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## DIFFERENTIATION OF SELF-ASSESSMENT AND OBJECTIVE INEQUALITIES IN THE LEVEL OF CONSUMPTION OF RURAL HOUSEHOLDS

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**Abstract.** This article is about the issues of self-assessment of inequalities in standards of living in rural areas in Poland. The goal of the research is to identify the differentiation of subjective assessments of the standard of living made by rural households. Subjective feelings of the surveyed households were compared with selected objective characteristics of their material situation. The most representative indicator of the households' financial situation there was an assumed level of consumer spending. A comparative analysis of the self assessment was conducted, the consumer spending and the selected characteristics of households belonging to various socio-economic groups. The econometric analysis showed that there is a strong relationship between self-assessment of economic situation and the level of consumer spending of households. It should be emphasized, that there is a significant impact of the reference group (there was a socio-economic group) on the households self-assessment. In the study, econometrical and statistical analysis were used. The study was based primarily on the source of information coming from the panel study of household budgets conducted in the year 2013 by the GUS (Central Statistical Office) in Poland.

**Keywords:** households' standard of consumption, inequalities in the standard of consumption, self-assessment of the standard of living

### INTRODUCTION

Inequalities in the levels of household consumption, standard of living or welfare continue to be an objective fact. Inequalities are an issue considered in the context of multiple scientific disciplines, specifically including sociology, psychology and economy. The reasons and consequences of socio-economic inequalities are investigated, their ethical aspects are discussed, and counteracting solutions are sought. In economic sciences, especially in social statistics, there are also formalized methodologies for analyzing socio-economic inequalities which allow for assessing their scale or determinants.

Inequalities are assessed subjectively by each individual. It is common to compare one's own standing to that of people from one's immediate environment and beyond. There is a great deal of opposition, both from individuals and entire social groups, to excessive inequalities. According to common beliefs, in Poland, there are large, unacceptable differences between the population's standard of living, with poverty areas being located mainly in rural regions.

This paper focuses on the issue of self-assessment of the unequal standard of living in Polish rural areas, primarily determined by income and consumption inequalities. The purpose of studies presented in this paper was an attempt to identify the diversity of subjective self-assessments of rural households' financial situation.

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Subjective feelings of the surveyed households were compared to selected objective characteristics of their financial situation. The household's income and consumer spending levels were used as indexes of financial situation. For the households, income is the main source of consumer spending, and the degree of satisfying their needs with consumption is a determinant for the standard of living (Bywalec and Rudnicki, 1992; Bywalec, 2010).

The following theses were advanced as a basis for the studies and analyses:

- the households' current income is the basis for their consumer spending;
- the households' standard of living is affected by the level of consumer spending which allows to satisfy consumer needs;
- such characteristics of households as sources of income, age of the head of household or household size differentiate the standard of living of specific consumers, especially as regards such measurable features as income or consumer spending;
- in addition to income and consumption determinants, the household's self-assessment of their living standard is also impacted by the standard of living in the reference group.

The studies presented in this paper used selected statistical measures of inequality, the quantile analysis and econometric modeling. The studies were based on source data from a panel research on the budgets of Polish households, conducted in 2013 by the Central Statistical Office, also including information on the households' self-assessment of their financial situation. The calculations were made with the use of STATISTICA PL.

#### **THE IMPACT OF BELONGING TO A SPECIFIC SOCIO-ECONOMIC GROUP ON THE HOUSEHOLDS' SELF-ASSESSMENT OF THEIR FINANCIAL SITUATION**

In Poland, the socio-economic structure of households was constantly evolving during the transformation period. The reasons were the ongoing economic and demographic changes. The spectacular reduction of the share of households headed by farmers, and the increasing share of households headed by pensioners are matters to be strongly emphasized. These trends were particularly visible in rural areas. In 2013, the socio-economic

structure of Polish rural households was as follows: the households were headed by employees (45.3%), farmers (11.3%), self-employed persons (6.4%), pensioners (33.7%), and unemployed persons (3.3%).

Belonging to a socio-economic group means that the head and members of the household live in a specific social environment and follow various consumption patterns. These are the non-economic factors that affect the self-assessment of their financial situation in addition to income.

Table 1 shows the differentiation of rural households' self-assessment of their financial situation by socio-economic categories.

The vast majority of rural dwellers (approximately 61% of respondents) find the financial situation of their household to be at an average level. Slightly less of them rated it "at least good" than "bad" or "rather bad." The rural households' ratings were a bit more pessimistic than the national average. The highest ratings were given by households whose main source of subsistence was self-employment. In turn, the farmers' households usually believed their financial situation to be at an average level. "Bad" or "rather bad" were the most frequent ratings given by households headed by unemployed persons.

The assessment of the capacity to satisfy the household's needs with the current income comes as a supplement to the self-assessment of their financial situation. In this case, rural dwellers who reported that their income was not enough to satisfy their needs to an adequate degree were much more numerous than those who claimed to be able to satisfy their needs at a high level. Indeed, nearly 3.3% of heads of households stated their resources were not enough to satisfy even their basic needs, while as much as 35% declared they needed to adopt strict money saving measures. On the other hand, about 8.3% of respondents declared no financial restrictions. In rural areas, households headed by unemployed persons were in the most desperate financial situation. In this group, nearly 29% of households did not earn enough income to satisfy their basic needs, while over 53% declared to live very modestly. In terms of income, the most comfortable situation was reported by heads of households headed by self-employed persons. More than 24% of them did not find it necessary to make savings on expenditure related to addressing their needs.

The respondents also assessed the actual and forecasted changes of their households' financial situation (cf. Table 1 and 2). The share of responses declaring

**Table 1.** Self-assessment of a financial situation of households in a rural areas in Poland in 2013 according to the socio-economic group

**Tabela 1.** Samoocena sytuacji materialnej gospodarstw domowych na wsi w Polsce w 2013 r. według typu społeczno-ekonomicznego

Specification Wyszczególnienie	Type of a household in a rural area Typ gospodarstwa domowego na wsi					Rural area in total Wieś ogółem	Poland in total Polska ogółem
	employees pracownicy	farmers rolnicy	self employed pracujący na własny rachunek	retirees and pensioners emeryci i renciści	maintained from non-earned sources bez zarobkowych źródeł utrzymania		
1	2	3	4	5	6	7	8
Share of respondents assessing the financial situation of their household as (%) Udział respondentów oceniających sytuację materialną swego gospodarstwa domowego jako (%)							
Very good – Bardzo dobra	1.26	0.68	3.49	0.48	0.39	1.04	1.98
Rather good – Raczej dobra	19.58	20.20	38.02	11.12	2.54	17.43	20.46
Medium – Przeciętna	62.42	68.12	50.60	61.57	31.64	61.01	57.46
Rather bad – Raczej zła	12.80	9.03	5.59	19.78	31.45	14.87	14.08
Bad – Zła	3.94	1.98	2.30	7.05	33.98	5.65	6.02
Share of respondents assessing the income barrier of meeting the needs of own household (%) Udział respondentów oceniających dochodowe bariery zaspokojenia potrzeb we własnym GD (%)							
We can afford for some luxury Możemy pozwolić sobie na pewien luksus	0.59	0.40	1.90	0.21	0.20	0.51	0.95
We have enough without a special saving Starcza nam na wiele bez specjalnego oszczędzania	8.29	9.76	22.36	4.20	1.17	7.75	10.24
We have enough for everyday living but we have to save for more serious purchase Starcza nam na co dzień, ale musimy oszczędzać na poważniejsze zakupy	57.59	60.72	60.88	47.67	16.21	53.46	52.48
We need sparingly manage everyday Musimy na co dzień bardzo oszczędnie gospodarować	31.58	27.99	13.97	44.17	53.71	35.01	32.46
We do not have enough even for basic needs Nie starcza nam nawet na podstawowe potrzeby	1.95	1.13	0.90	3.75	28.71	3.27	3.87
Share of respondents assessing the financial situation of their own household compared to last year (%) Udział respondentów oceniających zmiany sytuacji materialnej swego GD w stosunku do ubiegłego roku (%)							
Greatly improved – Bardzo się poprawiła	0.42	0.23	0.70	0.04	0.00	0.28	0.52
Slightly improved – Trochę się poprawiła	8.21	5.70	10.28	2.61	3.52	6.02	7.09
Not changed – Nie zmieniła się	66.53	73.42	70.26	71.00	49.22	68.49	66.14

**Table 1 cont. – Tabela 1 cd.**

1	2	3	4	5	6	7	8
Slightly worsened – Nieco się pogorszyła	20.49	18.51	14.87	20.42	19.92	19.86	20.34
Greatly worsened – Bardzo się pogorszyła	4.35	2.14	3.89	5.93	27.34	5.36	5.91
Share of respondents predicting changes in the financial situation of their household within the next year (%) Udział respondentów prognozujących zmiany sytuacji materialnej swego GD w ciągu następnego roku (%)							
Will improve – Poprawi się	0.69	0.23	1.60	0.13	1.17	0.52	1.29
Will rather improve – Raczej się poprawi	7.64	5.36	9.28	2.95	15.04	6.15	7.92
Will not change – Pozostanie bez zmian	68.80	73.02	71.76	68.70	51.95	68.89	67.49
Will get rather worse – Raczej się pogorszy	20.70	19.24	14.17	24.23	23.63	21.40	20.19
Will get worse – Pogorszy się	2.16	2.14	3.19	3.99	8.20	3.04	3.11

Source: own elaboration based on data coming from the households budgets surveys conducted by the Central Statistical Office in Poland in the year 2013.

Źródło: opracowanie własne na podstawie danych źródłowych z badań panelowych GUS budżetów gospodarstw domowych w Polsce w 2013 r.

**Table 2.** Relationship between self-assessment of past and projected changes in the financial situation of households in rural areas in Poland in 2013

**Tabela 2.** Zależności między samooceną zmiany przeszłej i prognozowanej zmiany sytuacji materialnej gospodarstw domowych na wsi w Polsce w 2013 r.

Share of respondents assessing the direction of change in the financial situation of their household in the last year (%) Udział respondentów oceniających kierunek zmiany sytuacji materialnej własnego gospodarstwa domowego w ciągu ubiegłego roku (%)	Share of respondents predicting changes in the financial situation of their household (%) Udział respondentów prognozujących kierunek zmiany sytuacji materialnej własnego gospodarstwa domowego w następnym roku (%)					Rural area in total Wieś ogółem	Poland in total Polska ogółem
	will improve poprawi się	will rather improve raczej się poprawi	will not change nie zmieni się	will rather get worse raczej się pogorszy	will get worse pogorszy się		
Greatly improved Bardzo się poprawiła	4.65	27.91	67.44	0.00	0.00	0.28	0.52
Slightly improved Trochę się poprawiła	2.98	20.21	68.19	8.19	0.43	6.02	7.09
Does not changed Nie zmieniła się	0.29	3.95	80.57	14.39	0.79	68.49	66.14
Slightly worsened Nieco się pogorszyła	0.48	7.73	40.61	46.47	4.71	19.86	20.34
Greatly worsened Bardzo się pogorszyła	0.72	11.47	25.21	33.93	28.67	5.36	5.91
Total – Ogółem	0.52	6.15	68.89	21.40	3.04	100.00	100.00

Source: own elaboration based on data coming from the households budgets surveys conducted by the Central Statistical Office in Poland in the year 2013.

Źródło: opracowanie własne na podstawie danych źródłowych z badań panelowych GUS budżetów gospodarstw domowych w Polsce w 2013 r.

an improvement within the last year was relatively low: on average, barely 6.3% of heads of households experienced positive changes of their household's financial situation. According to most (nearly 68.5%) of the households, no changes have occurred. Meanwhile, 26% declared a deterioration of their financial situation. The only group of households where an improvement of financial situation within the year preceding the survey was reported more frequently than a deterioration were the households headed by self-employed persons with the highest incomes.

When forecasting the trends of the evolving financial situation of households, the vast majority of respondents believed their situation would remain the same. However, whenever any changes of the financial situation were forecasted, pessimist opinions were prevalent in all socio-economic groups of households. Also, Table 2 could suggest that the forecasted changes of the households' own financial situation were significantly impacted by its previous evolution.

## DIFFERENTIATION OF SELF-ASSESSMENT AND OBJECTIVE DETERMINANTS OF THE CONSUMPTION LEVEL OF RURAL HOUSEHOLDS IN POLAND

Conclusions as to the objective nature of financial situation assessments made by heads of households may be

drawn indirectly by analyzing their differentiation in the context of selected characteristics of the households. The presented studies covered the level of equivalent income and consumer spending<sup>1</sup>, the age of the head of household and the size of the household. The results of this analysis are shown in Tables 3 to 6.

Based on Table 3, it may be concluded that, in rural areas, the highest equivalent income was earned by households headed by self-employed persons, followed by households headed by farmers, employees and pensioners. The lowest average equivalent income (almost 2.5 times lower than that earned by households headed by self-employed persons) was reported by households headed by unemployed persons. In that group of households, the average equivalent consumer spending was also higher than their income. This suggests a dramatic financial situation.

According to the Engel's law, as income rises, the proportion of income spent on food (or consumer

<sup>1</sup> To determine the size of the household, the OECD 70/50 equivalence scale was used. Accordingly, a weight of 1 is assigned to the first adult, and a weight of 0.7 to each subsequent adult. A weight of 0.5 is assigned to persons below 15 years old. Bearing in mind the current level of Poland's economic development, that scale was deemed to be more adequate than the modified OECD 50/30 scale used for highly developed countries. In that case, a weight of 1 is assigned to the first adult, a weight of 0.5 is assigned to each subsequent adult, and a weight of 0.3 is assigned to persons below 15 years old.

**Table 3.** Selected socio-economic characteristics of households in rural areas in Poland in 2013 according to the socio-economic group type

**Tabela 3.** Wybrane charakterystyki społeczno-ekonomiczne gospodarstw domowych na wsi w Polsce w 2013 r. według typu społeczno-ekonomicznego

Specification Wyszczególnienie	Type of a household in a rural area – Typ gospodarstwa domowego na wsi					Rural area in total Wieś ogółem	Poland in total Polska ogółem
	employees pracownicy	farmers rolnicy	self employed pracujący na własny rachunek	retirees and pensioners emeryci i renciści	maintained from non-earned sources bez zarobkowych źródeł utrzymania		
1	2	3	4	5	6	7	8
Monthly equivalent income (PLN) – Miesięczne rozporządzalne dochody ekwiwalentne (zł)							
Average – Średnia	1 938.86	2 164.12	2 410.86	1 511.00	928.48	1 817.55	2 078.88
Standard deviation Odchylenie standardowe	1 172.54	8 445.91	2 106.32	728.23	776.19	3 048.36	2 294.14
Minimum	–3 225.00	–133 463.33	–16 121.55	–805.00	–375.00	–133 463.33	–133 463.33

**Table 3 cont. – Tabela 3 cd.**

1	2	3	4	5	6	7	8
Maximum – Maksimum	14 840.47	283 386.43	22 703.75	13 981.57	7 081.33	283 386.43	283 386.43
Median – Mediana	1 699.69	1 436.08	2 000.00	1 379.22	764.20	1 524.51	1 770.43
Monthly equivalent consumer spending (PLN) – Miesięczne ekwiwalentne wydatki konsumpcyjne (zł)							
Average – Średnia	1 608.92	1 471.68	2 080.86	1 381.73	972.05	1 526.28	1 720.66
Standard deviation Odchylenie standardowe	1 090.11	992.89	1 855.00	911.92	581.99	1 096.28	1 239.25
Minimum	213.26	222.92	301.84	248.82	173.95	173.95	126.38
Maximum – Maksimum	29 758.43	13 607.51	37 930.43	18 867.37	4 379.55	37 930.43	38 411.14
Median – Mediana	1 360.14	1 245.48	1 662.42	1 173.09	828.06	1 275.82	1 444.72
Average propensity to consume Prz. skł. do konsumpcji	82.98	68.00	86.31	91.44	104.69	83.97	82.77
Age of a head of household – Wiek głowy domu w latach							
Average – Średnia	45	47	44	67	48	53	52
Standard deviation Odchylenie standardowe	11	10	10	11	13	15	16
Minimum	17	20	20	18	18	17	16
Maximum – Maksimum	88	85	74	104	84	104	104
Median – Mediana	45	48	44	67	50	52	53
Number of persons in a household – Liczba osób w gospodarstwie domowym							
Average – Średnia	3.65	4.03	3.59	2.19	2.98	3.17	2.76
Standard deviation Odchylenie standardowe	1.48	1.73	1.39	1.26	1.98	1.63	1.47
Minimum	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Maximum – Maksimum	13.00	14.00	12.00	15.00	13.00	15.00	15.00
Median – Mediana	4.00	4.00	4.00	2.00	2.00	3.00	2.00

Source: own elaboration based on data coming from the households budgets surveys conducted by the Central Statistical Office in Poland in the year 2013.

Źródło: opracowanie własne na podstawie danych źródłowych z badań panelowych GUS budżetów gospodarstw domowych w Polsce w 2013 r.

spending) falls or, using the Keynes nomenclature, the average propensity to consume falls. This could be observed in the selected groups of households. Farmers proved to be particularly thrifty as their consumer spending was only 68% of income, and their income was comparable to that of households headed by self-employed persons whose average propensity to consume was above 86%. The main reason for such a low propensity to consume could be the fact that the farmers' households tend to combine the consumption

function with the production function, and follow a separate consumption pattern.

Based on Tables 4, 5 and 6, it may be concluded that the self-assessment of financial situation depends both on the level of equivalent income earned and on the equivalent consumer spending of households. Households who believe their financial situation to be bad have an average equivalent income nearly 4.5 times lower than those who rate their financial situation as very good. The difference was slightly lower in the case

**Table 4.** Selected socio-economic characteristics of households in rural areas in Poland in 2013 according to the self-assessment of the financial situation

**Tabela 4.** Wybrane charakterystyki społeczno-ekonomiczne gospodarstw domowych na wsi w Polsce w 2013 r. według samooceny sytuacji ekonomicznej

Specification Wyszczególnienie	Self-assessment of the financial situation Własna ocena sytuacji finansowej					Rural area in total Wieś ogółem	Poland in total Polska ogółem
	very good bardzo dobra	rather good raczej dobra	medium przeciętna	rather bad raczej zła	bad zła		
Monthly equivalent income (PLN) – Miesięczne rozporządzalne dochody ekwiwalentne (zł)							
Average – Średnia	4 468.41	2 828.88	1 716.43	1 173.53	994.29	1 817.55	2 078.88
Standard deviation Odchylenie standardowe	4 021.20	6 617.90	1 316.95	619.67	604.74	3 048.36	2 294.14
Minimum	–13 330.04	–133 463.33	–43 242.10	–3 648.88	–1 933.26	–133 463.33	–133 463.33
Maximum – Maksimum	32 601.31	283 386.43	31 247.08	9 622.86	7 286.67	283 386.43	283 386.43
Median – Mediana	3 547.24	2 353.33	1 556.66	1 086.06	898.48	1 524.51	1 770.43
Monthly equivalent consumer spending (PLN) – Miesięczne ekwiwalentne wydatki konsumpcyjne (zł)							
Average – Średnia	3 159.45	2 157.07	1 464.92	1 119.70	1 010.95	1 526.28	1 720.66
Standard deviation Odchylenie standardowe	2 539.78	1 718.71	826.32	557.97	569.82	1 096.28	1 239.25
Minimum	530.99	254.59	213.26	234.14	173.95	173.95	126.38
Maximum – Maksimum	17 046.76	37 930.43	11 940.38	4 632.80	4 514.33	37 930.43	38 411.14
Median – Mediana	2 407.40	1 785.07	1 285.44	997.28	889.81	1 275.82	1 444.72
Age of a head of household – Wiek głowy domu w latach							
Average – Średnia	49	49	53	55	54	53	52
Standard deviation Odchylenie standardowe	15	14	15	15	14	15	16
Minimum	21	19	18	19	17	17	16
Maximum – Maksimum	88	104	99	93	91	104	104
Median – Mediana	46	48	52	55	54	52	53
Number of persons in a household – Liczba osób w gospodarstwie domowym							
Average – Średnia	3.12	3.34	3.22	2.94	2.82	3.17	2.76
Standard deviation Odchylenie standardowe	1.33	1.51	1.61	1.74	1.80	1.63	1.47
Minimum	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Maximum – Maksimum	7.00	14.00	13.00	13.00	15.00	15.00	15.00
Median – Mediana	3.00	3.00	3.00	3.00	2.00	3.00	2.00

Source: own elaboration based on data coming from the households budgets surveys conducted by the Central Statistical Office in Poland in the year 2013.

Źródło: opracowanie własne na podstawie danych źródłowych z badań panelowych GUS budżetów gospodarstw domowych w Polsce w 2013 r.



**Table 5.** Selected socio-economic characteristics of households in rural areas in Poland in 2013 according to the self-assessment of the income barrier of meeting the needs

**Tabela 5.** Wybrane charakterystyki społeczno-ekonomiczne gospodarstw domowych na wsi w Polsce w 2013 r. według samo-oceny dochodowych barier zaspokojenia potrzeb

Specification Wyszczególnienie	Self-assessment of the situation – Samoocena sytuacji					Rural area in total Wieś ogółem	Poland in total Polska ogółem
	Evaluation 1* Ocena 1*	Evaluation 2* Ocena 2*	Evaluation 3* Ocena 3*	Evaluation 4* Ocena 4*	Evaluation 5* Ocena 5*		
Monthly equivalent income (PLN) – Miesięczne rozporządzalne dochody ekwiwalentne (zł)							
Average – Średnia	4 813.34	3 427.68	1 955.99	1 292.09	893.63	1 817.55	2 078.88
Standard deviation Odchylenie standardowe	5 188.06	9 722.99	1 419.92	1 019.44	573.96	3 048.36	2 294.14
Minimum	–13 330.04	–133 463.33	–14 110.66	–43 242.10	–831.64	–133 463.33	–133 463.33
Maximum – Maksimum	32 601.31	283 386.43	31 247.08	17 124.26	5 549.06	283 386.43	283 386.43
Median – Mediana	3 437.83	2 690.31	1 743.56	1 197.79	790.80	1 524.51	1 770.43
Monthly equivalent consumer spending (PLN) – Miesięczne ekwiwalentne wydatki konsumpcyjne (zł)							
Average – Średnia	3 625.86	2 476.02	1 615.75	1 208.89	881.25	1 526.28	1 720.66
Standard deviation Odchylenie standardowe	4 615.06	1 832.50	989.26	669.19	509.27	1 096.28	1 239.25
Minimum	550.28	332.47	283.49	213.26	173.95	173.95	126.38
Maximum – Maksimum	37 930.43	18 867.37	29 758.43	11 910.96	4 181.28	37 930.43	38 411.14
Median – Mediana	2 410.54	2 019.23	1 406.44	1 066.00	761.60	1 275.82	1 444.72
Age of a head of household – Wiek głowy domu w latach							
Average – Średnia	47	49	52	54	54	53	52
Standard deviation Odchylenie standardowe	12	14	15	15	13	15	16
Minimum	27	20	18	18	17	17	16
Maximum – Maksimum	80	104	99	93	90	104	104
Median – Mediana	45	48	51	55	56	52	53
Number of persons in a household – Liczba osób w gospodarstwie domowym							
Average – Średnia	3.35	3.23	3.30	3.02	2.60	3.17	2.76
Standard deviation Odchylenie standardowe	1.33	1.50	1.57	1.71	1.72	1.63	1.47
Minimum	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Maximum – Maksimum	7.00	9.00	13.00	15.00	10.00	15.00	15.00
Median – Mediana	3.00	3.00	3.00	3.00	2.00	3.00	2.00

\*Evaluation 1 – we can afford for some luxury, evaluation 2 – we have enough without a special saving, evaluation 3 – we have enough for everyday, but we need to save for more serious purchase, evaluation 4 – we need sparingly manage every day, evaluation 5 – we do not have enough even for basic needs.

Source: own elaboration based on data coming from the households budgets surveys conducted by the Central Statistical Office in Poland in the year 2013.

\*Ocena 1 – możemy pozwolić sobie na pewien luksus, ocena 2 – starcza nam na wiele bez specjalnego oszczędzania, ocena 3 – starcza nam na co dzień, ale musimy oszczędzać na poważniejsze zakupy, ocena 4 – musimy na co dzień bardzo oszczędnie gospodarować, ocena 5 – nie starcza nam nawet na podstawowe potrzeby.

Źródło: opracowanie własne na podstawie danych źródłowych z badań panelowych GUS budżetów gospodarstw domowych w Polsce w 2013 r.

**Table 6.** Selected socio-economic characteristics of households in rural areas in Poland in 2013 according to the self-assessment of membership to the tertile group because of the standard of living

**Tabela 6.** Wybrane charakterystyki społeczno-ekonomiczne gospodarstw domowych na wsi w Polsce w 2013 r. według samooceny przynależności do grupy tercylowej ze względu na poziom życia

Specification Wyszczególnienie	Group memberships – Przynależność do grupy			Rural area in total Wieś ogółem	Poland in total Polska ogółem
	first tertile group I grupa tercylowa	second tertile group II grupa tercylowa	third tertile group III grupa tercylowa		
Structure of the sample Struktura próby	22,27	76,21	1,51	100,00	x
Monthly equivalent income (PLN) – Miesięczne rozporządzalne dochody ekwiwalentne (zł)					
Average – Średnia	1 201.81	1 930.86	5 180.01	1 817.55	2 078.88
Standard deviation Odchylenie standardowe	896.22	2 067.54	19 278.17	3 048.36	2 294.14
Minimum	–7 244.70	–133 463.33	–13 330.04	–133 463.33	–133 463.33
Maximum – Maksimum	31 247.08	47 197.60	283 386.43	283 386.43	283 386.43
Median – Mediana	1 104.54	1 676.67	2 764.48	1 524.51	1 770.43
Monthly equivalent consumer spending (PLN) – Miesięczne ekwiwalentne wydatki konsumpcyjne (zł)					
Average – Średnia	1 136.22	1 617.72	2 664.42	1 526.28	1 720.66
Standard deviation Odchylenie standardowe	623.51	1 080.43	3 319.35	1 096.28	1 239.25
Minimum	173.95	213.26	290.45	173.95	126.38
Maximum – Maksimum	9 890.19	29 758.43	37 930.43	37 930.43	38 411.14
Median – Mediana	999.21	1 369.36	1 869.35	1 275.82	1 444.72
Age of a head of household (years) – Wiek głowy domu (lata)					
Average – Średnia	55	52	49	53	52
Standard deviation Odchylenie standardowe	15	15	13	15	16
Minimum	17	18	22	17	16
Maximum – Maksimum	93	104	87	104	104
Median – Mediana	56	51	48	52	53
Number of persons in a household – Liczba osób w gospodarstwie domowym					
Average – Średnia	2.90	3.25	3.19	3.17	2.76
Standard deviation Odchylenie standardowe	1.78	1.57	1.48	1.63	1.47
Minimum	1.00	1.00	1.00	1.00	1.00
Maximum – Maksimum	13.00	15.00	8.00	15.00	15.00
Median – Mediana	2.00	3.00	3.00	3.00	2.00

Source: own elaboration based on data coming from the households budgets surveys conducted by the Central Statistical Office in Poland in the year 2013.

Źródło: opracowanie własne na podstawie danych źródłowych z badań panelowych GUS budżetów gospodarstw domowych w Polsce w 2013 r.

of average equivalent consumer spending in specific groups of households selected in function of self-assessment of their financial situation. Young people tended to rank their financial situation higher while the size of the household did not represent a significant differentiating factor for the ratings.

Data from Table 5 confirms the existence of a strict relationship between subjective assessments of the role of income in addressing one's needs and the objective metrics of the rural households' financial situation. This is because households unable to satisfy even their basic needs had an income nearly six times lower than the households who declared a high degree of satisfaction. Note that in the surveyed sample of rural households, the age of the head of household turned out to be a significant factor for the differentiation of income: on an average basis, households headed by younger persons earned higher incomes.

Table 6 shows the results of the analysis of the ability to objectively assess the living standards of households. Most of the respondents (76.21%) believed their standard of living corresponded to the second tercile (i.e. was at an average level). Only 1.51% of households declared to belong to the third tercile. Note that

households with the lowest consumer spending (which indicates the lowest standard of living) were more often realistic in their self-assessments than the wealthiest households with an actually high consumption level. Therefore, it may be concluded that when assessing their living standards, the respondents make broad comparisons to entities from their immediate environment. This could be the explanation for the over-representation of average ratings.

#### FUNCTIONAL DEPENDENCY BETWEEN THE SELF-ASSESSMENT OF FINANCIAL SITUATION AND EQUIVALENT CONSUMER SPENDING OF RURAL HOUSEHOLDS IN POLAND

The existence of a strong relationship between subjective assessments and objective metrics of the households' financial situation is confirmed by the results of the econometric analysis.

The following probit models of the self-assessment of financial situation in function of equivalent consumer spending were developed for specific household classes selected based on the main source of income:

**Table 7.** Values of estimated parameters of probit models for self-assessments of the financial situation of households in rural areas in Poland in 2013

**Tabela 7.** Oceny parametrów probitowych modeli samooceny sytuacji materialnej gospodarstw domowych na wsi w Polsce w 2013 r.

Type of household Wyszczególnienie klas gospodarstw domowych	Values of estimated parameters Oceny parametrów		
	a	b	$\chi^2$
Poland in total – Polska ogółem	0.44158	–1.5700	42 54.70
Rural area in total – Wieś ogółem	0.41072	–1.5787	1 281.80
Employees – Pracownicy	0.38953	–1.4834	567.72
Farmers – Rolnicy	0.24046	–1.1846	47.72
Self employed – Pracujący na własny rachunek	0.41397	–1.0384	137.91
Retirees and pensioners – Emeryci i renciści	0.39994	–1.8084	286.68
Maintained from non-earned sources Bez zarobkowych źródeł utrzymania	0.79610	–2.9901	29.03

Source: own elaboration based on data coming from the households budgets surveys conducted by the Central Statistical Office in Poland in the year 2013.

Źródło: opracowanie własne na podstawie danych źródłowych z badań panelowych GUS budżetów gospodarstw domowych w Polsce w 2013 r.

$$y = \Phi(ax + b)$$

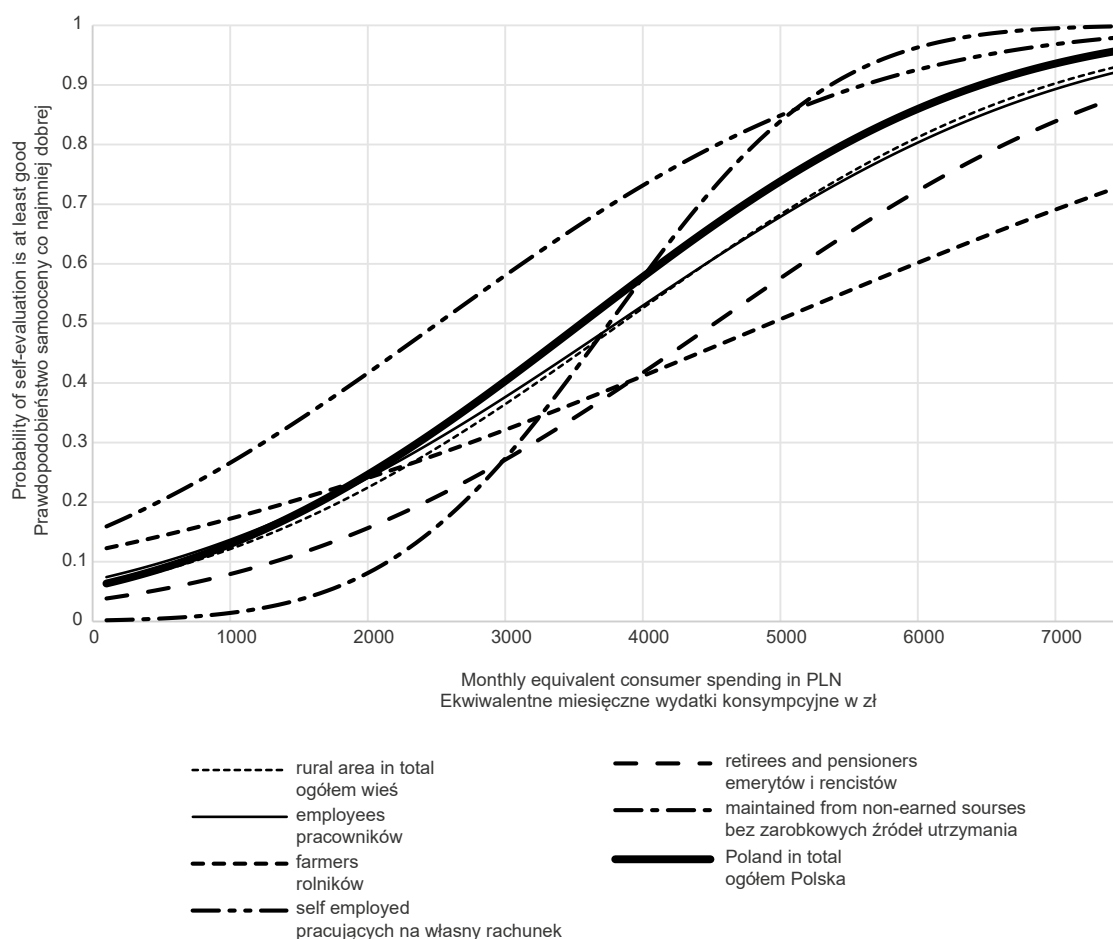
$a, b$  – assessed structural parameters of the model.

with:

$y$  – probability that the household ranks its financial situation as good (or beyond);  
 $\Phi$  – cumulative distribution function of the standardized normal distribution;  
 $x$  – the household's equivalent consumer spending in thousand PLN;

The structural parameters of the model were assessed with the maximum likelihood method (Gruszczyński, 2010) using the STATISTICA bundle.

Results of the estimation are shown in Table 7 and Figure 1. The models were successfully validated, the parameters proved to be statistically significant, and the models match well with empirical data.



**Fig. 1.** Probit models of relationship between self-assessments of the financial situation and monthly equivalent consumer spending of households in rural areas in Poland in 2013.

Source: own elaboration based on data coming from the households budgets surveys conducted by the Central Statistical Office in Poland in the year 2013.

**Rys. 1.** Probitowe modele zależności samooceny sytuacji materialnej od ekwiwalentnych miesięcznych wydatków konsumpcyjnych gospodarstw domowych na wsi w Polsce w 2013 r.

Źródło: opracowanie własne na podstawie danych źródłowych z badań panelowych GUS budżetów gospodarstw domowych w Polsce w 2013 r.

Probit models illustrating the dependencies of the households' self-assessment of their financial situation confirm that the assessments significantly depend on the equivalent monthly consumer spending. Also, the models demonstrate a variable level of "optimism" in the assessments made by different household groups classified by their main source of income. The strongest optimism was shown by respondents from households headed by self-employed persons (i.e. the wealthiest ones). Meanwhile, the least optimistic ratings were provided by households headed by unemployed persons. In the case of households headed by farmers, specific growth rates of equivalent consumer spending were accompanied by a definitely slower improvement of the self-assessment of financial situation than in the case of other selected household groups.

## SUMMARY

The conclusions drawn from the studies provide a confirmation for the theses advanced at the beginning of this paper.

In the surveyed year, rural households in Poland were highly diversified in terms of their financial situation measured with equivalent income and consumer spending. The differentiation was equally visible inside and between the selected socio-economic groups of households.

Most of the rural households find their financial situation to be normal, which is consistent with the Polish average. The share of medium ratings is relatively high because the self-assessment of living standards could be strongly affected by the reference group.

As regards the selected socio-economic types of households, the objectively poorest households (i.e. those headed by unemployed persons) were the greatest pessimists about their financial situation.

As demonstrated by the econometric analysis, a significant dependence exists between the households' self-assessment of their financial situation and their equivalent consumer spending.

As regards assessment of previous and foreseen evolution of the financial situation, most of the respondents did not expect any improvements. However, compared to other groups, households in a better financial situation and younger households were more likely to foresee an improvement in their living standards in the nearest future.

## REFERENCES

- Bywalec, C. (2010). *Konsumpcja a rozwój gospodarczy i społeczny*. Warszawa: C.H. Beck.
- Bywalec, C., Rudnicki, L. (1992). *Podstawy teorii i metodyki badania konsumpcji*. Kraków: Wyd. AE w Krakowie.
- Gruszczyński, M. (Ed.) (2010). *Mikroekonometria*. Warszawa: Wolters Kluwer business.
- Hanusik, K., Łangowska-Szcześniak, U. (2015). Ubóstwo a zamożność ludności w Polsce w świetle badań budżetów gospodarstw domowych. *Europa Region.*, XXV, 109–124.
- Panek, T. (2007). *Statystyka społeczna*. Warszawa: PWE.
- Picketty, T. (2015). *Ekonomia nierówności*. Warszawa: Wydawnictwo Krytyki Politycznej.
- Rawls, J. (2009). *Teoria sprawiedliwości*. Warszawa: Wyd. Nauk. PWN.
- Sen, A. K. (2000). *Nierówności, Dalsze rozważania*. Kraków–Warszawa: SIW Znak i Fundacja im. Stefana Batorego.

## ZRÓŻNICOWANIE SAMOOCENY A OBIEKTYWNE NIERÓWNOŚCI POZIOMU KONSUMPCJI GOSPODARSTW DOMOWYCH NA WSI

**Streszczenie.** Niniejszy artykuł jest poświęcony problematyce samooceny nierówności poziomu konsumpcji na wsi w Polsce jako podstawowej determinanty poziomu życia. Celem zaprezentowanych w nim badań była próba identyfikacji zróżnicowania subiektywnych ocen poziomu życia gospodarstw domowych na wsi oraz porównania ich z wybranymi obiektywnymi charakterystykami sytuacji materialnej tych podmiotów. Jako najbardziej reprezentatywny wskaźnik sytuacji materialnej gospodarstwa domowego przyjęto poziom wydatków konsumpcyjnych. Przeprowadzono analizę porównawczą relacji między samooceną a wydatkami konsumpcyjnymi i wybranymi charakterystykami gospodarstw zaliczanych do poszczególnych grup społeczno-ekonomicznych. Analiza ekonometryczna wykazała silną zależność między oceną własnej sytuacji materialnej gospodarstw a poziomem wydatków konsumpcyjnych. Na podkreślenie zasługuje też istotny wpływ grupy odniesienia, za którą uznano grupę społeczno-ekonomiczną gospodarstw domowych, na samoocenę sytuacji materialnej. W badaniach zastosowano metody analizy statystycznej i modelowanie ekonometryczne. W artykule wykorzystano dane źródłowe z badań panelowych budżetów gospodarstw domowych w Polsce w 2013 r. prowadzonych przez GUS.

**Słowa kluczowe:** poziom konsumpcji gospodarstw domowych, nierówności poziomu konsumpcji, samoocena poziomu życia

Accepted for print – Zaakceptowano do druku: 05.12.2016