

UDC 338.246.2

DOI 10.31733/2786-491X-2024-1-129-141



Inesa MIKHNO ©
Ph.D. (Economics),
Associate Professor
(National Aviation University),
Ukraine

INCREASING UKRAINE'S ECONOMIC GROWTH BY ESTABLISHING ZERO TOLERANCE TO CORRUPTION

Abstract. The article examines key tools for improving the life quality of society in Ukraine. It is revealed that Ukrainian scientific and innovative activities have been declining over recent years, while consumer expenditures on food in the structure of household expenses amount to about 90 %, which indicates a low economic standard of living of society. It is determined that one of the efficient methods to improve the situation in Ukraine is to create an economically sustainable and peaceful environment and to overcome corruption as the main factor in reducing the efficiency of stabilization changes. Modeling the role-playing game, we have concluded that tolerance to corruption decreases when creating favorable circumstances for committing illegal acts and becomes popular among the society. A model reflecting the speed and quality of the spread of corrupt behavior could be the biological model of disease spread where infected individuals can transmit the disease to healthy individuals and create corrupt groups that also spread the infection and constantly seek new ways to generate illegal income. It is found that legislative changes that will promote transparency of the judicial system and increase the length of punishment and losses of corrupt officials can improve the situation, while it is desirable to introduce educational programs to promote zero tolerance among young people after the elimination of stressful situations and the process of restoring the territory of Ukraine after the war.

Keywords: *methods of improving public life, economic recovery tools, corruption, corruption in Ukraine, shadow economy.*

Introduction. The increase in the income level changes the structure of consumption and availability of certain goods. According to the State Statistics Committee of Ukraine, the improving quality of public life is characterized by such changes in food consumption as a significant increase in the consumption of meat, berries and fruits, fish and seafood. However, according to the anonymous survey, 44 % of Ukrainians cannot meet their consumer needs for food products in full. At the same time, despite the existing economic and foreign policy problems, Ukrainians remain a nation that constantly strives for development and does not lose optimism. As of 2022, the level of happiness for the majority of Ukrainians was less dependent on the economic situation, and at the global level, it ranked 92nd in the ranking of countries by level of happiness in 2022, while it took the 110th place in 2020. The psychological state of Ukrainians has improved due to the cohesion of the population against russia,

© Mikhno I., 2024

ORCID iD: <https://orcid.org/0000-0003-3661-1965>

inessa.mihno@npp.nau.edu.ua

the increase in the level of importance of the individual, the increase in opportunities for self-fulfillment, the hope for building a happy future, i.e., psychological emotional changes have become primary for the happiness index of Ukrainians (Helliwell, Huang et al., 2023). The increase in the level of happiness for Ukrainians in recent years have been accompanied by serious changes in social life caused by digitalization, but most of the science-intensive goods are imported to Ukraine, and the problem of creating innovations inside the country has not been solved.

In turn, the share of innovation-active enterprises in Ukraine decreased between 2016 and 2020, totally amounting to 28.1 % in 2016 and 8.5 % in 2020. Substantial changes occurred in such areas of entrepreneurship as extractive and processing industry, wholesale trade (except auto), which suggests the indirect impact of the number of innovative enterprises on macroeconomic indicators in Ukraine. The best metric to study innovative changes in the country can be the state of the ecosystem, the number of people using services of innovative enterprises, and involvement in the process of innovation development.

Analysis of recent research and publications. A significant contribution to the study of corruption was made by numerous foreign researchers, in particular, R. Anderson, I. Amundsen, E. Brown, A. Dreyer, D. Kaufman, R. Klitgaard, V. Miller, J. Nye, M. Olson, S. Rose-Ackerman, D. Treisman, and many others. The question of the essence, causes and consequences of corruption, as well as its political, economic, social, legal, and moral aspects were investigated by such domestic scientists as: L. Arkusha, V. Gvozdetskyi, V. Derega, O. Dulskyi, V. Zhuravskyi, M. Kamlyk, M. Karmazina, Ya. Kashuba, O. Markeeva, M. Melnyk, E. Nevmerzhitskyi, O. Prokhorenko, I. Rizak, E. Skulysh, S. Stetsenko, O. Fradynskyi and others.

The purpose of the article is to study the influence of establishing of zero tolerance to corruption on increasing the economic growth in Ukraine.

Formulation of the main material. Fig. 1 shows that expenditures on scientific research and investments in healthcare have been declining at the time interval since 2014. This is caused by changes in the political course of the country, economic risks, depreciation of the national currency, and the beginning of military operations in the eastern part of Ukraine.

The growth in the structure of consumer expenditures on food was characteristic for Ukraine, which means the low living standards of the population. After 2014, consumer expenditures on food increased to 92 % from 90 % in 2010, which illustrates the decline in the life quality of the population and focus on priority needs. After 2018, we can see the improvement in the situation and the increase in the level of expenditures on the needs of other goods, but this level is not sufficient to reach the level of developed countries (about 58 %).

The scientific activity of Ukrainians is also quite low compared to developed countries due to the lack of investments in the industry, which can be seen in Fig. 1 where there is a downward trend at the level of 4 % of each following year.

Expenditures on environmental protection correlate with the level of the country's GDP, indicating the dependence of anthropogenic impacts on the ecosystem on the economic level of the population, which has been repeatedly confirmed by scientists. Thus, after 2014, there is a downward development

trend in many areas in Ukraine. It means the negative impact of military actions in the territory of Ukraine, the change in the focus of the authorities and the public from solving internal problems to preserving the country and confronting foreign policy risks.

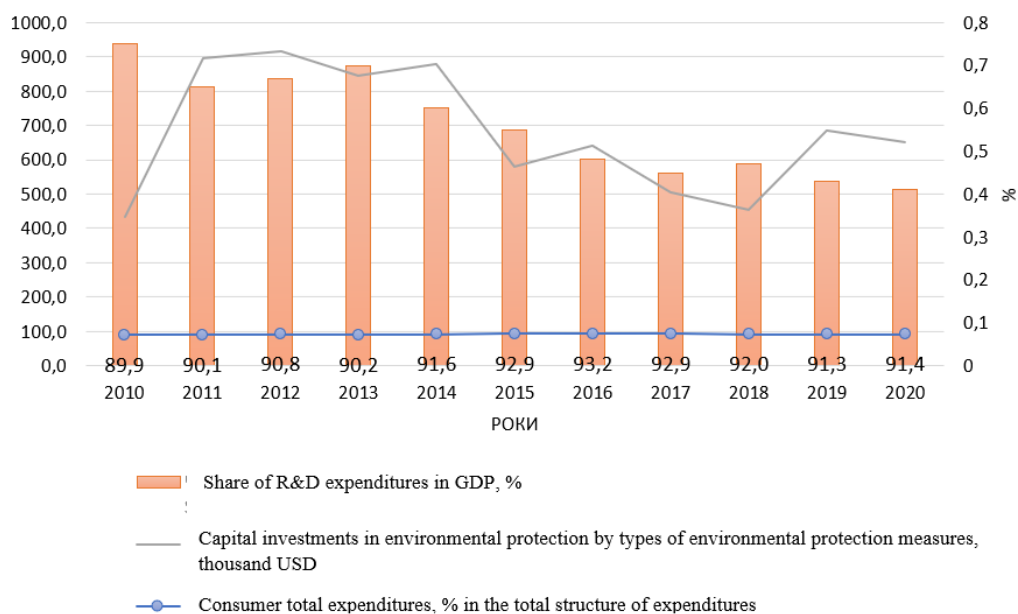


Fig. 1. – Dependence of the studied indicators on the time line in Ukraine

Source: built by author

However, according to the anonymous survey of Ukrainian citizens, the main problem in Ukraine hindering its development until 2022 was corruption and abuse of office by officials. A large number of organized economic schemes to embezzle public funds or reduce tax payments succeeded under the existing judicial system that was loyal to certain personalities because of receiving their shares of remuneration.

The disclosure of public and private data on the loyalty to corruption will contribute to the improvement of organizational culture in the country when taking prompt measures to neutralize the negative effects of violations. Besides, publicizing the results and transparency of the data will facilitate the exploration of new attempts of illegal actions, in particular, as it is currently happening due to the launch of electronic public procurement systems based on tender processes (<https://www.dzo.com.ua/>).

The introduction of these tools allowed activating the public and promoting the disclosure of tenders with signs of offenses, but the situation did not change dramatically, and the shadow economy found other tools to obtain additional income, although the old tools also continued to work, however, with a certain risk for the beneficiary. Joining the Open Government Partnership Program (<https://www.opengovpartnership.org/>) at a time of increased foreign policy risks can be dangerous on the one hand, but on the other hand, it may help to reduce corruption. According to ITSP, digitalization of the economy in order to bring it out of the shadow is one of the main tasks of the government, which has a positive effect on the population when implemented

(<https://www.scugog.ca/media/rsc>).

However, the psychological and cultural aspect of the suggested changes is important for Ukrainians because the mechanism of shadow economy has been established for decades and supported by kinship ties, mentality, interest of other individuals and unwillingness of the government to create a perfect system of control over life activities, the rule of law.

Hypothesis 1: To minimize the level of corruption in Ukraine, first of all, it is necessary to implement a system of improving the living standards of the population and continuous control over activities of officials.

Hypothesis 2: To minimize corruption in Ukraine, it is reasonable to create an efficient system of public control and zero psychological tolerance to corruption.

Chinese scientists note that models based on the DEA CCR Charnes principles can be used to improve the results of the corruption reduction task.

$$\frac{\sum_{r=1}^s u_r * y_{jr}}{\sum_{i=1}^n v_i * x_{ji}} \rightarrow \max \quad (1)$$

Where (j = 1, ..., n) uses m inputs x_{ij} (i = 1, ..., m) and generates s outputs y_{rj} (r = 1, ..., s).

The variables are input weights v_i (i = 1, 2, ..., m) and output weights u_r (r = 1, 2, ..., s) where inputs will be data on corruption offenses in terms of monetary equivalent losses, ecosystem losses from the offense, and outputs will be neutralization of negative effects from shadow schemes (Shih et al., 2022).

In order to determine the level of corruption in the country, one should know information about the public attitude to corruption in favorable conditions for committing illegal acts. Let's divide the population regarding tolerance to corruption into groups that should be based on moral qualities of perceiving corruption schemes. The susceptible class is formed by daily recruitment of individuals born in families with low moral standards and are likely to be vulnerable to becoming infected with corrupt practices at a rate of sb (s is the number of individuals, b is the monetary equivalent of the corrupt component in the income structure), while the immune class are those who have moral standards from childhood and cannot become corrupt on their own at a rate of (1 - s)*b. Susceptible individuals get the corruption infection from corrupt individuals and become corrupt at rate a and can cause financial damage amounting at c, while corrupt individuals are imprisoned at rate d. The corrupted and imprisoned individuals are rehabilitated in the corrected class while serving their sentences and compensating the funds to eliminate illegal actions. All classes undergo a natural death m, which can also be considered as a loss in the creation of a socially useful product to increase the GDP of the country.

The level of corruption over time interval t can be written as a function of indicators:

$$K = F(s * b; a * c(1 - s); d * s * b; m)dt \quad (2)$$

Then the target function of the problem becomes the relation of losses from activities of corrupt persons to total budget revenues for a certain period in the studied territory:

$$P_k = \frac{\sum_{t=1}^T (s*b + a*c(1-s) - d*s*b - m)}{\sum_{t=1}^T Sp} \quad (3)$$

$$P_k \rightarrow \min \quad (4)$$

Where Sp is the socially useful product obtained in the studied territory

over a certain period from activities of officials in monetary terms.

P_k is the efficiency of the anti-corruption campaign conducted in the given territory in a certain period.

The level of the individual's perception of corruption is affected by factors determined both by psychological and economic characteristics and by external influences and circumstances.

If there is no data on the infliction of material losses in a certain territory at the time interval, it is possible to study the general propensity to corruption of the population of a region in order to assess potential losses and prevent the creation of corruption schemes.

The main factors influencing the level of corruption perception include:

1. Own responsibility and perception of corruption (moral and ethical qualities of the individual);
2. Tolerance to corruption in the family;
3. Level of education ;
4. Economic condition of the country;
5. Economic condition of the individual and his/her close people;
6. Social and cultural environment of the individual (tolerance to corruption in the environment);
7. Favorable conditions for committing an illegal act;
8. Presence of an external catalyst;
9. Degree of economic multipolarization;
10. Level of control over violations and degree of punishment for the offense;
11. Level of transparency of government mechanisms and availability of information on the creation of the offense;
12. Historical prerequisites for the formation of tolerance to corruption;
13. Inefficiency of the judicial system, discrimination, protectionism;
14. Level of efficiency of public society and organizations;
15. Level of risks in the country.

To calculate the perception of corruption in the country, it is necessary to summarize the average weight coefficients of each factor on a point scale from 1 to 10 for each item and analyze the data in order to develop efficient measures to reduce the level of corruption in Ukraine. Special attention should be paid to economic corruption that has the most negative effect on activities and development of the state (Koval, Mikhno, Trokhymets et al., 2020).

According to official data, the corruption perception index in Ukraine in 2022 amounted to 33 points, which corresponds to the 116th position out of the ranking of 180 countries and is below the average value of 43 points.

Fig. 2 shows that, according to official data, Ukraine has a positive trend and has managed to change the indicator by 7 points. This is not enough for successful development at the level of most European countries. Neighboring Poland, which reached the point of minimum extremum and gained 55 points in 2022, outpaced Ukraine by 22 points even with the minimum values. France and Switzerland have smaller deviations and a more stable corruption perception index, which is more than twice the value of Ukraine's index.

Fig. 2 allows us to conclude that the economic level of the country has a substantial impact on the level of corruption perception and determines the further development of this index. In turn, this index in Ukraine is too low

compared to European countries, which indicates a high level of corruption and the existence of this problem in the country and hinders macroeconomic development and European integration processes.

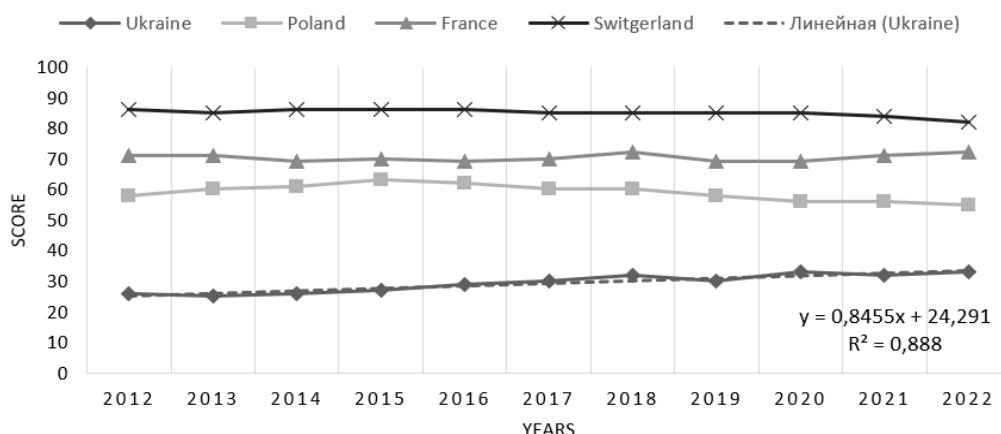


Fig 2. – Corruption perception index at the time interval

Source: built by author based on (<https://www.transparency.org/>)

Despite the openness of borders and the existence of the Internet, the state remains the foundation for personal development, while corruption makes the future of the country highly uncertain and results in monetary relations dominating over social guarantees. Corruption is the main cause of distrust in the government, provocations, foreign policy influences, reduction of security, so it is perceived as a permanent phenomenon with signs of population contagion. If we have a situation not with monetary data equivalent for analysis (which is the best identifier) but with quantitative variables, we can calculate the propensity to corruption using the following formulas:

$$\frac{dS}{dt} = -\alpha \frac{Si}{N}$$

$$\frac{dI}{dt} = \alpha \frac{Si}{N} - \beta I$$

$$\frac{dR}{dt} = \beta I$$

$$R_0 = \frac{\alpha}{\beta}$$
(5)

Where S is individuals influenced by a corrupt person,
 N is the total number of individuals in the sample,
 I is infected individuals involved in corruption schemes,
 R is individuals who died or became immune to corruption,
 R0 is the index of contagiousness (spread),

a, b are parameters of epidemic spread – impact of corrupt individuals on individuals with a propensity to corruption (Tang et al., 2020).

We analyzed the propensity to corruption among young people receiving higher education in Ukraine and planning to stay in Ukraine for further employment. These groups of individuals are not yet infected but are in a society with a higher level of tolerance to corruption. After analyzing the control group, we modeled a situation by introducing a game that could be a trigger for breaking the law within this game and contribute to the spread of the disease to other individuals.

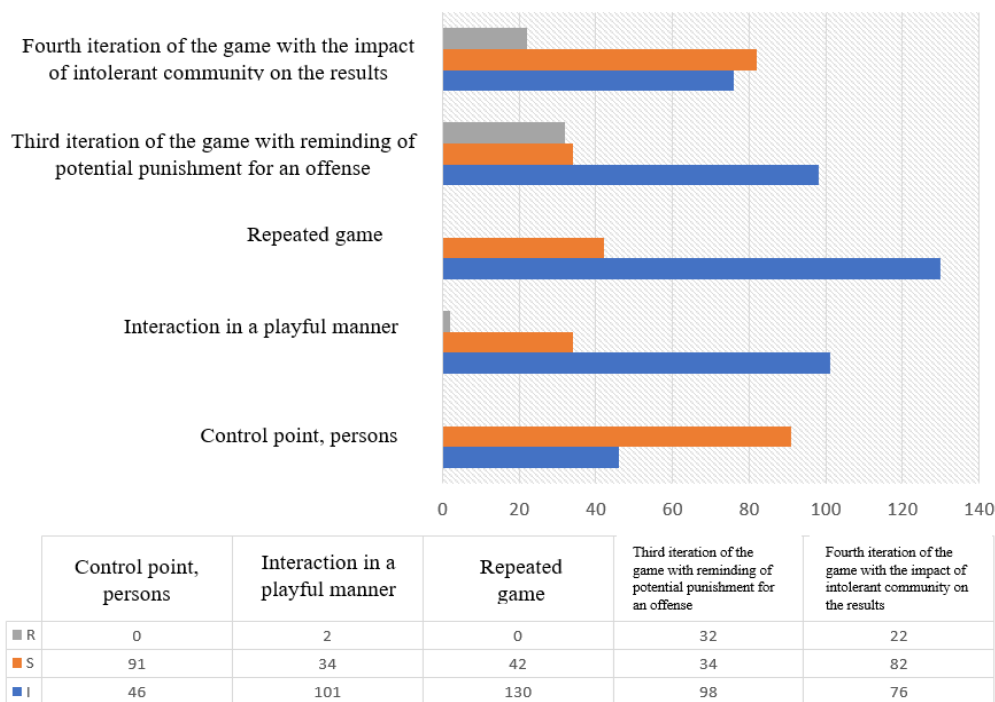


Fig. 3. – Results of the behavioral game based on the principles of infecting individuals in a certain group with the corruption virus
 Source: built by author

Those individuals who wrote in the preliminary questionnaire that they would commit illegal acts under favorable circumstances in at least three answers were recognized as infected in the model. In turn, the corrupt person tries to create a space around him/her with other corrupt individuals for comfortable existence and the possibility to control other individuals using manipulation of knowledge about other individuals' offenses. Corruptor's close people become favorable to influence, but only individuals with low moral values become first tolerant of corruption, then infected. The research data are visualized on Fig. 3.

The study involved 230 people who were offered to play the City Administration modeled game at intervals of 24 hours. Roles were assigned according to job descriptions for the main professions used in this institution. Players were given situational tasks where they had to make a choice. The player with the highest amount of finances after the game was the winner (the win for students was automatic credit for the subject). The generation of finances occurred not only by performing works but also by the possibility to perform certain actions (legal and illegal) that also raise funds. A specific feature was the fact that the control propensity to corruption was determined using questionnaires. The questionnaire data showed a large number of persons susceptible to corruption (91), whereas in the first game only 34 persons became corrupt during the game by violating the rules of the conditional law. From the beginning of the game, the number of corrupt persons was 101, which was much higher than according to the questionnaire data (46).

When the results were announced the next day, the number of corruptors increased further to 130, while the number of new corruptors becoming infected during the game increased by 8 compared to the first game. When one created unfavorable conditions for corruption, the number of corruptors in the third iteration decreased to 98, and the number of infected persons during the game reached the level of the first interaction. After conducting the study, we can assert that additional restrictions affect actions of the participants. Thus, having the influence of the non-tolerant community on corruptors, the number of those who chose the path with offenses during the first 5 moves was significantly less, while their number increased significantly during the game, which shows that the desire to win among individuals is of higher priority. The number of people intolerant to corruption was 93 according to the questionnaire, whereas the second game resulted in only 58 people intolerant to corruption, which indicates that the number of infected people increased during the game and that questionnaire research is unreliable.

The research analysis shows that 59 % of individuals are prone to corruption in Ukraine under favorable circumstances, and the questionnaire data can determine the propensity of an individual to corruption, while almost all the individuals identified as prone to corruption in the model game were noted as infected at the first stages of the game. This confirms the hypothesis that the majority of those raised in a tolerant environment to corruption will also become corrupt under favorable circumstances. Public control is efficient at the first stages of the anti-corruption campaign when a person does not yet know all the rules of the game to get a win without recording offenses.

This game model confirms the adequacy of the infectious disease spreading model for investigating the level of corruption and propensity to corruption for a group of individuals. When calculating the losses from corruption at the level of 10 billion UAH per year in Kyiv (<https://zaxid.net/>), where the number of heads of corruption schemes is about 160 people with budget revenues of about 66 billion UAH and the number of employees about 957 people, according to formula 3, the efficiency of anti-corruption measures is about 12 %. It is quite low compared to European countries where the damage caused by corruption is much lower in relation to the creation of socially useful products.

Ukraine needs to develop a model based on the principles of hypothesis 1, stating that Ukrainian realities primarily require the improvement of the level of society and ways of controlling corruption. At the same time, moral, psychological and public anti-corruption tools are important, but they will have a long-term character and won't have a proper effect without appropriate legislative changes. Given the confirmation of hypothesis 1, the model of further government actions was adjusted in accordance with the wishes of Kyiv's population to improve the results of anti-corruption activities.

After the introduction of administrative changes shown in Table 1, it is viable to implement the anti-corruption policy at the level of the individual, form responsibility for violation and promote zero tolerance to corruption. According to hypothesis 1, the first-priority anti-corruption tools are changing the legislative system and increasing the sentence for violation, which was confirmed by the anonymous survey of Ukrainian citizens. This set of tools will be efficient if applied in a comprehensive manner. It is reasonable to compensate

the potential economic burden on the law enforcement system of Ukraine by seizing property and valuable items from corrupt officials and selling these lots on state trading platforms. The creation of favorable conditions for society will grow trust in the government and transparency of the state system.

Table 1
Model of anti-corruption tools in Ukraine determined by hypothesis 1

Action	Expected efficiency	Prioritization by score from 1 to 10
Public punishment for corrupt activities with a term of imprisonment of at least 20 years with confiscation of all available property and inability to hold managerial positions during life for the corrupt person and relatives of the 1 st degree of kinship	78 %	2.4
Adjustment of legislation towards reducing discrepancies that can lead to corruption. Search and elimination of potential tools for corruption schemes based on the launch of the anti-corruption game for university students and officials with the possibility of cash prizes for describing potential corruption schemes and opportunities for their elimination.	31 %	3.2
Development of a digital platform to track all filed corruption cases (online court system). Maximizing their publicity and transparency	58 %	3.3
Increase in consumer confidence and security level to EU average values as of 2023	42 %	3.7
External control over activities of law enforcement agencies. Rule of law. International audit	11 %	4.9
Creation of a single ERP-CRM system for officials where monthly reports would be open to the public	17 %	5.6
Enhancing the living standards of socially vulnerable groups of the population to a minimum value of 500 USD per month due to intensive development of the state and development of the IT services sector	31 %	5.8
Conducting a promotional anti-corruption program by community business representatives	7 %	7.9
Educating youth with zero tolerance to corruption	69 %	8.1
Public control over the digitalized antitrust platform	43 %	8.4

Source: built by author

According to public opinions of Ukrainians, it is important, in addition to adjusting the legislation, to create a transparent judicial system and ensure its maximum digitalization, which will allow indirect influence of the public on decision-making, help to draw attention to the criminal system of Ukraine and affect the increase of responsibility for offenses. These tools are desirable for implementation with zero tolerance for corruption in the judicial system and well-coordinated, systemic work, which is aimed at achieving results of the security bodies of Ukraine.

The economic component of all changes should be justified and should contribute to improving the living standards of the population, which will also allow reducing corruption in Ukraine.

One conducted research on the responsibility of individuals for corruption during stress (using the example of the war in Ukraine) and in the period after the war. These results are averaged for 200 respondents with the total square of deviation at the level of 1189 (the sum – for respondents, average value of the sum of indicators), which can indicate the relative objectivity of the data due to a small deviation from the average value. For each item of the findings, 10 questions were developed to determine the individual’s responsibility for corruption offences at different stages of life and in the modeled environment of the stabilization of the situation in Ukraine. The level of responsibility was determined by means of subjective assessment of the individuals’ situation based on their own experience and can differ from the results of other population groups. 100 % is tolerance to corruption (percentage of infected among the total mass of civil servants in Ukraine), 0 % is zero tolerance to corruption, taking into account the situation in the country and the respondent’s own worldview.

Fig. 4 shows that at the initial stages of the war or when another stressful situation affects the society, tolerance to corruption decreases, as well as the level of corruption itself. The questionnaire respondents noted that in the first three months of the war, a psychological and emotional state based on family upbringing (family values developed from the age of 4 to 8), adherence to rules, empathy, cohesion, focus on moral and ethical norms and mutual assistance prevails. The stressful situation affects the nervous system of an individual so that the preservation of life remains the main task, rather than obtaining financial resources. The war initiates the process of forming internal conflicts, reducing the quality of living standards, accumulating stress situation, destructing infrastructure, insufficiency of financial resources simultaneously with the search for new channels of income. The search for new sources of income contributes to the increase of corruption, while the poor living standards result in tolerance to corruption (Koval, Mikhno, Udovychenko et al., 2021).

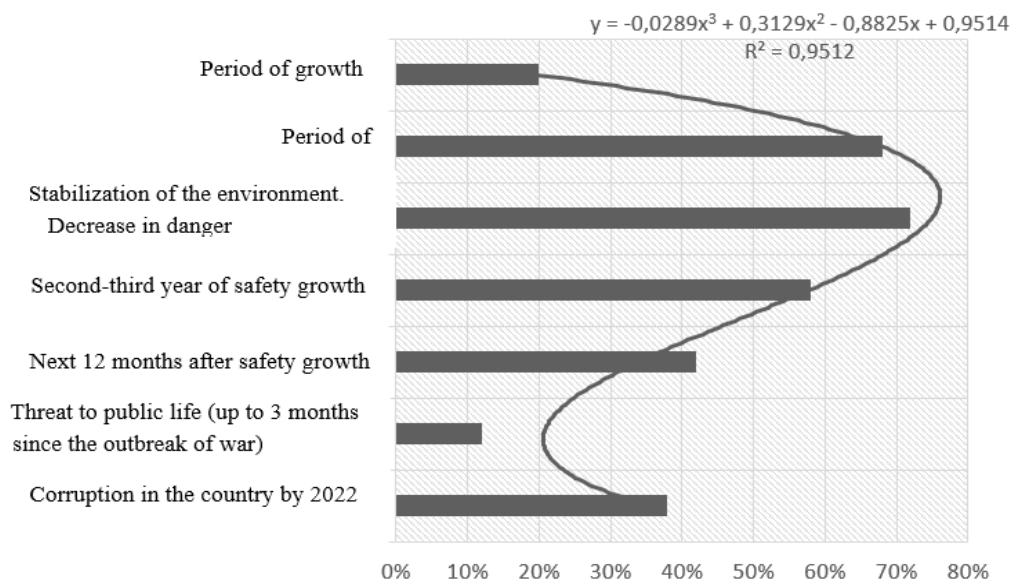


Fig. 4. – Level of tolerance of Ukrainian civil servants depending on the situation in the country according to anonymous questionnaire survey data

Source: built by author

During the conflict, tolerance to corruption grows and new schemes are created to seize resources without observing legal norms. The point of extremum becomes the period of stabilization of the situation and reduction of stress overload. At this time, the respondents noted that civil servants see the prospect of potential changes and will try to accumulate their own fund of resources due to the possibility of dismissal or changes in the political situation. At the same time, there will be new opportunities to create corruption schemes by increasing the level of external investment in the country. The recovery period is also characterized by the high volume of investment in reconstructing the country, which will be a catalyst for increased tolerance to corruption and the increase in the number of infected.

However, during the period of economic growth, tolerance to corruption will decrease again, which will be the foundation for social and economic changes and the creation of favorable conditions for the development of zero tolerance to corruption among Ukrainian youth and growth in the quality of public life, legislative changes towards digitalization and introduction of innovations. 82 % of respondents noted that tolerance to corruption after a stressful situation in the period of growth should be less than before the impact of stressors, i.e. society can move to a new level of responsibility and development. The dependence of changes in tolerance to corruption at the time interval can be cyclical and correlate with current stress factors reflected in the social and economic situation of the society. However, at the stages of growth, one predicts the decrease in the threshold values of tolerance to corruption with each point of extremum, i.e. the increase in the moral and value guidelines of the society.

Conclusions. After 2014, Ukraine experienced the decline in the living standards of vulnerable segments of the population and the decrease in expenditures on R&D and innovations, which indicates a negative trend in social and economic development in the country and the reluctance of the government to support innovative projects. Economic development was kept by the use of available resources and exploitation of obsolete technologies that are mostly no longer used in developed countries, and economic instability slowed down the process of attracting investments.

However, the main reason for Ukraine's low rate of development was the high level of corruption and tolerance to corrupt practices, so neutralizing the impact of this factor on macroeconomic development is a priority task of the state policy. It is revealed that individuals involved in corrupt schemes can infect their close people according to the principle of biological infection spreading and contribute to the increase in the number of persons tolerant to corruption. According to the game model based on the principles of disease spreading in the population, it is found that 55 % of individuals who were not corrupt are prone to corrupt acts under favorable circumstances and become infected during the first contact and the opportunity to obtain additional resources. This demonstrates the weakness of Ukraine's legislative system, the low moral and ethical level of individuals and corrupt law enforcement agencies, which are also mostly infected and spread the disease to other institutions, while most corrupt acts will avoid proper punishment and won't be addressed in public.

Based on the facts of confirmed participation of high-ranking officials in corruption schemes, in order to reduce the level of corruption in Ukraine, first of

all, it is necessary to reorganize the existing judicial system towards digitalization, transparency and automation, to adjust the current legislation towards increasing the penalties for non-compliance with the law, to activate the influence of the public on decision-making and to increase the level of responsibility of individuals for their actions. It is revealed that the level of tolerance to corruption is maximum when the war period increases and the process of territorial reconstruction begins, which means the internal instability of the situation and the unwillingness of current government officials to change towards the neutralization of corruption. At the same time, when stabilizing the economy after the war, one should establish a system of zero tolerance to corruption and conduct activities among young people to form a transparent legal, social, economic and political system, which would increase the level of responsibility for their own actions.

Understanding the level of infectiousness of the existing government system of the country will provide additional assessment when implementing anti-corruption measures at the stage of recovery from stress. However, given the possibility of infection and the poor state of the legal system, stress factors will result in the increasing level of corruption in the country. Therefore, in order to increase the rate of economic growth, it is necessary to remove infected individuals from the system of state administration forever and attract young people who are intolerant to corruption and work according to the principles of innovation and digitalization of available services and flows.

Conflict of Interest and other Ethics Statements

The author declares no conflict of interest.

References

- Helliwell, J., Huang, H., Norton, M., Goff, L., & Wang, S. (2023). World Happiness, Trust and Social Connections in Times of Crisis. In World Happiness Report 2023 (11th ed., Chapter 2). Sustainable Development Solutions Network. <https://worldhappiness.report/ed/2023/world-happiness-trust-and-social-connections-in-times-of-crisis/#ranking-of-happiness-2020-2022>.
- Online public procurement. (2023). URL : <https://www.dzo.com.ua/>.
- Open government partnership. (2022). URL : <https://www.opengovpartnership.org/glossary-cat/basics/>.
- Information Technology Strategic Plan. (2022). URL : <https://www.scugog.ca/media/rscf5vsh/scugog-final-itsp-report-copy.pdf>.
- Shih, P., Cheng, C., Shih, D., Wu, T., & Yen, D. (2022). Who Is the Most Effective Country in Anti-Corruption? From the Perspective of Open Government Data and Gross Domestic Product. *Mathematics*. 10 (13). P. 2180.
- Koval, V., Mikhno, I., Trokhymets, O., Kustrich, L., & Vdovenko, N. (2020). Modeling the interaction between environment and the economy considering the impact on ecosystem. E3S Web of Conferences. Vol. 166. P. 13002. EDP Sciences.
- Transparency International. (2022). URL : <https://www.transparency.org/en/cpi/2022/index/>.
- Tang, Z., Li, X., & Li, H. (2020). Prediction of new coronavirus infection based on a modified SEIR model. *MedRxiv*. 2020-03.
- Zaxid.net. News portal. URL : https://zaxid.net/u_dbr_zayavili_shho_sistemna_koruptsiya_u_kmda_koshtuye_kiyevu_10_milyardiv_griven_na_rik_n1527470.
- Koval, V., Mikhno, I., Udovychenko, I., Gordiichuk, Y., & Kalina, I. (2021). Sustainable natural resource management to ensure strategic environmental development. *TEM Journal*. 10 (3). Pp. 1022-1030. Doi : 10.18421/TEM103-03.

Інеса МІХНО

ПІДВИЩЕННЯ ЕКОНОМІЧНОГО ЗРОСТАННЯ УКРАЇНИ ПРИ ВСТАНОВЛЕННІ НУЛЬОВОЇ ТЕРПИМОСТІ ДО КОРУПЦІЇ

Анотація. У статті розглядаються основні інструменти покращення якості життя суспільства в Україні. Виявлено, що наукова та інноваційна діяльність в Україні за останні роки занепадає, а споживчі витрати на продукти харчування у структурі витрат домогосподарств становлять близько 90 %, що свідчить про низький економічний рівень життя суспільства. Визначено, що одним із дієвих методів покращення ситуації в Україні є створення економічно сталого та мирного середовища та подолання корупції, як основного чинника зниження ефективності стабілізаційних змін.

Моделюючи рольову гру, ми дійшли висновку, що толерантність до корупції знижується при створенні сприятливих обставин для вчинення протиправних дій і стає популярною в суспільстві. Модель, яка відображає швидкість і якість поширення корупційної поведінки, може бути біологічною моделлю поширення хвороби, коли інфіковані особи можуть передавати хворобу здоровим людям і створювати корумповані групи, які також поширюють інфекцію та постійно шукають нові способи отримання незаконного доходу.

Виявлено, що покращити ситуацію можуть законодавчі зміни, які сприятимуть прозорості судової системи та збільшать тривалість покарання та збитків корупціонерів, а після усунення стресових факторів бажано запровадити освітні програми для сприяння нульовій толерантності серед молоді. ситуації та процес відновлення території України після війни.

Ключові слова: методи вдосконалення суспільного життя, інструменти оздоровлення економіки, корупція, корупція в Україні, тіньова економіка.

Submitted: 30.01.2024

Revised: 02.03.2024

Accepted: 22.03.2024

UDC 336:02

DOI 10.31733/2786-491X-2024-1-141-150



**Anastasiia
KOLIESNICHENKO** ©
Ph. D. (Economics),
Associate Professor
(*Kharkiv polytechnic institute*),
Ukraine

FISCAL POLICY CYCLICITY

Abstract. The enterprise's activity is formed taking into account exogenous processes, due to the single or multiplicative influence of a number of factors of different nature in terms of the nature of the impact, predictability, the model of the enterprise's response, the consequences of the impact, the level of controllability. The factor of cyclical economic development has a special influence on the operation of the enterprise. Certain elements may also be subject to cyclical effects, in particular: the product, the enterprise itself, the industry, the

© Koliesnichenko A., 2024

ORCID iD: <https://orcid.org/0000-0002-5007-9082>

anastasihpi@gmail.com