

PRIVATE CONSUMPTION IN THE EUROPEAN UNION: A COMPARATIVE STUDY**Nicoleta ONOFREI, PhD student ¹**

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DOI: <https://doi.org/10.36004/nier.es.2021.1-05>**JEL Classification: D10, E21, E25, Z13.****CZU: 330.567.28(4)****ABSTRACT**

The aim of this paper is to study consumption of households from an economic and cultural perspective in the European Union with 28 Member States during the period 2010-2019. For this purpose, we compared the Eastern European countries, dominated by rapid economic growth and development with the Western European countries, which represent the most developed countries in the EU-28. From this perspective, we proposed a multidimensional analysis of consumption that includes macroeconomic indicators of households' wealth, which strongly influence their consumption together with an overview on expenditure by consumption purpose. Moreover, we have also considered Hofstede's cultural dimension theory based initially on four cultural dimensions (power distance, individualism versus collectivism, masculinity versus femininity, and uncertainty avoidance) to observe the impact national culture plays on households' consumption in Eastern and Western European countries tracking the historical changes of these countries. Our methodological approach consisted in descriptive and inferential statistics based on the selected economic and cultural indicators. Pearson's product-moment correlations were calculated to assess the correlations between the variables. Our analysis shows that the level of wealth is lower in Eastern European countries compared to Western Europe, which influences significantly the private consumption in these countries. Moreover, the systematic differences of national culture between Eastern and Western Europe influence strongly the private consumption of their population. Results of this paper indicate that in Eastern European countries the highest share of expenditure is allocated to primary needs such as food, non-alcoholic beverages, alcoholic beverages and cigarettes to the detriment of health, education, recreation and culture.

Keywords: households' consumption, European Union, income, national culture, Hofstede's theory

Scopul prezentei lucrări este de a studia consumul gospodăriilor din perspectivă economică și culturală în Uniunea Europeană cu 28 de state membre în perioada 2010-2019. În acest sens, am comparat țările din Europa de Est, dominate de creștere și dezvoltare economică rapidă, cu țările din Europa de Vest, care reprezintă țările cele mai dezvoltate din UE-28. Din această perspectivă, am propus o analiză multidimensională a consumului care include indicatori macroeconomici ai avuției

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gospodăriilor, care influențează puternic consumul acestora, precum și o imagine de ansamblu asupra cheltuielilor în funcție de scopul consumului. În plus, am luat în considerare, de asemenea, teoria dimensiunii culturale a lui Hofstede bazată inițial pe patru dimensiuni culturale (distanța față de putere, individualismul versus colectivismul, masculinitatea versus feminitatea și evitarea incertitudinii) pentru a observa impactul pe care cultura națională îl are asupra consumului gospodăriilor în țările din Europa de Est și de Vest, urmărind schimbările istorice din aceste țări. Abordarea metodologică a studiului a constat în statistici descriptive și inferențiale bazate pe indicatorii economici și culturali selectați. Metoda Pearson a fost aplicată pentru a evalua corelațiile dintre variabile. Analiza noastră arată că nivelul de bunăstare este mai scăzut în țările din Europa de Est în comparație cu Europa de Vest, ceea ce influențează în mod semnificativ consumul privat din aceste țări. În plus, diferențele sistematice de cultură națională dintre Europa de Est și Europa de Vest influențează puternic consumul privat al populației lor. Rezultatele acestui studiu indică faptul că, în țările din Europa de Est, cea mai mare parte a cheltuielilor este alocată nevoilor primare, cum ar fi alimentele, băuturile nealcoolice, băuturile alcoolice și țigările, în detrimentul sănătății, educației, recreerii și culturii.

Cuvinte cheie: consumul gospodăriilor, Uniunea Europeană, venit, cultura națională, Teoria lui Hofstede

Целью данной статьи является изучение потребления домашних хозяйств с экономической и культурной точки зрения в Европейском Союзе с 28 государствами-членами в период 2010-2019 гг. В связи с этим мы сравнили страны Восточной Европы, в которых преобладают высокие темпы экономического роста и развития, со странами Западной Европы, которые являются наиболее развитыми странами в ЕС-28. С этой точки зрения мы предложили многомерный анализ потребления, который включает макроэкономические показатели благосостояния домашних хозяйств, которые сильно влияют на их потребление, а также обзор расходов по целям потребления. Кроме того, мы также рассмотрели теорию культурного измерения Хофстеде, первоначально основанную на четырех культурных измерениях (дистанция от власти, индивидуализм против коллективизма, мужественность против женственности и избегание неопределенности) для определения влияния национальной культуры на потребление домашних хозяйств в странах Восточной и Западной Европы, в контексте исторических изменений в этих странах. Методологический подход исследования состоял из описательной и выведенной статистики на основе отобранных экономических и культурных показателей. Для оценки корреляции между показателями применялся метод Пирсона. Наш анализ показывает, что уровень благосостояния в странах Восточной Европы ниже, чем в странах Западной Европы, что существенно влияет на частное потребление в этих странах. Кроме того, систематические различия в национальной культуре между Восточной и Западной Европой сильно влияют на частное потребление их населения. Результаты этого исследования показывают, что в странах Восточной Европы большая часть расходов направляется на удовлетворение основных потребностей, таких как продукты питания, безалкогольные напитки, алкогольные напитки и сигареты, в ущерб здоровью, образованию, отдыху и культуре.

Ключевые слова: потребление домашних хозяйств, Европейский союз, доходы, национальная культура, Теория Хофстеде

INTRODUCTION

Our society is called a consumerist society as the level of consumption of goods and services nowadays has never been seen in the history of humanity (Matsuyama 2002:5-7). The gradual transition towards consumerism started after and it has triggered progress in all areas of activity, which lead to a lifestyle of individuals inclined towards wealth.

Private consumption represents the household's consumption of goods and services. The households' consumption accounts for around 50% of EU-28 Gross Domestic Product (GDP) compared to around 20% for government consumption (Eurostat, 2019). The assignation of financial resources towards private consumption implies a reduction of the personal savings, and, in some cases even indebtedness of individuals and households. Households' income determines the level of their consumption and the category of goods and services towards which they decide allocate their budget.

The private consumption is very limited in those households in which the income does not cover the expenses of their basic needs. According to Engel's law, the wealthier households allocate a smaller share of their budget for food, which is a basic need, assigning their resources to more sophisticated needs.

Households' consumption in the European Union is still divergent triggering numerous differences between countries. Factors that drive households' consumption are triggered by economic features such as disposable income and individual consumption, and socio-cultural characteristics such as habits and cultures. In this paper, we have considered Hofstede's cultural dimension theory based initially on four cultural dimensions (power distance, individualism versus collectivism, masculinity versus femininity and uncertainty avoidance) to observe the impact national culture has on households' consumption in EU-28 Member States during 2010-2019. For this purpose, we have drawn statistical comparisons between the Western European countries, the most developed countries in the EU-28 and Eastern European countries, developing countries, which joined the EU after 2004.

This paper is structured in five parts. The first part contains the introduction, which indicates the research question. The second part of the paper covers the literature review of economic and cultural influences of households' consumption in the European Union. The third part of the study describes the research methodology including the data sources. The fourth part of the paper presents the results and discussions derived from the study. Finally, the fifth part shows the conclusions of the study.

LITERATURE REVIEW

Some authors define consumption as "spending for survival or enjoyment as opposite to providing for future production" (Black 1997:84). Recent research (Sadik-Zada & Loewenstein 2018:196–204) reveals the direct relationship between disposable income and consumption. Other authors argue that income effects show differences in the spending patterns of affluent households rise (Chai et al. 2015:423–440) and that changes in household wealth impact on consumption (Jawadi et al. 2017:849). Furthermore, consumption is shaped by the interaction between the national context and individual lifestyle preferences (Thøgersen 2017:16–25). Moreover, households' consumption is a complex process, which represents the result of social, cultural and economic influences (Zukin & Maguire 2004:174). Other authors (Schor 2002:3–4) indicate that motivations of consumption are social, these deriving from the need to keep pace with the level of consumption promoted by the society rather than with objective individual needs. Some authors (Firat et al. 2013:199) conclude that culture is one of the most important factors affecting attitudes, behaviors and lifestyles of households' consumption.

If we consider the socio-economic context of the countries in the European Union, we can distinguish two different societies: Western Europe and Eastern Europe. On one hand, the socio-economic evolution of Eastern European countries produced by the collapse of the communist regime triggered a significant change in the political regime. This implied a major transition from the planned economy towards a market economy (Lipton et al. 1990:6–79). On the other hand, countries from the Western Europe are more economically developed having an individualistic culture, whereas Eastern European countries are developing at a rapid pace being more traditional (Trentmann 2004:378). Some authors indicate the differences in the structure of households' consumption appeared due to different levels of socio-economic development in different countries along with historical, geographical and cultural factors (Kozera et al. 2013:293-303). For some categories of consumption such as clothing, footwear, miscellaneous goods and services Eastern European countries before joining the EU spent less than Western European countries (Arnotte 1999:1–8). Some authors (Yıldırım et al. 2016:42-51) consider that culture shapes purchases decisions of individuals. Moreover, other authors point out the role of cultural differences on individual consumption behaviors (De Mooij 2017:444-456) identifying the national culture as critical factor (Nair & Little 2016:178). Differences in households' consumption between the Western and the Eastern European countries are more visible in the experience of operating in the market economy, the demand for basic goods and the level of saturation, which are in the detriment of the latter ones (Szwacka-Mokrzycka 2017:169-178). Recent research (Michail 2020:979-994) indicates that household consumption patterns in the European Union are more convergent in the Eurozone than outside it. Moreover, cultural values in some countries have restrained the spread of consumerism (Roach et al. 2019:17). In addition, some studies include the effects of national culture on household's consumption taking into consideration Hofstede's cultural dimensions theory. From this

perspective, low power distance countries have a higher tendency to change (Matusitz & Musambira 2013:42–60), whereas consumers with low levels of uncertainty avoidance are prone to take more risks (Hwa-Froelich & Vigil 2004:107-118).

RESEARCH METHODOLOGY

The aim of this paper is to analyze the households' consumption in the European Union and to identify some economic and social variables that influence consumption. In our analysis we refer to the period 2010-2019 based on the data availability of the indicators analyzed. In this paper, we have used descriptive statistics to correlate economic indicators such as the Adjusted gross disposable income of households per capita, the Actual Individual Consumption and Households' expenditure by consumption purpose with the cultural factors based on Hofstede's initial model of national culture. Both economic indicators used in this paper are expressed in Purchasing Power Standards (PPS) to include the price level differences across the countries subject to our analysis.

Adjusted gross disposable income of households per capita reflects "the purchasing power of households and their ability to invest in goods and services or save for the future" (Eurostat, 2019). This indicator includes the flows of services households receive free of charge from governments (e.g. education, health, etc.). In this paper, we used this indicator as it reflects the disposable income of households available for consumption and/or savings.

Actual Individual Consumption (AIC) measures all the goods and services consumed by households including the services provided by government or non-profit organizations (e.g. education, health, etc.). This indicator is preferred in comparative studies as indicator of households' material welfare. In this paper, we focus only on households' consumption, therefore we have excluded from our analysis the services provided by government or non-profit organizations.

Households' expenditure by consumption purpose depicts the allocation of income aggregated at the national level to the main categories of spending such as food & non-alcoholic beverages, clothing & footwear, housing, health, education, recreation and culture.

From the side of cultural factors that influence consumption, we relied on Hofstede's model of national culture (Hofstede 1980:15–41) that initially comprised four dimensions: power distance, individualism versus collectivism, masculinity versus femininity and uncertainty avoidance.

Power distance index (PDI) reflects the way in which a society reacts to inequalities among its members. A high power distance index is characteristic for societies in which people accept differences and hierarchical order, while in countries with a low power distance people with less power strive to minimize the inequalities in the distribution of power.

Individualism versus collectivism (IDV) shows whether the members of a society are inclined to act only for their own welfare and for their families (high index values) or on the contrary it is a society in which members of different groups help each other selflessly.

Masculinity versus femininity (MAS) differentiates between societies oriented towards achievement, heroism, material rewards for success (high values correspond to masculinity) and those in which cooperation and modesty are appreciated values (low values correspond to femininity).

Uncertainty avoidance index (UAI) reflects how uncomfortable are the members of a society with ambiguity and uncertainty. Societies with a high UAI are more intolerant and respect rigid codes of behavior, while those with a low UAI have a more relaxed attitude and accept more easily uncertain situations.

In our analysis we verified the following hypotheses:

H1: Actual Individual Consumption is positively correlated with the Adjusted gross disposable income of households per capita.

H2: Households' expenditure by consumption purpose is positively correlated with the Adjusted gross disposable income of households per capita. .

H3: Actual Individual Consumption is positively correlated with the Hofstede's 4 dimensions of national culture.

H4: Households' expenditure by consumption purpose is correlated with the Hofstede's 4 dimensions of national culture.

The statistical approach applied to verify these hypotheses is the Pearson's product-moment correlation analysis. Moreover, the results and discussions derived from our analysis are presented in section 4 of this paper.

RESULTS AND DISCUSSIONS

The total gross disposable income of households in EU-28 amounted to EUR 9 781 billion in 2018 (Eurostat, 2019). Figure 1 reflects the evolution of the Adjusted gross household disposable income per capita in EU-28 during the period 2010-2019 (data for Malta and UK was not available). In this paper, we used the data converted in purchasing power standards (PPS), which allowed us to draw an accurate comparison between all the EU-28 Member States. The mean Adjusted gross household disposable income per capita in EU-28 had an upward movement during the whole period analyzed, increasing from 19 650 PPS (2010) to 23 599 PPS (2019). However, major differences can be observed between the Member States from Eastern and Western Europe. The major difference is between Luxembourg and Bulgaria, the countries with the highest and respectively lowest value in terms of Adjusted gross income per capita. In 2010, Luxembourg exceeded almost 4 times the Adjusted gross disposable income per capita compared to Bulgaria. In 2019, the country that has exceeded the EU-28 average was Germany (+28,5 %), followed by Austria (+19,4 %), Belgium (+14,8 %), Netherlands (+12,3 %), France (+10,8 %), Finland, Sweden and Denmark (less than 10 %) (data for Luxembourg was not available for 2019, but in 2018 it registered 41,2 % more than the EU-28 average). At the opposite pole, we find the Eastern European countries as eight countries recorded values of 20 % or more below the EU-28 average (data for Bulgaria was not available, but in 2017, the most recent available year, it registered 46,1 % of the EU-28 average). The lowest values of adjusted gross disposable income of households per capita in 2019 were registered in Croatia (63,4% of the EU-28 average), Latvia (65,8%), Greece (67,4%), Hungary (68,2%), Romania (70,4%), Slovakia (71,5%), Poland (73,3%), and Estonia (75,4%). The analysis of the adjusted gross disposable income of households per capita expressed in PPS indicates clearly the significant differences in income between the Eastern and Western Europe. The year 2019 marks the 15 years period after the accession of the Eastern European countries to the EU back in 2004. This means that even after 15 years of economic convergence, there are still significant imbalances in income between Eastern and Western European countries.

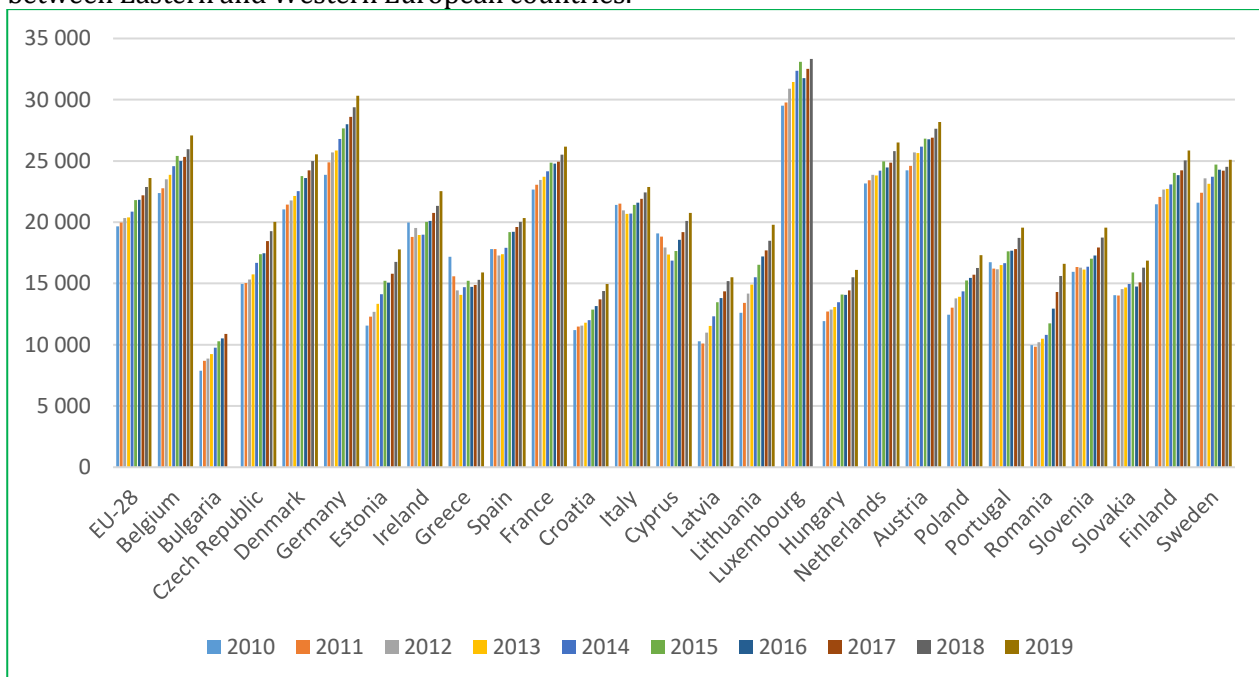


Figure 1: Adjusted gross disposable income of households per capita in PPS

Source: Authors' contribution based on Eurostat data (2010-2019)

The evolution of the Actual Individual Consumption (AIC) is analyzed in this paper as an indicator for the material welfare of households at the European Union level for the period 2010-2019 (Figure 2). As observed in Figure 1, in Figure 2 we remark a similar pattern in households' welfare with significant differences between the Eastern and Western European countries. The mean AIC for EU-28 increased from 17 600 PPS (2010) to 21 000 PPS (2019). The countries that exceed the EU-28 AIC average are Luxembourg (+31,9 %), Germany (+20 %), Austria (+15,2 %), Denmark (+13,8 %), Netherlands (+12,4 %), United Kingdom (+11,4%) followed by Finland (+11 %) and France (+7,1 %). The countries with the lowest AIC in EU are Bulgaria (-42,9 % from the EU-28 mean), Croatia (-35,7 %), Hungary (-33,8 %), Slovakia (-31,9 %), Latvia (-35,5 %) followed by Estonia, Greece, Poland and Romania with less than 30 % below the EU-28 AIC average. Slovenia, Czech Republic, Malta, and Portugal registered values of AIC with 20 % below the EU-28 average, while Spain, Ireland, Italy, Cyprus and Lithuania had values less than 10 % below the EU-28 mean.

The analysis of Figures 1 and 2 indicate that Eastern European countries position themselves lower on both economic indicators used in this study compared to the Western European countries. The differences in the welfare of households between the EU-28 Member States reveal challenges that developing countries from Eastern Europe strive to attain in order to reach the development level of Western European countries.

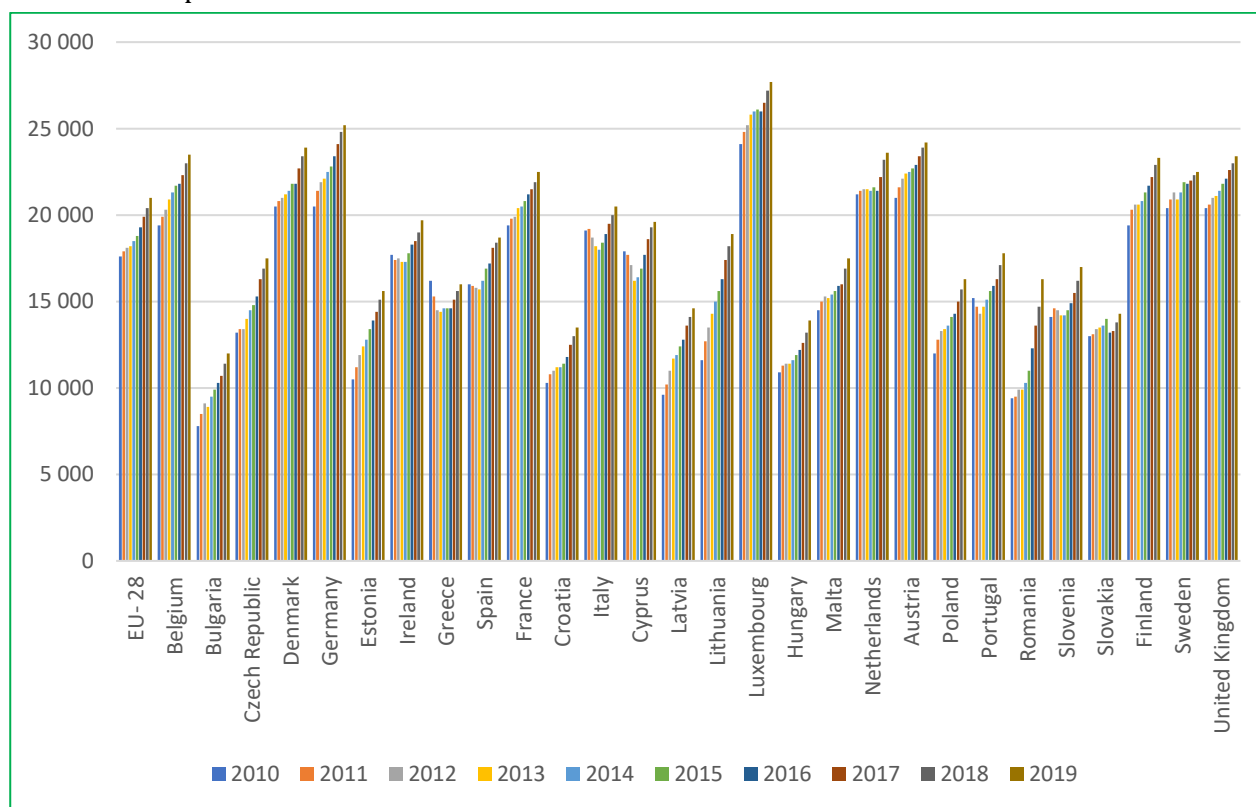


Figure 2: Actual Individual Consumption (Real expenditure per capita in PPS)

Source: Authors' contribution based on Eurostat data (2010-2019)

Table 1 reveals the evolution of households' expenditure by consumption purpose in function of geographical zone, Western Europe (WE) and Eastern Europe (EE) during the period 2010-2019. We observe major differences between Western and Eastern European countries as regards the distribution of households' expenditure to different categories of consumption. Eastern European countries spent much more money on Food & alcoholic beverages, Alcoholic beverages, tobacco & narcotics and Communications than Western countries, and less on Housing, water, electricity, gas & other fuels, Recreation & culture and Restaurants & hotels. The differences on categories of consumption such as Education, Clothing & footwear, Health and Transport are insignificant for both Western and Eastern European countries.

Table 1

Households' expenditure by consumption purpose (share of total=100)

	Region	2010	2011	2012	2013	2014	2015	2016	2017	2018
Food and non-alcoholic beverages	WE	11.7	11.7	11.9	12	11.9	11.8	11.8	11.9	11.5
	EE	18.2	18	18.5	18.6	18.6	18.4	18.3	18.1	18
Alcoholic beverages, tobacco & narcotics	WE	4	4.2	4.2	4.2	4	4.1	4.1	4	4
	EE	7	6.8	6.7	6.7	6.6	6.5	6.4	6.2	6.2
Clothing & footwear	WE	5	4.9	4.9	5	5	5	4.9	4.8	4.7
	EE	4.4	4.3	4.2	4.2	4.4	4.5	4.6	4.6	4.6
Housing, water, electricity, gas & other fuels	WE	22.9	22.9	23.4	23.7	23.6	23.6	23.5	23.2	23.3
	EE	21.5	21.8	21.8	21	20.9	21	20.3	20	20
Furnishings, household equipment & routine household maintenance	WE	5.8	5.6	5.5	5.4	5.4	5.5	5.5	5.5	6
	EE	5	4.9	4.8	4.7	4.7	4.7	5	5	5.2
Health	WE	3.7	3.8	3.9	3.9	3.9	4	4	4	4
	EE	4	4	3.9	4	4.2	4.3	4.3	4.4	4.4
Transport	WE	12.9	13.2	13	12.7	12.7	12.5	12	12.6	12.9
	EE	11.9	12.1	12.2	12.1	12.2	12.1	12	12.2	12.3
Communications	WE	2.6	2.6	2.5	2.5	2.4	2.4	2.3	2.3	2.3
	EE	3.6	3.4	3.4	3.4	3	3.3	3.3	3.2	3.1
Recreation & culture	WE	9	9.1	9	8.8	8.8	8.8	8.8	8.8	8.8
	EE	7.5	7.4	7.4	7.4	7.5	7.6	7.7	7.9	8.2
Education	WE	1	1	1	1.1	1	1.1	1.1	1.1	1
	EE	1.3	1.4	1.4	1.4	1	1	1.3	1.3	1.2
Restaurants & hotels	WE	9	9.1	9.1	9.3	9	9.6	9.9	10.1	10.2
	EE	7	6.9	7.2	7.4	7.6	7.9	8.2	8.5	8
Miscellaneous goods & services	WE	11.3	11.2	11	11	11.2	11	11.3	11.2	11.3
	EE	8.1	8	8	8.1	8.1	8	8.2	8	8.4

Source: Authors' contribution based on Eurostat data (2010-2019)

In this paper, we considered the hypothesis following which the AIC and the distribution of households' expenditure across different categories of consumption is not only influenced by the economic factors, but also by national cultural dimensions. For this purpose, we correlated the Actual Individual Consumption and Households' expenditure by consumption purpose with the Adjusted gross disposable income, and with the 4 dimensions of national culture proposed initially by Hofstede. The results of the correlation tests (Table 2) show that AIC is positively correlated with Adjusted gross disposable income of households per capita (p-value<0.0001) and IDV (p-value<0.01), and negatively correlated with PDI (p-value<0.001) and UAI (p-value=0.05). The correlation between AIC and MAS is not statistically significant. Thus, countries with higher income per capita and with individualistic population register higher values on AIC. On the contrary, countries in which people accept inequalities between their members and avoid uncertainty, have lower values on AIC.

Regarding the correlations with households' expenditure by consumption purposes we observed that the Adjusted gross disposable income of households per capita is positively correlated with Furnishings, household equipment and routine household maintenance (p-value<0.01), Miscellaneous goods and services (p-value<0.0001), and, negatively correlated with Food and non-alcoholic beverages (p-value<0.0001), Alcoholic beverages, tobacco and narcotics (p-value<0.05), Communications (p-value<0.0001), and Education (p-value<0.05). PDI is positively correlated with Food and non-alcoholic beverages (p-value<0.01), Communications (p-value<0.01), and negatively correlated with Recreation and culture (p-value<0.05). These findings suggest that in societies in which people accept inequalities between their members, less money will be spent on recreational and cultural activities and more money on Food and non-alcoholic beverages and Communications. If we consider that people with less power have also lower levels of income, then these results are relevant and intuitive. Individualism versus collectivism is positively correlated with Housing, water, electricity, gas and other fuels (p-value<0.05), Recreation and culture (p-value<0.05), Miscellaneous goods and services (p-value<0.05) and negatively correlated with Food and non-alcoholic beverages (p-value=0.01) and Communications (p-value<0.01). Masculinity versus femininity index is not significantly correlated with any of the variables included in the analysis. In societies in which people have a high level of uncertainty avoidance, more is spent on Food and non-alcoholic beverages (p<0.05), Health (p<0.05), and less on Housing, water, electricity, gas and other fuels (p-value=0.01) and Recreation and culture (p-value<0.001).

Table 2

Pearson's product-moment correlations between AIC, households' expenditure by consumption purpose and Adjusted gross disposable income per capita and Hofstede's 4 dimensions of national culture

	Adjusted gross disposable income per capita	Power distance index (PDI)	Individualism versus collectivism (IDV)	Masculinity versus femininity (MAS)	Uncertainty avoidance index (UAI)
Actual individual consumption (AIC)	0.9898214 **** p-value < 2.2e-16	-0.5972491 *** p-value = 0.00162	0.5279604 ** p-value = 0.006675	-0.06675845 p-value = 0.7512	-0.3834227 * p-value = 0.05849
Food and non-alcoholic beverages	-0.8203692 **** p-value = 5.146e-07	0.5679182 ** p-value = 0.003063	-0.4773361 ** p-value = 0.01583	-0.1084955 p-value = 0.6057	0.393135 * p-value = 0.05188
Alcoholic beverages, tobacco and narcotics	-0.4375898 * p-value = 0.0287	0.1672928 p-value = 0.4241	-0.0673258 p-value = 0.7492	0.06006066 p-value = 0.7755	0.07276739 p-value = 0.7296

Clothing and footwear	0.3066982 p-value = 0.1359	-0.3622259 p-value = 0.07517	0.1586611 p-value = 0.4487	-0.2323645 p-value = 0.2637	-0.03563647 p-value = 0.8657
Housing, water, electricity, gas and other fuels	0.5186466 p-value = 0.007901	-0.08051141 p-value = 0.702	0.4103231 * p-value = 0.04162	0.1398564 p-value = 0.5049	-0.4795802 ** p-value = 0.01527
Furnishings, household equipment and routine household maintenance	0.5376524 ** p-value = 0.005573	-0.2293347 p-value = 0.2701	0.35585 p-value = 0.08084	0.1973647 p-value = 0.3443	-0.2591889 p-value = 0.2109
Health	-0.2549813 p-value = 0.2187	0.2173657 p-value = 0.2966	-0.1872141 p-value = 0.3702	0.002146365 p-value = 0.9919	0.4569065 * p-value = 0.02167
Transport	0.1538905 p-value = 0.4627	-0.3145666 p-value = 0.1256	-0.07707822 p-value = 0.7142	-0.2883868 p-value = 0.1621	0.1578673 p-value = 0.451
Communications	-0.7351082 **** p-value = 2.843e-05	0.5035237 ** p-value = 0.01029	-0.4769184 ** p-value = 0.01593	0.04081415 p-value = 0.8464	0.2687174 p-value = 0.194
Recreation and culture	0.3611103 p-value = 0.07614	-0.3895767 * p-value = 0.05423	0.4114046 * p-value = 0.04103	-0.2512522 p-value = 0.2257	-0.6127655 *** p-value = 0.001128
Education	-0.4289208 * p-value = 0.0324	0.2681378 p-value = 0.195	-0.3321518 p-value = 0.1048	0.3510357 p-value = 0.08533	0.1576021 p-value = 0.4518
Restaurants and hotels	0.0008428659 p-value = 0.9968	-0.1872007 p-value = 0.3702	-0.2055235 p-value = 0.3243	0.199351 p-value = 0.3394	0.1152958 p-value = 0.5831
Miscellaneous goods and services	0.7805442 **** p-value = 4.171e-06	-0.3206204 p-value = 0.1181	0.4982304 ** p-value = 0.01125	0.01389205 p-value = 0.9475	-0.1378836 p-value = 0.511

Source: Calculated by the authors based on Eurostat data (2010-2019)

CONCLUSIONS

In this paper, we analyzed the households' consumption in the European Union with 28 Member States during the period 2010-2019 from an economic and cultural perspective. In the first part of our analysis, we described the evolution of two macroeconomic indicators, the Adjusted gross disposable income of households per capita and the Actual Individual Consumption per capita. The results show that the population from the Eastern Europe is less wealthy than the population from the Western countries, since they recorded lower values on both economic indicators. The countries with the lowest Adjusted gross disposable income per capita are Bulgaria, Estonia, Poland, Slovakia, Romania and

Hungary, while the countries with the highest values on this indicator are Luxembourg, Germany, Austria, Belgium and Netherlands. The EU-28 average of the Actual Individual Consumption increased significantly during the period analyzed from 17600 PPS per capita in 2010 to 21 000 PPS per capita in 2019. The countries with the lowest AIC are the Eastern European countries, namely Bulgaria, Croatia, Hungary, Slovakia and Latvia. At the opposite pole, there are the Western European countries, such as Luxembourg, Germany, Austria, Denmark and Netherlands. Regarding the household expenditure by consumption purpose, we observed that Eastern European countries households allocate higher shares of their total households' expenditure to the basic categories of consumption such as food, alcoholic beverages, tobacco in the detriment of education, recreational and cultural activities. The population living in the Western Europe allocate higher shares of their budget than the population living in the Eastern Europe for categories of consumption such as Housing, water, electricity, gas & other fuels, Clothing and footwear, Recreation and culture, Restaurants and hotels. We hypothesized that the differences in consumption are also related with the cultural differences between the two groups of countries, Western Europe and Eastern Europe.

In the second part of our analysis, we verified four hypotheses regarding the correlation between the Actual Individual Consumption and Households' expenditure by consumption purpose on one side and the Adjusted gross disposable income and Hofstede's 4 cultural dimensions on the other side. We used the cultural dimensions in our analysis since they also influence consumption besides the economic factors. According to the correlation tests, the first hypothesis is accepted, since we obtained a positive correlation between the Adjusted gross disposable income and the Actual Individual Consumption. The second hypothesis is only partially accepted because only some categories of consumption expenditures are correlated with the Adjusted gross disposable income. The third hypothesis is also partially accepted: 3 dimensions of 4 are correlated with AIC (Power distance index, Individualism versus collectivism, and Uncertainty avoidance index. The fourth hypothesis is only partially true, as in the previous case, Hofstede's dimensions are correlated only with some categories of consumption expenditures.

Our study creates the grounds for future research of this topic, since the relation between culture & consumption is complex in nature and it deserves to be substantiated empirically. Therefore, for future research, we propose to apply more advanced methodology for statistical analysis, such as the structural equation modelling that will allow assessing not only the correlation but also the causation between various variables.

REFERENCES

1. Arnotte, J. P. (1999). Final Consumption of Households in the Accession Countries. *Economy and Finance*, 2(24), 1-8.
2. Chai, A., Rohde, N., & Silber, J. (2015). Measuring the diversity of household spending patterns: measuring the diversity of household spending. *Journal of Economic Surveys*, 29(3), 423-440. <https://doi.org/10.1111/joes.12066>
3. De Mooij, M. (2017). Comparing dimensions of national culture for secondary analysis of consumer behavior data of different countries. *International Marketing Review*, 34(3), 444-456. <https://doi.org/10.1108/IMR-02-2016-0047>
4. Eurostat, D. E. (2019). *Adjusted gross disposable income of households per capita (2010-2019)*. <http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=tec00113&lang=en>
5. Firat, A., Kutucuoglu, K. Y., Saltik, I. A., & Tuncel, O. (2013). Consumption, Consumer Culture and Consumer Society. *Journal of Community Positive Practices*, 1, 182-203.
6. Hofstede, G. (1980). Culture and Organizations. *International Studies of Management & Organization*, 10(4), 15-41. <https://doi.org/10.1080/00208825.1980.11656300>
7. Hwa-Froelich, D. A., & Vigil, D. C. (2004). Three Aspects of Cultural Influence on Communication: A Literature Review. *Communication Disorders Quarterly*, 25(3), 107-118. <https://doi.org/10.1177/15257401040250030201>
8. Jawadi, F., Soparnot, R., & Sousa, R. M. (2017). Assessing financial and housing wealth effects through the lens of a nonlinear framework. *Research in International Business and Finance*, 39, 840-850. <https://doi.org/10.1016/j.ribaf.2014.11.004>

9. Kozera, A., Stanisławska, J., & Wysocki, F. (2013). A taxonomic analysis of diversification in the consumption structure in households in the EU countries. *Quantitative Methods in Economics*, *XIV*(1), 293–303.
10. Lipton, D., Sachs, J., Fischer, S., & Kornai, J. (1990). Creating a Market Economy in Eastern Europe: The Case of Poland. *Brookings Papers on Economic Activity*, *1990*(1), 75. <https://doi.org/10.2307/2534526>
11. Matsuyama, K. (2002). The Rise of Mass Consumption Societies. *Journal of Political Economy*, *110*(5), 1035–1070. <https://doi.org/10.1086/341873>
12. Matusitz, J., & Musambira, G. (2013). Power Distance, Uncertainty Avoidance, and Technology: Analyzing Hofstede's Dimensions and Human Development Indicators. *Journal of Technology in Human Services*, *31*(1), 42–60. <https://doi.org/10.1080/15228835.2012.738561>
13. Michail, N. A. (2020). Convergence of consumption patterns in the European Union. *Empirical Economics*, *58*(3), 979–994. <https://doi.org/10.1007/s00181-018-1578-5>
14. Nair, S. R., & Little, V. J. (2016). Context, Culture and Green Consumption: A New Framework. *Journal of International Consumer Marketing*, *28*(3), 169–184. <https://doi.org/10.1080/08961530.2016.1165025>
15. Roach, B., Goodwin, N., & Nelson, J. (2019). *Consumption and the Consumer Society*. 42.
16. Sadik-Zada, E. R., & Loewenstein, W. (2018). A Note on Revenue Distribution Patterns and Rent-Seeking Incentive. *International Journal of Energy Economics and Policy*, *8*(2), 196–204.
17. Schor, J. (2002). *Understanding the New Consumerism Inequality, Emulation and the Erosion of Well-Being—PDF Free Download*. <https://docplayer.net/33889308-Understanding-the-new-consumerism-inequality-emulation-and-the-erosion-of-well-being.html>
<https://docplayer.net/33889308-Understanding-the-new-consumerism-inequality-emulation-and-the-erosion-of-well-being.html>
18. Szwacka-Mokrzycka, J. (2017). Changes in food consumption in Poland and other EU countries. *Acta Scientiarum Polonorum. Oeconomia*, *16*(4), 169–178. <https://doi.org/10.22630/ASPE.2017.16.4.56>
19. Thøgersen, J. (2017). Sustainable food consumption in the nexus between national context and private lifestyle: A multi-level study. *Food Quality and Preference*, *55*, 16–25. <https://doi.org/10.1016/j.foodqual.2016.08.006>
20. Trentmann, F. (2004). Beyond Consumerism: New Historical Perspectives on Consumption. *Journal of Contemporary History*, *39*(3), 373–401. <https://doi.org/10.1177/0022009404044446>
21. Yıldırım, E., Arslan, Y., & Barutçu, M. T. (2016). The role of uncertainty avoidance and indulgence as cultural dimensions on online shopping expenditure. *Published Online January 2016*, *4*, 42–51. <https://doi.org/dx.doi.org/10.17740/eas.econ.2016.V4-04>
22. Zukin, S., & Maguire, J. S. (2004). Consumers and Consumption. *Annual Review of Sociology*, *30*(1), 173–197. <https://doi.org/10.1146/annurev.soc.30.012703.110553>

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