

GOVERNMENT EXPENDITURES ON HOUSEHOLD CONSUMPTION – LEVEL, CHANGES, AND THEIR RELATIONSHIP WITH SOCIO-ECONOMIC DEVELOPMENT INDICATORS IN EUROPEAN COUNTRIES

Marlena Piekut✉

Warsaw University of Technology, Poland

ABSTRACT

Aim: The aim of this article is to examine changes in government expenditures on household consumption in European countries and the relationship of these expenditures with socio-economic indicators. **Methods:** The study is based on data analysis from 36 European countries, using the Eurostat database and various rankings such as the Happiness Index, Human Development Index, Sustainable Development Goals, and Social Progress Index. The analysis focused on the trends in government expenditures on household consumption and aimed to explore the association between these expenditures and socio-economic indicators. **Results:** Significant changes in the share of government expenditures on household consumption in the GDP were observed among the studied countries during the period from 2011 to 2022. Some countries increased their expenditures, while others decreased them. Cluster analysis revealed four groups of countries based on the share of government expenditures on household consumption in GDP. **Conclusions:** There was no direct correlation between the level of government expenditures on household consumption and socio-economic indicators among the studied countries. Instead, variations in socio-economic development were observed among different groups of countries, regardless of the level of government expenditures on household consumption.

Key words: government expenditures, household consumption, socio-economic indicators, European countries, trends

JEL codes: C51, F02, G28, H50

INTRODUCTION

Some researchers argue that government expenditures on household consumption are a crucial indicator of the government's commitment to addressing the well-being and welfare of its citizens. This expenditure reflects the allocation of resources toward social programs and services that directly benefit households and individuals.

The importance of public spending on households lies in several key aspects, i.e., social welfare, income redistribution, economic stability, human capital development, social cohesion, and sustainable development. By allocating resources to support households, governments can enhance the overall welfare of their citizens and foster an environment that encourages individual and societal progress [Gali et al. 2004, Gough 2017, UN 2018].

Marlena Piekut <https://orcid.org/0000-0001-6449-5143>

✉ marlena.piekut@pw.edu.pl

Others oppose this type of budget spending. Some of the main arguments against such expenditures include concerns related to economic liberalism, irrational spending, increasing public debt, potential disincentives to work, exacerbating social inequalities, and unintended side effects.

The aim of this paper is to present the changes in the shares of government expenditures on household consumption in European countries and to determine whether the level of these expenditures is related to the levels of indexes describing socio-economic conditions.

The research questions are as follows:

1. What are the developmental trends in the level of government expenditures on household consumption?
2. Do higher government expenditures on household consumption contribute to the improvement of socio-economic indexes?

THEORIES AND CONCEPTS CONCERNING THE ROLE OF PUBLIC SPENDING FOR HOUSEHOLDS IN THE CONTEXT OF DEVELOPMENT AND WELFARE OF SOCIETY

Government expenditures on household consumption play a crucial role in the context of societal development, and various theories and concepts shed light on its significance.

The Keynesian theory emphasizes the importance of government intervention in the economy, particularly during economic downturns. Increased public spending on households through social welfare programs and infrastructure projects can stimulate demand, boost consumption, and create jobs, contributing to economic growth and development [Bornemann 1976].

The concept of the welfare state highlights the government's responsibility to provide social protection and support to its citizens. Public spending on households is a core element of the welfare state, ensuring access to healthcare, education, housing, and other essential services, which fosters a more equitable and cohesive society [Gough 2017].

According to social capital theory, government expenditures on household consumption can foster

social capital, which refers to the networks, relationships, and trust within a community. Investments in social programs and services can strengthen social ties, promote civic engagement, and enhance collective well-being, contributing to a more resilient and cohesive society [Midgley and Livermore 1998].

Behavioral economics considers the impact of psychology and human behavior on economic decision-making. Government expenditures on household consumption can be designed in ways that encourage positive behaviors, such as savings, education, and healthy lifestyle choices, thereby fostering long-term societal development.

The social investment perspective advocates for proactive public policies that focus on investing in people's potential and capabilities. Government expenditures on household consumption, particularly in early childhood education and support for vulnerable populations, can yield positive returns and contribute to societal development [Blancherd and Perotti 2002, Gali et al. 2004].

In summary, various economic theories and concepts highlight the significance of public spending on households in driving societal development. By providing essential services, social protection, and fostering human capital, such spending contributes to economic growth, social cohesion, and the overall well-being of citizens, thus laying the foundation for a sustainable and prosperous society.

In economic considerations, both positive and negative consequences of government expenditures on household consumption are highlighted. There are theories and concepts in economics that emphasize the negative impact of public spending on household well-being. Opponents of extensive government involvement argue that high public spending can lead to: a) increased tax burdens on households, reducing their disposable income; b) higher costs of conducting business and investments, negatively affecting entrepreneurship and job creation; c) possible budget deficits and the need to finance them through borrowing, leading to higher costs of servicing public debt and economic uncertainty; d) increased bureaucracy and inefficient use of public funds, limiting the effectiveness and flexibility of economic policy [Atkinson 1995, Gough 2016, p. 29].

The “Crowding Out” theory is one of the important approaches highlighting the negative consequences of public spending [Şen and Kaya 2014]. According to this theory, when the government increases its spending, it often borrows money from the financial market, which raises interest rates [Weibel et al. 2014]. Higher interest rates can result in reduced private investments as the cost of credit increases, and businesses start to avoid taking loans. As a consequence, private investments and economic growth may be constrained, negatively impacting household well-being. However, it is worth noting that these approaches are not unanimous in the scientific literature, and evaluating the impact of public spending on household well-being is a complex issue, requiring consideration of multiple factors and economic contexts.

GOVERNMENT FINAL CONSUMPTION EXPENDITURE IN NATIONAL ACCOUNTS

The concept of government final consumption expenditure in national accounts is an accounting convention that may appear less straightforward to interpret. Government final consumption expenditure encompasses two fundamental components. Firstly, it comprises expenditures related to the production of government non-market goods and services provided entirely free of charge (and derived residually). Such output cannot be practically presented as intermediate consumption or final consumption of other sectors. The valuation of non-market output is indirectly performed through conventions, summing production costs (e.g., wages and salaries, intermediate consumption, and consumption of fixed capital), while any partial payments for non-market output are deducted. The second part of government final consumption expenditure includes goods and services acquired by government units from market producers and then distributed to the household sector as social transfers in kind. It is essential to strictly differentiate concepts like government final consumption expenditure (P.3), government total expenditure (TE), or government current expenditure as they vary in scope, coverage of

transactions, and the inclusion or exclusion of imputed flows [Pulpanova 2013].

In this study, the amount of government final consumption expenditure (P.3) is analyzed. In national accounts, the category of this consumption (P.3) encompasses expenditures incurred by institutional units that are residents on goods and services used to directly satisfy the individual and collective needs of the society. In the government sector, consumption consists of the sum of non-market output (P.132) and social transfers in kind (D.63). Consumption (P.3) is further divided into individual consumption (P.31), which includes the value of non-market goods and services provided free of charge to the household sector, and collective consumption (P.32), representing the value of non-market goods and services intended for consumption without specific individual recipients [GUS 2010, p. 17].

In summary, government expenditures on household consumption (in national income accounting called government final consumption expenditure) refers to the value of goods and services acquired or produced by the government and then directly provided to private households for their consumption needs. This form of public spending involves the government acting as a direct supplier of goods and services to support household consumption [Eurostat 2023].

In the conducted study, a research gap was observed. According to the author’s knowledge, no previous studies have examined the relationship between socio-economic measures and government expenditures on household consumption. Examples of such measures include the Human Development Index, Social Progress Index, Happiness Index, and Sustainable Development Goals Index.

MATERIAL AND METHODS

The data source was the Eurostat database and the following rankings: Happiness Index (HP), Human Development Index (HDI), Sustainable Development Goals (SDG), and Social Progress Index (SPI).

The Happiness Index measures the subjective level of happiness and well-being in society, assessing people’s satisfaction with their lives and overall emotional well-being.

According to the UNDP [2015], the Human Development Index evaluates a country's social and economic development, considering life expectancy, education, and income per capita. This index is used to assess differences in development.

Sustainable Development Goals is a set of 17 goals established by the United Nations to promote sustainable social, economic, and environmental development by 2030. The SDG Index provides a framework for evaluating a country's or region's performance in relation to each of the 17 SDGs and their associated targets. This index tracks progress in achieving sustainable development goals, encompassing a wide range of social, economic, and environmental aspects that impact the overall quality of life and well-being of communities.

The Social Progress Index is an indicator that focuses on a more comprehensive approach to measuring social progress, considering a country's ability to meet its citizens' basic needs, improve their quality of life, and enable them to reach their full potential.

The analysis was carried out for 36 countries from Europe.

Study Design:

Step 1. Level and Changes over Time in Final Consumption Expenditure by General Government

1. Data aggregation;
2. Creation of a ranking of countries based on final consumption expenditure by general government in GDP;
3. Calculation of changes in the years 2011–2022 (linear trends of changes);

A linear trend is a special case of linear regression where the explanatory variable X is the time variable t .

Linear trend function:

$$y = a \times t + b$$

where:

a – the slope of the trend line is calculated as follows,
 b – the intercept of the trend

When $a > 0$, we have a positive trend. The larger the value of a , the faster the Y value increases over

time. When $a < 0$, we have a negative trend. The smaller the value of a , the faster the Y value decreases over time.

4. Calculation of Correlation Between Government Expenditure Share on Household Consumption and HI, HDI, SDG, and SPI Indicators

It was assumed to use the Pearson correlation when the variables have a normal distribution, and Spearman's correlation coefficient when the variables do not have a normal distribution. Correlation coefficients were calculated between the share of government expenditure on household consumption in 2022 and selected socio-economic indicators. Based on the Shapiro-Wilk test, it was found that HI and SDI had a normal distribution.

Step 2. Relationships between groups of countries based on the level of final consumption expenditure by general government and socio-economic development indicators

Conducting a cluster analysis using the Ward method;

1. Performing the Kruskal-Wallis test;
2. Conducting post-hoc multiple comparison tests of mean ranks for all samples.

The Ward method, developed by its namesake, emphasizes grouping profiles into clusters to facilitate the examination of relationships in datasets. The method aims to minimize heterogeneity rather than optimize, focusing on finding the highest similarity among profiles. In cluster analysis, quantifying the mutual similarity of objects is essential, and commonly achieved using metrics. The squared Euclidean distance metric is frequently employed with the Ward method [Blashifield et al. 1988].

The Ward method with squared Euclidean distance as a measure of distance was used. The variables used for the analysis were the final consumption expenditure of the general government in percent of GDP in 36 European countries from 2011 to 2022 (each year was one variable).

In order to compare differences between the analyzed groups in the level of socio-economic development indicators, analysis of variance (ANOVA) was considered. However, due to the violation of the assumption of equal variances (for all variables) and the assumption of normal distribution (in the 4th cluster,

the Sustainable Development Goals Index did not have a normal distribution), the Kruskal-Wallis test was utilized. The non-parametric Kruskal-Wallis test does not require the assumption of normality of the distribution and equal variances.

$$H = \frac{12}{N(N+1)} \sum_{i=1}^p \frac{R_i^2}{n_i} - 3(N+1),$$

where:

H – Kruskal-Wallis test,

N – total number of observations,

P – number of compared groups,

R_i – sum of ranks in a given group,

n_i – number of observations in a given group.

For multiple comparisons of means between individual groups, multiple mean rank comparison tests for all samples were used. The calculations were performed using the Statistica software.

RESULTS

Government expenditures on household consumption in European countries in 2022 ranged from 10.2 to 25.9% of GDP. The ranking of countries based on the final consumption expenditure of the general government in 2022 yielded the following results: The highest government expenditures on household consumption, approximately 24–26% of GDP, were observed in Iceland, the Netherlands, Sweden, Belgium, Finland, and France. The lowest shares of government expenditures on household consumption in GDP, around 10–12%, were recorded for Albania, Switzerland, Kosovo, Turkey, and Ireland (figure 1). Of the 36 countries analyzed, 21 countries reduced (in percentage points) the share of government spending on household consumption between 2011 and 2022.

The results of the analysis indicated that from 2011 to 2022, there was a statistically significant increase in government expenditures on household consumption in Bulgaria (by 2.7 p.p.), Germany (2.8 p.p.), Estonia (1.0 p.p.), Latvia (0.6 p.p.), Luxembourg (1.4 p.p.),

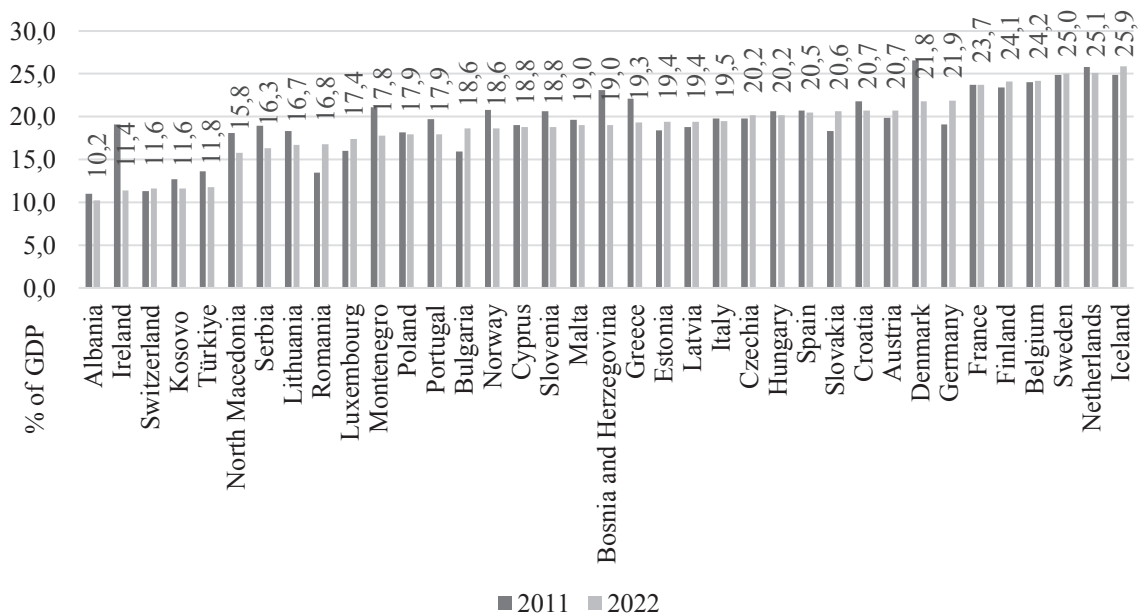


Fig. 1. Government expenditures on household consumption in the percentage of gross domestic product in European countries in 2011 and 2022

Source: the Author's calculation.

Table 1. The results of the differences in the share of government expenditures on household consumption in GDP between 2022 and 2011 and the trend analysis for these expenditures in European countries in 2011–2022

Countries	Difference 2022–2011 (p.p.)	B	R ²	p-value
Belgium	0,2	-0.022	0.019	0.6720
Bulgaria	2,7	0.259	0.4357	0.0138
Czechia	0,4	0.136	0.2011	0.0809
Denmark	-4,8	-0.339	0.8262	0.0000
Germany	2,8	0.267	0.7593	0.0001
Estonia	1,	0.150	0.5221	0.0048
Ireland	-7,7	-0.678	0.7448	0.0002
Greece	-2,8	-0.093	0.0074	0.3227
Spain	-0,2	0.064	0.0473	0.4972
France	0,0	0.001	0.0000	0.9806
Croatia	-1,1	-0.003	0.0000	0.9743
Italy	-0,3	-0.011	0.0047	0.8314
Cyprus	-0,2	0.027	0.0024	0.8792
Latvia	0,6	0.221	0.4904	0.0067
Lithuania	-1,6	-0.023	0.0139	0.7149
Luxembourg	1,4	0.170	0.5392	0.0039
Hungary	-0,4	0.051	0.05927	0.2224
Malta	-0,6	-0.020	0.0012	0.9133
Netherlands	-0,7	-0.052	0.0826	0.3649
Austria	0,8	0.106	0.2484	0.07787
Poland	-0,3	0.015	0.0177	0.6799
Portugal	-1,8	-0.084	0.1254	0.2586
Romania	3,3	0.443	0.8232	0.0000
Slovenia	-1,8	-0.057	0.0468	0.4995
Slovakia	2,3	0.283	0.8041	0.0001
Finland	0,7	-0.004	0.0004	0.9477
Sweden	0,1	0.003	0.0006	0.9404
Iceland	1,	0.236	0.2892	0.0713
Norway	-2,2	0.159	0.0794	0.3749
Switzerland	0,3	0.050	0.4210	0.0224
Bosnia and Herzegovina	-4,1	-0.420	0.8619	0.0000
Montenegro	-3,3	-0.135	0.1135	0.2842
North Macedonia	-2,3	-0.274	0.4542	0.0162
Albania	-0,8	0.023	0.0321	0.5775
Serbia	-2,6	-0.201	0.4587	0.0155
Turkey	-1,8	-0.038	0.0204	0.6575
Kosovo	-1,1	-0.057	0.077	0.3813

*difference between 2022–2011

Source: the Author's calculation.

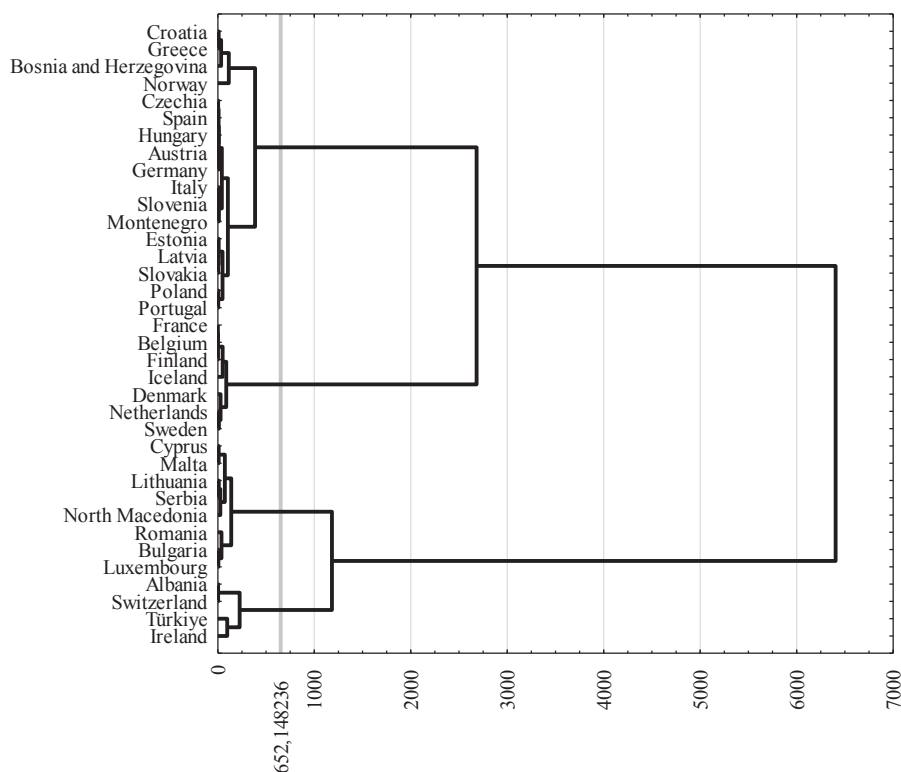


Fig. 2. Dendrogram of European countries by share of government household consumption expenditure in GDP in 2011–2022

Source: the Author’s calculation.

Romania (3.3 p.p.), Slovakia (2.3 p.p.), and Switzerland (0.3 p.p.), (Table 1).

Statistically significant decreases in this expenditure as a share of GDP from 2011 to 2022 were observed in both Western and Eastern European countries, namely Denmark (by 4.8 p.p.), Ireland (7.7 p.p.), Bosnia and Herzegovina (4.1 p.p.), North Macedonia (3.3 p.p.), and Serbia (2.3 p.p.). In the remaining countries, the mentioned public expenditures remained stable.

The examination of the interrelationships between the share of government expenditures on household consumption and socio-economic indicators yielded the following results. Significant statistical correlations were found between the size of the share of government expenditures on household consumption and the following indicators: HI (Pearson correlation coefficient of 0.534), SDI (Pearson correlation coefficient of 0.522), HDI (Spearman rank correlation coefficient of 0.439), and SPI (Spearman rank

correlation coefficient of 0.511). Thus, an increase in the share of government expenditures on household consumption is associated with an increase in the aforementioned indicators.

As a result of the Ward cluster analysis, European countries were divided into four groups according to the share of government expenditures on household consumption in GDP in 2011–2022. As a result of the Ward grouping, four clusters were obtained (Fig. 2).

The first group included France, Belgium, Denmark, Finland, Iceland, the Netherlands and Sweden. This group had the highest government expenditures on household consumption, ranging from around 22% of GDP in Denmark to 26% in Iceland (Fig. 3).

In the second group, five Eastern European countries, island countries, and Luxembourg were included. The share of the discussed category of government expenditures on household consumption in GDP in 2022 ranged from approximately 16% in

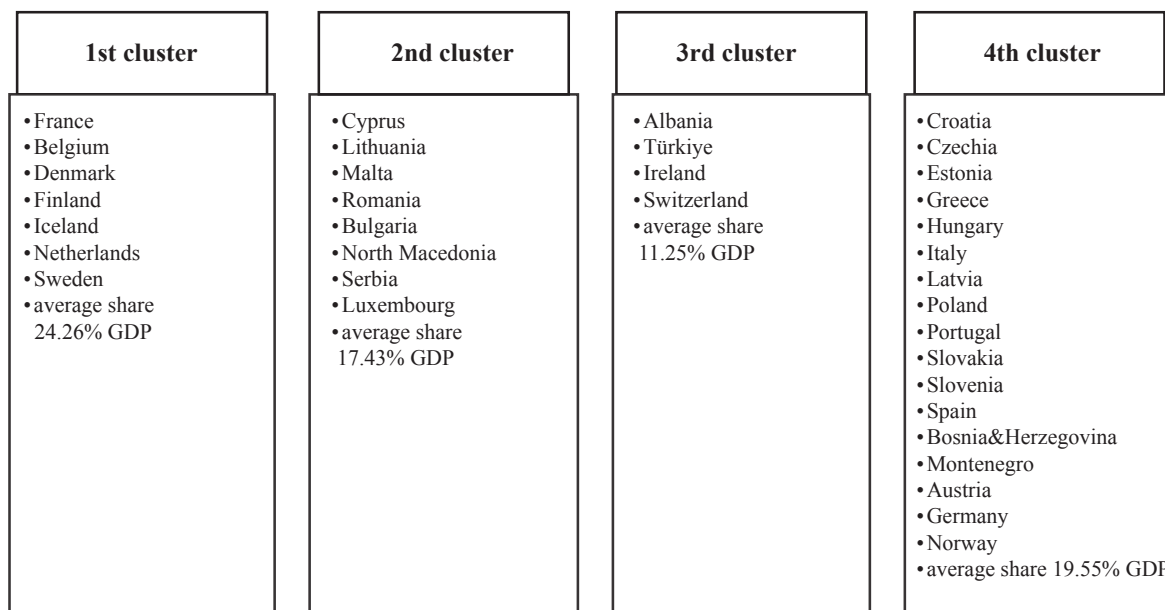


Fig. 3. Groups of countries by share of government expenditures on household consumption in GDP in European countries in 2011–2022

Source: the Author's calculation.

North Macedonia and Serbia to almost 19% in Cyprus and Malta.

The third group consisted of four countries. The share of government expenditures on household consumption in GDP in these countries was the lowest, ranging from 10.2% in Albania to 11.8% in Turkey.

In the fourth group, there were 17 countries from both Western and Eastern Europe, with the share of government expenditures on household consumption in GDP ranging from about 18% in Poland and Portugal to 21–22% in Spain, Slovakia, Croatia, Austria, and Germany.

Next, the analysis of relationships between the identified groups of countries and indicators describing various socio-economic aspects of life was conducted. Both the Kruskal-Wallis test and the median test allowed the conclusion that the level of analyzed indicators in the four groups is not equal ($p < 0.05$). To determine which pairs significantly differ statis-

tically, multiple mean rank comparisons were performed for all samples.

The conducted post-hoc tests (multiple mean rank comparisons for all samples) indicated statistically significant differences ($p < 0.05$) in the levels of the Happiness Index and Social Progress Index between the 1st group and the 2nd and 4th groups. The 1st group had the highest shares of government expenditures on household consumption, and the inhabitants of these countries exhibited some of the highest Happiness Index scores and the highest Social Progress Index scores.

Regarding the Happiness Index, in the 1st cluster, it ranged from 6.661 in France to 7.804 in Finland. In the 2nd cluster, the respective index varied between 4.614 (Turkey) and 7.240 (Switzerland), while in the 4th cluster, it ranged from 5.633 (Bosnia and Herzegovina) to 7.315 (Norway), (Table 2).

Table 2. Multiple comparison test results of average ranks for all country groups and the level of the Happiness Index in 2022

Cluster	1	2	3
2	0.014868		
3	0.102454	1,000000	
4	0.009138	1,000000	1,000000

Kruskal-Wallis test: $H(3, N = 36) = 12,34459$ $p = 0,0063$

Source: the Author’s calculation.

The Social Progress Index in the 1st cluster ranged from 86.04 in France to 90.54 in Finland. In the 2nd cluster, it varied from 72.74 (North Macedonia) to 87.48 (Luxembourg), and in the 4th cluster, it ranged from 71.23 (Bosnia and Herzegovina) to 90.74 (Norway), (Table 3).

Table 3. Multiple comparison test results of average ranks for all country groups and the level of the Social Progress Index in 2022

Cluster	1	2	3
2	0.007367		
3	0.223941	1,000000	
4	0.040336	1,000000	1,000000

Kruskal-Wallis test: $H(3, N = 36) = 11,49463$ $p = 0,0093$

Source: the Author’s calculation.

Statistically significant differences in the levels of the Sustainable Development Goals Index between the 1st and 2nd clusters of countries were observed (Table 4). In the 1st cluster, this index ranged from 78.87 in Iceland to 86.76 in Finland. In the 2nd cluster, the analyzed index varied from 72.47 in North Macedonia to 77.72 in Romania. The 1st cluster had the highest values of the Sustainable Development Goals Index.

Similarly to the Sustainable Development Goals Index, statistically significant differences in the levels were observed between the 1st and 2nd clusters for the Human Development Index (Table 5). In the 1st cluster,

the Human Development Index ranged from 0.903 in France to 0.959 in Iceland. In the 2nd cluster, the index varied from 0.770 in North Macedonia to 0.930 in Luxembourg.

Table 4. Multiple comparison test results of average ranks for all country groups and the level of the Sustainable Development Goals Index in 2022

Cluster	1	2	3
2	0.002817		
3	0.388531	1,000000	
4	0.717218	0,057344	1,000000

Kruskal-Wallis test: $H(3, N = 36) = 13,19601$ $p = 0,0042$

Source: the Author’s calculation.

Table 5. Multiple comparison test results of average ranks for all country groups and the level of the Human Development Index in 2022

Cluster	1	2	3
2	0.015276		
3	0.747281	1,000000	
4	0,052393	1,000000	1,000000

Kruskal-Wallis test: $H(3, N = 36) = 10,06540$ $p = 0,0180$

Source: the Author’s calculation.

DISCUSSION AND CONCLUSIONS

In recent years, numerous studies have investigated the impact of public expenditures on households. However, there is a lack of research on the relationship between public spending and indicators related to socio-economic development and the level and quality of life of the population. Both previous research by other authors and our own findings lead to the conclusion that factors beyond the share of government spending on household consumption influence the level and quality of life in a country. Scientific studies point to the role of GDP, as Bechtel [2018] pointed out that “a country-specific power

of GDP almost perfectly predicts HDI.” These discoveries contribute to the ongoing discourse surrounding the essence of well-being [Bechtel and Bechtel 2020].

The paper by Kutasi and Marton [2020] explores the relationship between public spending and economic growth in EU countries. Utilizing data from the COFOG classification, the study examines various types of expenditures and their impact on GDP growth from 1996 to 2017. Three econometric models were employed to analyze the data: first-differences GMM, fixed effects panel, and OLS models. The findings suggest that social protection spending has a negative and statistically significant effect on GDP growth, similar to general public spending. However, spending on education and health has a positive impact on GDP growth. The study emphasizes the importance of optimizing the structure of public spending for more efficient economic development.

Antonelli and De Bonis [2019] investigate the efficiency of welfare policies in European countries and identify contributing factors. Using two-stage efficiency analysis, the study measures efficiency based on social protection expenditure using Free Disposable Hull and Data Envelopment Analysis techniques. The findings reveal that higher efficiency is associated with higher education and GDP levels, smaller population size, less selectivity in welfare systems, and lower corruption levels.

Cyrek [2019] examines income inequality and poverty, focusing on government intervention and social spending in EU countries. Using the DEA method and Malmquist index, the research compares social efficiency and identifies changes during the crisis period. The findings reveal variations in government spending efficiency for inequality reduction, while poverty alleviation shows no such correlation. Additionally, social models differ between Southern and Northern European countries, with the former focusing on inequality reduction and the latter on poverty alleviation. Efficiency decreases during the crisis mainly affected poverty reduction, indicating negative impacts on the poor. Institutional reforms positively influenced efficiency, while current public spending usage led to losses.

Earlier research has focused on the impact of public expenditures on the well-being of society, but existing studies have yielded mixed results. Some suggest that government consumption may decrease life satisfaction

[Di Tella and MacCulloch 2005, Bjørnskov et al. 2007], while others find no significant effect [Veenhoven 2000, Ouweneel 2002]. Specific types of government expenditures also yield conflicting evidence. Social security expenditures, for example, do not show a significant correlation with well-being. However, generous welfare spending and higher unemployment benefits have been linked to increased national well-being [Radcliff 2001, Di Tella et al. 2003]. Health expenditures also positively influence subjective well-being when considering respondents' health status [Kotakorpi and Laamanen 2010]. Hessami [2010] demonstrated that well-being is higher in countries where a large share of the budget is spent on education. Overall, the literature presents ambiguous findings regarding the impact of different public spending components on well-being. Our own study confirms these findings, showing that both in countries with the highest and lowest share of government expenditures on household consumption, indicators describing the level and quality of life of inhabitants are at a similar level. For instance, in Nordic countries with high government expenditure and Switzerland with low government expenditure, the indicators depicting the level and quality of life show comparable results.

In our own research, we also found significant differences in the Sustainable Development Goals Index between richer and poorer European countries. Higher levels of indicators were achieved by countries in the richer part of Europe, but not necessarily with higher levels of government spending on household consumption (e.g., Ireland, Switzerland). Over the past few decades, there has been an ongoing tension between socio-economic development and ecological sustainability [Jorgenson 2010, Rich, 2014]. Spaier et al.'s [2016] findings have quantified this inconsistency, demonstrating that economic growth can fulfill socio-economic goals while hindering environmental goals. However, certain models identify factors, such as health programs and government spending for socio-economic development, and renewable energy for ecological sustainability, that can avoid triggering conflicts between incompatible SDGs.

Studies outside Europe have shown the impact of government spending on economic development indicators. For instance, research conducted in Saudi Arabia [Haque and Khan 2019] reveals that a 1% increase in total gov-

ernment expenditure leads to a significant 10% point rise in the Human Development Index (HDI). Furthermore, the study highlights that investment in education has the most substantial positive impact on HDI. Conversely, the research identifies a negative relationship between health expenditure and economic growth.

Another study, the paper by Perovic and Golem [2010], combines data from surveys about happiness and macroeconomic data and analyzes the effects of macroeconomic variables on self-reported happiness in transition countries, focusing particularly on the impact of government size on the economy. Using international data on the reported happiness levels of thousands of individuals, the study finds that government expenditure as a percentage of gross domestic product positively and significantly influences happiness in a set of thirteen transition countries.

SUMMARY

In the conducted research, it was demonstrated that significant changes in the percentage of final consumption expenditure of the general government in GDP occurred in thirteen out of thirty-six European countries from 2011 to 2022. Increases in these expenditures were observed in Switzerland, Slovakia, Romania, Luxembourg, Germany, Estonia, and Bulgaria. On the other hand, reductions in the percentage of final consumption expenditure of the general government in GDP occurred in Serbia, North Macedonia, Bosnia and Herzegovina, Ireland, and Denmark.

European countries can be categorized into four groups based on the percentage of final consumption expenditure of the general government in GDP from 2011 to 2022. The first group includes households with the highest government support, such as France, Belgium, the Netherlands, and Nordic countries like Denmark, Finland, Iceland, Sweden, and Norway. The lowest government support was observed in households from Albania, Turkey, Ireland, and Switzerland.

Statistically significant differences in the level of socio-economic development indicators did not appear between the extreme groups, i.e., those with the highest and lowest shares of government expenditures on household consumption, but rather between groups en-

compassing countries from the wealthier part of Northern and Western Europe and the poorer part of Eastern and Southern Europe. Most countries with the highest government expenditures on households also had the highest socio-economic development indicators. Conversely, countries with lower government spending on private consumption in households showed lower socio-economic development indicators.

REFERENCES

- Antonelli, M.A., De Bonis, V. (2019). The efficiency of social public expenditure in European countries: a two-stage analysis. *Applied Economics*, 51(1), 47–60.
- Atkinson, A. B. (1995). Is the welfare state necessarily an obstacle to economic growth? *European Economic Review*, 39(3–4), 723–730.
- Bechtel, G. (2018). The human development index as isoelastic GDP: evidence from China and Pakistan. *Economies*, 6(2), 32.
- Bechtel, G., Bechtel, T. (2020). GDP and Human Development. *Open Journal of Social Sciences*, 8(11), 333.
- Bjørnskov, C., Dreher, A., Fischer, J. A.V (2007). The Bigger the Better? Evidence of the Effect of Government Size on Life Satisfaction Around the World. *Public Choice*, 130, 267–292.
- Blanchard, O., Perotti R. (2002). An Empirical Characterization of the Dynamic Effects of Changes in Government Spending and Taxes on Output. *Quarterly Journal of Economics*, 117(4), 1329–1368.
- Blashfield, R.K., Aldenderfer, M. S. (1988). The methods and problems of cluster analysis. In *Handbook of multivariate experimental psychology*. Springer US, 447–473.
- Bornemann, A. H. (1976). The Keynesian paradigm and economic policy. *American Journal of Economics and Sociology*, 35(2), 125–136.
- Cyrek, M. (2019). Government social spending in the EU countries: efficiency in poverty and income inequality reduction. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 14(3), 405–424.
- Di Tella, R., MacCulloch, R.J. (2005). Partisan Social Happiness. *Review of Economic Studies*, 72, 367–393.
- Di Tella, R., MacCulloch, R.J., Oswald, A.J. (2003). The Macroeconomics of Happiness. *Review of Economics and Statistics*, 85(4), 809–27.
- Eurostat (2023). Final consumption expenditure of general government [TEC00010]. Database Eurostat [accessed 25.07.2023].

- Galí, J., López-Salido, J. D., Vallés, J. (2004). Understanding the Effects of Government spending on Consumption. *European Central Bank Working Paper Series*, 339.
- Gough, I. (2016). Welfare states and environmental states: a comparative analysis. *Environmental Politics*, 25(1), 24–47.
- Gough, I. (2017). *Heat, greed and human need: Climate change, capitalism and sustainable wellbeing*. Edward Elgar Publishing.
- GUS (2010). *Statystyka sektora instytucji rządowych i samorządowych (Statistics of government and self-government institutions)*. Zakład Wydawnictw Statystycznych, Warszawa.
- Haque, M.I., Khan, M.R. (2019). Role of oil production and government expenditure in improving human development index: Evidence from Saudi Arabia. *International Journal of Energy Economics and Policy*, 9(2), 251.
- Hessami, Z. (2010) The size and composition of government spending in Europe and its impact on well-being. *Kyklos*, 63(3), 346–382.
- Helliwell, J.F., Layard, R., Sachs, J.D., De Neve, J.-E., Aknin, L. B., Wang, S. (2023). *World Happiness Report 2023*. Gallup, Sustainable Development Solutions Network, New York.
- Jorgenson, A. K. (2010). World-economic integration, supply depots, and environmental degradation: A study of ecologically unequal exchange, foreign investment dependence, and deforestation in less developed countries. *Critical Sociology*, 36(3), 453–477.
- Kotakorpi, K., Laamanen, J.P. (2010). Welfare State and Life Satisfaction: Evidence from Public Health Care. *Economica*, 77, 565–583.
- Kutasi, G., Marton, Á. (2020). The long-term impact of public expenditures on GDP-growth. *Society and Economy*, 42(4), 403–419.
- Midgley, J., Livermore, M. (1998). Social capital and local economic development: Implications for community social work practice. *Journal of community Practice*, 5(1–2), 29–40.
- Ouweneel, P. (2002). Social Security and Well-Being of the Unemployed in 42 Nations. *Journal of Happiness Research*, 3, 167–92.
- Perovic, L. M., Golem, S. (2010). Investigating macroeconomic determinants of happiness in transition countries: How important is government expenditure? *Eastern European Economics*, 48(4), 59–75.
- Půlpánová, L.V. (2013). Understanding Government Consumption. *Statistika: Statistics & Economy Journal*, 93(2).
- Radcliff, B. (2001). Politics, Markets, and Life Satisfaction: The Political Economy of Human Happiness, *American Political Science Review*, 95(4), 939–952.
- Rich, B. (2014). *Mortgaging the Earth: World Bank, Environmental Impoverishment and the crisis of development*. Routledge.
- Şen, H., Kaya, A. (2014). Crowding-out or crowding-in? Analyzing the effects of government spending on private investment in Turkey. *Panoeconomicus*, 61(6), 631–651.
- Spaiser, V., Ranganathan, S., Swain, R. B., Sumpter, D. J. (2017). The sustainable development oxymoron: quantifying and modelling the incompatibility of sustainable development goals. *International Journal of Sustainable Development & World Ecology*, 24(6), 457–470.
- UN (2018). *Promoting Inclusion Through Social Protection Report on the World Social Situation 2018*. Economic and Social Affairs. UN, New York.
- UNDP (2015). *Human Development Report. Work for Human Development*. UNDP, New York.
- Veenhoven, R. (2000). Well-Being in the Welfare State: Level Not Higher, Distribution Not More Equitable. *Journal of Comparative Policy Analysis*, 2, 91–112.
- Weibel, A., Wiemann, M., Osterloh, M. (2014). A behavioral economics perspective on the overjustification effect: Crowding-in and crowding-out of intrinsic motivation. *The Oxford handbook of work engagement, motivation, and self-determination theory*, 72-84.

WYDATKI RZĄDU NA KONSUMPCJĘ GOSPODARSTW DOMOWYCH: POZIOM, ZMIANY I ICH ZWIĄZEK Z WSKAŹNIKAMI ROZWOJU SPOŁECZNO-GOSPODARCZEGO W KRAJACH EUROPEJSKICH

STRESZCZENIE

Cel: Celem tego artykułu jest zbadanie zmian w wydatkach rządowych na konsumpcję gospodarstw domowych w krajach europejskich oraz związku tych wydatków z wskaźnikami społeczno-ekonomicznymi.

Metody: Badanie opiera się na analizie danych z 36 krajów europejskich z wykorzystaniem bazy danych

Eurostat oraz różnych rankingów, takich jak Indeks Szczęścia, Indeks Rozwoju Ludzkiego, Cele Zrównoważonego Rozwoju i Indeks Postępu Społecznego. Przeprowadzono analizę trendów zmian wydatków rządowych na konsumpcję gospodarstw domowych oraz skupiono się na wyjaśnieniu związku między tymi wydatkami a wskaźnikami społeczno-ekonomicznymi. **Wyniki:** W badanych krajach obserwowano istotne zmiany w udziale wydatków rządowych na konsumpcję gospodarstw domowych w latach 2011–2022. Niektóre kraje zwiększyły te wydatki, podczas gdy inne je zmniejszyły. W wyniku analizy skupień wyróżniono cztery grupy krajów na podstawie udziału wydatków rządowych na konsumpcję gospodarstw domowych w PKB. **Wnioski:** W badanych krajach nie stwierdzono bezpośredniego związku między poziomem wydatków rządowych na konsumpcję gospodarstw domowych a wskaźnikami społeczno-ekonomicznymi. Zamiast tego, zaobserwowano zróżnicowanie w rozwoju społeczno-ekonomicznym między różnymi grupami krajów, niezależnie od poziomu wydatków rządowych na konsumpcję gospodarstw domowych.

Słowa kluczowe: wydatki rządowe, konsumpcja gospodarstw domowych, wskaźniki społeczno-gospodarcze, kraje europejskie, trendy