

UDC 336.7:339.3 (339.9)

DOI: 10.56318/eem2024.02.055

Lyudmyla Shkvarchuk*

Doctor of Economics, Professor
Lviv Polytechnic National University
79000, 12 Stepan Bandera Str., Lviv, Ukraine
<https://orcid.org/0000-0001-7241-3961>

Rostyslav Slav'yuk

Doctor of Economics, Professor
Lviv Polytechnic National University
79000, 12 Stepan Bandera Str., Lviv, Ukraine
<https://orcid.org/0000-0002-0904-8970>

Financial behaviour in a cultural context: Cross-countries analysis of savings and consumption

Abstract. This study investigated how certain aspects of national culture affect saving and consumption behaviours. The study examined the correlation between gross saving, consumption, and economic development for 38 countries, including both developed and developing ones, from different continents, with data from 1996 to 2021. The cross-countries correlation indicators differed quite a lot in 1996-2008 and somewhat levelled later in 2009-2021. The growth of financial literacy and financial inclusion of the economic agents explained such changes. The findings suggest that countries exhibiting a strong relationship between income and savings are more receptive to the tools of monetary policy. In contrast, the economies expressing a strong relationship between income and consumption are more susceptible to the tools of fiscal policy. Therefore, high correlation scores are more desirable. Cluster analysis was employed to define groups of comparable countries for evaluation of national aspects of saving and consumption behaviour. Single membership in 2- and 3-clusters were observed, but the list of countries in these clusters differed across the years. The pronounced homogeneity of the clusters indicated the absence of significant national differences in the saving and consumption behaviour of economic agents according to the selected factors of comparison. This allows using the same instruments of regulation and stabilisation of the economy in the countries that are the closest neighbours in the cluster. The study stressed the significance of including national cultural elements in the analysis of financial behaviour and the formulation of macroeconomic policy. Awareness of these cultural differences enables policymakers to adapt their strategies more effectively to enhance economic growth and stability

Keywords: saving behaviour; cultural finance; economic growth; macroeconomic policy; countries' clustering

INTRODUCTION

Using the same macroeconomic tools does not always achieve the desired result. Such heterogeneity of results is caused by differing reactions in savings and consumption behaviour regarding changes in income. When creating macroeconomic policies, considerations related to cultural frameworks must be made at the national level. Changes in consumption and savings depend on many factors, including

previous and current incomes, expectations, inflation, etc. However, the consumption and savings behaviour of economic operators is also shaped by the national habits and cultural traditions of the country. If national traditions are strong, the financial behaviour of the country's economic operators differs significantly from that of other countries. Under such conditions, it is difficult for the government

Article's History:

Received: 07.08.2024

Revised: 20.10.2024

Accepted: 17.12.2024

Suggested Citation:

Shkvarchuk, L., & Slav'yuk, R. (2024). Financial behaviour in a cultural context: Cross-countries analysis of savings and consumption. *Economics, Entrepreneurship, Management*, 11(2), 55-64. doi: 10.56318/eem2024.02.055.

*Corresponding author



Copyright © The Author(s). This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (<https://creativecommons.org/licenses/by/4.0/>)

to apply the experience of economic reforms in other countries, as the results will not necessarily be successful. Conversely, common features of savings and consumption behaviour with other countries allow using universal methods of reforming and transforming the country's economy to respond to challenges, such as economic or financial crises. All this necessitates a cross-country comparison of the financial behaviour of economic entities to find the closest neighbours in terms of financial behaviour.

Some psychological factors determine the propensity of people to save. It is logical to assume that identical living conditions, national traditions, and mentality form a similar saving behaviour in people living on the same territory. Most researchers agree that savings are determined, among other things, by habits. The question arises whether it is possible to assert the existence of certain national habits to distribute income between consumption and savings. It is uncommon to find empirical cross-national data on saving habits. L. Csorba (2020) proved that financial culture is one of the key factors in the functioning of financial markets. The researcher noted that the values, beliefs, standards, and views shared by communities play a key role in the formation of financial behaviour and financial literacy. M. Ahunov & L. van Hove (2020) proved that aspects of national culture describe the cross-country variations in financial behaviour. It was demonstrated that more research is necessary to comprehend the impact of national culture on financial literacy to help understand the determinants of financial behaviour and manage financial policy better.

P. Bialowolski *et al.* (2023) investigated the relationship between culture and financial capabilities at the country level. The researchers believe that differences in national culture correlate with the average level of financial capabilities at the country level. They proved a positive link between financial opportunities and cultural factors such as individualism, long-term orientation, and indulgence. M.N. Khair & M. Kooli (2023) proved that national culture influences corporate dividend policy. The choice of corporate payout methods (dividends or share repurchases) depends on the high or low level of cultural dimensions such as avoiding uncertainty, masculinity, long-term orientation, and indulgence. M.A. Khan *et al.* (2022) showed that national culture is a significant factor in the distinctions in financial sector development between emerging and developing countries. To enhance the development of the financial sector, policymakers must adapt their financial strategies to accommodate the cultural aspects of the native population.

C.B. Gabler *et al.* (2020) proved that propensity to save affects consumption and life satisfaction. The ability to earn income affects the ability to save. While national and private saving trends are comparable, there are considerable differences throughout countries concerning saving amounts and how they change over time. The high rates of economic growth result in high savings, and not vice versa. A. Ribaj & F. Mexhuani (2021) noted that the differences in savings clearly reflect the indicators of growth: the higher savings

rates can be observed in the developed countries. The risk of volatile foreign direct investment is significantly reduced when countries have a pronounced national savings rate. Such nations are not reliant on foreign direct investment.

The cited studies show that the researchers focus mainly on proving the relationship between cultural traditions and the specific features of financial behaviour. At the same time, the problems of cross-country analysis of such relationships are not covered. The purpose of the present study was to determine whether economic growth depends on some aspects of national saving and consumption behaviours.

LITERATURE REVIEW

There has been a lot of research on the connection between financial behaviour and national culture. Numerous studies emphasise the influence of cultural elements on the evolution of financial systems and economic growth, attesting to the significance of this connection. Evidence of a close relationship between the level of development of a country's financial system and its economic growth is confirmed by the studies of researchers within the framework of the so-called theory of cultural dimensions (Hofstede *et al.*, 2010). According to this theory, the diversity of financial behaviour of companies, households, and governments is determined by national cultural aspects.

T.D. Willeminck (2018) concluded that cultural factors truly affect the capital structure decisions made by companies. Moreover, cultural dimensions lead to substantial variations in the way companies structure their capital. That is why science argues that country-level determinants influence corporate financial policy even greater than firm-specific ones. V. Mogha & B. Williams (2021) noted that the national cultural characteristics determine risk tolerance and methods of financial management. They also proved that cultures influence on corporate finance may initiative-ly mix the debt-to-equity rates.

J. Le Blanc *et al.* (2015) found the distinctive effects of some factors on the financial behaviour of certain groups of households living in particular geographic regions of Eurozone countries. M. Brueckner *et al.* (2023) estimated the relationship between economic growth and the national saving rate. GDP (gross domestic product) growth increases the national saving in poor countries. This pattern is reversible for rich countries. The income elasticity of national savings is decreased by the increased credit-to-GDP ratio.

Research on the interrelationships between finance and national cultural conditions conducted within the framework of cultural finance theory allows expanding the cultural considerations when analysing financial decisions, as it is not limited to the application of outlined dimensions. J. Costa-Font *et al.* (2018) noted that differences in savings rates between countries are caused by culturally specific social norms. The researchers concluded that cross-country differences in saving behaviour can be explained by cultural preferences. The place of origin is a factor of savings pattern changes.

National values and perspectives influence not only the financial decisions of states and businesses but also the respective decisions of households and individuals. T. Hens *et al.* (2020) provided a summary of research findings on cultural differences in financial decision-making and financial markets. Researchers concluded that culture can influence the degree of loss aversion. They proved the link between loss aversion and the spread of major religions in the country, pointing out that the link between loss aversion and macroeconomic variables looks much smaller compared to culture and emotions. T. Anyangwe *et al.* (2022) determined culture as one of the of savings indicators. Features of saving behaviour were considered by scientists as an element of financial inclusion. Cultural dimensions were used to explain cross-country and cross-regional variation in savings.

Thus, the analysis revealed several key findings on the relationship between national culture and financial behaviour. Based on the studies mentioned, it can be assumed that there are certain aspects of national culture that determine the strength of the connection between economic growth and financial behaviour. National culture also plays a significant role in shaping corporate finance decisions, household savings patterns, and broader financial systems, thus underlining the importance of integrating cultural factors when analysing financial outcomes.

MATERIALS AND METHODS

The study focused on proving the following hypothesis. H0: there are significant cross-country differences in saving and consumption behaviour when incomes change. H1: if savings and consumption behaviour vary in countries due to national cultural characteristics, then such countries belong to different clusters.

The specific national features of financial behaviour were compared using cluster analysis. For this, it was useful to apply an agglomerative hierarchical classification algorithm with Euclidean distance between objects:

$$p(x_{ij}) = \sqrt{\sum (x_{il} - x_{ij})^2}, \quad (1)$$

where l – the features; i – the number of features.

The algorithm for dividing the objects $x_i (i=0,1,\dots,n)$ is based on minimising the intercluster distance; using the root-mean-square norm ℓ^2 as the distance, the objective function is as follows:

$$J = \sum_{j=1}^k \sum_{x_i \in C_j} \|x_i - \mu_j\|^2, \quad (2)$$

where x_i – the i^{th} object; C_j – the j^{th} cluster with centre μ_j .

The amounts of savings, consumption, and GDP were used as the metrics for assessing the behaviour of households. However, the absolute data is inconvenient for cross-country analysis. Therefore, the correlation coefficients (r_{SY}) and (r_{EY}) were calculated according to the formulas (3) and (4):

$$r_{SY} = \frac{n \sum S_i Y_i - \sum S_i \sum Y_i}{n \sqrt{(\sum S_i^2 - (\sum S_i)^2 / n)} \sqrt{(\sum Y_i^2 - (\sum Y_i)^2 / n)}}; \quad (3)$$

$$r_{EY} = \frac{n \sum E_i Y_i - \sum E_i \sum Y_i}{n \sqrt{(\sum E_i^2 - (\sum E_i)^2 / n)} \sqrt{(\sum Y_i^2 - (\sum Y_i)^2 / n)}}, \quad (4)$$

where r – the correlation coefficient; n – the number of observations; S – the gross domestic saving; E – the consumption expenditure; Y – the gross domestic product.

The empirical positive correlation of saving with income growth is inconsistent with the life cycle hypothesis model, unless the higher income growth is expected to be at least partly temporary (Masson *et al.*, 1995). For the confirmation of such relationship, R. Alessie & F. Teppa (2010) made the hypothesis of habit persistence. The correlation dependencies of savings and income are measures of saving behaviour, as far as they are an empirical equivalent of habit. Since habit is an indicator of behaviour, then the selected indicators are the identifiers of specific national features in financial behaviour. The use of indicators (3) and (4) allows implementing concrete data of time preference for consumption: current consumption E and deferred consumption S (Bailey, 2007). High values of the correlation coefficients r_{SY} indicate the rational, financially literate behaviour of economic operators.

According to the Neo-Classical theory of interest formation, interest rates depend on saving/investment/consumption (Spahija, 2016). Loan Theory devotes great attention to the study of time-preference (consumption/savings/investment) as a factor, which influences the interest rates. Thus, savings are a factor that determines the interest rates. At the same time, interest rates are one of the tools of monetary policy. Proceeding from this, an economy with the higher coefficients of correlation r_{SY} is sensitive to the monetary policy. High interest leads to higher savings, while low interest leads to low saving. Thus, saving is directly (or positively) related to interest rates. Firms' demand for investment is fulfilled by households' savings. Thus, saving is supply and investment is demand on the market of goods.

Similarly, an economy with prominent correlation levels between consumption and income is sensitive to fiscal policy. N. Yaroshevych *et al.* (2024) noted that fiscal policy employs various tools such as government spending, taxation, and grants to influence the economy through expenditures. Such an impact is more pronounced with the higher dependence of consumption on income. The combination of high degree of correlation between consumption and income determines the high sensitivity of the economy to the regulation by monetary and fiscal policy tools. The study examined the relationship between savings, consumption, and economic growth in 38 countries, including both developing and developed countries (Table 1).

Table 1. Sample of countries under study

1	Albania	11	Germany	21	India	31	Morocco
2	Argentina	12	Estonia	22	Iceland	32	Mexico
3	Azerbaijan	13	Spain	23	Israel	33	Paraguay
4	Austria	14	Finland	24	Italy	34	Poland
5	Brazil	15	France	25	Japan	35	Romania
6	Bulgaria	16	United Kingdom	26	Kazakhstan	36	Slovak Republic
7	Canada	17	Honduras	27	Cambodia	37	Turkey
8	Chile	18	Croatia	28	Republic of Korea	38	Ukraine
9	Cyprus	19	Hungary	29	Latvia		
10	Czech Republic	20	Indonesia	30	Lithuania		

Source: developed by the authors of this study

Data on savings, consumption, and GDP was obtained from the World Bank Open Data (n.d.). To avoid the influence of other factors (devaluation), indicators were used in the LCU (Local Currency Unit). The period under study was 1995-2021, which was divided into two intervals: 1996-2008 and 2009-2021. This allowed assessing the changes in the dependences in time.

RESULTS AND DISCUSSION

The calculated values of the correlation coefficients and differ significantly between various countries and periods (Figs. 1, 2). However, there is a tendency to increase the homogeneity of distribution. The value of r_{SY} in 1996-2008 was minimum (-0.7709) for Bulgaria and maximum (0.8946) for Finland. The coefficient of variation for this period was 1,807%, which indicates the substantial differences

in saving behaviour in different countries (Table 2). These findings prove the hypothesis H0: there are significant differences in the saving and consumption behaviour when incomes change. In 2009-2021, the distributions of coefficients were more homogenous with a minimum value (-0.6850) for Iceland and a maximum (0.9413) for France. The coefficient of variation has decreased to 774.65%. The change of the extremes in different periods proves that the saving behaviour changes over time. The drop in the coefficient of variation disproves the hypothesis H1: the national habits in saving and consumption behaviour are not persistent. It is logical to assume that with the increase in financial literacy and financial inclusion, saving behaviour becomes more literate (rational) and the influence of subjective and psychological factors decreases. The high values of r_{SY} and may be interpreted as the goal of economic development.

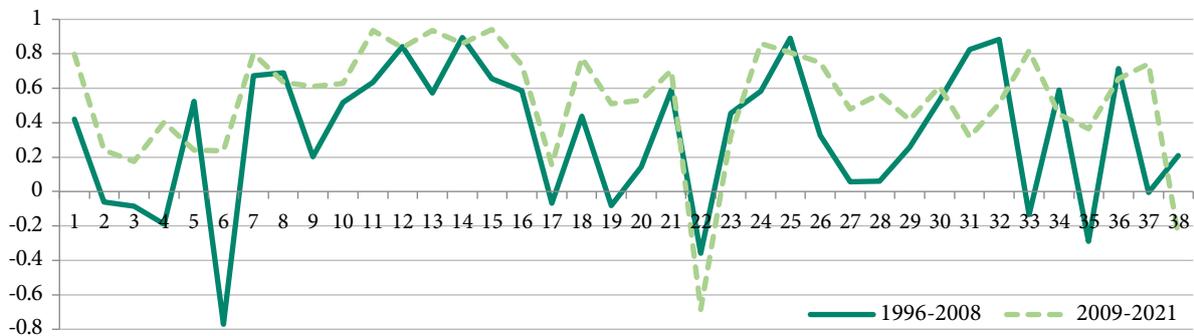


Figure 1. Dynamics of correlation coefficients r_{SY} in different period

Source: developed by the authors of this study

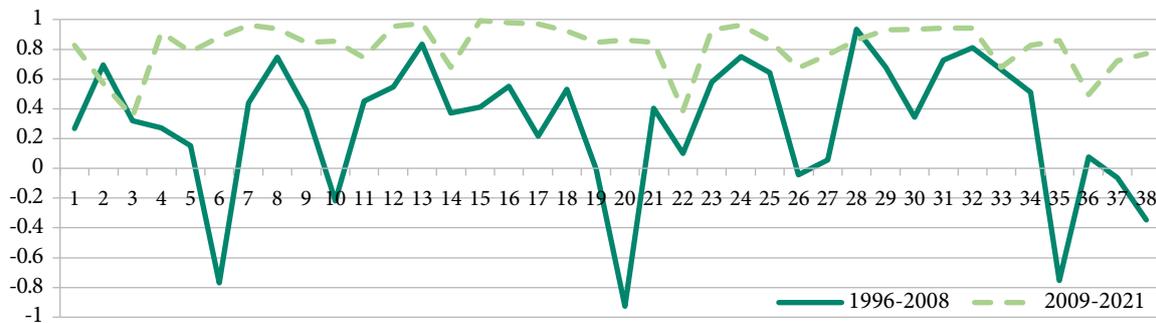


Figure 2. Dynamics of correlation coefficients r_{EY} in different period

Source: developed by the authors of this study

Table 2. Parameters of r_{SY} and r_{EY} distribution

	r_{SY}			r_{EY}		
	1996-2008	2009-2021	1996-2021	1996-2008	2009-2021	1996-2021
Standard deviation	6.0495	4.1593	4.1874	7.4251	0.9316	6.5695
Mathematical expectation	0.3347	0.5369	0.4422	0.2986	0.8215	0.5439
Coefficient of dispersion	0.1635	0.1124	0.1132	0.2007	0.0252	0.1776
Coefficient of skewness	-0.6391	-1.6061	-0.9566	-1.1663	-1.5352	-1.6006
Coefficient of variation	1,807%	774.65%	947%	2,487%	113%	1,208%
Min point	-0.7694	-0.6850	-0.6464	-0.9265	0.3876	-0.7046
Max point	0.8946	0.9413	0.9047	0.9340	0.9920	0.9591
Number of intervals	10	10	10	10	10	10

Source: developed by the authors of this study

Analogous conclusions can be made for the dynamics of the r_{EY} indicator. For 1996-2008, volatility of indicators was higher than in 2009-2021. In 1996-2008, the minimum indicator (-0.9265) was typical for Indonesia, while maximum 0.9340 – for the Republic of Korea. The coefficient of variation amounted to 2,487%. In 2009-2021, the coefficient of variation was 1,208%, which is twice less than in the previous period – the distribution became more even. Over time, the sample became more uniform. The minimum value of r_{EY} in this period reaches 0.3876

for Azerbaijan, and maximum (0.9920) for France. Despite considerable fluctuations, the high levels of r_{SY} and r_{EY} predominate for the countries of the sample. The coefficients of skewness were negative in each period – a distribution with the tail stretched to the left. The presence of the binomial distribution of the correlation coefficients can be assumed (Tables 3, 4). In each period of observation, the value of the confidence coefficient (χ^2) followed the condition: $\chi^2 < \chi^2_{critical}$. The empirical value of χ^2 test statistic is lower than the critical one.

Table 3. Pilot parameters of chi-square test hypothesis about the type of r_{SY} distribution

No.	1996-2008			2009-2021			1996-2021		
	Interval	actual data	Frequency $y = -0.015x^2 + 0.930x - 0.733$	Interval	actual data	Frequency $y = 0.136x^2 - 0.348x + 0.466$	Interval	actual data	Frequency $y = 0.041x^2 + 0.523x - 0.683$
1	-0.603	1	0.182	-0.522	1	0.254	-0.491	1	-0.119
2	-0.437	0	1.067	-0.360	0	0.314	-0.336	0	0.527
3	-0.270	2	1.922	-0.197	1	0.646	-0.181	0	1.255
4	-0.104	2	2.747	-0.035	0	1.25	-0.026	1	2.065
5	0.063	5	3.542	0.128	0	2.126	0.129	4	2.957
6	0.229	5	4.307	0.291	5	3.274	0.284	6	3.931
7	0.395	2	5.042	0.453	6	4.694	0.439	3	4.987
8	0.562	6	5.747	0.616	7	6.386	0.595	7	6.125
9	0.728	10	6.422	0.779	8	8.350	0.750	8	7.345
10	0.895	5	7.067	0.941	10	10.586	0.905	8	8.647
χ^2			0.342			0.590			0.986

Source: developed by the authors of this study

Table 4. Pilot parameters of chi-square test hypothesis about the type of r_{EY} distribution

No.	1996-2008			2009-2021			1996-2021		
	Interval	actual data	Frequency $y = -0.022x^2 + 1.001x - 0.833$	Interval	actual data	Frequency $y = 0.197x^2 - 1.160x + 2.6$	Interval	actual data	Frequency $y = 0.25x^2 - 1.610x + 3.033$
1	-0.740	2	0.146	0.448	2	1.637	-0.538	2	1.673
2	-0.554	1	1.081	0.509	1	1.068	-0.372	0	0.813
3	-0.368	0	1.972	0.569	0	0.893	-0.206	1	0,453
4	-0.182	2	2.819	0.629	1	1.112	-0.039	1	0.593
5	0.004	2	3.622	0.690	3	1.725	0.127	1	1,233
6	0.190	4	4.381	0.750	2	2.732	0.294	1	2.373
7	0.376	6	5.096	0.811	3	4.133	0.460	5	4.013
8	0.562	10	5.767	0.871	10	5.928	0.626	7	6.153
9	0.748	7	6.394	0.932	4	8.117	0.793	8	8.793
10	0.934	4	6.977	0.992	12	10.7	0.960	12	11.933
χ^2			0.00028			0.587			0.961

Source: developed by the authors of this study

Binominal distributions indicate that the high r_{SY} and r_{EY} coefficients are more common (Figs. 3, 4). Thus, the high coefficients r_{SY} and r_{EY} are more rational and desirable. As the country develops and the market condition

of its functioning is established, the relationship between savings/consumption and income becomes closer. The economy becomes more sensitive to the tools of monetary and fiscal policies.

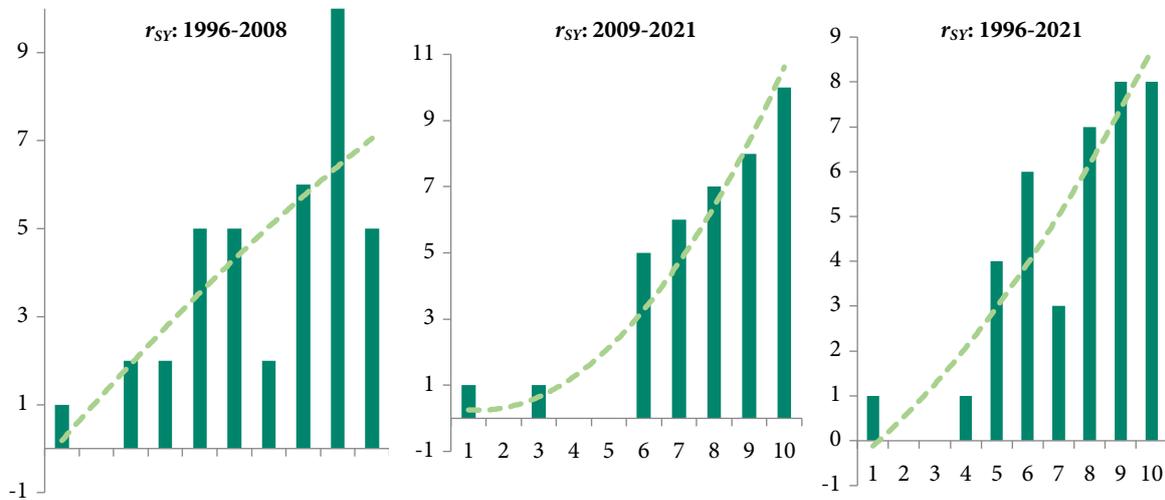


Figure 3. Histograms of r_{SY} frequencies in different periods

Source: developed by the authors of this study

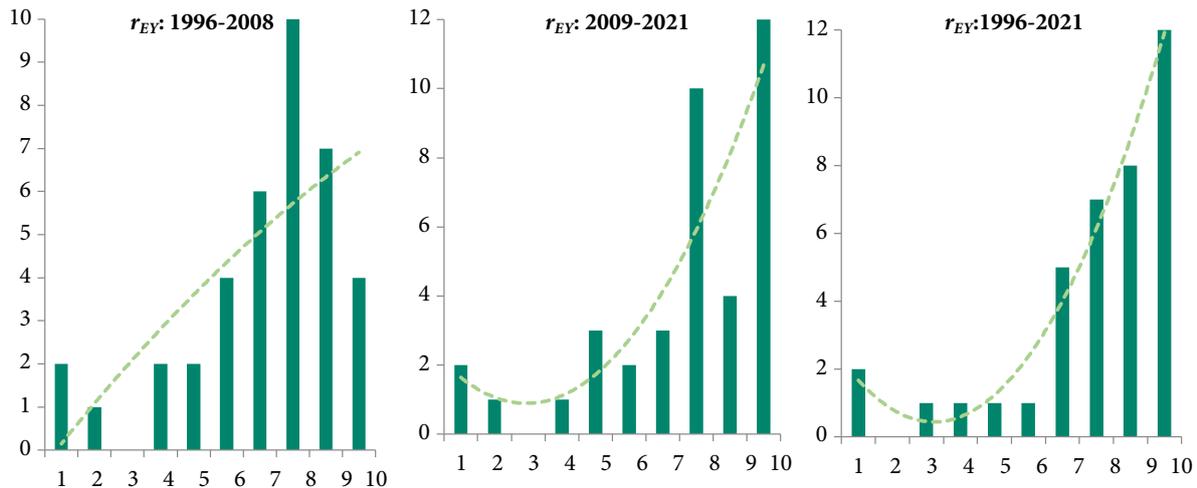


Figure 4. Histograms of r_{EY} frequencies in different periods

Source: developed by the authors of this study

The high coefficient r_{SY} indicates a significant direct dependence of savings and GDP. Such behaviour can be interpreted as financially literate: savings increase simultaneously with income growth and decrease when income declines. The influence of psychological factors such as habits, traditions, and culture are minimal. The higher the r_{SY} coefficient, the less sensitive is the financial behaviour to the influence of relevant factors. The inverse relation is also fair: the lower the r_{SY} coefficient, the more non-economic factors determine the financial behaviour of the economic operators. Thus, in countries where r_{SY} is low, the saving

behaviour is more influenced by the power of habit and tradition than the economic factors (change of income). According to the calculations, the financial behaviour of economic operators has greatly changed during 2009-2021. Saving behaviour has become more sensitive to the change of income level. Economy of the countries where the saving behaviour has such characteristics is sensitive to the tools of monetary policy. The distribution of both characteristics of financial behaviour, as graphically depicted below, does not indicate the existence of pronounced clusters – it is rather sporadic (Fig. 5).

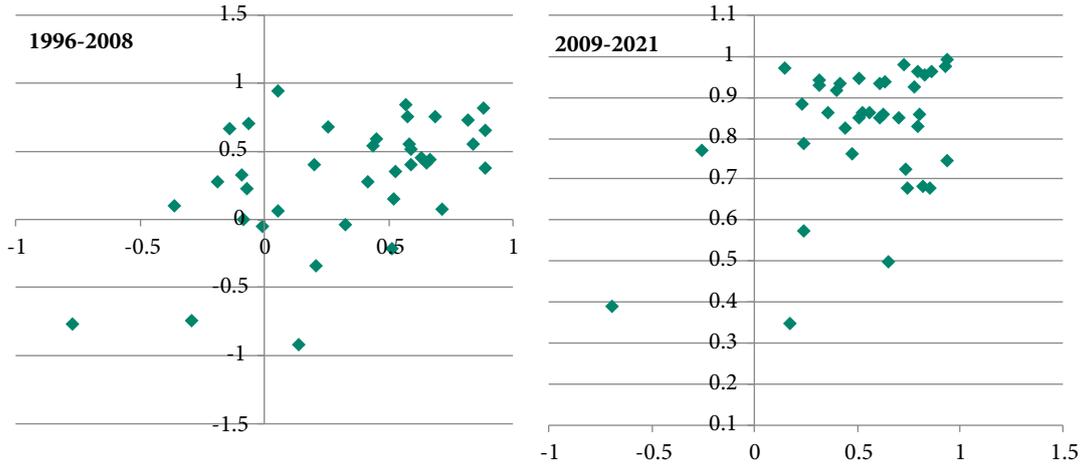


Figure 5. Distribution of financial behaviour indicators in different period

Source: developed by the authors of this study

According to the formula (1) the usual Euclidian distances between objects are as follows:

• for 1996-2008:

$$p(x_{1,2}) = \sqrt{(0.418 - (-0.062))^2 + (0.268 - 0.696)^2} = 0.64$$

$$p(x_{1,3}) = \sqrt{(0.418 - (-0.085))^2 + (0.268 - 0.318)^2} = 0.51$$

$$p(x_{1,4}) = \sqrt{(0.418 - (-0.188))^2 + (0.268 - 0.272)^2} = 0.61$$

• for 2009-2021:

$$p(x_{1,2}) = \sqrt{(0.797 - 0.240)^2 + (0.826 - 0.573)^2} = 0.61$$

$$p(x_{1,3}) = \sqrt{(0.797 - 0.173)^2 + (0.826 - 0.347)^2} = 0.79$$

$$p(x_{1,4}) = \sqrt{(0.797 - 0.402)^2 + (0.826 - 0.915)^2} = 0.40.$$

Based on calculations, three clusters were formed as follows (Fig. 6):

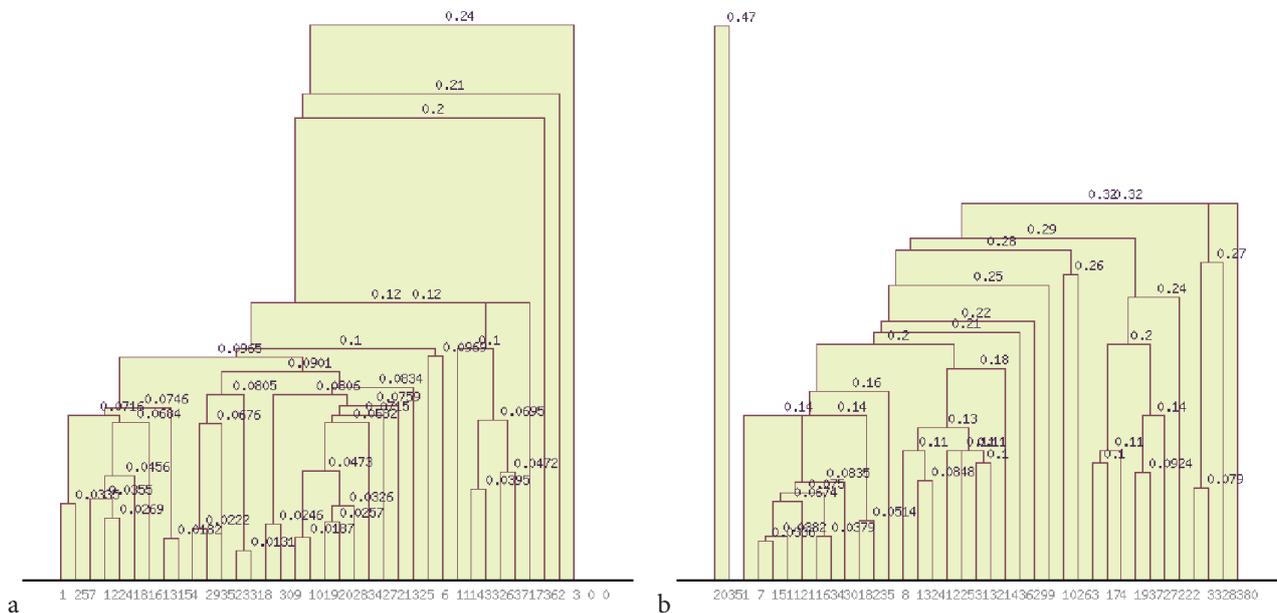


Figure 6. Clustering dendrogram

Notes: a) 1996-2008; b) 2009-2021

Source: developed by the authors of this study

• for 1996-2008:

$$S_{(1,7,15,11,21,16,34,30,18,23,5,8,13,24,12,25,31,32,14,36,29,9,10,26,3,17,4,19,37,27,22,2,33,28,38)^{}} \\ S_{(6)^{}} S_{(20,35)^{}}$$

• for 2009-2021:

$$S_{(1,25,7,12,24,18,16,13,15,4,29,35,23,31,8,30,9,10,19,20,28,34,27,21,32,5,6,11,14,33,26,37,17,36,2,3)^{}} \\ S_{(22)^{}} S_{(38)^{}}$$

The first cluster is the largest on both periods. The second and third clusters are represented by single cases. Countries in the first cluster are countries with economies amenable for regulation. The second cluster includes countries with medium amenability to tools of monetary and fiscal policies. The third cluster includes countries, the economies of which are hard to stabilise by conventional tools of fiscal and monetary policy. Interestingly, the countries of Europe and the European Union were included in each of three clusters in every period: Bulgaria (II cluster) and Romania (III cluster) in 1996-2008 and Iceland (II cluster) and Ukraine (III cluster) in 2009-2021. This indicates the existence of heterogeneity in the forms of development of EU countries and the high probability of receiving distinct economic results as a consequence of common regulatory policy within the European Union.

Revealing a statistically significant positive correlation between GDP, savings, and consumer expenditures, the findings of the present study align with those of F. Modigliani (1970) and P.R. Masson *et al.* (1995), emphasising that high savings appear to be positively correlated with growth but contradict the life cycle hypothesis model. The significant spread of correlation values for different countries coincides with the main hypothesis of the theory of cultural finance on the existence of national features of saving and consumption behaviour.

The study proved that the homogeneity of the distribution of the country by the characteristics of financial behaviour increases over time. In other words, the financial behaviour of economic entities is gradually becoming more similar, while national habits are having less and less influence on savings and consumption. This finding contradicts the position on habit persistence in saving and consumption (Alessie & Teppa, 2010). Modern processes of countries' integration and knowledge exchange are gradually reducing the influence of national traditions on decisions regarding the income distribution between savings and consumption. This coincides with the conclusion of T.W. Smith (2002) on the decreasing function of savings and the strength of habit formation.

The fact that most countries, according to the study, fall into one grouping cluster does not negate the approach of T. Anyangwe *et al.* (2022) that culture is one of the determinants of saving. However, it refutes the opinion on the need to form an individual trajectory of macroeconomic policy, which is based on the cultural dimension (Ahunov & van Hove, 2020). Accommodating cultural aspects is necessary only to adjust the time and strength of influence of certain macroeconomic tools.

The results of cluster analysis support the view offered by J. Tansey & T. O'riordan (1999), who pointed that cultural theory is still relevant, although its application in economic policy needs to be reconsidered. However, further research should concentrate on examining the elements that lead to the convergence of financial behaviour in

greater detail as well as the possible influence of new cultural and economic factors on these processes. Consequently, this could lead to a more precise comprehension of how culture affects economic conduct within the framework of globalisation.

It is possible to outline several factors due to which the obtained findings do not always coincide with the opinions of other researchers. The first is the time factor, since, over time, economic and cultural conditions change under the influence of digitalisation, globalisation, and integration. Secondly, the alternative results are determined by the authors' methodology and analysis indicators, which are based on correlational dependencies, not absolute indicators. Furthermore, differences in findings may be influenced by contextual factors, including socioeconomic norms, public policies, and international relations.

CONCLUSIONS

The study provided a comprehensive examination of the connections among GDP, savings, and consumer spending, emphasising the increasing impact of cultural and economic factors on financial behaviours in various nations. The findings underscored the increasing convergence of financial behaviours globally, driven by the forces of globalisation and the diminishing influence of national traditions. This convergence challenges some traditional economic theories, particularly those emphasising the persistence of habitual financial practices. According to the findings, cultural influences still affect saving and spending habits, but they are losing ground to economic integration and international information sharing. The observed clustering of countries in terms of financial behaviour suggests that national macroeconomic policy must not only consider regional variations and global trends but also trust the experience of successful countries more.

Differences between the findings obtained in this study and those of other researchers highlight the dynamic nature of cultural and economic impacts. Further study is necessary to fully understand the mechanisms underlying these shifts. Subsequent research endeavours should concentrate on pinpointing the latest cultural and economic elements that may additionally affect financial conduct and investigate the consequences of these modifications for policy and implementation. The present study expanded the research on cultural finance by substantiating how cultural factors influence financial behaviour. As the conventional borders of national financial practices rapidly erode, the research urges a re-evaluation of current macroeconomic policies to better reflect the realities of an increasingly interconnected globe.

ACKNOWLEDGEMENTS

None.

CONFLICT OF INTEREST

None.

REFERENCES

- [1] Ahunov, M., & van Hove, L. (2020). National culture and financial literacy: International evidence. *Applied Economics*, 52(21), 2261-2279. doi: [10.1080/00036846.2019.1688241](https://doi.org/10.1080/00036846.2019.1688241).
- [2] Alessie, R., & Teppa, F. (2010). Saving and habit formation: Evidence from Dutch panel data. *Empirical Economics*, 38(2), 385-407. doi: [10.1007/s00181-009-0272-z](https://doi.org/10.1007/s00181-009-0272-z).
- [3] Anyangwe, T., Vanroose, A., & Fanta, A. (2022). Determinants of financial inclusion: Does culture matter? *Cogent Economics & Finance*, 10(1), article number 2073656. doi: [10.1080/23322039.2022.2073656](https://doi.org/10.1080/23322039.2022.2073656).
- [4] Bailey, M.C. (2007). Consumption, time preference, and the life cycle. *Undergraduate Honors Capstone Projects*, 664. doi: [10.26076/b9a5-af9d](https://doi.org/10.26076/b9a5-af9d).
- [5] Bialowolski, P., Xiao, J.J., & Weziak-Bialowolska, D. (2023). National culture and financial capability: A global perspective. *Social Indicators Research*, 170(3), 877-891. doi: [10.1007/s11205-023-03221-7](https://doi.org/10.1007/s11205-023-03221-7).
- [6] Brueckner, M., Kikuchi, T., & Vachadze, G. (2023). Transitional dynamics of the saving rate and economic growth. *Macroeconomic Dynamics*, 27(2), 482-505. doi: [10.1017/S1365100521000493](https://doi.org/10.1017/S1365100521000493).
- [7] Costa-Font, J., Giuliano, P., & Ozcan, B. (2018). The cultural origin of saving behavior. *PLoS ONE*, 13(9), article number e0202290. doi: [10.1371/journal.pone.0202290](https://doi.org/10.1371/journal.pone.0202290).
- [8] Csorba, L. (2020). The determining factors of financial culture, financial literacy and financial behavior. *Public Finance Quarterly*, 65(1), 67-83. doi: [10.35551/PFQ_2020_1_6](https://doi.org/10.35551/PFQ_2020_1_6).
- [9] Gabler, C.B., Hill, R.P., & Landers, V.M. (2020). Saving behavior within and across developing nations: Implications for public policy makers. *Journal of Public Policy & Marketing*, 40(3), 354-371. doi: [10.1177/0743915620925085](https://doi.org/10.1177/0743915620925085).
- [10] Hens, T., Rieger, M.O., & Wang, M. (2020). *Cultural finance: A world map of risk, time and money*. Singapore: World Scientific Publishing Co. Pte. Ltd. doi: [10.1142/11813](https://doi.org/10.1142/11813).
- [11] Hofstede, G., Hofstede, G.J., & Minkov, M. (2010). *Cultures and organizations: Software of the mind*. New York: McGraw-Hill.
- [12] Khan, M.A., Gu, L., Khan, M.A., & Meyer, N. (2022). The effects of national culture on financial sector development: Evidence from emerging and developing economies. *Borsa Istanbul Review*, 22(1), 103-112. doi: [10.1016/j.bir.2021.02.003](https://doi.org/10.1016/j.bir.2021.02.003).
- [13] Khair, M.N., & Kooli, M. (2023). Culture and payout policy: International evidence. *Journal of Multinational Financial Management*, 70-71, article number 100823. doi: [10.1016/j.mulfin.2023.100823](https://doi.org/10.1016/j.mulfin.2023.100823).
- [14] Le Blanc, J., Porpiglia, A., Teppa, F., Zhu, J., & Ziegelmeier, M. (2015). Household saving behavior and credit constraints in the Euro area. *ECB Working Paper*, 1790. doi: [10.2139/ssrn.2621479](https://doi.org/10.2139/ssrn.2621479).
- [15] Masson, P.R., Bayoumi, T., & Samiei, H. (1995). Saving behavior in industrial and developing countries. In *Staff studies for the world economic outlook*. Washington, DC: International Monetary Fund. doi: [10.5089/9781557754998.083](https://doi.org/10.5089/9781557754998.083).
- [16] Modigliani, F. (1970). [The life cycle hypothesis of saving and intercountry differences in the saving ratio](#). In W.A. Eltis, M.F.G. Scott & J.N. Wolfe (Eds.), *Introduction, growth, and trade: Essays in honour of Sir Roy Harrod* (pp. 197-225). Oxford: Oxford University Press.
- [17] Mogha, V., & Williams, B. (2021). Culture and capital structure: What else to the puzzle? *International Review of Financial Analysis*, 73, article number 101614. doi: [10.1016/j.irfa.2020.101614](https://doi.org/10.1016/j.irfa.2020.101614).
- [18] Ribaj, A., & Mexhuani, F. (2021). The impact of savings on economic growth in a developing country (the case of Kosovo). *Journal of Innovation and Entrepreneurship*, 10(1), article number 1. doi: [10.1186/s13731-020-00140-6](https://doi.org/10.1186/s13731-020-00140-6).
- [19] Smith, W.T. (2002). Consumption and saving with habit formation and durability. *Economics Letters*, 75(3), 369-375. doi: [10.1016/S0165-1765\(02\)00012-5](https://doi.org/10.1016/S0165-1765(02)00012-5).
- [20] Spahija, F. (2016). [Analysis of the main theories of interest rates](#). *International Journal of Economics, Commerce & Management*, 4(6), 643-658.
- [21] Tansey, J., & O'riordan, T. (1999). Cultural theory and risk: A review. *Health Risk & Society*, 1(1), 71-90. doi: [10.1080/13698579908407008](https://doi.org/10.1080/13698579908407008).
- [22] Willemink, T.D. (2018). [Cultural dimensions influencing the capital structure: A study on the G7](#). In *11th IBA bachelor thesis conference*. Enschede: University of Twente.
- [23] World Bank Open Data. (n.d.). *Gross savings (% of GDP)*. Retrieved from <https://data.worldbank.org/indicator/NY.GNS.ICTR.ZS>.
- [24] Yaroshevych, N., Kondrat, I., & Kalaitan, T. (2024). The impact of the mechanism for aligning horizontal fiscal imbalances on the stability of the financial system. *Journal of Risk and Financial Management*, 17(2), article number 74. doi: [10.3390/jrfm17020074](https://doi.org/10.3390/jrfm17020074).

Людмила Шкварчук

Доктор економічних наук, професор
Національний університет «Львівська політехніка»
79000, вул. Степана Бандери, 12, м. Львів, Україна
<https://orcid.org/0000-0001-7241-3961>

Ростислав Слав'юк

Доктор економічних наук, професор
Національний університет «Львівська політехніка»
79000, вул. Степана Бандери, 12, м. Львів, Україна
<https://orcid.org/0000-0002-0904-8970>

Фінансова поведінка в культурному контексті: міжкраїновий аналіз заощаджень та споживання

Анотація. У цьому дослідженні вивчено, як певні аспекти національної культури впливають на поведінку заощаджень і споживання. У дослідженні проаналізовано кореляцію між валовими заощадженнями, споживанням та економічним розвитком для 38 країн, як розвинених, так і тих, що розвиваються, з різних континентів, за даними з 1996 по 2021 рік. Показники кореляції між країнами досить сильно відрізнялися у 1996-2008 роках і дещо вирівнялися у 2009-2021 роках. Такі зміни пояснюються зростанням фінансової грамотності та фінансової інклюзії економічних агентів. Отримані дані свідчать про те, що країни, які демонструють сильний зв'язок між доходами та заощадженнями, є більш сприйнятливими до інструментів монетарної політики. І навпаки, країни, в яких спостерігається сильний зв'язок між доходами та споживанням, є більш чутливими до інструментів фіскальної політики. Тому високі показники кореляції є більш бажаними. Кластерний аналіз був використаний для визначення груп порівнянних країн для оцінки національних аспектів поведінки заощаджень та споживання. Спостерігалось одночасне входження до 2- та 3-кластерів, але перелік країн у цих кластерах різнився за роками. Виражена однорідність кластерів свідчить про відсутність суттєвих національних відмінностей у заощаджувальній та споживчій поведінці економічних агентів за обраними факторами порівняння. Це дозволяє використовувати однакові інструменти регулювання та стабілізації економіки в країнах, які є найближчими сусідами в кластері. Дослідження підкреслило важливість включення національних культурних елементів в аналіз фінансової поведінки та формулювання макроекономічної політики. Усвідомлення цих культурних відмінностей дозволяє політикам більш ефективно адаптувати свої стратегії для посилення економічного зростання та стабільності

Ключові слова: ощадна поведінка; культурні фінанси; економічне зростання; макроекономічна політика; кластеризація країн