

EKONOMIA I PRAWO, ECONOMICS AND LAW

Volume 22, Issue 2, June 2023 p-ISSN 1898-2255, e-ISSN 2392-1625 www.economicsandlaw.pl

ORIGINAL ARTICLE

received 12.01.2023; revised 01.03.2023; accepted 30.06.2023 Citation: Topolewski, Ł., & Topolewska, K. (2023). Standard of living in European Union countries. *Ekonomia i Prawo. Economics and Law*, 22(2), 369–383. https://doi.org/10.12775/EiP.2023.021.

Standard of living in European Union countries

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Abstract

Motivation: Researchers have been concerned with the issues related to the differences among economies for many years. The level of differentiation is an important matter as excessive economic and social differences among the states may lead to limited scope of integration processes, which in turn determine the development rate of regions. Due to how significant this issue is, it was decided that the level differentiation of the standard of living of the population in selected European Union countries ought to be investigated.

Aim: The purpose of the article is to compare the standard of living in the countries of the European Union, with particular emphasis placed on the countries that joined the Union in 2004. The authors try to answer the question whether the economic policy pursued by the EU achieves the intended effect. A synthetic measure was constructed to measure the standard of living, taking into account various aspects of life. The time scope of the study covers the period of 2005–2020. The choice of a specific time frame was dictated by the expansion of the number of European Union members in 2004 and the availability of data. Therefore, the analysis covered the countries of the European Union post 2005 (excluding Great Britain). Data were obtained from Eurostat.





Results: Taking into account the values of the synthetic variable, it may be claimed that one the one hand, the standard of living in the countries is increasing, and on the other hand, the disparity between countries is decreasing. Therefore it should be noticed, that the economic policy pursued by the European Union achieves the intended effect.

Keywords: standard of living; synthetic measure; convergence IEL: C19: C38: O47: I31

1. Introduction

Researchers have been concerned with the issues related to the differences among economies for many years. The level of differentiation is an important matter as excessive economic and social differences among the states may lead to limited scope of integration processes, which in turn determine the development rate of regions. Due to how significant this issue is, it was decided that the level differentiation of the standard of living of the population in selected European Union countries ought to be investigated.

The aim of the article is to compare the standard of living in the countries of the European Union, with particular emphasis on the countries that joined the Union in 2004. Therefore, the subjective scope covers the 24 European Union countries that were its actual members in 2004 (without Great Britain, which exited the European Union at the first quarter 2020). The time span covers the period of 2005–2020. The first year of operation of the expanded Union was fully covered in the analysis, while the rest of the analysed period was covered in accordance with the availability of data.

The definition of a standard of living has not been clearly determined in the literature on the subject. Even though they are not synonyms, the term is often replaced with similar ones such as quality of life, or the level of well-being (Mironov, 2012, p. 25). In line with the concept put forth by the UN committee, the term "standard of living" should include the idea of satisfying the desires and needs of the population. However, it should be remembered that these categories must be considered both from material (e.g. consumption) and non-material (cultural or educational needs) points of view (United Nations, 1954, p. 5).

Similarly to the definition of the standard of living, which is often interpreted individually by the authors, the measurement of this phenomenon may also constitute a problem. Measurements cited in the literature often do not reflect the real standard of living of the population. Some of the characteristics are one-dimensional, and the standard of living itself is undoubtedly a multi-faceted phenomenon. As a result, the frequently quoted measure, which is GDP per capita, does not reflect this complexity (Gordon, 2017, p. 9; Stiglitz et al., 2018, p. 34; Stjepanović et al., 2019, p. 4).

The European Union is a community which understands the problem of differentiated living standards. Its members undertake numerous activities aimed at a greater level of convergence in this matter. The provisions included in the renewed European Union Sustainable Development Strategy, confirm

the significance of the studied issue: "The overall aim of the renewed EU SDS is 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" (Council of the European Union, 2006, p. 3). Additionally, a specialised unit was formed (Eurofound, 2022), dedicated to the study of the living conditions of the population — including employment, social issues, and the subjective feelings of the population — which further supports the evidence that the Union members understand the importance of social issues (Babiak, 2013, p. 40; Jettinghoff & Houtman, 2009, p. 1).

Taking into account all the arguments, it was decided that this article would attempt to create a synthetic measure that could illustrate the standard of living of the population in selected European Union countries (Pietrzak & Balcerzak, 2016, pp. 121-122). Due to the availability of data, the scope of the research was limited to those countries that joined the Union no later than in 2004. Thus, Bulgaria, Croatia and Romania were excluded from the analyses.

2. Literature review

The problem of the standard of living of the population has been a focus of scientific research for many years. Therefore, numerous referential studies and papers regarding this issue have been published. Among all the available up-to-date literature, it is worth recognizing the contributions of Cheba (2012, pp. 86–89), who examined the spatial differentiation of living standards on the example of Polish cities in her work. In addition, the sample she used was divided into medium- and large-sized cities. The analysed period covered the years of 2002–2011. The author divided the variables into seven areas, including: health care, labour market, working conditions and safety, remuneration and income of the population, housing conditions, education, culture and leisure time, communication, and transport. Each of these areas was represented by one synthetic variable, which was the result of the aggregation of several diagnostic features. Based on the analysis of changes in the synthetic values over time, it was concluded that they were characterized by a right-skewed asymmetry. Thus, it might be concluded that only a few cities have achieved a higher rate of development in specific areas. Only healthcare and communication/transport did not show such differentiation in the results of the analysis of medium-sized cities. However, in the case of large cities, less differentiation was observed in the following areas: remuneration and income of the population and housing conditions.

A separate analysis of the issue of the standard of living was conducted by comparing the data from the perspective of rural and urban households. Based on the information from household budgets' report for the period of 2006–

2016, a study of household expenditures on health, transport, recreation, culture, education, restaurants, hotels, as well as alcoholic beverages, tobacco products and drugs was conducted. The results of the study indicate that both the monetary value of the spending as well as its share in total expenditures devoted to culture and recreation, and hotels and restaurants, were higher in the case of urban households. At the same time, the standard of living in rural households was lower, but over time this difference decreased (Utzig, 2018, pp. 197–198).

The next article analyses the spatial differentiation in terms of the level of socio-economic development of voivodeships in Poland. It also indicates that the level of development determines the general quality of life of the people living there. The three analysed time frames included: 2005, 2010, and 2017. The variables used for the assessment of the level of development were grouped into eight categories: population income, labour market, healthcare, education, culture, infrastructure and transport, tourism, and economic potential. Each category was represented by one variable. Using the Hellwig's model measure of linear ordering, it was shown that the situation in the voivodships of the country had improved, but the disproportions between the regions were not significantly reduced. Based on these disproportions, it can be concluded that there is a large difference between the eastern and western parts of the country (Malina, 2020, pp.148–153).

Among all the various studies on the standard of living, it is worth mentioning a publication which also covered the European Union countries. The study was conducted via a dynamic approach and covered the period of 1995–2012. A synthetic variable was used to describe the standard of living of the population, which was created by means of the following sets of variables: population, labour market and job security, healthcare and social care, education, recreation, culture and leisure time, housing conditions, communication and transport, social security, income and expenses of the population, and the condition of the natural environment. The conducted analyses concluded that Ireland and the United Kingdom deserved a distinct mention among the countries with the highest standard of living, while Romania and Bulgaria ranked the lowest (Kuc, 2016, pp. 50–53, 67).

Based on the cited studies, it should be noted that the issue of the standard of living is a complex matter. This is proven by the number of variables included in the research. However, it can be noticed that some areas seem to be analysed more often than others including population income, labour market, healthcare, and education. Therefore, they should be considered when examining the standard of living of the population.

3. Methods

The construction of a synthetic measure defining the living conditions of the population in selected European Union countries involved making use of the most

important measures selected in terms of their substantive merit to the study (Table 1). The first step in the procedure was an analysis of the completeness of the data, resulting in the removal of the variable X₃₆. Next, all the other characteristics were verified in terms of variability. It was assumed that the threshold value of the coefficient of variation was 0.1. At this stage, no features were discarded. Variables that met the conditions of data completeness and sufficient variability were verified in terms of the occurrence of correlation within the groups. As part of the calculations, it was assumed that the correlation might occur between variables outside of the studied groups, but it could not occur between the features within the same group. It should be emphasized that the linear correlation coefficient had various values throughout the entire period of examination. Therefore, it was assumed that the elimination of a feature from a given group was determined by the average value of the correlation coefficient for the entire period. If the mean linear correlation coefficient was up to 0.5, then the variable remained in the set of diagnostic features, and if it was higher, the variable was abandoned. At the stage of the examination of the correlation between variables the following variables were excluded: X_2 , X_3 , X_{10} , X_{12} , X_{15} , X_{17}, X_{19}, X_{23}

The choice of diagnostic variables allowed for the transition to the next stage, namely the stimulation and normalization of the variables. This step makes it possible to compare the features with each other. We began with transforming the destimulants into stimulants, according to the formula (Kuc, 2016, p. 53):

$$x_{ijt}^{\mathsf{S}} = \frac{1}{x_{ii}^{\mathsf{D}}},\tag{1}$$

for i=1, 2, ..., n; j=1, 2, ..., m; t=1, 2, ..., k; where:

 x_{ijt}^{D} — value of the transformed destimulant;

 x_{ijt}^{s} — value of the variable transformed into a stimulant.

Then, the normalization of variables was performed by means of a quotient conversion, with constant normalization parameters. This will make it possible to compare the results in the subsequent years of the analysis (Walesiak, 2011, p.19):

$$x'_{ijt} = \frac{x_{ijt}}{\max_{i} 0}, (2)$$

for i=1, 2, ..., k; j=1, 2, ..., p; t=1, 2, ..., q; where: x'_{ijt} — value in the i- object of the normalized j- variable in t- year; x_{ijt} — actual value in the i- object of the j- variable in the t- year; $maxx_{ij}$ 0— the maximum value of the j- variable in the base year (2005).

After the process of stimulation and normalization of variables had been completed, the construction of synthetic measures was carried out. For this purpose, the model — free formula for aggregating diagnostic variables was used (Becker, 2011, p. 30; Binderman et al., 2018, p. 703; Krakowiak-Bal, 2005, p. 78):

$$z_{it} = \frac{1}{N} \sum_{m=1}^{N} z_{iqt},$$
 (3)

where:

 z_{it} — value of the estimated synthetic measure illustrating the standard of living in the i- country in the selected t- year;

N— number of groups;

 z_{imt} — value of the estimated synthetic variable for the *i*- country estimated on the basis of variables belonging to the *m*-group in *t*- year.

The measures obtained in this way illustrated the level of development of individual groups, including their material situation, the labour market, etc. Then, using the same scheme, these measures were subjected to another aggregation to obtain a measure of the standard of living of the population. After an estimation of the above formula has been finished, a synthetic measure is obtained, which takes values from 0 to 1. If the *i*- country achieves a result close to 1, it means that its position in the ranking will be high, if its result is close to 0, one should expect that the country gets a low score in the ranking.

4. Results

According to the provisions of the functioning of the European Union, the Community should strive to improve living conditions of its citizens, but at the same time to reduce the differences between the Member States. The calculated synthetic measure (Table 2) shows that the average standard of living in 2005 was at the level of 0.632 and it kept increasing until 2009. It can be assumed that this tendency was reversed due to the global economic crisis that began in the United States. It is worth emphasizing, however, that some European countries also began to have problems independently of the situation in the United States (Topolewski, 2019). The decline in economic growth, and in some countries even a drastic decline in production, was caused by rising unemployment and lower living standards. In 2009, the average standard of living was 0.682, so an increase of 7.85% from five years prior. In the period of 2010–2011 the standard of living kept deteriorating. It should be noted that the stagnation period was quite long. From 2011 to 2018, the average living conditions improved in all the Member States. In the entire analysed period, the average standard of living increased by 11.38%.

The average standard of living in 2005 for the existing EU countries in was 0.680, and for the new members the measure was lower, and equalled 0.565.

On the other hand, in 2009 the living conditions in the EU-15¹ countries improved by an average of 5.79%. The living conditions also improved among the new members of the European Union. It is worth noting that the growth rate of the average standard of living was noticeably higher in this group, and equalled 11.32%. In the period of 2005–2020 in the EU-15 countries, the growth rate of the average synthetic measure amounted to only 5.34%, while among the new members of the Community, living conditions improved by as much as 21.56%.

According to the calculated synthetic measure, Sweden was a leader in 2005, with the standard of living at a level of 0.803 of the synthetic measure. Among the EU-15 countries, the worst situation was recorded in Greece (0.584). However, due to the expansion of the number of European Union members, Greece lost its spot as the lowest country in the ranking to Latvia, where the synthetic measure in 2005 was 0.510. In the following year, the highest measure was recorded in Denmark and it amounted to 0.823, while the worst conditions were noticed in Poland. The synthetic measure for Poland in 2006 reached the value of 0.539. In turn, in 2009, when the economic crisis found its way to Europe, the best standard of living was recorded in Denmark, with the measure reaching the value of 0.851. During the time of the crisis in Europe, living was the most difficult in Latvia, with measure of 0.568. At the same time, the standard of living in Denmark also decreased, making Sweden the leader in this respect. In 2010, the Swedes maintained their comparatively high living conditions. Only in 2011 did the conditions slightly deteriorate. A similar direction of changes was recorded in Latvia, as the synthetic measure reached the value of 0.548. In 2011, the standard of living in both economies began to rise. At the end of the analysed period, the highest value of the synthetic measure was recorded for Sweden -0.794 and the worst was noted in Greece, in 2020, where the value of the measure equalled 0.594.

Due to the uneven dynamics of living standards in individual countries, it is worth considering which countries noted the fastest increase in the standard of living. In 2006, the highest increase in the standard of living was recorded in Latvia (6.86%), where a year earlier the standard of living was the lowest. In the same year, two economies suffered a decline in living standards: Germany and Luxembourg, and in 2009 the standard of living decreased in seven economies. The largest decrease could be observed in Malta, where the synthetic measure fell by as much as 8.23%. In the following year, only ten countries did not feel any deterioration in living conditions. The highest increase in the standard of living was recorded in Luxembourg (2.89%), while the greatest decrease was recorded in Cyprus (–7.34%). In 2011, fourteen countries recorded a decline in living standards. The highest increase was observed in Hungary (2.56%). On the other hand, the largest decline in living standards was recorded in Sweden, where the synthetic measure fell by 2.47%. On the other hand, in the whole analysed period, the standard of living increased the most in the Czech Re-

 $^{^{\}mathrm{1}}$ The authors use the accepted EU-15 notation, but Great Britain was excluded from the analysis.

public where the measure change amounted to 37.92%. The smallest increase in the standard of living was recorded in Greece and it changed in comparison to its value in 2005 by 1.71%. It should be emphasized that there was a slight deterioration in living conditions in in three countries — in Denmark (-2.53%), in Luxemborg (-1.62%) and Sweden (-1.12%). The greatest improvement of living conditions among the EU-15 was observed in Germany (20.79%), while the smallest increase in living standards among the new members of the European Union was observed in Cyprus (9.30%).

In 2005, the difference between the country with the best standard of living and the country with the worst one was 0.293. Considering the two groups of countries, i.e. the pre — 2004 members of the Union and the countries that joined the European Union in 2004, it should be stated that the range within each group was smaller. Accordingly, the difference between the highest and the lowest ranked EU members was 0.219 for the pre — 2004 members, and 0.128 for the newly admitted members. Although a large gap between the new members of the Union was not recorded, the expansion of the European Union led to greater differences in living standards among all the countries, as the new members had a generally lower standard of living. However, during the analysed period, the standard of living among the new members of the Union increased faster than among the pre — 2004 EU members, which led to a decline in the difference in living standards among all the countries. In 2020, the variation was 0.200. On the other hand, in the same year, the difference between the EU-10 countries was 0.179. It is worth noting, however, that the gap between the new members of the Union increased in the analysed period. This means that the ten new members of the European Union developed at an uneven pace. Some countries used the opportunities more effectively, while others did not. The values of the synthetic measure describing the standard of living in the European Union countries are presented in Table 2.

Table 3 shows the ranking of individual EU countries in terms of living standards in 2005–2020. In 2005, Sweden came first, Denmark second and Luxembourg third, whereas Slovakia, Poland and Latvia found themselves on the lowest positions in the ranking for that year. Portugal and Greece were ranked the lowest among the EU-15 countries (16th and 17th position). Of the new EU members, Malta was ranked the highest (9th place). The following year, Denmark and Sweden swapped places, as did Poland and Latvia. Throughout the analysed period, Sweden and Denmark topped the ranking. When analysing the ranking, it can be noticed that Greece, Portugal, Spain, and Italy fell consistently to lower positions every year. Only one economy among the new Member States grew systematically upwards throughout that period — the Czech Republic. In 2005, they were classified on the 18th place, while in 2018 they took the 2nd place. In turn, Cyprus recorded the biggest decline. In 2009, it was ranked 9th, and in 2020 it was ranked 18th.

Chart 1 shows that the countries which joined the European Union in 2004 were generally characterized by a lower standard of living. It can also be no-

ticed that this group consists of located mainly in eastern Europe. In terms of the standard of living, the Scandinavian countries held the highest position, and dominated the rankings. Still, the living conditions in the northern countries as Ireland were also relatively good. However, the rest of the continent was not so diverse. Only Austria, the Netherlands and France had a fairly high standard of living. On the other hand, in 2020 the situation changed significantly. The countries that joined the European Union in 2004 kept developing relatively faster than the existing members of the Community in the analysed period. Therefore, it cannot be claimed that life in the east of the European Union is significantly worse. According to the calculated measure, the countries of Eastern Europe have already caught up with the Western countries. Latvia is a country where the increase in living standards was still relatively small, however. Disregarding Latvia, a certain pattern emerges — namely the countries in the north of the European Union had the highest standard of living, while the countries in the south had the lowest. Based on this fact, it can be concluded that the countries joining the European Union achieved their goal of improving living conditions, and at the same time, the difference between the country with the best life and the worst life decreased during the analysed period.

5. Conclusion

Based on the analysis, it may be stated that the standard of living in the European Union countries generally increased in 2005–2020. The following conclusion was made on the basis of the value of the calculated synthetic measure, which comprised various aspects of human life. The authors used numerous variables for the construction of a synthetic variable to show the complexity of this phenomenon. The presented measure is only a suggested solution for the measurement of the standard of living. It is certainly not free from defects, however, but the authors intended the measure to reflect the studied problem more extensively than otherwise used one-dimensional measures.

Taking into account the values of the synthetic variable, it may be claimed that the economic policy pursued by the European Union achieves the intended effect. On the one hand, the standard of living in the countries is increasing, and on the other hand, the disparity between countries is decreasing. It should be noted that the European Union faced a major challenge in 2004, when it expanded taking in countries that differed, sometimes significantly, from the existing members in terms of living standards. At the same time, some the decisions were made in order to limit these differences. An additional argument supporting this thesis is the fact that in there was an international economic crisis which the European Union had to deal with the analysed period. As a result, there was a period (2008–2011) of lower rates of economic growth, which certainly had a negative impact on the standard of living of the Union's inhabitants.

Among the countries that joined the European Union in 2004, the Czech Republic, Slovakia, Poland, and Estonia noted the most significant gains.

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In these countries, the increase in the standard of living was the most noticeable. In Cyprus, on the other hand, living conditions have improved, albeit to a slight extent. This diversity of living conditions shows that these countries, although often presented as a coherent group, differ quite significantly in some aspects (Szczepaniak & Kovářová, 2018, pp.1436–1437).

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Acknowledgements

Author contributions: authors have given an approval to the final version of the article. Authors contributed to this work equally.

Funding: this research was fully funded by the Nicolaus Copernicus University in Toruń.

Appendix

Table 1. A set of potential diagnostic variables

Symbol	Variable
3y IIIDOI	Financial situation
v	
K ₁	total population living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in win dow frames or floor (in %)
ζ_2	total population not having indoor flushing toilet for the sole use of their household (in $\%)$
ζ ₃	total population having neither a bath, nor a shower in their dwelling (in %)
ζ ₄	inactivity rates (in %)
ζ ₅	average number of rooms per person
ζ ₆	people at risk of poverty or social exclusion (in %)
ζ,	PKB per capita
	Health protection
8	healthy life expectancy based on self-perceived health (in year)
9	fertility indicators
C ₁₀	general government expenditure on recreational and sporting services (as % of GDP)
ζ ₁₁	general government expenditure on health (as % of GDP)
ζ ₁₂	self-perceived health as good or very good (in %)
	Labour market
13	long-term unemployed as share of unemployed (in %)
14	unemployment rates (in %)
15	employment rates (in %)
16	labour productivity per hour worked (EU27_2020=100)
17	employment rate of older workers, age group 55-64
	Education
18	young people neither in employment nor in education and training (in %)
19	participation rate in education and training (last 4 weeks) in age 25-64
20	children (less than 3 years) in formal childcare or education (as % of the population in this age group)
21	people aged 25–29 with tertiary education (as a % of the population in this age group)
Z ₂₂	general government expenditure on education (as % of GDP)
Z ₂₃	early leavers from education and training (not employed at the age 18–24) (in %)
	Social protection
Z ₂₄	Gini coefficient
Z ₂₅	general government expenditure on social protection (as % of GDP)
ζ ₂₆	recorded offences (per hundred thousand inhabitants)
ζ ₂₇	population living in households considering that they suffer from noise (in % of population)
X ₂₈	people killed in road accidents (as % of the population)

Source: Own preparation.

Values of the synthetic variable describing the standard of living in selected European Union countries in 2005-2020

n 0,710 0,712 0,722 0,731 rk 0,792 0,823 0,812 0,832 ll 0,673 0,672 0,692 0,692 0,683 0,683 0,690 0,692 0,703 (0,683 0,690 0,692 0,703 (0,683 0,690 0,692 0,703 (0,684 0,591 0,604 0,618 0,684 0,591 0,604 0,618 0,684 0,591 0,604 0,618 0,608 0,618 0,608 0,618 0,609 0,608 0,618 0,609 0		0,737 0,743 0,700 0,708 0,771 0,790 0,769 0,773 0,701 0,705 0,690 0,703	13 0,743 08 0,705	0,764	0,755	0,758	0,766	0,778	0,729	C 7.4.0	0,741
0,631 0,673 0,672 0,692 0,792 0,792 0,823 0,812 0,832 0,724 0,734 0,741 0,766 0,683 0,692 0,692 0,703 0,638 0,632 0,638 0,638 0,638 0,638 0,638 0,638 0,638 0,638 0,638 0,638 0,638 0,638 0,638 0,638 0,639 0,739 0,739 0,739 0,739 0,739 0,739 0,739 0,739 0,739 0,739 0,639 0,639 0,639 0,639 0,639 0,630 0,630 0,630 0,630 0,630 0,630 0,531 0,531										0,747	
0,792 0,823 0,812 0,832 0,734 0,741 0,746 0,734 0,741 0,766 0,683 0,690 0,692 0,703 0,638 0,630 0,632 0,638 0,638 0,638 0,638 0,638 0,638 0,638 0,638 0,638 0,638 0,638 0,638 0,638 0,639 0,639 0,639 0,639 0,639 0,630 0,530 0,531				0,704	969,0	0,712	0,718	0,724	969,0	0,732	0,698
0,724 0,734 0,741 0,766 0,683 0,690 0,692 0,703 0,630 0,626 0,643 0,657 0,584 0,591 0,604 0,618 0,716 0,719 0,738 0,740 0,608 0,618 0,627 0,631 0,597 0,602 0,603 0,652 0,693 0,724 0,751 0,783 0,597 0,602 0,600 0,612 0,609 0,629 0,636 0,655 0,803 0,805 0,805 0,507 0,602 0,603 0,507 0,603 0,655 0,807 0,605 0,605 0,507 0,605 0,605 0,507 0,507 0,605 0,507 0,508 0,508 0,507 0,508 0,508 0,507 0,508 0,508 0,508 0,508 0,508 0,508 0,508 0,608 0,508 0,508 0,608 0,508 0,508 0,608 0,508 0,508 0,608 0,508 0,508 0,608 0,508 0,508 0,608 0,508 0,608 0,608 0,508 0,608 0,608 0,508 0,608 0,608 0,508 0,608 0,608			_	0,802	0,798	0,805	0,812	0,824	0,756	0,772	0,801
0,683 0,690 0,692 0,703 0,630 0,626 0,643 0,657 0,584 0,591 0,604 0,618 0,716 0,719 0,738 0,740 0,608 0,618 0,627 0,631 ds 0,693 0,724 0,751 0,783 0,597 0,602 0,600 0,612 0,609 0,629 0,636 0,655 0,803 0,805 0,805 0,805 0,567 0,597 0,605 0,605 0,567 0,597 0,605 0,605 0,567 0,597 0,605 0,605 0,567 0,598 0,636 0,655 0,567 0,598 0,636 0,636 0,567 0,598 0,636 0,636 0,567 0,598 0,636 0,636 0,567 0,598 0,636 0,636 0,567 0,598 0,636 0,636 0,507 0,598 0,636 0,636 0,508 0,508 0,637 0,638 0,638 0,638 0,638 0,638 0,638 0,638 0,631 0,639 0,538 0,638 0,638 0,531 0,530 0,508 0,631 0,531 0,531			_	0,781	0,775	0,777	0,789	0,792	0,755	0,748	0,766
0,630 0,626 0,643 0,657 0,584 0,591 0,604 0,618 0,716 0,719 0,738 0,740 0,608 0,618 0,627 0,631 ds 0,693 0,724 0,751 0,783 0,597 0,602 0,600 0,612 0,609 0,629 0,636 0,655 0,803 0,805 0,805 0,655 0,803 0,805 0,805 0,605 0,567 0,597 0,605 0,605 0,567 0,598 0,636 0,655 0,567 0,598 0,636 0,636 0,557 0,538 0,538 0,538 0,510 0,548 0,548 0,510 0,548 0,548 0,538 0,638 0,638 0,538 0,638 0,644 0,638 0,638 0,637 0,538 0,638 0,637 0,538 0,638 0,637 0,538 0,638 0,637 0,538 0,638 0,637 0,538 0,638 0,637 0,538 0,638 0,637 0,638 0,638 0,637 0,638 0,638 0,637		_		0,712	0,710	0,703	0,711	0,713	0,708	0,722	0,705
0,584 0,591 0,604 0,618 0,716 0,719 0,738 0,740 0,608 0,618 0,627 0,631 ds 0,693 0,724 0,751 0,783 0,597 0,602 0,600 0,612 0,609 0,629 0,636 0,655 0,803 0,805 0,819 0,818 0,602 0,632 0,635 0,655 0,567 0,587 0,589 0,635 0,567 0,589 0,635 0,567 0,589 0,635 0,567 0,589 0,635 0,567 0,589 0,635 0,567 0,589 0,635 0,567 0,589 0,635 0,567 0,589 0,586 0,587 0,588 0,589 0,598 0,689 0,689 0,598 0,689 0,689 0,598 0,689 0,689 0,598 0,689 0,689 0,598 0,689 0,689 0,598 0,689 0,689 0,598 0,689 0,689 0,698 0,689 0,689 0,698 0,689 0,689 0,698 0,689 0,689 0,698 0,689 0,689 0,698 0,699 0,699	0 0 0			0,723	0,731	0,745	0,756	0,768	0,751	0,761	0,704
6,716 0,719 0,738 0,740 0,608 0,618 0,627 0,631 ds 0,693 0,724 0,751 0,783 0,597 0,602 0,600 0,612 0,609 0,629 0,636 0,655 0,803 0,805 0,819 0,818 0,602 0,633 0,659 0,695 0,567 0,592 0,625 0,650 0,557 0,592 0,625 0,650 0,557 0,578 0,598 0,635 0,567 0,578 0,598 0,635 0,567 0,578 0,594 0,568 0,616 0,644 0,638 0,639 0,616 0,644 0,638 0,639 0,616 0,644 0,638 0,639 0,635 0,635 0,509 0,639 0,635 0,636			91 0,586	0,590	0,587	0,588	0,587	0,582	0,560	0,594	0,594
g 0,608 0,618 0,627 0,631 ds 0,741 0,720 0,745 0,739 ds 0,693 0,724 0,751 0,783 0,597 0,602 0,608 0,612 0,609 0,629 0,636 0,655 0,803 0,805 0,819 0,818 0,602 0,633 0,659 0,695 0,557 0,592 0,625 0,650 0,557 0,578 0,598 0,635 0,565 0,583 0,574 0,585 0,510 0,545 0,566 0,635 0,510 0,545 0,566 0,635 0,510 0,546 0,578 0,616 0,538 0,616 0,644 0,638 0,680 0,677 0,705 0,538 0,680 0,677 0,705 0,538 0,680 0,677 0,705 0,538 0,680 0,677 0,705 0,538 0,680 0,677 0,705	0 0	0,729 0,73	_	0,721	0,740	0,749	0,765	0,788	0,764	0,759	0,740
g 0,741 0,720 0,745 0,739 ds 0,693 0,724 0,751 0,783 0,597 0,602 0,600 0,612 0,609 0,629 0,636 0,655 0,803 0,805 0,819 0,818 0,602 0,633 0,659 0,695 0,557 0,592 0,625 0,650 0,557 0,578 0,598 0,635 0,565 0,587 0,598 0,635 0,567 0,578 0,598 0,635 0,567 0,578 0,598 0,635 0,510 0,545 0,579 0,546 0,578 0,616 0,644 0,638 0,680 0,677 0,705 0,528 0,680 0,677 0,705 0,528 0,544 0,581 0,501	Ū			0,628	0,626	0,631	0,648	0,664	0,619	0,642	0,632
ds 0,693 0,724 0,751 0,783 0,597 0,602 0,600 0,612 0,609 0,636 0,655 0,803 0,803 0,805 0,8			72 0,755	0,765	0,750	0,751	0,755	0,766	0,736	0,729	0,753
0,597 0,602 0,600 0,612 0,609 0,629 0,636 0,655 0,803 0,805 0,819 0,818 0,602 0,633 0,659 0,695 0,567 0,592 0,625 0,650 0,557 0,578 0,598 0,635 0,506 0,583 0,574 0,585 0,510 0,545 0,586 0,510 0,545 0,616 0,644 0,638 0,680 0,617 0,705 0,527 0,539 0,551 0,705 0,527 0,539 0,551 0,705 0,528 0,649 0,677 0,705 0,528 0,649 0,677 0,705				0,764	0,764	0,763	0,778	0,788	0,741	0,758	0,763
0,609 0,629 0,636 0,655 0,803 0,805 0,819 0,818 0,602 0,633 0,659 0,695 0,557 0,578 0,598 0,635 0,565 0,583 0,574 0,585 0,510 0,545 0,616 0,549 0,546 0,578 0,616 0,444 0,638 0,680 0,677 0,705 0,527 0,539 0,551 0,500 0,527 0,539 0,551 0,500 0,527 0,539 0,551 0,500 0,528 0,541 0,619 0,632 0,648	0,621 0,605	0,600 0,594	94 0,589	0,589	0,597	0,604	0,617	0,627	0,603	0,623	0,605
0,803 0,805 0,819 0,818 0,602 0,602 0,633 0,659 0,655 0,557 0,578 0,588 0,635 0,510 0,555 0,510 0,525 0,528 0,528 0,510 0,526 0,538 0,524 0,585 0,510 0,546 0,578 0,616 0,574 0,585 0,510 0,527 0,528 0,610 0,614 0,619 0,632 0,638 0,614 0,619 0,632 0,638 0,610 0,614 0,619 0,632 0,638 0,614 0,619 0,632 0,648		0,644 0,64	19 0,639	0,644	0,648	0,649	0,658	0,653	0,630	0,653	0,643
0,602 0,633 0,659 0,695 0,557 0,557 0,578 0,589 0,635 0,565 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,687 0,587 0,587 0,687 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,587 0,581 0,591 0,614 0,619 0,632 0,648		0,789 0,80	0,820	0,817	0,819	0,821	0,830	0,814	0,796	0,794	0,811
0,567 0,592 0,625 0,650 0,557 0,578 0,598 0,635 0,565 0,583 0,574 0,585 0,510 0,545 0,578 0,510 0,510 0,546 0,578 0,610 0,644 0,638 0,680 0,677 0,705 0,527 0,539 0,531 0,591 0,614 0,619 0,632 0,648	959'0 802'0	0,642 0,624	24 0,617	0,615	0,611	0,626	0,618	0,636	0,630	0,658	0,639
0,557 0,578 0,598 0,635 0,565 0,583 0,574 0,585 0,510 0,545 0,556 0,579 0,546 0,578 0,616 0,644 0,638 0,680 0,677 0,705 0,527 0,539 0,551 0,505 0,528 0,547 0,561 0,573 0,614 0,614 0,619 0,632 0,648		0,661 0,66	_	0,693	0,704	0,733	0,780	0,818	0,783	0,782	0,691
0,565 0,583 0,574 0,585 0,510 0,545 0,526 0,579 0,546 0,578 0,616 0,644 0,638 0,639 0,551 0,505 0,527 0,539 0,531 0,501 0,514 0,619 0,632 0,648		0,609 0,63	25 0,642	0,654	0,689	0,683	0,726	0,727	0,705	0,703	0,649
0,510 0,545 0,556 0,579 0,546 0,578 0,616 0,644 0,638 0,680 0,677 0,705 0,527 0,539 0,551 0,590 0,528 0,544 0,619 0,632 0,648	0,591 0,586			0,594	909,0	0,620	0,642	0,681	0,648	0,667	0,608
0,546 0,578 0,616 0,644 0,638 0,680 0,677 0,705 0,527 0,539 0,581 0,590 0,528 0,547 0,561 0,573 0,614 0,619 0,632 0,648				0,568	0,580	0,592	0,598	0,616	0,607	0,603	0,571
0,638 0,680 0,677 0,705 0,527 0,539 0,581 0,590 0,528 0,547 0,561 0,573 0,614 0,619 0,632 0,648			12 0,619	0,625	0,650	0,662	699,0	0,689	0,640	0,647	0,629
0,527 0,539 0,551 0,590 0,528 0,547 0,561 0,573 0,614 0,619 0,632 0,648		0,645 0,694	94 0,654	0,704	0,707	0,679	0,701	0,737	0,690	0,734	0,684
0,528 0,547 0,561 0,573 0,614 0,619 0,632 0,648	309,0 865,0	0,605 0,60		0,625	0,639	0,649	0,670	0,690	0,662	0,688	0,616
0,614 0,619 0,632 0,648		0,610 0,60	0,629	0,636	0,646	999,0	0,670	0,698	999,0	0,686	0,621
	0,655 0,641	0,638 0,636	36 0,641	0,639	0,644	0,656	0,683	0,701	0,688	0,705	0,653
EU-15 0,680 0,690 0,700 0,713 0,719	0,719 0,713		12 0,712	0,715	0,714	0,718	0,728	0,734	0,703	0,716	0,711
EU-10 0,565 0,589 0,605 0,630 0,629	0,629 0,619	0,617 0,623	23 0,624	0,635	0,648	0,657	0,676	0,699	0,672	0,687	0,636
EU-24 0,632 0,648 0,660 0,678 0,682	0,682 0,674	0,671 0,675	75 0,675	0,682	0,686	0,693	0,706	0,720	0,690	0,704	0,680

Source: Own preparation based on Eurostat (2022).

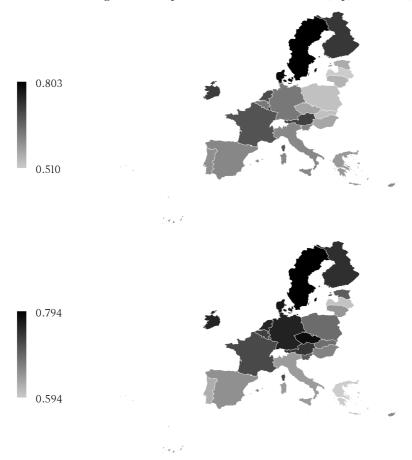


Table 3. Ranking of selected European Union countries in terms of the value of the synthetic variable describing the standard of living in 2005–2020

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1.	SE	DK	SE	DK	DK	SE	DK	SE	SE							
2.	DK	SE	DK	SE	SE	DK	NL	DK	DK	DK	DK	DK	DK	CZ	CZ	CZ
3.	LU	FI	NL	NL	NL	NL	LU	NL	FI	FI	FI	FI	FI	SE	ΙE	DK
4.	FI	NL	LU	FI	FI	LU	DK	FI	NL	LU	NL	NL	CZ	FI	DK	DE
5.	ΙE	LU	FI	ΙE	LU	FI	FI	LU	LU	NL	AT	AT	NL	ΙE	FI	IE
6.	AT	ΙE	ΙE	LU	ΙE	AT	AT	AT	AT	AT	LU	LU	AT	NL	DE	NL
7.	NL	AT	AT	AT	AT	ΙE	ΙE	ΙE	DE	DE	ΙE	ΙE	ΙE	AT	NL	FI
8.	FR	FR	FR	MT	BE	BE	FR	BE	ΙE	ΙE	DE	DE	DE	DE	LU	AT
9.	MT	MT	MT	FR	CY	FR	BE	FR	FR	FR	FR	CZ	LU	LU	AT	MT
10.	BE	BE	BE	CY	FR	DE	DE	DE	BE	MT	MT	BE	EE	MT	FR	BE
11.	DE	CY	CY	BE	DE	CZ	CZ	MT	CZ	BE	CZ	FR	BE	EE	EE	LU
12.	SI	ES	DE	DE	CZ	CY	MT	CZ	MT	CZ	BE	EE	FR	BE	BE	FR
13.	ES	DE	ES	ES	SI	MT	ES	ES	EE	EE	EE	MT	MT	FR	MT	SI
14.	IT	SI	SI	CZ	ES	SI	CY	SI	SI	ES	LT	SK	SI	SI	SI	EE
15.	CY	IT	IT	SI	MT	IT	SI	IT	ES	SI	ES	LT	PL	SK	SK	PL
16.	PT	PT	CZ	LT	LT	ES	IT	EE	IT	SK	SK	SI	SK	PL	PL	SK
17.	EL	CZ	LT	EE	ΙΤ	EE	LT	CY	SK	IT	SI	ES	LT	LT	HU	HU
18.	CZ	EL	EL	IT	EE	EL	SK	LT	LT	LT	PL	PL	ES	HU	LT	CY
19.	HU	HU	PT	EL	EL	SK	EE	PL	CY	PL	IT	IT	IT	IT	CY	ES
20.	EE	EE	EE	PT	PT	LT	PL	SK	PL	CY	CY	CY	HU	ES	ES	LT
21.	LT	LT	HU	PL	SK	PL	EL	HU	PT	HU	HU	HU	CY	CY	IΤ	IT
22.	SK	SK	SK	HU	PL	PT	HU	PT	HU	EL	PT	PT	PT	PT	LV	PT
23.	PL	LV	LV	LV	HU	HU	PT	EL	EL	PT	EL	LV	LV	LV	PT	LV
24.	LV	PL	PL	SK	LV	EL	EL	EL	EL	EL						

Source: Own preparation.

Chart 1. The standard of living in the European Union countries in 2005(top) and 2020 (down)



Source: Own preparation.