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The Process of Criminalization and an Economic Analysis of Legal Norms

ABSTRACT:

The economics of crime is still an unknown subject for the Georgian legal community. This paper represents a practical first systematic attempt within the legal space to offer mechanisms for calculating the financial value of crime. While the theory of rational choice and cost-benefit analysis of crime may be new to the Georgian legal field, they are very necessary and relevant for the Georgian legal space because the calculation of the productivity of prohibitions in the process of criminalizing actions is not conducted based on an economic model. This, in turn, imposes an unimaginable burden on the state and taxpayers, as well as more obligations on the country's budget than it can handle.

It is important to determine the economic value of the law alongside the economic value of crime. The subsequent activities of crime, prosecution, and judicial bodies are linked to the process of criminalization and represent significant factors to consider in the context of the economic value of the legal norm. This research actively examines what it costs to investigate crimes in the investigative bodies of Georgia and what indicators are used to calculate specific economic costs. The paper offers the reader an economic formula for crime investigation and, based on this, discusses how appropriate the relationship between economic interests and the interests of justice is in order to protect the national interests of the country.

Keywords: Crime, Economics, Criminology.

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I. Introduction

In criminal law, legislation involves declaring actions punishable, establishing enforcement mechanisms, and considering the state's economic capacity. Hastily criminalizing behavior without proper analysis can result in significant economic costs and strain the state budget.

The economics of crime remains an unfamiliar topic in Georgian legal discourse. This paper represents the first systematic attempt within the legal field to offer readers mechanisms for calculating the financial cost of crime. The theory of rational choice and cost-benefit analysis of crime are still unknown areas in Georgian jurisprudence, yet they are highly relevant and necessary. Currently, the productivity of prohibitions during the criminalization process is not calculated based on an economic model, which imposes an immense burden on both the state and taxpayers, and places demands on the national budget beyond its capacity.

Beyond the flaws in criminalization, it is essential to assess both the economic value of a crime and the legal norm (norm). This involves focusing on the financial aspects of state and non-state responses. Law enforcement and judicial activities are key factors in the economic value of legal norms. This study reviews crime investigation costs in Georgia and presents a formula for calculating economic expenditures. It also discusses aligning economic and justice interests to safeguard national interests and suggests a cost-saving model for courts, promoting fair trials without extra financial burden.

This paper aims to highlight overlooked indicators in the criminalization process and the resulting problems for the state. It offers key mechanisms based on economic analysis to address these issues. Another goal is to establish methods for calculating the effectiveness of prohibitions, helping lawmakers anticipate threats and implement preventive measures for effective justice. The paper utilizes comparative-legal, systematic, formal-logical, objective-teleological, and other methods to ensure a comprehensive examination of the topic. In-depth interviews with three investigators from the Criminal Police Department of the Ministry of Internal Affairs of Georgia were conducted, and their insights are included in the study. The conclusion summarizes the research, presenting key findings, conclusions, and recommendations on the relevant issues.

II. The Process of Criminalization

1. Key Components of the Criminalization Process

Criminal law is closely linked to state legitimacy, reflecting its authority through the classification of actions as crimes.¹ The state must actively involve society in the criminalization process, as prohibitions without public support are ineffective.² Even liberal justice systems need public justification. Since criminalization controls citizens' behavior, the state must have compelling reasons for such control. Thus, ongoing oversight of criminal legislation is essential to maintain balance in the state's approach.³

The key criterion for criminalization is maintaining a balance and understanding where to draw the line between criminalized and non-criminalized actions, considering their social value and the harm involved. The principle of harm is central, as it often justifies criminalization.⁴ When declaring an act punishable, the severity of harm must be weighed against its social value and the implications for individual freedom.⁵ Greater harm potential makes criminalization more justified, but if it unreasonably restricts freedom, the prohibition is unjustifiable. Thus, balance between criminalization and freedom is crucial.

In criminalization, it is acceptable to consider actions that do not directly harm individuals. Some actions, while harmless on their own, may pose risks of potential criminal acts and thus fall under criminal law control.⁶ For instance, acquiring a weapon does not directly harm others but creates an indirect risk. The criminalization of transferring weapons without authorization is based on the potential future threat posed by the purchaser.⁷ This raises the issue that sellers can be punished for harm

¹ Persak N., *Criminalising Harmful Conduct. The Harm Principle, Its Limits and Continental Counterparts*, Springer, 2007, 10.

² Simester A., Spencer J.R., Stark F., Sullivan G.R., Virgo G.J., *Simester and Sullivan's Criminal Law: Theory and Doctrine*, 6th Edition., Hart Publishing, 2016, 660-662.

³ Persak N., *Criminalising Harmful Conduct. The Harm Principle, Its Limits and Continental Counterparts*, Springer, 2007, 10.

⁴ ბახტაძე უ., კრიმინალიზაციის პროცესის კრიმინოლოგიური ანალიზი [bakht'adze u., k'riminalizatsiis p'rotsesis k'riminologiuri analizi], Tbilisi, 2019, 110.

⁵ Feinberg J., *Harm to Others*, New York, 1984, 210-217.

⁶ ბახტაძე უ., კრიმინალიზაციის პროცესის კრიმინოლოგიური ანალიზი [bakht'adze u., k'riminalizatsiis p'rotsesis k'riminologiuri analizi], Tbilisi, 2019, 113.

⁷ Simester A., Von Hirsh A., *Crimes, Harms and Wrongs: On the Principle of Criminalisation*, Hart Publishing, 2011, 46.

that may never occur, a complex aspect of criminalization. Therefore, the criminalization process must align norms with the intended preventive goals.⁸

2. Economic Aspects of the Criminalization of Actions

The law is a mechanism for the management of social behavior; therefore, both lawyers and economists seek to draw effective conclusions on significant issues such as the economic aspects of criminalization based on analysis.

The economic theory of criminal behavior,⁹ while modernized by Gary Becker, was inspired by earlier philosophers like Cesare Beccaria and Jeremy Bentham. These scholars introduced key concepts, notably the rational choice model. According to this model, the benefit gained from committing a crime drives a person to act, while the pain of punishment serves as a deterrent. If the benefit outweighs the pain, a crime will occur; if the pain is greater, it will not.¹⁰ Bentham's main idea was revived and modernized in the work of Gary Becker. The approach follows the rational choice model of economists and assumes that a person commits a crime if the expected economic benefit exceeds the utility they could obtain from using their time and resources in other activities. Some individuals become criminals not because their primary motivation differs from that of others, but because their economic benefits and costs differ.¹¹

The modern economic analysis of criminalization involves using economic reasoning to determine the nature of offenses and measure their consequences.¹² This approach assumes offenders are rational agents who seek to maximize their benefits, comparing the expected costs and benefits of criminal acts. They commit crimes only when the benefits, whether material (stolen goods) or immaterial (victim suffering), outweigh the costs. These costs include resources used in the crime, efforts to avoid arrest, opportunity costs¹³, and, crucially, the expected costs of legal punishment. The

⁸ Cohen M. A., Piquero A. R., Jennings W. G., *Studying the Costs of Crime Across Offender Trajectories*, *Criminology and Public Policy*, Vol. 9, No. 2, 2010, 296.

⁹ Becker G., *Crime and Punishment: An Economic Approach*, *Journal of Political Economy*, Vol. 76, No. 2, 1968, 210-212.

¹⁰ Bentham J., *An Introduction to Principles of Morals and Legislation*, Oxford, 1907, 399.

¹¹ Butler H., Drahozal C., Shepherd J., *Economic Analysis for Lawyers*, 3rd Edition, Carolina Academic Press, 2014, 384.

¹² *Research Handbook on the Economics of Criminal Law*, edited by A. Harel and K. Hylton, Cheltenham, 2014, 140.

¹³ The opportunity cost of crime refers to the benefits an offender foregoes by choosing to commit a

focus of criminalization is on this last cost, emphasizing the importance of setting the severity of punishment at an optimal level to deter potential offenders. The economic analysis of criminal law centers on this concept of deterrence.¹⁴

The economic model of criminalization considers not just the choices of potential offenders but also the role of law enforcement institutions as social planners in crime control.¹⁵ Since deterrence and crime prevention incur costs, the state must allocate resources efficiently for prevention (policing and prosecution) and enforcement (imprisonment).¹⁶ While offenders seek to maximize their utility within certain constraints, the state aims to minimize the total costs of crime prevention and deterrence, striving for optimal, not maximum, deterrence. The goal of criminalization is thus not to eliminate crime entirely but to achieve an optimal level.¹⁷

The economic model of criminal behavior suggests that the decision to commit a crime results from a cost-benefit analysis, conducted consciously or subconsciously. This model considers all benefits and costs influencing the decision, assuming individuals will commit crimes until the marginal benefit equals the marginal cost.¹⁸

3. Method for Calculating the Productivity of Prohibitions

The results of criminalization should be assessed to measure its efficiency. The primary effect is its direct benefit to society. The key question is whether criminalization provides more benefits than costs. While calculating its productivity is challenging, evaluating outcomes based on the principle of utility is an effective approach.

The volume of crime reflects the interaction between individuals and law enforcement.¹⁹ Central to this model is the potential offender who, according to the economic theory of rational choice, commits a crime if the expected benefit exceeds

crime instead of engaging in lawful, productive activities. This cost includes potential income, social standing, or personal development that could be achieved through legal means.

¹⁴ McAdams H., Ulen S., Behavioral Criminal Law and Economics, in: Criminal Law and Economics, edited by N. Garoupa, Edward Elgar Publishing, 2009, 403.

¹⁵ Fisher T., Economic Analysis of Criminal Law, in: The Oxford Handbook of Criminal Law, edited by Dubber M. D., Hörnle T., Oxford University Press, 2014, 4.

¹⁶ Miceli J. T., The Economic Approach to Law, 3rd Edition, Stanford, 2017, 240-241.

¹⁷ Cooter R., Ulen T., Law and Economics, 6th Edition, Boston, 2016, 460-461.

¹⁸ Butler H., Drahozal C., Shepherd J., Economic Analysis for Lawyers, 3rd Edition, Carolina Academic Press, 2014, 385.

¹⁹ Cooter R. D., Three Effects of Social Norms on Law: Expression, Deterrence, and Internalization, journal "Oregon Law Review", Vol.79, No. 1, 2000, 7-10.

the expected cost. It is crucial to assess how effective the prohibition is for society and how accurately the expected cost of the crime is considered during criminalization.²⁰ For illustration, the benefit derived from criminal activity, which includes both material and immaterial benefits, is represented as $y(x)$. The costs imposed on a potential offender as a result of the activities of investigative agencies, which is a function of the severity of the expected punishment, is represented as $f(x)$, while the probability of imposing punishment is represented as $p(x)$. Accordingly, the individual's net income from expected criminal activity is expressed as follows:²¹

$$y(x) - p(x) * f(x) > 0 \quad (1.1)$$

Formula 1.1 effectively captures the productivity of prohibitions: criminal activity increases as $y(x)$ (benefit) grows, but decreases with an increase in either $f(x)$ (cost of punishment) or $p(x)$ (probability of punishment). If the economic benefit of a crime far outweighs its “economic cost” or the probability of punishment, the crime will certainly be committed. Therefore, during criminalization, legislators and authorities can reduce crime by adjusting $f(x)$ or $p(x)$. This can be done by increasing the likelihood of punishment (e.g., arrests and prosecutions) or extending the limits of punishment (e.g., larger fines or longer sentences) while also reducing the benefits of criminal activity, making prohibitions more effective.²²

Economic Theory of Optimal Enforcement²³ suggests that criminal law, its enforcement mechanisms, and the associated punishments should be designed to minimize the economic costs of crime and its prevention. These costs include the harm to society (minus the benefits gained by the offender), as well as the costs of arrest, conviction, and punishment. If the net harm caused by the crime does not exceed the total costs of arrest and punishment, the action should not be criminalized.²⁴

²⁰ Fisher T., *Economic Analysis of Criminal Law*, in: *The Oxford Handbook of Criminal Law*, edited by Dubber M. D., Hörnle T., Oxford University Press, 2014, 46-47.

²¹ Becker G., *Crime and Punishment: An Economic Approach*, *Journal of Political Economy*, Vol. 76, No. 2, 1968, 169-170.

²² Garoupa N., *Behavioral Economic Analysis of Crime: A Critical Review*, *European Journal of Law and Economics*, Vol. 15, 2003, 12.

²³ Hylton N., *The Theory of Penalties and the Economics of Criminal Law*, journal “*Review of Law and Economics*”, Vol. 1, No. 2, 2005, 195.

²⁴ Fisher T., *Economic Analysis of Criminal Law*, in: *The Oxford Handbook of Criminal Law*, edited by Dubber M. D., Hörnle T., Oxford University Press, 2014, 46.

4. The Economic Value of Crime as an Illegal Act

Crime imposes significant societal costs, including harm to life, health, and property, as well as costs for prevention and punishment. The concept assumes offenders are “rational calculators” who weigh the costs and benefits of crime.²⁵ Based on this, a function for criminal actions has been developed to guide legislators in creating an optimal punishment scheme.

Let's assume an individual plans to commit a crime yielding a profit $Y(x)$. The crime's cost involves the probability of arrest $P(x)$, the fine $F(x)$, and the imprisonment term $T(x)$ (considering fines or imprisonment as possible penalties). If $C(x)$ is the cost of the penitentiary institution per unit time, the total cost of the crime can be expressed as:²⁶

$$\text{Cost of Crime} = P(x) \times [F(x) + T(x) \times C(x)] \quad (1.2)$$

Of course, $T = 0$ if a fine is imposed as a penalty, while $F = 0$ if deprivation of liberty is chosen. Therefore, if the cost of the crime is low and the benefit gained by the offender, $Y(x)$, is high, the individual will commit the crime.²⁷

$$\text{If, } Y(x) > P(F + C * T) = \text{The committed criminal act} \quad (1.3)$$

If the values of these variables are known, the economic value of the crime can be determined. This value is not limited to the incriminated act alone but is also connected to the costs of justice, highlighting the interdependence between crime and justice in economic terms.²⁸

III. Costs of Criminal Justice

1. Economic Aspects of Responding to Crime

Crime investigation is a police service offered to the public, economically defined as a product or service with its own cost. This cost is the actual price of delivering the

²⁵ Miceli J. T., *The Economic Approach to Law*, 3rd Edition, Stanford, 2017, 308.

²⁶ Ibid.

²⁷ Heeks M., Reed S., Tafsiiri M., Prince S., *The Economic and Social Costs of Crime*, 2nd Edition, Research Report No. 99, Home Office, 2018, 14. <<https://www.gov.uk/government/publications/the-economic-and-social-costs-of-crime>> [17.08.2024].

²⁸ Chafin A., *The Economic Cost of Crime*, University of Cincinnati Press, 2013, 4, <http://www.antoniocasella.eu/nume/Chafin_2013_b.pdf> [17.08.2024].

service using available resources. Analyzing the costs associated with crime response and investigation can lead to significant changes in police management, procedural legislation, and criminal policy.²⁹

The pre-investigation stage involves actions to decide if an investigation is needed. Per Article 100 of the Criminal Procedure Code of Georgia, an investigation starts if there is information indicating a crime, often requiring extra police measures. Interviews³⁰ with three Criminal Police investigators revealed that:

- *“After receiving information about a possible crime, it’s crucial to verify its accuracy and the reliability of the source. Sometimes, visiting the scene to gather more information is necessary.”*

In fact, the provision of possible criminal information by citizens to law enforcement agencies serves as the basis for initiating pre-investigative activities. This activity can have various directions:

- *“When an electronic notification of an armed robbery is received from ,112’, the duty inspector sends operational staff to the scene. Depending on the incident’s severity, officers from other divisions may also be dispatched.”*

At the scene of the incident, the search for the victim and witnesses begins. After interviewing them on-site, if information is obtained regarding the physical description of the offenders or identifiable data about their vehicle, the pre-investigation stage transitions to the active phase.

- *“After securing the crime scene and assessing the facts, operational staff start search activities, including nearby areas. Police units from other divisions may join in the pursuit of suspects. Confidential informants are contacted quickly for information, while officers secure the scene for forensic experts. The victim, often in danger, is taken to a medical facility with police accompaniment. Witnesses are brought to the police building by investigators.”*

At the investigative stage, actions require mobilizing investigative teams. Interviews with criminal police investigators outlined the measures taken after initiating a robbery investigation.

²⁹ Ludwig J., The Costs of Crime, journal “Criminology and Public Policy”, Vol. 9, No. 2, 2010, 307-312.

³⁰ During the interview process, investigators were asked diverse questions based on the research objectives and areas of interest, and their responses were recorded. Responses to topics that extended beyond the initial interview scope but were relevant to the research were also documented. The investigators agreed to participate only with a guarantee of anonymity, which enhanced the objectivity of their answers to each question. Naturally, the questions were not disclosed to the investigators in advance.

- *“After the investigation begins, the victim and witnesses are interviewed simultaneously to quickly gather evidence. A second group inspects the crime scene with forensic experts to collect physical evidence. A third group works with cynologist units, while operational teams review nearby cameras and monitor 112’s intelligent cameras in case of a suspect’s escape. Search teams also move through the city, gathering operational information.”*

The investigation of armed robbery highlights the extensive resources required for effective crime-solving, often needing additional support from other police departments within the Ministry of Internal Affairs of Georgia. When the identification and arrest of offenders occur during a hot pursuit, additional police resources are needed to carry out multiple urgent investigative actions as required by the Criminal Procedure Code of Georgia.

The cycle of complex investigative actions continues even after placing the accused in a temporary detention isolator. While 60-70% of evidence is usually established before the first hearing, many key pieces of evidence are obtained afterward. Thus, the costs of handling the case extend beyond initial detention.

- *“After the primary and urgent measures, the next investigation phase involves organizing the case, gathering additional evidence, and formalizing it. An investigative experiment is conducted before applying precautionary measures. Expert examinations compare scent samples from the crime scene with those of the accused. If a firearm is involved, an odorological examination is also appointed. DNA comparisons and medical and psychological exams of the victim are scheduled.”*

From an economic perspective, the costs of police services are classified as direct or indirect. Direct costs, such as operating police vehicles, are easily calculated as they relate to specific services. Indirect costs, however, are harder to identify and include various expenses incurred during the investigation. The economic analysis of armed robbery investigations focuses on the resources and financial expenditures used. In-depth interviews during the research provided insight into the costs of investigating crimes against property, with a detailed review of both procedural and non-procedural expenses.

During interviews, investigators identified various actions in the investigation of armed robbery, as outlined in Article 179 of the Criminal Code of Georgia. It was determined that investigating armed robbery costs the state a minimum of

250,580 GEL. The criminal police alone spend 169,815 GEL on investigative, operational, and procedural actions for a single case. Additionally, the Forensic and Criminological Department incurs costs of 77,087.6 GEL, a significant amount for a country like Georgia.³¹

Considering that the state budget pays approximately 250,580 GEL for investigating a single robbery, the economic impact becomes substantial. According to the National Statistics Office, six robbery cases were initiated in September 2022,³² costing the budget 1,503,480 GEL. For each case, it is crucial to assess the cost to investigative agencies before labeling an action as a criminal offense. Given the seriousness of such crimes, these costs reach significant and concerning levels.

The criminalization process must assess the costs of investigating a crime and its impact on the state budget. Article 179 of the Criminal Code of Georgia shows the significant resources needed for robbery investigations. Lawmakers must consider these expenditures early on; otherwise, the state may struggle to provide proper investigation services, affecting criminal policy and justice.

The formula for the economic costs of responding to and investigating crime represents the total costs of the agencies that are actively involved in the investigation process:

$$\frac{m(x) * r(x)}{t(x)} \tag{1.4}$$

TABLE 1

INVESTIGATIVE ACTIONS										PROCEDURAL AND POLICE ACTIONS						
Crime scene examination	Interviewing the victim and witnesses	"Reviewing surveillance cameras"	Search of the defendant's residence	Arrest and personal search	Vehicle search	Investigative experiment	Identification	Operative measures	Collection of samples	Appointment of expert examinations	Appointment of a lawyer	Legalization of urgent investigative actions	Placing the defendant in a temporary detention facility	Requesting information from surveillance cameras	Obtaining expert examination reports	Filing a case in court with a request for preventive measures

³¹ See Table 1.

³² Unified Report on Criminal Justice Statistics, National Statistics Office of Georgia, Monthly Report for September 2022, 2022, <https://www.geostat.ge/media/49187/Report_seqtemberi_2022.pdf> [17.08.2024].

Investigative expenses of the Investigation Department	Human resources	Number of investigators	1	3	1	1	2		5	1	1		3	2	1	1			
		Time spent (hours)	2	5	3	2	2	1	2	3	6	1	1	1	3	3	2	2	
		Salary	14	105	21	14	14	14	28	42	210	7	7	7	21	63	28	14	14
		Equipment	1500	1500	1500	0	1500	1500	1500	0	7500								
		Total ₾	1514	1605	1521	14	1514	1514	1528	42	7710	7	7	7	21	63	28	14	14
	Total 17123																		
	Vehicle	Quantity (pieces)	1		1	1	1		2										
		Transportation cost	22000		22000		22000		44000										
		Fuel consumed (liters)	10		10	10	10	10	10	30	10			10	10	10	10		
		Fuel cost	33.9		33.9	33.9	33.9	33.9	33.9	101.7	33.9			33.9	33.9	33.9	33.9		
		Total ₾	22033.9		22033.9	33.9	22033.9	22033.9	33.9	33.9	44101.7	33.9			33.9	33.9	33.9		
		Total 132542																	
	Administrative (or) operational expenses	Office supplies (₾)	100																
		Sealing materials ₾	50																
		Technical support ₾	20000																
Total ₾		20150																	
Total 20150																			

Total investigative expenses of the Investigation Department **169815**

Expenses incurred by the Forensic-Criminalistics Department of the Ministry of Internal Affairs	Human resources	Number of forensic experts	2		2	2	2			1							
		Utilized time (hours)	2		2	1	1			1							
		Salary	16		16	8	8			4							
		Equipment	2000		2000	2000	2000			2000							
		Total ₾	2016		2016	2008	2008			2004							
	Total 10052																
	Vehicle	Quantity	1		1	1	1										
		Transportation cost	20000		2000	20000	20000										
		Fuel consumed (liters)	10		10	10	10										
		Fuel cost	33.9		33.9	33.9	33.9										
Total ₾		20033.9		2033.9	20033.9	20033.9											
Total 62135.6																	

Expenses incurred by the Forensic-Criminalistics Department of the Ministry of Internal Affairs	Administrative (or) operational expenses	Office supplies	100																
		Sealing materials ₾	100																
		Technical support ₾	4000																
		Total ₾	4200																
	Total 4200																		
Forensic services	Cost of the forensic report												200	500					
Total cost of services from the Forensic-Criminalistics Department of the Ministry of Internal Affairs																		77087.6	
Levan Samkharauli National Forensics Bureau	Transportation of evidence to the Samkharauli Forensics Bureau	Fuel consumed (liters)	20																
		Cost of fuel consumed	67.8																
	Cost of the forensic report	Ballistic, trace, and dactyloscopic examinations																	400
		Biological examination																	1200
		Video phonoscopic examination																	400
		Total ₾																	67.8
	Total 2067.8																		
Expenses incurred for the Levan Samkharauli National Forensics Bureau																		2067.8	
Expenses incurred by the Legal Aid Bureau	Defense of the defendant at the state's expense	Lawyer	1																
		Time spent (hours)	10																
		Salary	70																
		Total ₾	70																
Expenses incurred by the Legal Aid Bureau																		70	
Expenses incurred by the Temporary Detention	Human resources in the Temporary	Number of escorts	4																
		Time spent (hours)	48																
		Salary	1440																
		Prisoner meals	100																
		Total ₾	1540																
Expenses incurred by the Temporary Detention Facility																		1540	
Total cost 250580.4																			

In the formula, $m(x)$ represents the agencies' costs in a robbery investigation. These costs are not limited to one crime, as Georgia has a high crime recidivism rate. $r(x)$ is the number of crimes, and $t(x)$ is the time from investigation initiation to the pre-trial hearing.

The total and hourly costs of crime investigation can be determined in such cases. Criminalization should not result in unjustifiable investigation costs. Thus, it is crucial to consider the norm's economic value from the start and for legislators to account for the expected consequences of the prohibition.

2. Implementation of State Prosecution and Its Cost in Georgia

In Georgia, the prosecutor's office holds exclusive authority for criminal prosecution and supervises investigative agencies. It ensures the rule of law, public safety, and human rights protection. Its main tasks include conducting prosecutions, overseeing investigations, responding to rights violations, supporting state prosecution in court, and developing criminal policy. According to the European Commission's 2020-2022 assessment, the annual cost for these activities is 12,266,476 euros.³³

The primary financial costs for this state agency are mainly for conducting cases and carrying out prosecutions.³⁴ These costs include: Case preparation costs, attorney time, court appearance costs, case review costs, prosecution decision costs, investigative activity costs. The economic model also considers the number of employees and their workload. The research found that the Prosecutor's Office of Georgia employs 414 prosecutors and 363 office staff, directly affecting the agency's effectiveness.

The European Commission's 2020-2022 assessment³⁵ revealed that the Prosecutor's Office of Georgia does not consider the "Economic Value of Activity" as an evaluation indicator. While they monitor tasks using indicators like the number of cases, case duration, and staff productivity, the economic impact of prosecutorial activities and criminalization is not analyzed. Thus, no economic assessment or analysis is currently conducted within the prosecutorial body.³⁶

³³ Evaluation of the Judicial Systems (2020 – 2022), Georgia, The European Commission for the Efficiency of Justice, 2022, 6, <<https://rm.coe.int/georgia-2020-en/1680a85c7f>> [17.08.2024].

³⁴ Heyden C., Costs of Crime Towards a More Harmonized, Rational and Humane Criminal (Justice) Policy in Germany, PhD Thesis, Bochum, 2016, 111.

³⁵ Evaluation of the Judicial Systems (2020 – 2022), Georgia, The European Commission for the Efficiency of Justice, 2022, 6, <<https://rm.coe.int/georgia-2020-en/1680a85c7f>> [17.08.2024].

³⁶ Ibid., 59.

Criminal prosecution significantly affects a country's economy, both positively and negatively. While prosecuting offenders, such as those evading taxes, prevents economic crime and protects the budget, excessive prosecution costs can lead to double losses for the state: the financial damage from the crime itself and the high costs of justice. Prosecution should aim to protect justice while minimizing economic damage, ensuring it does not burden the economy. If economic well-being outweighs the need for accountability, less harmful mechanisms should be used to reduce prosecution costs while maintaining responsibility.

If we use Rational Choice Economic Model³⁷ to define criminal policy and adapt it to mathematical variables, the contours of the policy definition will become quite clear:

$$\text{If: } y(x) > p(x) + f(x) \quad (1.5)$$

Where: $y(x)$ is the function for obtaining criminal benefits, $p(x)$ is the function for the probability of initiating prosecution, $f(x)$ is the function for the severity of punishment. Then a crime will be committed, and $y(x)$, as the benefit obtained from the crime, that is, the economic value of the crime, will be supplemented by the costs of investigating the crime and the costs of conducting prosecution – $d(x)$.

$$\frac{y(x) + m(x) * r(x) + d(x)}{t(x)} \quad (1.6)$$

If formula 1.5 is accepted, formula 1.6 perfectly represents the damage caused to the state budget by criminalization. This leads to economic damage to the state budget from both the crime itself and the subsequent investigation and prosecution, highlighting the economic weaknesses in state criminal policy.

To reduce economic damage, In formula 1.5, the function for the probability of initiating prosecution $p(x)$, and the function for the severity of punishment $f(x)$, should increase so that the sum of these two functions is greater than the benefit obtained by the offender from the criminal act $y(x)$. This means that if $p(x)$ and $f(x)$ increase, $y(x)$ will decrease and the individual will not commit a crime.

Regarding the costs of investigating crime (formula 1.4), the expenses incurred by the agencies during the crime investigation process $m(x)$, should be minimized as much as possible. In the same formula, the reduction of $r(x)$ – the number of recorded

³⁷ Becker G., Crime and Punishment: An Economic Approach, Journal of Political Economy, Vol. 76, No. 2, 1968, 169-170.

crimes will be implemented immediately as soon as $y(x)$ is reduced, while decreasing the duration of the investigation $t(x)$, will allow for faster investigations.

Finally regarding $d(x)$ – the costs of prosecution, it is critically important that prosecution is conducted based on economic interests, which should not only reduce economic costs but also increase the financial benefits for the budget. The policy of criminal prosecution should be grounded in reasoning expressed as follows:

$$\frac{\blacktriangledown y(x) + \blacktriangledown m(x) * r(x) + \blacktriangle d(x)}{\blacktriangledown t(x)} \quad (1.7)$$

Accordingly, if it increases: $p(x)$ – Probability of initiating prosecution, $f(x)$ – Severity of punishment. if it decreases: $y(x)$ – Benefit obtained by the offender, $m(x)$ – Costs incurred by agencies during crime investigation, $r(x)$ – Number of recorded crimes, $t(x)$ – Duration of the investigation, $d(x)$ – Costs of prosecution, These will enhance the efficiency of the criminal justice system, reduce costs, and deter criminal activities.

In conclusion, the economic policy of criminal prosecution should prioritize maximizing budget benefits over incurring costs. The outlined formulas will enhance this goal by establishing the importance of functions early on, ultimately increasing benefits over costs.

3. Economic Analysis of Case Hearings by the Court

The judiciary is the main institution for administering justice, incurring financial costs covered by the state budget.³⁸ Criminalizing actions increases these costs, so it's crucial to assess court expenses concerning the country's economic capabilities. The emphasis is on efficient spending mechanisms and forecasting future costs through analysis.

Implementing an economic model in court operations optimizes costs. For example, the UK Ministry of Justice requires adult defendants to pay their proceedings' costs, reducing the financial burden on taxpayers.³⁹ Courts can also mandate offenders to pay fees, including victim compensation and medical expenses. Although

³⁸ Law of Georgia "On General Courts", 4 December 2009, Art. 67.

³⁹ Criminal Justice and Courts Bill, Fact Sheet: Criminal Court, Ministry of Justice of United Kingdom, <<https://assets.publishing.service.gov.uk/media/5a7de48240f0b62305b7f6b9/fact-sheet-criminal-courts-charge.pdf>> [17.08.2024].

Georgia currently lacks legal mechanisms for charging defendants for prosecution costs, similar practices exist in other countries, and discussions are ongoing about this approach in Georgia.⁴⁰

Funding for general courts increases annually,⁴¹ yet it's unclear how the judiciary assesses expenditure legitimacy through economic analysis. Implementing an economic model is crucial, suggesting that adult defendants should cover their proceedings' costs, which are separate from their punishment and based on the crime's severity.⁴² This model also considers factors determining the amount charged to defendants, such as the crime's severity, investigation duration, the defendant's concealment, cooperation with authorities, and confession details.

The effectiveness of the economic model in justice administration not only reduces court costs but also aligns with the fundamental idea of justice, incorporating mechanisms to achieve its objectives.⁴³ If an offender meets the state's resocialization requirements and refrains from criminal activity during probation, their behavior both in prison and after release will be exemplary. In such cases, the court may refund the costs incurred or fully exempt them from payment. This economic model is integrated into the criminalization process with incentivizing conditions, alleviating court costs and achieving a dual effect in justice administration.⁴⁴

The use of technology in courts reduces costs and increases efficiency.⁴⁵ Electronic processing of complaints and motions lessens the workload for staff and eliminates expenses for copying and mailing. The COVID-19 pandemic showcased the flexibility and economic benefits of online court proceedings. Maintaining this trend is essential, as a technology-based justice system is a vital part of the economic model.⁴⁶

⁴⁰ Unified Report on Criminal Justice Statistics, National Statistics Office of Georgia, Monthly Report for September 2022, 2022, <https://www.geostat.ge/media/49187/Report_seqtemberi_2022.pdf> [17.08.2024].

⁴¹ Kvirikashvili S., Judicial Funding and Unfulfilled Government Priorities, Georgian Court Watch, 26.10.2023, <<https://courtwatch.ge/en/articles/b7e952c8-a014-46c1-afe0-658b08a79832>> [05.09.2024].

⁴² Landes W. M., An Economic Analysis of the Courts, *Journal of Law and Economics*, Vol. 14, No.1, 1971, 85-86.

⁴³ Atkinson G., Healey A., Mourato, S., Valuing the Costs of Violent Crime: A Stated Preference Approach, *Journal "Oxford Economic Papers"*, Oxford University Press, Vol. 48, No. 4, 2005, 562.

⁴⁴ Chubb L., Economic Analysis in the Courts: Limits and Constraints, *Indiana Law Journal*, Vol. 64, No. 3, 1989, 769-774.

⁴⁵ Vapnek J., 21 Cost-Saving Measures for the Judiciary, *International Journal for Court Administration*, Vol. 5, No. 1, 2013, 55.

⁴⁶ Clarke T. M., Reengineering: Governance and Structure, in: *Future Trends in State Courts*, edited by Flango R., McDowell A., Campbell C. and Lauder N., National Center for State Courts, Williamsburg, 2010, 33-34. <<https://ncsc.contentdm.oclc.org/digital/collection/ctadmin/id/1605/>> [05.09.2024].

A key mechanism for reducing court costs is budget decentralization. Under the Law of Georgia “On General Courts”, funding comes from the state budget,⁴⁷ with the High Council of Justice submitting draft proposals to the Government based on the Department of General Courts’ recommendations. District courts must determine their own spending priorities and work on optimizing these costs to generate the budget necessary for effective functioning.⁴⁸

The judiciary must recognize that justice is not a burden on taxpayers. therefore, it is important to implement measures and establish mechanisms that alleviate this burden.

IV. Balance Between Justice and State Economic Interests

An independent judicial system is vital to the rule of law, aiming to fairly resolve legal disputes and protect the rights of all individuals. Courts must implement an appropriate economic model for each case, ensuring effective legal measures. In criminal cases, the judicial system should consider both the state’s justice interests and economic factors, as neglecting the latter may undermine justice. Recognizing and prioritizing both interests is essential to prevent one from overshadowing the other.⁴⁹

To balance economic and legal interests, aligning them during the criminalization process is essential. Justice demands fair administration, and quality assessment should consider not only court decisions but also transparency and courtroom accessibility.⁵⁰ Economic interests require the reduction of unjustified costs and the ability for agencies to generate their own funding, which ties back to justice. Initially, the state should conduct economic analyses and cost calculations, followed by a rationality test to evaluate the adequacy of expenditures. If economic interests call for cost reductions while justice interests oppose this, an optimal solution must be found to satisfy both.⁵¹

⁴⁷ Law of Georgia “On General Courts”, 4 December 2009, Art. 67.

⁴⁸ Rosselli A., *Judicial Independence and the Budget: A Taxonomy of Judicial Budgeting Mechanisms*, *Indiana Journal of Constitutional Design*, Vol. 5, 2020, 7-8.

⁴⁹ Lorizio M., Gurrieri A., *Efficiency of Justice and Economic Systems*, *journal “Procedia Economics and Finance”*, Vol. 17, 2014, 110-111.

⁵⁰ *Assessment of the Quality of Justice*, European Commission for the Efficiency of Justice (CEPEJ), Strasbourg, 2016, 9.

⁵¹ Farrelly G., Clark K., *What Does the World Spend on Criminal Justice*, Helsinki, 2004, 12-20.

For balance, it is important that both justice interests and economic interests are aligned. Justice cannot undermine economic interests, and vice versa.⁵² So, what is the solution? In this case, the state should consider these two interests not as opposing concepts but as complementary ones. Justice should serve the economic interests of the state, while the country's economic interests should support the effective administration of justice. The need for reform is therefore crucial.

V. Conclusion

The process of criminalization requires the state to formulate a complex response to certain actions, including societal agreement on which behaviors to criminalize and the management of their consequences. The goal is not just to prohibit behaviors but also to shape societal attitudes toward deviance and morally correct these behaviors to prevent future offenses. Achieving this aim is complex, and analyzing the process is crucial for evaluating the potential impacts of criminalization. Collecting and analyzing factual data is the first step to informing state policy on the costs of prohibiting specific actions. Research indicates that the economic value of addressing criminalized actions in Georgia is significant, as investigating crimes incurs high costs. This results in insufficient resources for the state budget, hindering the ability to manage even one type of crime, ultimately leading to increased crime rates and ineffective crime control.

Based on the economic analysis and research, the proposed formulas and tables highlight factors to consider in the criminalization process, helping to assess whether the state budget can handle the criminalization of specific actions. The research identifies key indicators for the economic analysis of norms and the costs incurred when ignoring the economic model. The financial burden affects everyone, as it relates not only to criminal acts but also to the state's responses. Society must recognize that crime has economic implications that impact daily life, even for those not directly affected. Taxpayers bear the costs of investigating crimes against strangers and administering justice, and these substantial costs cannot be justified within the country's budget.

An overloaded justice system burdens taxpayers and is unjust. Justice should be accessible to all citizens equally. Economic opportunities must meet needs; otherwise, the principles of justice lose their significance. Economic analysis reveals that criminalization processes often overlook economic issues, leading to additional financial

⁵² Polinsky A., Shavell S., *The Economic Theory of Public Enforcement of Law*, *Journal of Economic Literature*, Vol. 38, No. 1, 2000, 45-76.

burdens on the state. Agencies responsible for investigation, prosecution, and justice administration spend more than necessary compared to the balance of economic and justice interests. The core principle of a legal state is to protect citizens' rights and freedoms, which requires efficient justice administration. An economic model is the most effective means to achieve this goal.

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