

Wawrzyniak, Dorota

Article

Standard of living in the European Union

Comparative Economic Research. Central and Eastern Europe

Provided in Cooperation with:

Institute of Economics, University of Łódź

Suggested Citation: Wawrzyniak, Dorota (2016) : Standard of living in the European Union, Comparative Economic Research. Central and Eastern Europe, ISSN 2082-6737, De Gruyter, Warsaw, Vol. 19, Iss. 1, pp. 141-155, <https://doi.org/10.1515/cer-2016-0008>

This Version is available at:

<https://hdl.handle.net/10419/184385>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by-nc-nd/4.0>



DOROTA WAWRZYNIAK*

Standard Of Living In The European Union

Abstract

The European Union countries are diversified in terms of the standard of living of the population. The reduction of disparities in the standard of living, along with the elimination of the negative phenomena related to social exclusion form an EU policy priority. In this context, the aim of this article is to compare the standard of living in the various European Union countries and to determine Poland's position in the ranking. In the study, countries with a similar standard of living of their populations were grouped as well.

The analysis was based on 10 variables describing the standard of living in the EU-28 countries and was conducted with the use of the development pattern method proposed by Z. Hellwig.

According to the results of the research, the standard of living is the highest in Austria, Finland, Germany and Sweden, whereas it is the lowest in Spain, Malta, Croatia and Romania. Poland ranks relatively low among the European Union countries (20th place).

Keywords: *standard of living, European Union, multidimensional comparative analysis*

* Ph.D., University of Łódź, Faculty of Economics and Sociology, Department of Economic Mechanisms, e-mail: dorota1203@tlen.pl

1. Introduction

In recent years there has been a growing interest in issues related to the standard of living and the quality of life. This interest is manifested not only by the representatives of the scientific community, but also among politicians and the public. The above-mentioned subject area is present in the public debate and is included in both national and international documents. Issues related to the standard of living and social cohesion are also discussed in the sustainable development context. Reducing disparities in the standard of living and eliminating the negative phenomena associated with social exclusion form a priority of the EU policy. The overall aim of the renewed European Union Sustainable Development Strategy adopted in 2006 was “to identify and develop actions to enable the EU to achieve continuous improvement of quality of life both for current and for future generations, through the creation of sustainable communities able to manage and use resources efficiently and to tap the ecological and social innovation potential of the economy, ensuring prosperity, environmental protection and social cohesion” (*Renewed EU...*, p. 3). According to the latest European Union strategy “*Europe 2020: A strategy for smart, sustainable and inclusive growth*” one of the priorities is “inclusive growth – fostering a high-employment economy delivering economic, social and territorial cohesion” (*Europe 2020: A strategy...*, p. 10). As reflected in the document, the Europe 2020 Strategy “is about more jobs and better lives” for European citizens (*Europe 2020: A strategy...*, p. 2).

In this context, the purpose of this article is to compare the standard of living in the European Union countries and to determine Poland’s position in the ranking. Due to the fact that the concept of standard of living is a complex phenomenon, i.e., is characterized by a set of variables that present its various aspects, the research was conducted with the use of one of the multidimensional comparative analysis methods.

The analysis covers all 28 European Union member states (the EU-28). The set of diagnostic features applied in the research was determined by the availability of data and the statistical requirements. In the final analysis, ten out of 20 potential variables representing various aspects of the standard of living were used.

The structure of the article is as follows. The next Section 2 briefly reviews definitions of the term “standard of living”. Section 3 describes the development pattern method proposed by Z. Hellwig, which was applied in the research. It enumerates variables used in the analysis and provides a brief description of each of the indicators characterizing the standard of living of the population in the European Union countries. Section 4 presents the results of the analysis. The paper closes with a summary of its results.

2. Standard of living of the population – theoretical issues

The European Union countries are diversified in terms of the standard of living of their populations. This results from, among other things, the varied overall socio-economic development. However, the standard of living is not a directly observable category. It is an interdisciplinary, complex concept, and is defined in various ways.

According to the United Nations commission of experts (of 1954), the standard of living includes “the totality of the actual living conditions of people, and the degree of satisfaction of their material and cultural needs through the stream of chargeable goods and services and also those coming from social funds” (Pawełek 2004, p. 16). As indicated in the literature on the subject, this definition of the standard of living became the foundation for many of the other definitions of the concept.

In accordance with the oft-quoted definition by A. Luszczewicz (1982, p. 13) “the degree of meeting material and cultural needs of households executed by streams of chargeable goods and services and gratuitous funds of social consumption and natural use” should be understood as the standard of living of the population in the given unit of time and in a given unit of space. The author named seven groups of material and cultural needs: food, housing, health care, education, recreation (leisure time activities), social security, and financial security (Luszczewicz 1982, p. 20). Cz. Bywalec and S. Wydymus (1992, p. 669) understood the standard of living as “the degree of satisfaction of a population’s needs resulting from the consumption of man-made material goods and services and getting benefits from the natural and social environment.”

It should also be noted that although in the literature on the subject there are many definitions of the terms “standard of living” and “quality of life,”¹ according to M. Johann (2005, p. 11) there are no clear definitions which distinguish between these two concepts. Some researchers even regard these terms as synonyms (Bywalec, Wydymus 1992, p. 669). However others emphasise differences e.g., A. Lipeta (2000), Cz. Bywalec, S. Wydymus (1992), T. Słaby (1990). According to T. Słaby (1990, p. 8) who is often quoted by various authors, “standard of living defined as a degree of meeting material needs refers to the basic needs in the hierarchy of human needs (physiological needs), whereas quality of life includes all those elements of human life which are related to the fact of human existence, being somebody recognised and feeling various emotional conditions resulting from, e.g., the fact of having a family, colleagues, and friends”. In this approach

¹ A review of the definitions used in the literature can be found in, for example: Pawełek (2000, pp. 12–23; 2004, pp. 11–21), Johann (2005, pp. 11–16), Grzega (2012, pp. 15–25).

the standard of living is objective, as opposed to the subjective nature of the quality of life, which is related to feelings of people regarding their degree of satisfaction with their existence. T. Słaby confirms this by stating that the standard of living should be determined on the basis of objective indicators, while the quality of life – subjective ones.

In this study only objective indicators are used to describe the standard of living in the European Union countries.

3. Methodology of the research and data

The “standard of living” analysed in this article is a complex phenomenon, and thus should be described by a set of variables that present its various aspects. For this reason the development pattern method proposed by Z. Hellwig, which is one of the multidimensional comparative analysis methods, was used to compare the standard of living in the various countries of the European Union. This method enables researchers to compare and arrange objects (in this case countries) from “the best” to “the worst” by creating an aggregate indicator (synthetic variable), which constitutes the basis for ordering the researched objects with respect to a multi-characteristic phenomenon.

The development measure calculated in accordance with the development pattern method proposed by Z. Hellwig in 1968 is a synthetic variable often applied in practice (see Ostasiewicz 1999, p. 113). The process of its construction begins with the determination of the observation matrix elements $\mathbf{X} = [x_{ij}]$, that is, the values of variables ($j = 1, 2, \dots, m$) for particular objects ($i = 1, 2, \dots, n$).

In order to make diagnostic variables comparable by eliminating various units of measurement and different ranges of variation, the process of standardisation is applied according to the formula:

$$z_{ij} = \frac{x_{ij} - \bar{x}_j}{S_j}, \quad (1)$$

where:

x_{ij} – the value of variable j for object i ,

\bar{x}_j – the arithmetic mean of variable j ,

S_j – the standard deviation of variable j .

The next step is to determine the so-called development pattern \mathbf{P}_0 with coordinates $[z_{01}, z_{02}, \dots, z_{0m}]$, which are calculated in accordance with the rule:

$$z_{0j} = \begin{cases} \max_i(z_{ij}), & \text{if } j \in S, \\ \min_i(z_{ij}), & \text{if } j \in D, \end{cases} \quad j = 1, 2, \dots, m; i = 1, 2, \dots, n, \quad (2)$$

where:

S – a set of stimulants, i.e., such diagnostic variables whose high values are desirable from the point of view of the examined phenomenon,

D – a set of de-stimulants, i.e., such diagnostic variables whose high values are undesirable from the point of view of the examined phenomenon.

Subsequently, the Euclidean distance of each object from the development pattern is calculated by the formula:

$$d_{i0} = \sqrt{\sum_{j=1}^m (z_{ij} - z_{0j})^2}, \quad i = 1, 2, \dots, n. \quad (3)$$

The synthetic measure is finally defined as follows:

$$z_i = 1 - \frac{d_{i0}}{d_0}, \quad i = 1, 2, \dots, n, \quad (4)$$

where:

$$d_0 = \bar{d}_0 + 2S_0, \quad (5)$$

$$\bar{d}_0 = \frac{1}{n} \sum_{i=1}^n d_{i0}, \quad (6)$$

$$S_0 = \sqrt{\frac{1}{n} \sum_{i=1}^n (d_{i0} - \bar{d}_0)^2}. \quad (7)$$

The measure constructed in such a way usually takes values within the interval $[0,1]$. The closer its value is to 1, the more similar the object is to the pattern encompassing the best values of the variables. A negative value of the development measure may occur when the development of a given object is definitely weaker than the development of other objects, and when the number of studied objects is high. This inconvenience of the measure may be eliminated by applying not two, but three standard deviations S_0 in the formula (5) (Nowak 1990, p. 89; Zeliaś 2000, p. 93).

The selection of indicators describing the standard of living in the EU-28 countries was determined by the availability of data. In most cases, the collected information is for the year 2012. However, due to the lack of complete data for that period, for variables X_{34} (medical doctors per 100 thousand inhabitants) and X_{35} (available beds in hospitals per 100 thousand inhabitants) data from the year 2009 was used, and in case of the variable X_{41} (food and non-alcoholic beverages expenditure of households as a % of total expenditure) the data from the year 2010 was used. The data sources were: Eurostat, European Commission, World Development Indicators, national statistical offices, and own calculations based on the obtained information.

Below the set of 20 potential variables characterizing the standard of living is presented. They are divided into 7 groups, covering: security, education, health care, food, housing conditions, natural environment, transport and communications (variables were denoted by X_{ij} , where i is the group number and j is the variable number in the given group):

I. Security

X_{11} – Unemployment rate (in %),

X_{12} – Long term unemployment rate (in %),

X_{13} – People at risk of poverty or social exclusion as a % of total population.

II. Education

X_{21} – People aged 30–34 with tertiary education attainment (in %),

X_{22} – Early leavers from education and training (% of the population aged 18–24 with at most lower secondary education and not involved in further education or training).

III. Health care

X_{31} – Death due to diseases of the circulatory system (standardised death rate),²

X_{32} – Death due to neoplasms (standardised death rate),

X_{33} – Number of infant deaths per 1000 live births,

X_{34} – Medical doctors per 100 thousand inhabitants,

X_{35} – Available beds in hospitals per 100 thousand inhabitants,

X_{36} – Life expectancy at birth – males (in years),

X_{37} – Life expectancy at birth – females (in years).

² Standardized death rate is the death rate of a population adjusted to a standard age distribution. The use of standardized death rates improves comparability over time and between countries, as they aim at measuring death rates independently of different age structures of populations.

IV. Food

X_{41} – Expenditure of households on food and non-alcoholic beverages as a % of total expenditure.

V. Housing conditions

X_{51} – Average number of rooms per person.

VI. Natural environment

X_{61} – Share of renewable energy in gross final energy consumption (in %).

VII. Transport and communications

X_{71} – Internet users per 100 people,

X_{72} – Fixed telephone subscriptions and mobile cellular subscriptions (including pre-paid accounts) per 100 people,

X_{73} – Number of passenger cars per 1000 inhabitants,

X_{74} – Motorways' density (length of motorways in km per 1000 km² of land area),

X_{75} – Railway density (length of lines in use in km per 1000 km² of land area).

The proposed set of potential variables was then verified statistically in order to eliminate diagnostic features with low spatial variation and strongly correlated with others (that is, those being carriers of similar information). The threshold value of the coefficient of variation was set at 0.1 (the level usually used – see Zeliaś 2000, p. 43). This caused the removal from the analysis of two variables: X_{36} (life expectancy at birth – males (in years)) and X_{37} (life expectancy at birth – females (in years)). Subsequently, the parametric method proposed by Z. Hellwig was used. As a result of adopting 0.5 as the threshold value of the correlation coefficient, the following variables have been eliminated: X_{11} (unemployment rate (in %)); X_{13} (people at risk of poverty or social exclusion as a % of the total population); X_{31} (death due to diseases of the circulatory system (standardised death rate)); X_{33} (number of infant deaths per 1000 live births); X_{51} (average number of rooms per person); X_{71} (Internet users per 100 people); X_{73} (number of passenger cars per 1000 inhabitants); X_{74} (length of motorways in km per 1000 km² of land area).

Thus in the end the analysis was conducted using ten variables, six of which were categorized as stimulants: X_{21} , X_{34} , X_{35} , X_{61} , X_{72} , X_{75} , and four as de-stimulants: X_{12} , X_{22} , X_{32} , X_{41} .

The ranking positions of the European Union countries according to the values of the ten variables used in the analysis are presented in Tables 1 and 2. Table 1 includes variables from groups I–III, and Table 2 from groups IV–VII.

In 2012, the lowest long-term unemployment rate (in %) (X_{12} , Security group) was observed in Austria (1.2%), Sweden (1.5%), Finland (1.6%) and Luxembourg (1.6%), whereas the highest rates were in Croatia (10.2%), Spain (11.0%) and Greece (14.5%). For Poland this indicator amounted to 4.1% giving it 15th place in the ranking.

One of the two variables representing the education aspect is people aged 30–34 with tertiary education (X_{21}). Its values ranged from 51.1% in Ireland, 49.9% in Cyprus and 49.6% in Luxembourg through to 39.1% in Poland (15th place) and 23.1% in Croatia, 21.9% in Italy, and 21.7% in Romania. The lowest values of the second variable characterizing education – X_{22} (early leavers from education and training (% of the population aged 18–24 with at most lower secondary education and not involved in further education or training)) in 2012 were recorded in Slovenia (4.4%), Croatia (5.1%) and Slovakia (5.3%), while the highest values were in Portugal (20.5%), Malta (21.1%) and Spain (24.7%). Poland ranked in the high 5th position, with the rate of its early leavers from education and training being 5.7%.

Referring to the variables from group III (Health care), it can be seen that in terms of the standardised death rate due to neoplasms (X_{32}), Cyprus (212.9), Finland (230.9) and Greece (247.5) were ranked highest among the European Union countries. At the bottom of the ranking were: Denmark (322.7), Croatia (342.7) and Hungary (367.7). Poland, with its indicator of 313.5 was in the very low 24th position. Taking into consideration the number of medical doctors per 100 thousand inhabitants (X_{34}), the best position among EU-28 countries were attained by Greece (611.8), Austria (467.7) and Italy (409.8), while the worst situations were noted in Slovenia (241.0), Romania (225.7) and Poland (217.1). The number of available beds in hospitals per 100 thousand inhabitants (X_{35}) was the highest in Germany (823.9), Austria (765.9) and Hungary (714.4), and the lowest in Ireland (327.4), Spain (318.7) and Sweden (275.9). For Poland the indicator amounted to 665.3 available beds in hospitals per 100 thousand inhabitants, putting it in 7th place with a value similar to the one recorded in France.

The household expenditures on food and non-alcoholic beverages (as a % of total household expenditures; i.e. X_{41} , the Food group) in 2010 were the lowest in Luxembourg (constituting 8.5% of total expenditure), the United Kingdom (9.1%) and Ireland (9.7%), whereas they were the highest in Poland (19.6%), Lithuania (24.2%), Croatia (25.6%) and Romania (27.5%).

In terms of the share of renewable energy in gross final energy (X_{61} , Natural environment group) Sweden (51.1%), Latvia (35.8%) and Finland (34.5%) were the leaders among the European Union countries, while the United Kingdom (4.2%), Luxembourg (3.1%) and Malta (2.7%) were ranked at the bottom. Poland, with its indicator of 10.9%, ranked in 19th place.

Transport and communications is represented by two variables: X_{72} (fixed telephone subscriptions and mobile cellular subscriptions (including pre-paid accounts) per 100 people) and X_{75} (railway density). Taking into consideration the former, the best positions among the EU countries were in Latvia (211.5), Austria (200.5) and Luxembourg (196.3). The worst situations were in: Cyprus

(131.5), Slovakia (129.8) and Romania (126.4). Poland ranked in 17th place, with an indicator of 157.1 fixed telephone and mobile cellular subscriptions per 100 people. Railway density in 2012 was the highest in the Czech Republic (122.6 km/1000 km² of land area), Belgium (118.3) and Luxembourg (106.2), whereas it was the smallest in Estonia (18.7), Cyprus, and Malta, the latter of which had no railways. Poland had 64.1 km of lines in use per 1000 km² of land area, which gave it 9th place among the countries of the European Union.

Table 1. Ranking positions of the European Union countries according to the values of variables describing the standard of living of the population from groups I–III

Country	Variable					
	X ₁₂ *	X ₂₁	X ₂₂	X ₃₂	X ₃₄	X ₃₅
Austria	1	22	8	11	2	2
Belgium	12	8	21	14	20	10
Bulgaria	21	21	22	6	6	9
Croatia	26	26	2	27	25	15
Cyprus	13	2	18	1	22	21
Czech Republic	9	23	4	20	9	4
Denmark	6	10	12	26	11	23
Estonia	18	13	14	19	14	16
Finland	3	7	11	2	15	13
France	14	9	19	10	13	6
Germany	7	17	15	9	8	1
Greece	28	18	17	3	1	17
Hungary	17	19	20	28	18	3
Ireland	24	1	13	18	16	26
Italy	19	27	24	13	3	22
Latvia	23	16	16	23	19	12
Lithuania	20	4	6	16	7	5
Luxembourg	3	3	9	15	23	14
Malta	11	24	27	8	17	18
Netherlands	5	11	10	21	21	19
Poland	15	15	5	24	28	7
Portugal	22	20	26	4	5	24
Romania	9	28	25	12	27	8
Slovakia	25	25	3	25	12	11
Slovenia	16	14	1	22	26	20
Spain	27	12	28	7	10	27
Sweden	2	5	7	5	4	28
United Kingdom	8	6	23	17	24	25

* if the value of the variable is the same for two countries the same (higher) ranking position is granted, and the next lower ranking position is omitted to maintain the total ranking positions at 28.

Source: own calculations based on Eurostat, European Commission, World Development Indicators data and national statistical offices data.

Table 2. Ranking positions of the European Union countries according to the values of variables describing the standard of living of the population from groups IV–VII

Country	Variable			
	X_{41}	X_{61}	X_{72}	X_{75}
Austria	4	4	2	12
Belgium	12	22	19	2
Bulgaria	22	12	10	17
Croatia	27	11	20	15
Cyprus	10	24	26	27
Czech Republic	14	18	24	1
Denmark	5	6	12	10
Estonia	24	5	5	26
Finland	9	3	6	25
France	11	15	16	14
Germany	6	17	11	4
Greece	18	16	13	24
Hungary	20	21	25	6
Ireland	3	23	21	21
Italy	15	13	4	13
Latvia	23	2	1	19
Lithuania	26	9	7	20
Luxembourg	1	27	3	3
Malta	17	28	8	27
Netherlands	7	25	15	5
Poland	25	19	17	9
Portugal	19	7	18	22
Romania	28	8	28	16
Slovakia	21	20	27	7
Slovenia	16	10	23	11
Spain	13	14	22	18
Sweden	8	1	14	23
United Kingdom	2	26	9	8

Source: see Table 1.

4. Research results

The results of ordering the European Union countries according to their standard of living, obtained with the use of the development pattern method proposed by Z. Hellwig, are shown in Table 3 below.

Table 3. The European Union countries according to the standard of living of the population

Country	Synthetic variable	Ranking position
Austria	0.539	1
Finland	0.413	2
Germany	0.397	3
Sweden	0.380	4
France	0.330	5
Denmark	0.306	6
Lithuania	0.304	7
Luxembourg	0.302	8
Bulgaria	0.288	9
Belgium	0.284	10
Czech Republic	0.284	11
Latvia	0.284	12
Estonia	0.280	13
Italy	0.256	14
Greece	0.234	15
Netherlands	0.230	16
Slovenia	0.202	17
United Kingdom	0.189	18
Portugal	0.176	19
Poland	0.162	20
Ireland	0.139	21
Slovakia	0.127	22
Hungary	0.122	23
Cyprus	0.122	24
Spain	0.098	25
Malta	0.089	26
Croatia	0.032	27
Romania	0.030	28

Source: own calculations based on Eurostat, European Commission, World Development Indicators data and national statistical offices data.

On the basis of the value of the synthetic measure, the European Union countries were grouped in order to distinguish groups of countries with a similar standard of living. The division of countries into four typological groups was made in accordance with the rule (Nowak 1990, p. 93):

$$\text{group I: } z_i \geq \bar{z} + S_z, \quad (8)$$

$$\text{group II: } \bar{z} + S_z > z_i \geq \bar{z}, \quad (9)$$

$$\text{group III: } \bar{z} > z_i \geq \bar{z} - S_z, \quad (10)$$

$$\text{group IV: } z_i < \bar{z} - S_z, \quad (11)$$

where:

z_i – the value of the synthetic measure,

\bar{z} – the arithmetic mean of the synthetic measure,

S_z – the standard deviation of the synthetic measure.

The results of grouping the European Union countries according to their standard of living are presented in Table 4 below.

Table 4. The division of the European Union countries into groups with a similar standard of living

Group	Countries
I	Austria, Finland, Germany, Sweden
II	France, Denmark, Lithuania, Luxembourg, Bulgaria, Belgium, Czech Republic, Latvia, Estonia, Italy
III	Greece, Netherlands, Slovenia, United Kingdom, Portugal, Poland , Ireland, Slovakia, Hungary, Cyprus
IV	Spain, Malta, Croatia, Romania

Source: own calculations based on the data from Table 3.

In the presented ranking of EU-28 countries according to the standard of living of their populations (Table 3) Austria, Finland, Germany and Sweden rank highest. These countries are classified (see Table 4) into the group of countries with the highest standard of living of the population (group I). At the bottom of the ranking are Spain, Malta, Croatia, Romania, which are classified in the group of countries with the lowest standard of living (group IV).

Poland ranks relatively low, in 20th position, and is in the group of countries with a low standard of living (group III). This results from Poland's values for the variables included in the analysis. Poland placed among the top ten countries in the European Union in the case of only three variables, namely: X_{22} – early leavers from education and training (% of the population aged 18–24

with at most lower secondary education and not involved in further education or training) (5th place), X_{35} – available beds in hospitals per 100 thousand inhabitants (7th place), and X_{75} – railway density in km per 1000 km² of land area (9th place). Poland had a very low ranking position with respect to the following variables: X_{32} – standardised death rate due to neoplasms (24th place), X_{34} – medical doctors per 100 thousand inhabitants (28th place), and X_{41} – household expenditures on food and non-alcoholic beverages as a % of total household expenditure (25th place). It should be noted that six out of the countries which, like Poland, joined the European Union in May 2004, as well as in 2007 and 2013, rank higher than Poland. The improvement of Poland's situation compared to other European Union countries in terms of the standard of living of the population will require some changes in some of the aspects represented by the indicators used in the analysis.

5. Summary

The purpose of this article was to compare the European Union countries in terms of the standard of living of their populations and to determine Poland's position in the ranking. In order to achieve it one of the multidimensional comparative analysis methods was used – the development pattern method proposed by Z. Hellwig. Moreover, the European Union countries were divided into groups of countries with a similar standard of living of the population. According to the presented results of the analysis, the standard of living is the highest in Austria, Finland, Germany and Sweden, and the lowest in Spain, Malta, Croatia and Romania.

Poland ranked relatively low among the European Union countries (20th position) and was classified into the group of countries with a low standard of living of its population. The improvement of Poland's situation in comparison to other European Union countries requires changes of some standard of living aspects characterized by the indicators used in the analysis, e.g., medical doctors per 100 thousand inhabitants, household expenditures on food and non-alcoholic beverages as a % of total household expenditure, and the standardised death rate due to neoplasms.

It is worth mentioning that six out of thirteen countries which joined the European Union in 2004 and thereafter rank higher than Poland. These countries are: Lithuania, Bulgaria, the Czech Republic, Latvia, Estonia and Slovenia. On the other hand, Slovakia, Hungary, Cyprus, Malta, Croatia and Romania were ranked lower than Poland. As far as the new EU Member States are concerned, it should also be noted that Slovenia, Slovakia, Hungary and Cyprus are, together

with Poland, classified into the group of countries with a low standard of living of their populations, while Lithuania, Bulgaria, the Czech Republic, Latvia and Estonia are in the group of countries with a medium standard of living, and Malta, Croatia and Romania have the lowest standard of living.

References

- Bywalec Cz., Wydymus S. (1992), *Poziom życia ludności Polski w porównaniu z krajami Europejskiej Wspólnoty Gospodarczej*, 'Ekonomista', Wydawnictwo KeyTex, Warszawa, no. 5–6.
- Europe 2020: A strategy for smart, sustainable and inclusive growth* (2010), Communication from the European Commission, Brussels 3.3.2010, COM(2010) 2020 final, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF> (accessed: 21.05.2015).
- Grzeża B. (2012), *Poziom życia ludności w Polsce – determinanty i zróżnicowania*, Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach, Katowice.
- Johann M. (2005), *Polska – UE. Porównanie poziomu życia ludności*, Difin, Warszawa.
- Lipeta A. (2000), *Jakość życia. Metody mierzenia*, Chapter 1.3 [in:] Aleksander Zeliaś (ed.) *Taksonomiczna analiza przestrzennego zróżnicowania poziomu życia w Polsce w ujęciu dynamicznym*, Wydawnictwo Akademii Ekonomicznej w Krakowie, Kraków.
- Luszniewicz A. (1982), *Statystyka społeczna*, Państwowe Wydawnictwo Ekonomiczne, Warszawa.
- Nowak E. (1990), *Metody taksonomiczne w klasyfikacji obiektów społeczno-gospodarczych*, Państwowe Wydawnictwo Ekonomiczne, Warszawa.
- Ostasiewicz W. (red) (1999), *Statystyczne metody analizy danych*, Wydawnictwo Akademii Ekonomicznej im. Oskara Langego we Wrocławiu, Wrocław.
- Pawełek B. (2000), *Poziom życia, jakość życia i warunki życia ludności*, Chapter 1.2 [in:] Aleksander Zeliaś (ed.) *Taksonomiczna analiza przestrzennego zróżnicowania poziomu życia w Polsce w ujęciu dynamicznym*, Wydawnictwo Akademii Ekonomicznej w Krakowie, Kraków.
- Pawełek B. (2004), *Definicje poziomu życia ludności*, Chapter 1.2 [in:] Aleksander Zeliaś (ed.) *Poziom życia w Polsce i krajach Unii Europejskiej*, Polskie Wydawnictwo Ekonomiczne, Warszawa.
- Renewed EU Sustainable Development Strategy* (2006), Council of the European Union, Brussels 26 June 2006, 10917/06, http://www.bmub.bund.de/fileadmin/bmu-import/files/europa_und_umwelt/eu-nachhaltigkeitsstrategie/application/pdf/eu_nachhaltigkeitsstrategie_neu_eng.pdf (accessed: 24.05.2015).
- Słaby T. (1990), *Poziom życia, jakość życia*, 'Wiadomości Statystyczne', Główny Urząd Statystyczny Polskie i Polskie Towarzystwo Statystyczne, Warszawa, no. 6.
- Transport in Figures 2014* (2014), European Commission, http://ec.europa.eu/transport/facts-fundings/statistics/pocketbook-2014_en.htm (accessed: 30.05.2015).

World Development Indicators (2015), World Bank, <http://data.worldbank.org/data-catalog/world-development-indicators/> (accessed: 30.05.2015).

Zeliaś A. (red.) (2000), *Taksonomiczna analiza przestrzennego zróżnicowania poziomu życia w Polsce w ujęciu dynamicznym*, Wydawnictwo Akademii Ekonomicznej w Krakowie, Kraków.

Streszczenie

POZIOM ŻYCIA W KRAJACH UNII EUROPEJSKIEJ

Unia Europejska obejmuje kraje o zróżnicowanym poziomie życia ludności a wyrównywanie dysproporcji w poziomie życia i eliminowanie negatywnych zjawisk związanych z wykluczeniem społecznym stanowią priorytet realizowanej przez nią polityki. W tym kontekście celem artykułu jest porównanie poziomu życia w krajach Unii Europejskiej oraz określenie miejsca Polski w skonstruowanym rankingu. W opracowaniu utworzono także grupy państw o podobnym poziomie życia.

W analizie przeprowadzonej przy wykorzystaniu metody wzorca rozwoju Z. Hellwiga użyto 10 zmiennych opisujących poziom życia w krajach UE-28.

Zgodnie z wynikami przeprowadzonego badania poziom życia jest najwyższy w Austrii, Finlandii, Niemczech i Szwecji, zaś najniższy w Hiszpanii, na Malcie, na Cyprze i w Rumuni. Polska znajduje się na stosunkowo odległej 20. pozycji.

Słowa kluczowe: *poziom życia, Unia Europejska, wielowymiarowa analiza porównawcza*