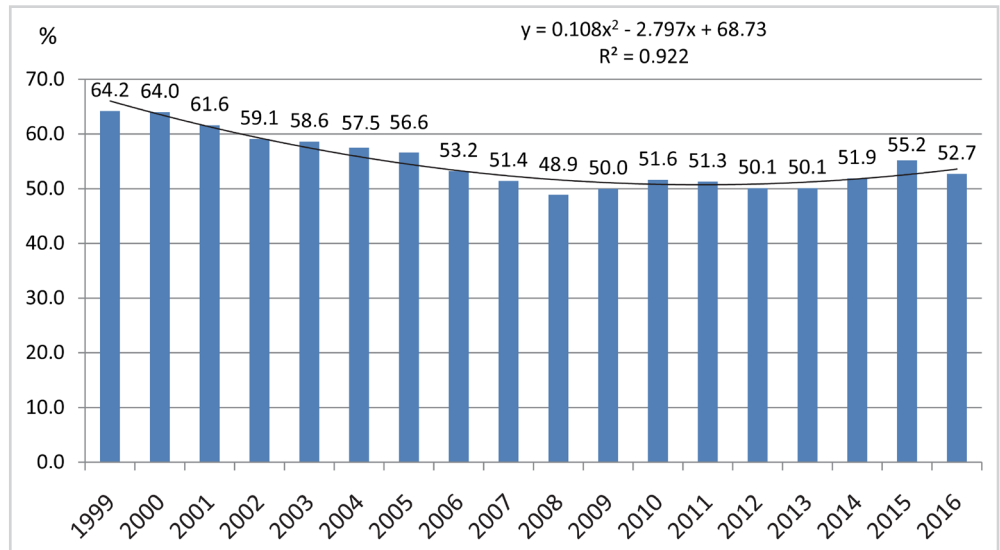


Fig. 1: The share of expenditure on food and non-alcoholic beverages in the structure of total costs of the Ukrainian households, %
Source: Compiled by the authors based on [14, 20]

Also, may refer to the experience of countries that had starting socio-economic conditions which were similar to the ones of Ukraine at the time of the declaration of the country's independence. For example, the threshold value of the indicator of the share of the expenditures on food purchase in monthly consumer spending is no more than 30% in the Republic of Belarus [23]. Even in Tajikistan, where the chronic malnutrition in 2006 was a problem for 61% of the population [24], there is an officially accepted standard under which food insecurity occurs when food items comprise 50% in the structure of total household expenditures.

5. Conclusions

1. Poverty is the root cause of malnutrition and hunger. According to the methodology developed by the United Nations Organisation, about 78% of the population in Ukraine was below the line of poverty in the second half of 2016.
2. In 2015, the average daily energy intake was 2,072 kcal for households with their average income from UAH 480.1 to UAH 840 per month, and it was 2,265 kcal or households with an income from UAH 840.1 to 1,200. As a result, in 2015 all members of the households who belonged to the first decile (10%) group periodically faced a situation of temporary malnutrition with the average energy value of their diet being 2,436 calories per person.
3. The poverty of the Ukrainian population automatically generates the problem of food affordability: the value of the affordability of products indicator did not fall below 50% in the period from 1999 to 2016 (except for 2008).

Tab. 1: The share of expenditure on food and non-alcoholic beverages in the structure of total costs of households in some EU countries

Country	1988	1994	1999	2005	2010
Bulgaria	n/a	n/a	48.2	31.5	29.3
Czech Republic	n/a	n/a	23.2	20.6	20.3
Germany	14.8	13.5	11	11.2	11.6
Estonia	n/a	n/a	34	22.5	23.3
Spain	26.2	22.8	18.3	18	14.4
France	17.3	16.2	15.4	13.4	15.8
Italy	23.8	21.1	19	no data	18.6
Latvia	n/a	n/a	39.1	29.2	26.1
Lithuania	n/a	n/a	45.7	33.8	28.5
Hungary	n/a	n/a	25	22.6	18.6
Netherlands	13.4	12.1	10.5	10.5	10
Poland	n/a	n/a	32.3	25.5	22.7
Romania	n/a	n/a	51.9	44.2	31.5
Slovakia	n/a	n/a	29.8	24.5	22
Sweden	n/a	17.8	15.4	10.5	12.7
Great Britain	14.3	13.3	10.5	9.9	12.6

Source: Compiled by the authors based on [21]

4. The 60% regulatory limit of the value of the affordability of products indicator is unreasonably high. This is confirmed by the comparative analysis of the practical experience of food security of the population and the methodology for determi-

ning the threshold of food affordability in other countries and international organisations. In particular, according to the FAO methodology, there are poor and food-insecure households in which the cost of purchasing food is 40% of total costs.

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Received 11.05.2017

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