

DOI: [10.55643/fcaptop.2.55.2024.4302](https://doi.org/10.55643/fcaptop.2.55.2024.4302)

**Zaid Ibrahim Yousef Gharaibeh**  
 Doctor of Legal Sciences, Professor,  
 Faculty of Law, Jadara University,  
 Irbid, Jordan;  
 e-mail: [z.garaibeh@jadara.edu.jo](mailto:z.garaibeh@jadara.edu.jo)  
 ORCID: [0000-0002-3143-7753](https://orcid.org/0000-0002-3143-7753)

# IMPACT OF CRIMINAL OFFENSE IN THE ECONOMIC FIELD ON THE LEVEL OF FINANCIAL SECURITY: FORMATION OF A MODERN APPROACH IN CASE OF JORDAN

## ABSTRACT

The main purpose of the article is to develop a theoretical and methodological approach to determining the influence of criminal crime factors in the country on the level of financial security of the state. For this purpose, the key object of study is the Jordanian financial security system. The scientific task is to establish possible relationships between the level of criminalization of the economy in the country and the security of the financial sector. The research methodology involves the use of the method of correlation and regression analysis, the use of special software for working with data analysis, the F-criterion modeling method, the Hoerl model, and an abstract logical method for summarizing the research results. Conclusions about the state and trends of the Corruption Perception Index in Jordan were analyzed and made. A calculation of the level of financial security of Jordan over the past five years is presented. Based on the results of the study, it was proven that the influence of economic crime and criminal offenses in the economy as a whole have a direct significant impact on the level of quality of life of the population of Jordan and financial security in general. The urgent need for shadowization of the Jordanian economy has been proven in the context of increasing the level of its financial security, which is aimed at reducing such criminal offenses as corruption and deep shadowing due to criminal activity. It was established based on the results of calculations that an increase in the level of financial security in Jordan has a direct impact on changes in the level of quality of life of the population in the country. The study is limited by taking into account the specifics of only one country - Jordan. Future research prospects aim to address this limitation and include more Middle Eastern countries.

**Keywords:** economic crime, the financial security of the state, modeling, criminalization of the economy, corruption activities, quality of life, criminal offenses, criminal activity, Jordan

**JEL Classification:** K14, G00, F52, D73

## INTRODUCTION

In modern conditions, Jordan faces serious challenges in ensuring its financial security, which is worried about the growing criminalization of the economy and instability caused by constant financial and economic turmoil. This is especially important given the influence of external factors such as the Israeli-Palestinian conflict, which contributes not only to economic instability but also to political and social tension in the region.

The growing criminalization of the economy, expressed in an increase in criminal offenses in the financial and economic sphere, creates serious threats to the financial stability of the state. This not only undermines trust in financial institutions but also limits the country's ability to attract foreign investment and maintain healthy economic development. Criminalization also contributes to the development of the shadow economy, which leads to loss of tax revenues and reduced efficiency of government spending. Instability caused by constant financial and economic turmoil creates additional challenges. This includes the volatility of the foreign exchange market, a decrease in

Received: 07/01/2024

Accepted: 10/04/2024

Published: 30/04/2024

© Copyright  
 2024 by the author(s)



This is an Open Access article  
 distributed under the terms of the  
[Creative Commons CC-BY 4.0](https://creativecommons.org/licenses/by/4.0/)

production activity, an increase in unemployment, and, as a result, a drop in the standard of living of the population. All of this contributes to social tensions and political instability, further complicating government efforts to restore economic balance and ensure financial security.

The circumstances defining the economic environment in Jordan today cannot be considered optimal or stable for business and financial activities. The impact of the military conflict in neighboring regions, in particular the Israeli-Palestinian conflict, has significantly complicated the situation not only in the economic sphere but also in the political and social context. This led to a deep financial and economic crisis and socio-political instability, a deterioration in the quality of life of citizens, a weakening of economic protection, and a decrease in the financial security of Jordan. As a result of these changes, there is a criminalization of the economy, an increase in criminal offenses in the field of financial and economic activities, the spread of corruption, and an increase in the informal sector of the economy. Considering the above problems, it becomes clear that an effective fight against destabilizing factors and the development of a set of measures to deshadow the economy and increase the financial security of the country are extremely important.

To achieve the desired result, one should focus on an in-depth analysis of how each destabilizing factor affects the criminalization of the Jordanian economy and its financial security. It is important to emphasize that the processes of bringing the economy out of the shadows are closely related to the parameters of the country's financial security. This is due to the fact that reducing the volume of criminal and shadow economic transactions helps to increase the level of financial security in Jordan. Therefore, future research should focus on exploring the relationship between economic de-shadowing measures and improved financial security in Jordan.

## LITERATURE REVIEW

The topic of the impact of criminal offenses in the economic field on the level of financial security, especially in the context of Jordan, is multifaceted and complex. The studies in this area generally focus on understanding how financial criminal offenses, within the framework of state financial activity, affect a country's financial security. This includes examining the social relations that arise from these criminal offenses and the norms of criminal legislation that govern them. One key aspect is the understanding that the current measures of criminal legal protection of a country's financial system might not be fully effective. This ineffectiveness is partly due to these measures not keeping pace with the changes in the state's financial activities. This gap leads to a shift in the nature of financial criminal offenses, emphasizing the importance of ongoing research and timely updates to criminal laws to respond to new forms of financial crime.

It is necessary to highlight the key literary sources that were taken into account during the research and devoted to solving the problem of increasing financial security around the world. We rely on a number of key sources that help illuminate this topic from different perspectives. For example, Hammouri's (2023) study examines the socio-economic aspects of measuring criminal justice security in the context of justice provision in Jordan. The author analyzes the importance of criminal law as a tool for ensuring economic and social stability in the country. Wang (2023) provides a critical analysis of proposed cyberbullying legislation. While this work focuses on a specific aspect of criminal law, it opens up broader discussions about the role of law in addressing today's challenges to financial security. Fahrudin et.al (2023) focuses on the formulation of law based on restorative justice in corruption cases. Their philosophical and analytical approach to solving corruption is directly related to issues of financial security of the state.

Also, note that Child, & Rogers (2017) discuss criminal law reform as having significant implications for financial security. Their proposals for updating the criminal law provide an important context for our study. Harutyunyan (2022) examines the philosophical and legal problems of qualifying crimes against political rights in modern legal states. This helps to understand how political stability affects financial security.

Another example, Al-Hawari (2022) examines the historical development of criminal law in Jordan, which is important for understanding the current context of financial security. Alazzam et al. (2023) emphasize the significance of e-commerce in bolstering economic security. They propose an innovative model that focuses on the digitalization of business processes, highlighting how e-commerce can be a tool for mitigating financial risks associated with criminal activities in the economic field. Their study suggests that a well-structured e-commerce system can significantly contribute to the resilience of businesses against economic crimes. Kryshtanovych et al. (2023) argue for the optimization of state regulatory frameworks to enhance business safety and security. Their research underscores the importance of local approaches in regulatory practices, suggesting that tailored regulatory measures can effectively address the unique challenges posed by economic crimes, thus fortifying financial security. Maher ali moh'd Amoush et al. (2023), in their research, while broad in scope, touch upon the integral role of legal frameworks in ensuring sustainable economic development. They propose models that incorporate legal considerations into public administration systems, aiming to create an environment that is less

susceptible to economic crimes and thus more financially secure. Sobko et al. (2023) provide insights into the specific area of environmental economic crimes. This study, appearing in the same volume as the previous one, highlights the intersection of socio-legal issues and financial security. By examining the case of illegal deforestation, they shed light on the broader implications of environmental crimes on economic stability and financial security, suggesting that addressing these issues requires a holistic, interdisciplinary approach.

It should be noted that each of these sources makes a unique contribution to our understanding of how economic crime affects financial security and provides an important foundation for ours.

As part of the literature review of our study, which focuses on the impact of criminal offenses in the field of the economy on the level of financial security of the state, we draw on a significant amount of existing research and theoretical development. However, our approach has its own uniqueness and innovation. The purpose of this article is the formation a theoretical and methodological approach that will allow a deeper understanding of how the factors of criminal offenses affect the financial security of the state, with a special emphasis on the financial security system of Jordan. This approach is innovative because of its focus on Jordan as a key object of study, allowing for the identification of specific connections and interactions in this context.

## AIMS AND OBJECTIVES

The main aim of the article is to develop a theoretical and methodological approach to determining the influence of criminal crime factors in the country on the level of financial security of the state. The key object of study is the Jordanian financial security system. The scientific task is to establish possible relationships between the level of criminalization of the economy in the country and the security of the financial sector.

## METHODS

The research methodology is varied and combines effective econometric modeling techniques and appropriate software for accurate data calculations. The method of correlation-regression analysis is one of the main tools in statistics and research, allowing one to determine the degree and nature of the relationship between two or more variables. In our study, the method of correlation-regression analysis is used to evaluate how different aspects of the independent variables affect the dependent variables. This analysis will help not only identify the existence of a connection but also understand how strong and significant that connection is. The Fisher F test is used to evaluate the statistical significance of your regression model. This allows you to determine whether the regression model is statistically significant compared to a model that does not contain independent variables. The comprehensive statistical software package that is used for various types of data and analytical tasks Statistica, Version 8.0, allows for detailed correlation and regression analysis, which reveals relationships between variables and helps in modeling and forecasting.

Hoerl's model was also used. The Hoerl model allows one to estimate the effect of one or more independent variables on a dependent variable, especially when the relationship between them is not linear. In this case, nonlinear programming is carried out through the CurveExpert auxiliary program. CurveExpert is curve analysis software designed to discover relationships between variables to adapt different mathematical models to a set of data.

Our research methodology, which employs correlation and regression analysis, is not merely a conventional application of these techniques. While these methods are indeed well-established in statistical analysis, their application in our study is distinguished by the specific context and the unique data sets we are examining. The novelty lies in applying these methods to analyze the intricate relationship between economic crimes and financial security in Jordan, a context that has not been extensively explored in previous studies.

## RESULTS

The shadowing of the economy due to criminal activity highlights the phenomenon in which a significant part of a country's economic activity moves into the informal sector associated with crime and illegal transactions. This creates serious threats to the financial security of the state since such economic activities occur outside the legal and tax systems. This results in a loss of tax revenue for the government, distorting economic indicators and creating economic instability. In addition, it weakens legitimate business structures, increases risks for investors, and negatively affects the economic development of

the country. Such shadowing can undermine public confidence in the government and its ability to effectively manage the economy, which is a key aspect of the financial stability of any state.

Growing trends in the shadow economy in Jordan, especially due to increased criminal activity, indicate serious challenges to the development of the country and society caused by these factors. This indicates crisis phenomena in the economy, politics, and social life that arise due to the spread of new shadow schemes. These processes have a significant impact on the growth of destabilizing factors, which are becoming increasingly difficult to counter. New methods of shadowing, and acquiring a transnational character, further aggravate crisis conditions.

The need for detailed studies of the level and dynamics of the shadow economy in Jordan for the period 2019-2023 is obvious, and it is also important to determine the main trends in its growth. Figure 1 shows the results of the study, showing the change in the integral indicator of the level of the shadow economy and the impact of Jordan's real GDP over this period.



**Figure 1. Dynamics of changes in the level of the shadow economy due to criminal activity in Jordan, 2019–2023, %.**

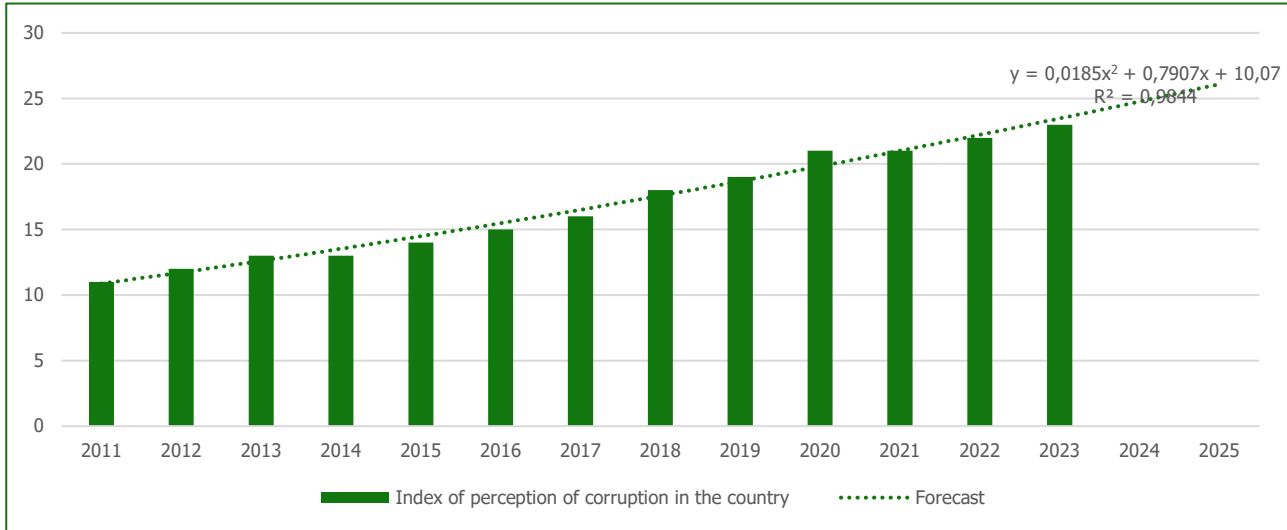
Especially in 2020, under the influence of the COVID-19 pandemic, the level of shadowization of the national economy increased, stabilizing at 27% in 2020 and 28% in 2021. These indicators reflect the growth of negative trends in the economy, politics, and society, with a particular increase in the integral indicator from 24% of official GDP in 2019 to 28% in 2021. The coronavirus crisis has created conditions for the growth of shadow criminal economic activities, in particular, it stimulated the development of online payments, which have acquired significant proportions and become a hotbed of criminal economic activities.

In 2023, under the influence of the Israeli-Palestinian conflict, the situation with the shadow economy worsened. During the war, there was an intensification of shadow criminal economic activities in neighboring countries, and new shadow schemes contributed to the growth of illegal activities in the official sector of the national economy. This also led to increased corruption, a share of the proceeds from which was directed to the development of the shadow criminal economy, exacerbating the country's socio-economic problems and increasing disproportions between economic and social development (Figure 1).

Corruption, as a fundamental criminal offense, significantly harms the financial security of the state because it undermines trust in government and public institutions, which is critical for the effective governance of the country. This loss of trust can lead to political instability, which in turn creates dangers for the economy. Corruption also causes significant financial losses to the state through illegal redistribution of resources and tax evasion. This leads to a decrease in state budget revenues and increased inequality in society. In addition, corruption distorts market competition, reducing economic efficiency and discouraging potential investors, which is important for economic development. Thus, corruption becomes a serious obstacle to the stable and healthy development of the economy, which has a direct impact on the financial security of the state.

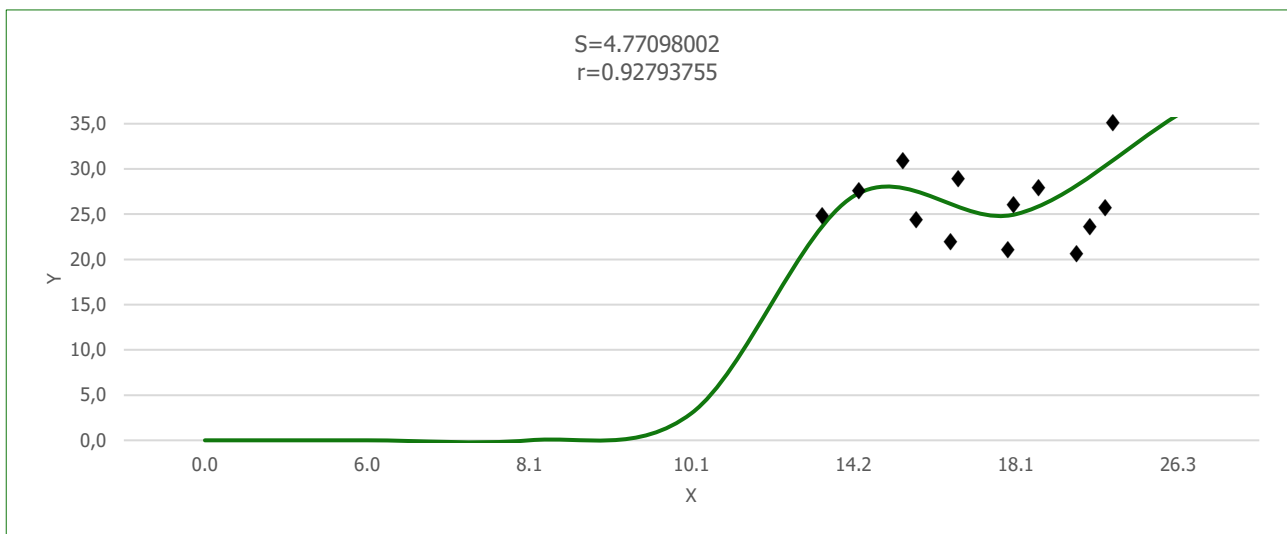
Corruption is one of the ways to reduce criminal activity and shadowization of the economy and a factor in strengthening the financial security of Jordan. An analysis of data on the state of corruption in Jordan for the period from 2019 to 2023 (as shown in Figure 2) confirms the positive dynamics in this area. There has been a gradual increase in the corruption

perception index from 19 in 2019 to 23 in 2023, indicating a steady improvement in the situation. However, the level of corruption in Jordan's economy, politics and society remains significant, requiring attention and active action at all levels of government. Forecasts for 2024-2025 indicate a further increase in the corruption perception index to 24 in 2024 and to 26 in 2025, which may indicate an increase in the effectiveness of measures to counter this negative phenomenon and open up additional opportunities for legalizing the Jordanian economy.



**Figure 2. Dynamics of changes in the corruption perception index in Jordan 2019–2025 (2024–2025 – forecast estimates).**

It is also important to emphasize that in Jordan the risk of the spread of corruption remains high and relevant due to its close connection with the processes of the shadow economy, as well as with the laundering of income obtained by illegal means. This has a direct impact on the financial security of the country and contributes to an increase in criminal activity and the criminalization of the economy. Proof of this is the existence of an inverse relationship between the indicators of the Corruption Perception Index and the level of the shadow economy in Jordan. Based on the results of analyses performed using nonlinear programming and the CurveExpert program (Figure 3), it was found that an increase in the corruption perception index, which indicates its actual decrease in the country, leads to a decrease in the level of the shadow economy. This, in turn, has a positive impact on the overall financial security situation in Jordan as the volume of illegal financial transactions decreases.



**Figure 3. Nonlinear modeling (Hoerl model) of the influence of the corruption perception index on the Integral indicator of the level of shadowing of the economy due to criminal activity in Jordan for 2011–2023.** Note: X - is an index of perception of corruption; Y- is the level of shadowing of the economy due to criminal activity in Jordan. „S”: This usually stands for the standard error of the estimate (also known as the standard deviation of residuals).

It measures the average distance that the observed values fall from the regression line. Essentially, it's a measure of the scatter of the data points around the fitted model. A lower „S” value typically indicates a better fit of the model to the data. „r”: This represents the correlation coefficient, which measures the strength and direction of the linear relationship between two variables. In the context of regression, 'r' can also be indicative of the goodness of fit for the model. An 'r' value close to 1 or -1 means that there is a strong positive or negative linear relationship, respectively, between the independent and dependent variables.

Thus, the conducted simulation shows us the following equation (1):

$$Y=0,001-84,51x +9,49x^2 - 0,34x^3+0,004x^4 \quad (1)$$

The formula introduced in our study seems to be derived from a polynomial regression model. This type of regression analysis models the relationship between a dependent variable y and an independent variable x as a polynomial of nth degree. In polynomial regression, the relationship is not simply linear but is represented as a polynomial, allowing for a more nuanced understanding of how the variables interact with each other across different degrees of complexity.

The data gathered throughout our study paint a compelling picture of the socio-economic landscape in Jordan, particularly during times of socio-political upheaval. It becomes evident that such periods are marked by a notable swell in the shadow economy, accompanied by a rise in corruption indicators. The nexus between the shadow economy and corruption is intricate and symbiotic, with each element feeding into and exacerbating the other. This interplay underscores a critical facet of financial security measures—shadowing the economy must be intrinsically linked with robust anti-corruption efforts. To elaborate, the practice of shadowing the economy—where economic activities occur outside of government-sanctioned channels—can be both a cause and a consequence of corruption. These shadow activities, while escaping formal scrutiny, create fertile ground for corruption to flourish, further entrenching these activities beyond the reach of regulatory frameworks. Consequently, any strategy aimed at safeguarding Jordan's financial stability cannot afford to address these issues in isolation. A siloed approach would be insufficient and potentially counterproductive.

In this vein, anti-corruption strategies become more than just a legal or ethical imperative; they are a linchpin in the broader endeavor to illuminate and integrate the shadow economy into the formal sector. In effect, anti-corruption measures serve a dual purpose: they clamp down on the immediate challenges of corrupt practices and, by extension, disincentivize the shadow economy by closing down the spaces where it thrives. This holistic strategy is pivotal in curtailing the avenues for criminal activities, thereby bolstering the nation's financial security. With this understanding of the interconnected nature of the shadow economy, corruption, and financial security, it is imperative that Jordan's anti-corruption programs and strategies for de-shadowing the economy are comprehensive and cohesive. The fight against these destructive phenomena must be multi-faceted, attacking the issue on both fronts simultaneously.

Next, to advance our understanding of financial security in Jordan and to facilitate further modeling, it is essential to dissect the concept into its constituent components: fiscal security; debt security; monetary safety; currency safety; banking security; and security of the non-banking financial sector. For each of these components, a suite of indicators can be established:

1. The evaluation of fiscal security encompassed various metrics: a) the proportion of the state budget's deficit or surplus; b) the deficit or surplus across both budgetary and extra-budgetary funds; c) the extent of GDP redistribution; and d) the comparison of total payments for servicing and repaying public debt against state budget revenues.
2. For assessing debt security, several indicators were calculated: a) the ratio of state and state-guaranteed debt to GDP; b) the gross external debt's ratio to GDP; c) the average yield on domestic government loan bonds in the primary market; d) the EMVI Index along with Jordan's specific metrics; and e) the correlation between the size of official international reserves and the gross external debt.
3. The determination of monetary and credit security involved these measures: a) the ratio of cash outside banks to the total money supply (M0/M3); b) the disparity between loan interest rates offered by depository corporations and the rates on deposits attracted by them, excluding the National Bank of Jordan; c) the average interest rate on loans in national currency weighed against the consumer price index; d) the proportion of consumer loans to households in the total loan structure; e) the percentage of long-term loans in the overall loan volume; and f) the total export volume of financial resources from Jordan.

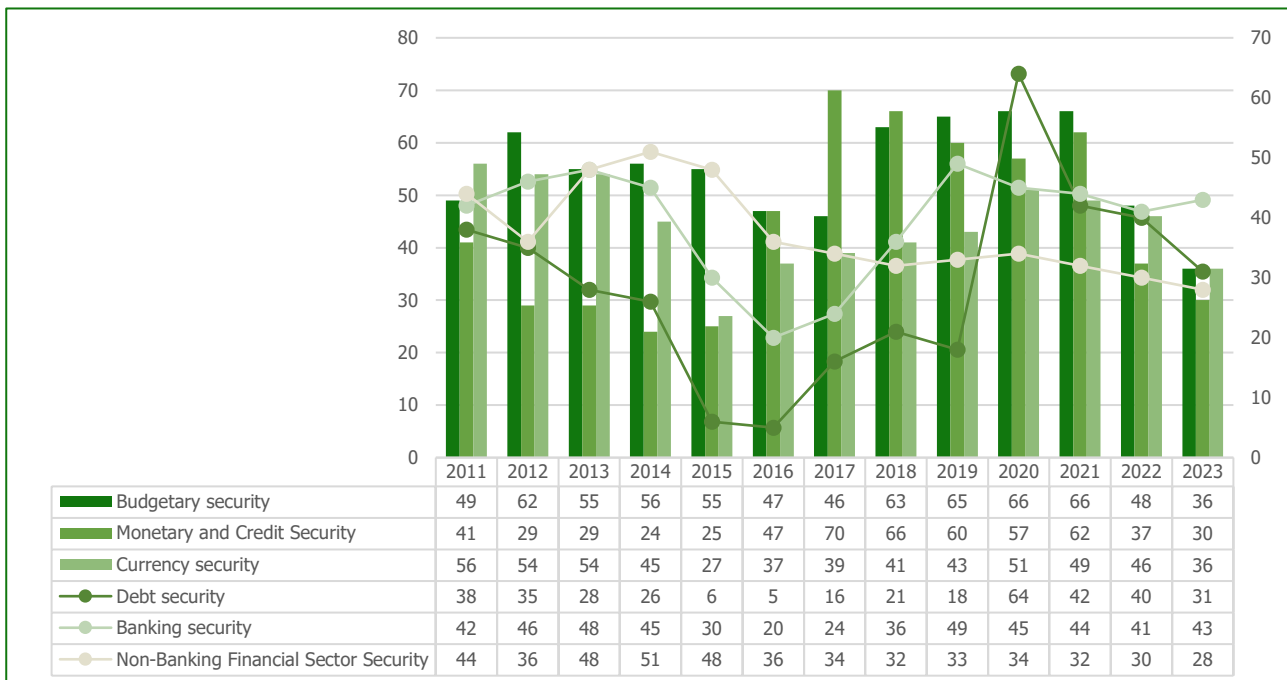
4. Currency safety calculations included: a) the index reflecting the official exchange rate of the Jordanian dinar against the US dollar; b) the variance between forward and official exchange rates of the dinar; c) Jordan's total international reserves; d) the percentage of loans in foreign currency within the total loan volume; e) the net balance of foreign currency purchases and sales by the populace; and f) the degree of dollarization in the money supply.
5. In evaluating banking security, these indicators were taken into account: a) the proportion of overdue loans in the total bank loan volume to Jordanian residents; b) the correlation between bank loans and deposits in foreign currency; c) the percentage of foreign capital in the authorized capital of Jordanian banks; and d) the banks' return on assets.
6. To gauge the security of the non-banking financial sector, calculations included: a) the level of insurance penetration and b) the capitalization level of publicly listed companies.

Knowing the data for each indicator, the integral level of safety for each component is determined (2):

$$I_{cf} = \sum W_n C_n \tag{2}$$

*I<sub>cf</sub>* – is the integral level of the financial security component; *w* – weighting coefficients for each of the indicators established by experts; *C* – indicators included in the group for each component. In this case, the normalization of each indicator is performed by relating the actual value to the maximum possible.

Thus, the result of calculating the level of each component of Jordan's financial security is presented in Figure 4. The financial security situation in Jordan is characterized by a decrease in the integral level in most components over the past year. Budgetary security in Jordan has undergone changes that have included variations in government budget deficits or surpluses, changes in budgetary and off-budget funds, and fluctuations in the level of GDP redistribution and the ratio of government debt payments to government revenues. Debt security also suffered a decline due to rising government debt relative to GDP, an increase in gross external debt, as well as changes in domestic government bond yields and other indicators. Monetary and Credit security also experienced a decline due to changes in cash outside banks in the total money supply, fluctuations in interest rates, the level of interest rates on loans, the structure of consumer loans, as well as changes in the total volume of financial resources exported from the country.

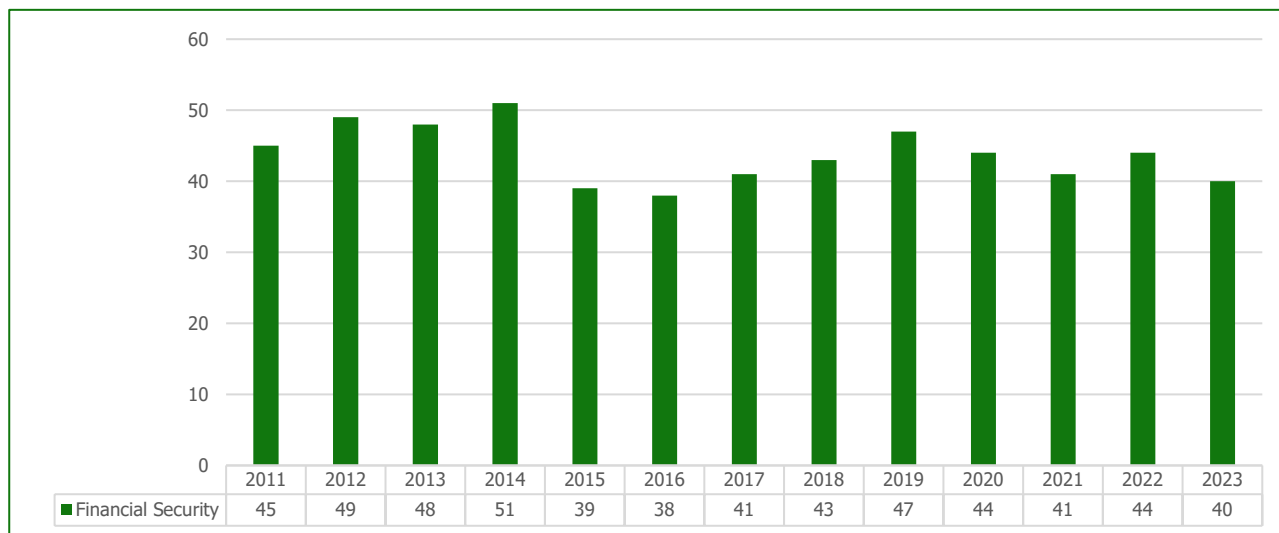


**Figure 4. The result of calculating the level of each component of Jordan's financial security for 2011–2023, %.**

Further, knowing the data for each component, the integral level of financial security is determined (3):

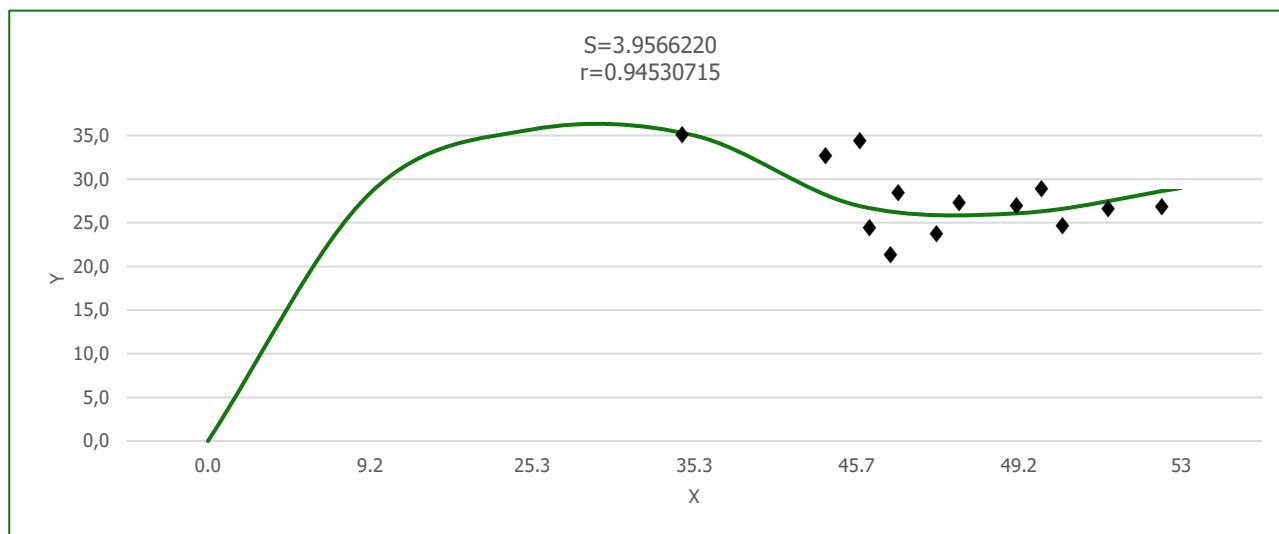
$$I_{fs} = \sum W_n I_{sf} \tag{3}$$

Our considerations highlight that financial, economic, and socio-political instability have a devastating impact on economic and financial processes and phenomena in Jordan, contributing to the expansion of the informal sector and stimulating the efforts of economic actors to operate outside the formal sector of the economy. This certainly leads to an increase in criminal activities such as illegal trading, tax evasion, and other forms of economic crimes, negatively impacting the sustainable socio-economic development of Jordan. Accordingly, the need for the development and implementation of effective strategies for shadowing the economy and strengthening financial security is important, which involves minimizing the risks and threats arising in the financial and economic space, including reducing the criminalization of the economy. Along with this, the dynamics of the level of financial security of Jordan in 2023 prove how the Israeli-Palestinian conflict affected the security of the bordering country (Figure 5).



**Figure 5. The result of the calculation of the level of financial security of Jordan for 2011–2023, %.**

The research employed nonlinear programming methods using CurveExpert software, as illustrated in Figure 6, to uncover the interplay and mutual impact between Jordan's financial security level and the extent of its shadow economy. The findings revealed a notable trend: the shadow economy tends to expand during periods marked by a decline in the country's financial security. This correlation underscores the necessity for a thorough examination of the elements fueling the growth of shadow economic activities. Furthermore, it highlights the importance of identifying strategies to bolster the financial stability and security of the nation, suggesting a direct link between economic clandestinity and financial safeguards.



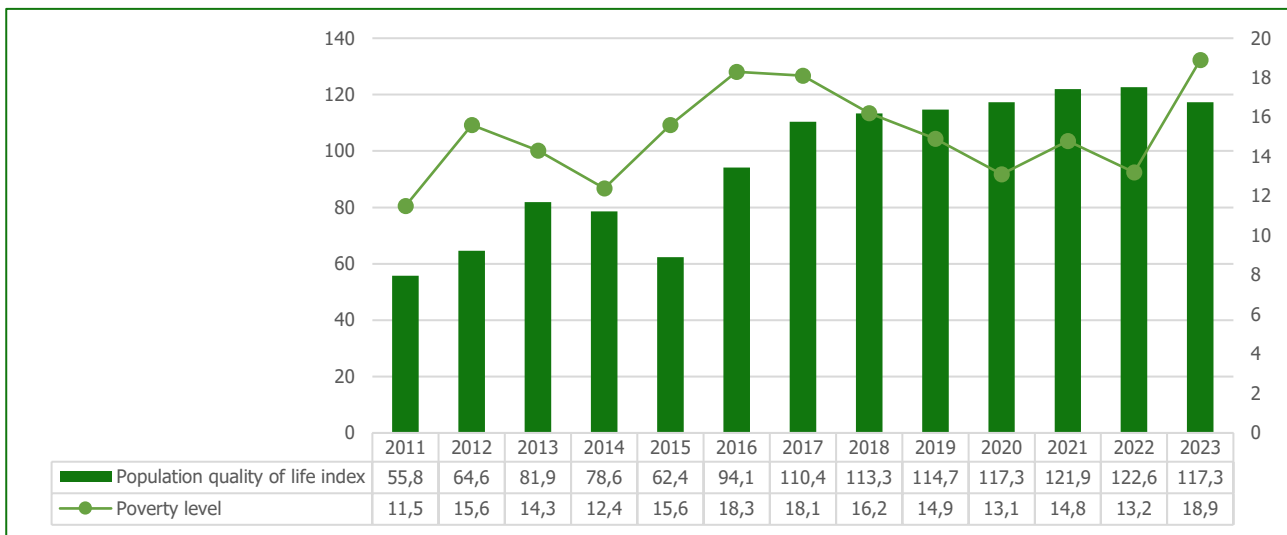
**Figure 6. Nonlinear modeling (Hoerl model) of the influence of the level of financial security of the state on the indicator of the level of shadowing of the economy due to criminal activity in Jordan in 2011–2023.** Note: X is the level of financial security; Y- is the level of shadowing of the economy due to criminal activity in Jordan.

Thus, the conducted simulation shows us the following equation (4):

$$Y = -0,03 + 6,44x + 0,23x^2 + 0,02x^3 \quad (4)$$

The results of the study demonstrate a clear inverse correlation between the analyzed indicators, which is supported by a significant regression coefficient  $r = 0.945$ . This indicates a deep relationship between the stability of the financial security of the state and the reduction of the shadow sector of the economy. These results indicate that strengthening financial security in Jordan may act as a key mechanism in overcoming the shadow economy and improving living standards. This is especially relevant in the context of existing social disparities, income gaps between different segments of the population, and existing social tensions, which require careful study and efforts to minimize them, aimed at improving living conditions and social well-being in the country.

Analysis of data on the quality-of-life index and poverty level in Jordan during 2011-2023 (Figure 7) indicates a trend: as the percentage of the poor population increases, there is a decline in the level of quality of life. Particularly alarming changes were recorded in 2023 when poverty levels reached a high level. These data highlight the importance of socio-economic reforms and the need to provide social support to vulnerable segments of the population to improve the quality of life and reduce poverty.



**Figure 7. Dynamics of changes in the index of the quality of life of the population and the level of poverty in Jordan 2011–2023, %.**

Already in 2020, under the influence of the challenges of the coronavirus crisis, the introduction of quarantine measures, and restrictions on economic activity, the poverty level has risen. In 2021, again, positive trends were present, and the poverty level was contained. In 2023, the situation with poverty and quality of life in Jordan reached a high point under the influence of the Israeli-Palestinian conflict and as a result of the devastating consequences of military operations in large areas of the Middle East. Large-scale refugee migration has had a significant impact on the labor market in Jordan, placing additional pressure on the economic system. These circumstances not only exposed weaknesses in the country's economy but also provoked an increase in criminal activity, including human trafficking, an illegal labor market, and an increase in crime associated with financial abuse. Such trends, reflecting social inequality and imbalances in the development of the financial system, require urgent intervention and the development of comprehensive measures aimed at preventing and countering existing risks and threats, including criminal ones.

In order to study in detail, the influence of destabilizing factors on the quality of life of the population in Jordan, we propose to focus on a correlation and regression analysis of the influence of the level of criminalization of the economy, financial security, corruption, and poverty level on the parameters of the quality of life of the population. Calculations will be carried out using Statistica 8.0 software, where the quality-of-life index of the population will act as a performance indicator (Y), and factor indicators will include  $x_1$  - an integral indicator of the level of the shadow economy due to criminal activity in Jordan,  $x_2$  - the level of financial security,  $x_3$  - level of corrupt criminal actions,  $x_4$  - level of poverty of the population. The obtained results of the correlation-regression analysis allow us to assert that there is a close mutual relationship between the analyzed indicators, confirming the value of the correlation coefficient  $R = 0.9$ , as well as the statistical significance of the model value of the Fisher F test  $F(5,7) = 8.9$  (5):

$$Y = -232,2 + 0,18x_1 - 0,054x_2 - 0,76x_3 + 0,101x_4 \quad (5)$$

$R=0,9$ ;  $R^2=0,86$ ;  $p<0,0005$ . It should be noted that each of the factors under consideration affects the effective indicator  $Y$  - the population quality of life index - in different ways, showing both direct and inverse dependence. For example, there is a decline in the level of quality of life with an increase in the level of the shadow economy, which is confirmed by the regression coefficient  $r = 0,18$ . Also, a negative impact is manifested in cases of rising poverty levels with corresponding regression coefficients  $r=0,09$  and  $r=0,101$ . The impact of the shadow economy is especially noticeable, which not only contributes to financial losses but also increases criminal activity, including illegal trade, corruption, financial crimes, and other illegal actions that directly affect the quality of life of the population. This highlights the need for an integrated approach to addressing these issues, incorporating both economic and social aspects.

## DISCUSSION

We found that criminal offenses, especially those related to economic crime and corruption, have a significant impact on the quality of life and financial security in Jordan. Also important is the contribution of Harutyunyan and Harutyunyan (2023), who highlight the international experience of the constitutional consolidation of criminal law norms regarding the creation of elected authorities. Radzivil (2011) examines the issue of legal support for the financial security of the state, which is directly related to our findings.

Rushchyshyn, Nikonenko, and Kostak (2017) make an additional contribution to understanding the formation of financial security of an enterprise based on strategic planning. Hammouri (2023) contributes to the modeling of the performance of criminal law functions in the context of the development of security and protection, which is relevant to our study. Kopytko et al. (2019) analyze shadow employment in Eastern Europe, which is directly relevant to our study of the shadow economy.

In the field of economic crimes and financial security, particularly in the context of Jordan, our research presents a distinct perspective when juxtaposed with the findings of several other studies. Our methodology, comprising correlation and regression analysis, F-criterion modeling, the Hoerl model, and abstract logical methods, focuses on the direct impact of economic crimes on Jordan's financial security and the quality of life of its citizens. This approach is notably different from that of Al-Shattarat and Omar (2023), who concentrate on the role of financial ratios in industrial companies, underscoring the importance of financial statement accuracy rather than the broader socio-economic implications of economic crimes. Similarly, while Shcherbakovskyi et al. (2020) delve into the evidentiary problems in investigating corruption crimes, our study goes a step further by quantifying the impact of such crimes on national financial security and quality of life, offering a more direct link between criminal activities and their socio-economic consequences. Furthermore, our emphasis on 'shadowization' as a means to combat corruption presents a proactive approach, contrasting with studies like Baranenko et al. (2023) and Hloviuk et al. (2019), which focus more on the methodological aspects of evidence collection in cyber-crimes and the engagement of experts in economic crime proceedings, respectively. In the broader context of law and economics, Ermakoff (2020) discusses the law against the rule of law in democracies, providing a macroscopic view of legal systems, while our study narrows down to the specific impacts of economic crimes on financial security within Jordan. This microcosmic focus offers a more targeted understanding of the issues at hand. Similarly, while Musychenko et al. (2021) and Huzela et al. (2022) explore the intelligibility of criminal law and the security of participants in criminal processes, our research connects the dots between the prevalence of economic crimes and the tangible outcomes on financial security and public well-being in Jordan. Lastly, the work of Veselovska et al. (2023) and Didkivska et al. (2022) on crime prevention in special economic zones and international cooperation in investigating transnational economic crimes, respectively, provide insights into specific areas of economic crime prevention and investigation. In contrast, our research offers a holistic view, tying the prevalence of economic crimes directly to the financial security and quality of life in Jordan, a unique contribution to the literature in this field.

Therefore, we will delineate the principal distinctions identified in our research outcomes in relation to those observed in analogous studies, as summarized in Table 1.

**Table 1. The key differences between the research results obtained by us in comparison with similar ones.**

№	Characteristic differences	Meaning and essence of differences
1	Identification of directions for improvement and improvement of financial security	The obtained results showed that the impact of economic crime and criminal offenses in the economy as a whole has a direct and significant impact on the level of quality of life of the Jordanian population and financial security in general
2	Synthesis of modern modeling methods and software	Realization of a successful combination of modern modeling methods and software for clearer results
3	A unique region	A Middle Eastern country with a unique socio-economic and financially unstable region, which is little studied in the international scientific and practical community
4	Current and modern data	Most studies take into account outdated data and information, which do not consider financial security through the prism of new military and other political conflicts

Our study has certain limitations because it focused on only one country, Jordan. However, future research prospects include expanding the scope of the study to include more countries in the Middle East, which will allow us to gain a more global and comprehensive view of the issue.

Our study reaffirms and builds upon the established understanding that economic crimes have a direct and significant impact on the financial security of a state. While this connection is well-recognized in existing literature, our research contributes new insights specific to the context of Jordan. We provide detailed analysis and data specific to Jordan's economic structure and legal framework, thereby offering a nuanced understanding of how economic crimes manifest and impact financial security in this particular setting.

## CONCLUSIONS

To summarize, it should be noted that along with the positive aspects of Jordan's integration into the global financial, economic, and legal space, the problems associated with abuses of economic entities in the process of doing business and establishing economic ties are getting worse. Illegal actions in various areas lead to increased shadowing of the economy due to criminal activities in the national economy, which reduces its security in the context of continuous dynamic socio-economic changes. These negative trends lead to serious destructive changes and imbalances in the development of the economy and society, which, in turn, entails crisis socio-economic phenomena, among which the growth of shadowization of the economy through criminal activities and the spread of shadow economic activities are especially important.

The study employed robust methods like correlation and regression analysis, F-criterion modeling, the Hoerl model, and specialized data analysis software. This advanced methodological framework ensured a comprehensive and reliable analysis of the impact of economic crimes on financial security. The research provided an in-depth examination of the Corruption Perception Index in Jordan, drawing conclusions about the current state and trends of corruption in the country. This analysis is crucial in understanding the broader context of economic criminal activities in Jordan. The results clearly demonstrated that economic crimes and criminal offenses have a significant and direct impact on the quality of life of Jordan's population and its overall financial security. This highlights the broader social implications of economic criminal activities.

The study discusses the negative impact of economic crimes on Jordan's financial security. However, further elaboration on how these crimes undermine economic growth, deter foreign investment, and lead to inefficient allocation of resources would provide a more comprehensive understanding. The study touches on the quality of life and social implications of economic criminal activities.

While our study has primarily focused on the direct impact of economic crimes on Jordan's financial security, it is imperative to revisit the initially hypothesized role of military conflicts in fostering these criminal activities. Our analysis indicates that military conflicts can indeed create conditions conducive to economic crimes, such as corruption and shadow economic activities. Such conflicts often lead to weakened governance, law enforcement challenges, and economic distress, which in turn provide fertile ground for economic criminal activities to thrive. However, the extent and nature of this influence vary depending on the specific context and dynamics of each conflict. Therefore, while our results suggest a correlation between military conflicts and increased economic crimes, further research is essential to fully understand and delineate this complex relationship.

The growing level of shadow criminal activity in the Jordanian economy is becoming one of the most critical problems in ensuring the sustainable development of the country, therefore, significant attention is paid to the issues of decriminalization of the national economy, preventing and countering destabilizing factors both at the level of research and in practical activities.

Based on the results of the study, we concluded that economic crime and criminal offenses have a direct and important impact on the level of financial security in Jordan. This represents a significant challenge for the country, especially in the context of the need to de-shadow the economy. We have found that reducing criminal offenses such as corruption and deep shadow economic activity can significantly improve Jordan's financial security. Thus, our work points to the critical importance of developing and implementing effective strategies and policies to combat the criminal aspects of economic activity. This, in turn, will help stabilize the financial sector and improve the overall economic situation of Jordan.

Prospects for further research in the field of financial security in the Middle East, in particular in the context of the impact of the Israeli-Palestinian conflict, are of significant interest. The study can be extended to comparatively analyze the financial security of other countries in the region, such as Egypt, Lebanon, and Israel. This will identify common and unique factors influencing financial sustainability in these countries. Particular attention should be paid to studying how the Israeli-Palestinian conflict and other geopolitical instabilities in the region affect the financial security of neighboring countries. This may include an analysis of cross-border economic flows, investments, and migration trends.

---

## ADDITIONAL INFORMATION

---

### FUNDING

*The Author received no funding for this research.*

### CONFLICT OF INTEREST

*The Author declares that there is no conflict of interest.*

## REFERENCES

1. Alazzam, F. A. F., Tubishat, B. M. A.-R., Savchenko, O., Pitel, N., & Diuk, O. (2023). Formation of an innovative model for the development of e-commerce as part of ensuring business economic security. *Business: Theory and Practice*, 24(2), 594–603. <https://doi.org/10.3846/btp.2023.19781>
2. Al-Hawari, (2022). The Historical Development of Criminal Legislation in Jordan. *Journal of Positive School Psychology*, 6(4), 9969–9977. <https://journalppw.com/index.php/jpsp/article/view/6077/4004>
3. Child, J., & Rogers, J. (2017). Criminal Law Reform Now: A New Reform Network. *The Journal of Criminal Law*, 81(4), 282–291. <https://doi.org/10.1177/0022018317705771>
4. Fahrudin, F., Absori, A., Dimiyati, K., Wardiono, K., Budiono, A., & Jaafar, H. J. (2023). Restorative Justice-Based Law Formulation on Corruption Case: A Philosophical Analytic. *WISDOM*, 25(1), 220–230. <https://doi.org/10.24234/wisdom.v25i1.975>
5. Ganna Sobko, Andrii M. Aparov, Natalya Kovalenko, Anatoliy Y. Frantsuz and Hanna Yermakova (2023). Socio-legal Problems of Environment Criminal-legal Protection, Regarding Illegal Deforestation. *Review of Economics and Finance*, 21, 246-258. <https://doi.org/10.55365/1923.x2023.21.23>
6. Hammouri, J. A. A. (2023). Modeling the performance of criminal law functions in the context of safety and security development. *International Journal of Safety and Security Engineering*, 13(3), 395–401. <https://doi.org/10.18280/ijss.130302>
7. Hammouri, J. A. A. (2023). Socio-economic aspects of measuring the security of criminal law in the context of ensuring justice in Jordan. *Financial and Credit Activity Problems of Theory and Practice*, 3(50), 419–431. <https://doi.org/10.55643/fcaptop.3.50.2023.4077>
8. Harutyunyan, A. (2022). Some Philosophical and Legal Problems of Qualification of Crimes Against Political Rights in Modern Legal States. *WISDOM*, 23(3), 244–253. <https://doi.org/10.24234/wisdom.v23i3.684>
9. Harutyunyan, A., & Harutyunyan, Z. (2023). International Experience of Constitutionalization of Criminal Law Regulations Regarding the Creation of Elected Public Bodies. *WISDOM*, 28(4), 138–146. <https://doi.org/10.24234/wisdom.v28i4.1034>
10. Kopytko, M., Pазieieva, A., Khorosheniuk, A., Matvienko, M., & Vinichuk M. (2019). Shadow employment in Eastern Europe: practical aspects of evaluation and counteraction. *Business: Theory and Practice*, 20, 485-491. <https://doi.org/10.3846/btp.2019.45>
11. Kryshtanovych, M., Panfilova, T., Khomenko, A., Dziubenko, O., & Lukashuk, L. (2023). Optimization of state regulation in the field of safety and security of business: a local approach. *Business: Theory and Practice*, 24(2), 613–621. <https://doi.org/10.3846/btp.2023.19563>
12. Maher ali moh'd Amoush, Iryna Khomyshyn, Ivan Dragan, Viktoriia Filippova and Hryhorii Bukanov (2023). Modeling Approaches for Sustainable Economic Development in Legal Field of Public Administration Systems. *Review of Economics and Finance*, 21, 2384-2391. <https://doi.org/10.55365/1923.x2023.21.253>

13. Radzivil, K. (2011). On the issue of legal support for the state's financial security. *Law Bulletin*, 4(21), 49–53. <https://doi.org/10.18372/2307-9061.21.6595>
14. Rushchyshyn, N., Nikonenko, U., & Kostak, Z. (2017). Formation of financial security of the enterprise based on strategic planning. *Baltic Journal of Economic Studies*, 3, 231–233. <https://doi.org/10.30525/2256-0742/2017-3-4-231-237>
15. Schneider, F. (2022). New COVID-related results for estimating the shadow economy in the global economy in 2021 and 2022. *International Economics and Economic Policy*, 19, 299–313. <https://doi.org/10.1007/s10368-022-00537-6>
16. Wang, B. (2023). A Critical Analysis of the Law Commission's Proposed Cyberflashing Offence. *The Journal of Criminal Law*, 87(1), 39–52. <https://doi.org/10.1177/00220183221125873>
17. Husni, K., Al-Shattarat and Na'el Sa'id Omar (2023). The Role of Financial Ratios to Enhancing of Information Quality for Financial Statement in Industrial Companies: Evidence from Jordan. *Review of Economics and Finance*, 21, 1267-1274. <https://doi.org/10.55365/1923.x2023.21.139>
18. Shcherbakovskyi, M., Stepaniuk, R., Kikinchuk, V., Oderiy, O., & Svyrydova, L. (2020). Evidentiary problems in the investigation of corruption crimes. *Amazonia Investiga*, 9(32), 117-124. <https://doi.org/10.34069/AI/2020.32.08.12>
19. Baranenko, D., Koval, A., Dul'skyi, O., Lisitsyna, Y., & Musayev, E. (2023). Methodological principles of research in the field of ensuring evidence collection (on the example of cybercrimes): criminal-legal, criminal-procedural, and forensic aspects. *Amazonia Investiga*, 12(67), 232-240. <https://doi.org/10.34069/AI/2023.67.07.21>
20. Hloviuk, I., Hryniuk, V., & Kovalchuk, S. (2019). Modern Challenges to Engagement an Expert in Criminal Proceedings on Economic Crimes. *Amazonia Investiga*, 8(23), 378-385. <https://amazoniainvestiga.info/index.php/amazonia/article/view/881>
21. Ermakoff, I. (2020). Law against the Rule of Law: Assaulting Democracy. *Journal of law and society*, 47(S1), 164-186. <https://doi.org/10.1111/jols.12253>
22. Musychenko, O., Streltsov, Y., Kozachenko, O., Vasyliaka, O., & Chornozub, L. (2021). Intelligibility of a criminal law: Theoretical and practical aspects. *Amazonia Investiga*, 10(44), 92-102. <https://doi.org/10.34069/AI/2021.44.08.9>
23. Huzela, M., Shulhan, I., Shekhavtsov, R., Khytra, A., & Kukos, M. (2022). Security of the participants in the criminal process: procedural and criminological aspects: Seguridad de los participantes en el proceso penal: aspectos procesales y criminológicos. *Cuestiones Políticas*, 40(74), 29-47. <https://doi.org/10.46398/cuestpol.4074.01>
24. Veselovska, N., Sieriebriak, S., Petkov, V., Dovban, I., & Udod, A. (2023). Crime prevention in special (free) economic zones: Prevención del delito en zonas económicas especiales (francas). *Cuestiones Políticas*, 41(77), 369-389. <https://doi.org/10.46398/cuestpol.4177.25>
25. Didkivska, G., Miroshnychenko, S., Zavydniak, I., Biriukova, I., Hmyrin, A., & Lopashchuk, D. (2022). International Cooperation in Investigating Economic Crimes of Transnational Nature: Cooperación Internacional en la Investigación de Delitos Económicos de Carácter Transnacional. *Cuestiones Políticas*, 40(72), 531-542. <https://doi.org/10.46398/cuestpol.4072.30>

Гарайбех З.І.Й.

### ВПЛИВ КРИМІНАЛЬНИХ ПРАВОПОРУШЕНЬ У СФЕРІ ЕКОНОМІКИ НА РІВЕНЬ ФІНАНСОВОЇ БЕЗПЕКИ: ФОРМУВАННЯ СУЧАСНОГО ПІДХОДУ НА ПРИКЛАДІ ЙОРДАНІЇ

Основною метою дослідження є формування теоретико-методичного підходу до визначення впливу факторів кримінального правопорушення в країні на рівень фінансової безпеки держави. Ключовим об'єктом дослідження виступає система фінансової безпеки Йорданії. Наукове завдання полягає в установленні можливих взаємозв'язків між рівнем криміналізації економіки в країні та безпекою фінансової сфери. Методологія дослідження передбачає застосування методу кореляційно-регресійного аналізу, використання спеціального програмного забезпечення для роботи з аналізом даних, методу моделювання за F-критерієм, моделі Хоерла, абстрактно-логічного методу задля узагальнення отриманих результатів дослідження. Проаналізовано й зроблено ґрунтовні висновки про стан і тенденції зміни індексу сприйняття корупції в Йорданії. Подано розрахунок рівня фінансової безпеки Йорданії за останні п'ять років. За результатами проведеного дослідження доведено, що вплив економічної злочинності й кримінальних правопорушень в економіці в цілому мають безпосередній вагомий вплив на рівень якості життя населення Йорданії й фінансову безпеку загалом. Доведено нагальну потребу в детінізації економіки Йорданії в контексті підвищення рівня її фінансової безпеки, які полягають у цілеспрямованому зменшенні таких кримінальних правопорушень як корупція та глибока тінізація внаслідок кримінальної активності. Установлено за результатами розрахунків, що зростання рівня фінансової безпеки в Йорданії матиме безпосередній вплив на зміну рівня якості життя населення в країні. Дослідження має обмеження у вигляді врахування специфіки лише однієї країни – Йорданії. Перспективи подальших досліджень спрямовані на усунення цього обмеження й урахування інших країн Середнього Сходу.

**Ключові слова:** економічна злочинність, фінансова безпека держави, моделювання, криміналізація економіки, корупційна діяльність, якість життя, кримінальні правопорушення, кримінальна діяльність, Йорданія

**JEL Класифікація:** K14, G00, F52, D73