
THE SHADOW ECONOMY AND TAX EVASION – BEHAVIORAL ATTITUDES AND COUNTERMEASURES

Nikolay Kalistratov¹

¹D.A. Tsenov Academy of Economics – Svishtov, Bulgaria

E-mail: *¹D010221242@uni-svishtov.bg*

Abstract: Taxation, corruption, excessive regulations, and ineffective governance stand out as primary drivers behind the emergence of the "shadow economy" (also known as the "grey," "informal," or "unregistered" economy). The prevailing theoretical models suggest that these variables are closely inter-related and can lead to either a positive or negative balance. The positive balance is characterized by stable institutions, light regulatory burdens, a broad tax base, often high taxes and revenues, and a small size of the shadow economy. Conversely, the negative balance involves unstable institutions, excessive and burdensome regulation, diverse tax bases, low revenues, and a significant size of the shadow economy. The larger the tax wedge (the difference between the total labour cost and income after taxation), the larger the informal economy becomes. The aim of this study is to present the results of an empirical field research on employer and employee attitudes toward the shadow economy, along with a discussion of effective measures to limit the "grey sector."

Keywords: shadow economy, tax evasion, disclosure, enforcement.

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Introduction

There are many reasons why citizens and businesses deliberately choose to operate partially or wholly in the grey economy. For many people, the need for livelihood often deters them from negotiating for better working conditions and full social security contributions (Belev & others, 2003).

Younger people, especially those just beginning their careers, tend to believe that retirement is far in the future, maternity leave is not yet a concern, and their health is good enough thus lower social security contributions are not problematic (Todorova, 2019). Moreover, having more cash on hand makes it easier to meet their immediate needs and improve their standard of living.

This attitude is largely the result of poor financial (Zahariev et al., 2023) and economic literacy, on the one hand, and on the prevailing status quo, on the other. If previous generations in the family—parents and grandparents—have worked without a contract or have been insured on lower than their actual earnings, young people see no reason to seek anything different for themselves (Schneider & Medina, 2018). There is no corrective mechanism to suggest that this is a practice that should not be encouraged.

Once employees agree to work without a contract, under an informal employment agreement, or for a salary lower than their actual earnings, they understand that they cannot make demands (Schneider & Enste, 2013). They also cannot turn to institutions, as violations and tax evasion are often unprovable or very difficult to prove (Zahariev, 2012). For such cases it is necessary to have more than one worker/employee to testify, but the need for livelihood and the fear of losing their job prevent people from agreeing to do so. Additionally, they are aware that they themselves break the law. Moreover, there is no insurance against the risk of being caught for tax evasion (Prodanov, 2020).

Based on this, the aim of the study is to present the results of an empirical field survey of the attitudes of employers and employees towards the shadow economy, combined with a discussion on effective measures to limit the "grey sector".

1. Methodology and study results

During the period 1999–2018, a time characterized by macroeconomic stability, the role of indirect taxes (consumption taxes) increased from 43% to 60% in 2009, then slowly declined to 50% of total tax revenues. In contrast, income taxation in Bulgaria had much less significance for the budget—income taxes accounted for only 20% of total tax revenues with this share stabilizing after the corporate tax rate was reduced to 10% in 2007 and a flat (proportional) income tax of 10% was introduced. Additionally, social security contributions made by both employers and employees, while not legally considered taxes, effectively formed part of the overall labor burden (Schneider & Asllani, *Taxation of the Informal Economy in the EU*, 2022). An empirical survey conducted among a benchmark sample of respondents—employers and employees—provides an up-to-date snapshot of attitudes towards business

operations in the "grey sector". Among the many questions and answers, this article features several key graphical representations that clearly define the positives, negatives, and behavioral support for the "grey economy" (see Figures 1, 2, and 3).

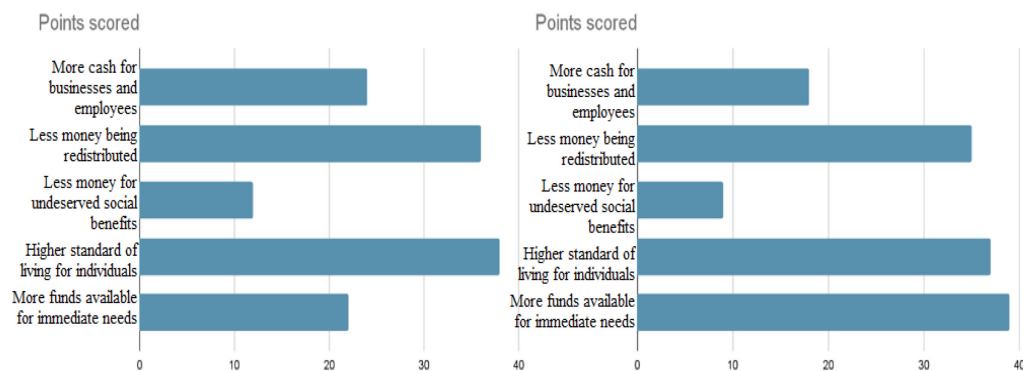


Figure 1. What, in your opinion, are the positive features of shadow practices? (left chart – employees, right chart – employers)

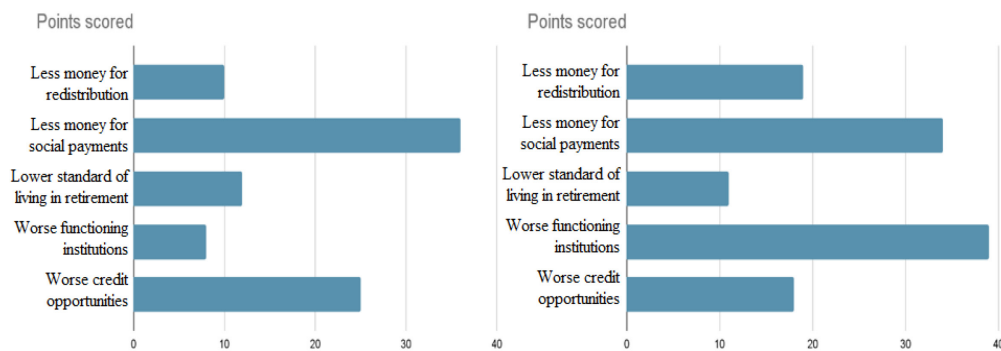


Figure 2. What, in your opinion, are the negative features of shadow practices? (left chart – employees, right chart – employers)

There follows one of the key questions in the survey: why, according to the workers and employees themselves, people voluntarily agree to work in the grey sector. Here, respondents can select more than one answer.

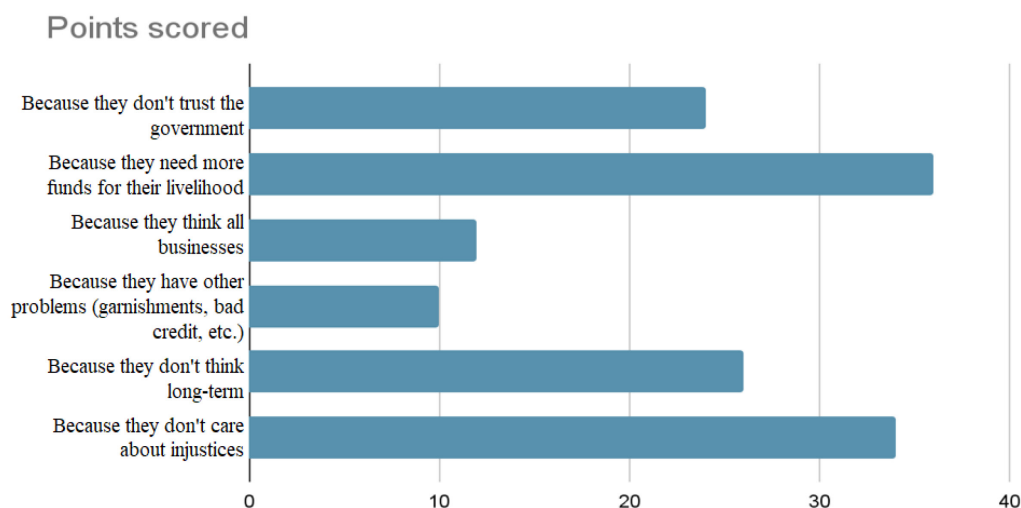


Figure 3. *Why, in your opinion, do people agree to work in the grey sector?*

The next question suggests specific measures which respondents believe are necessary to reduce the grey sector. Here, too, they can select more than one answer.

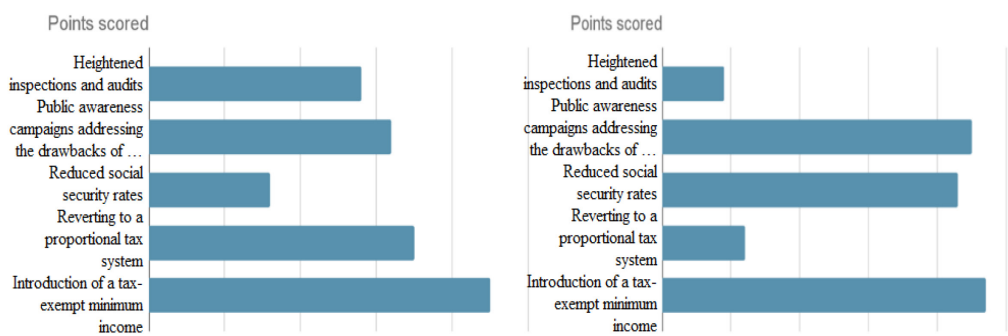


Figure 4. *What measures against the grey sector do you think should be implemented? (left chart – employees, right chart – employers)*

2. Interpretation of the field study findings

As expected, both citizens and business representatives are reluctant to share personal financial and labour-related information, especially when violations are involved. Only 5-6 individuals openly admitted that they are not fully insured for their entire salary. These are younger respondents or lower-level managers. More interesting are, however, the individuals who chose the

option "I prefer not to answer" — about 10 respondents on sensitive questions for employees and workers, and between 12 and 15 respondents among business representatives. Observations indicate that if they have nothing to hide, neither employees nor managers hesitate to give a specific answer—thus, at least some of those unwilling to answer likely work in the grey sector.

This empirically confirms what was discussed earlier in the study—it is extremely difficult to measure the informal economy because participants either have covered their tracks very well or are doing everything possible to do so. Even anonymity, as an attempt to create additional security for respondents, does not help uncover more details about the dimensions of the grey sector.

However, when it comes to expressing opinions on certain issues, both citizens and business representatives eagerly participate. On questions that invite sharing an opinion, the option "I prefer not to answer" is rarely used (with only one or two exceptions). Instead, respondents actively choose options that allow for multiple answers.

The results of the study—especially the part where citizens are asked to define the dimensions of the grey sector—show that many people understand the informal economy primarily as tax evasion by employers through partial salary declarations. There is a lack of awareness that the grey economy also includes individuals who sell personal creations or services without the necessary registrations or fail to issue receipts for every sale. This includes situations where, even with legally purchased materials, activities are carried out under the law's radar, and the customers receiving these goods or services do not have enough sensitivity to act as a necessary corrective. Most of these customers do not realize they are personally harmed by tax evasion in any form, even if they are not directly linked to the business or individual operating in the shadows.

It is concerning that not a single citizen or business representative selected the option "there are no positive features" in response to the question: What are the positive features of working in the grey sector? This indicates several things—first, it confirms a lack of self-awareness and understanding of the scope of the problem, which is the presence of such a large grey sector in our country. Secondly, people often cite more funds for livelihood, fewer undeserved social benefits, and a higher standard of living as the main positive features. This reflects both employees' and managers' trauma from the socialist era and the time of the proportional tax system when many relied on the state-provided but undeserved basic minimum, while others who contributed significantly with their labor felt cheated and angry. This leads to a deterioration in their attitude towards the state and institutions in general shaping the positive image of the grey sector as a form of rebellion against perceived injustice.

The negatives of working in the shadow economy are also largely

recognized—reduced chances for credit, fewer funds for institutions, and a lower quality of life in old age are the main responses here. However, no one seems concerned about the redistribution of fewer funds for social payments. The reasoning is similar to the perception that having fewer funds for redistribution is seen as a positive.

For business representatives, having more working capital as a primary result of tax evasion often means avoiding bankruptcy. Moreover, citizens support the availability of more working capital and understand its importance, especially for small businesses. This understanding, however, leads to a lack of condemnation for the unethical practices associated with the grey sector. Combined with their inadequate grasp of its full scope, this means that the lack of economic literacy, coupled with insufficiently firm and principled opposition to shadow activities, deprives civil society of one of its key functions—to act as a corrective force for both authorities and businesses.

Additionally, there is an unrealistic perception among people about which enterprises are more prone to tax evasion - most respondents point to large companies. However, this is not entirely accurate - practice shows that it is actually the multinational conglomerates that have entered Bulgaria in the last decade that employ workers on a full-time basis and provide full insurance and numerous social benefits. Conversely, micro-businesses and small enterprises often lack sufficient working capital and struggle to pay all their expenses on a monthly basis. Hence, they decide that not issuing receipts for all sales, ceasing business operations, or self-employment, not rehiring employees, or providing them with a lower salary to prevent bankruptcy is fully acceptable.

Business representatives are well aware that working in the shadow sector provides some competitive advantages. Tax evasion enables the artificial reduction of prices for goods and services, which, in turn, puts honest businesses at a further disadvantage with both their customers and the state. Consequently, even these businesses are compelled to operate in the shadow sector,

It is concerning that mid- and low-level managers feel powerless to push the companies they work for to either increase or decrease their involvement in the shadow sector. Respondents believe that decisions are made exclusively at higher levels, and dialogue with institutions only occurs at those levels. This reflects a dangerous level of passivity - one explanation could be that even mid- and low-level managers are ultimately just employees. However, they possess slightly more information and authority (at least on paper) than some of their colleagues and subordinates, making their actions subject to greater scrutiny and punishment. Consequently, a manager at these levels is more likely to lose their job than an average employee who disagrees with the company's policies.

Reporting shadow activities to relevant authorities is not a priority for managerial staff. Many respondents in such positions, likely due to their sense

of fairness, are inclined to leave their jobs if they discover that the company they work for engages in shadow activities. However, very few are willing to report such activities. Bureaucracy plays a significant role here - navigating between institutions, providing repetitive statements, and the lack of timely responses and concrete actions on reported issues all contribute to discouragement.

According to both citizens and business representatives, inspections and audits provide a more secure method for curtailing the size of the shadow sector. A significant majority in both surveys opt for this response, largely disregarding informational campaigns aimed at enhancing citizens' economic literacy. The underestimation of the efficacy of softer measures and the expectation the responsible institutions to necessarily punish, while citizens may contribute but they may not necessarily serve, as a well-intentioned, constructive corrective to shadow economic entities, may turn to be among the foremost challenges facing the Bulgarian economy. All of this leads to deficit financing (Zahariev et al., 2020) and the accumulation of public debts (Zarkova, Kostov, Angelov, Pavlov, & Zahariev, 2023) to compensate for the shortfall in revenue collection.

Blaming others and always expecting the solution to come from elsewhere, rather than from citizens and business representatives themselves, proves to be a much more serious problem than the implementation of various tax evasion schemes. They are the consequence, but the main reason for it is actually the disappointment with the malfunctioning system of redistributing funds from the treasury in combination with the low economic culture.

3. Measures to combat the shadow economy

Given the long and uncertain path to understanding the dimensions of the grey economy and the personal impact on individuals and considering the urgent need to reduce the size of the informal sector in Bulgaria, the recommended measures need to be of a different nature. Based on good practices in this area in Europe, several options can be proposed.

For authorities, it may be easier to influence some of the identified determinants of the grey economy than others. For example, changes in the rule of law index seems highly relevant to the overall level of the grey economy. However, significant improvement in this area may require the implementation of many often difficult to implement reforms by the government, and the introduction of these measures can take a long time. Additionally, it is not easy to significantly reduce the burden of taxes and social security contributions—this is particularly important considering the fiscal challenges many countries face during economic crises. On the other hand, public policies that increase the

popularity of cashless payments, especially card payments, which have been shown to have a significant impact on reducing the grey economy, seem relatively easier to implement.

Obligation for electronic payment of wages and salaries

The regulation primarily requires that wages and salaries be paid via bank transfer, although payment with prepaid cards may also be allowed. This should naturally increase the volume of electronic payments, especially those made with cards, which are typically linked to most bank accounts. As a result, cash transactions would be reduced, potentially decreasing the size of the passive grey economy. The involvement of banks in the payment process (Zahariev, Angelov, & Zarkova, 2022) is particularly effective due to the double-entry accounting system (tracking both debtors and creditors) of monetary transfers. Banks must become conduits for best practices and measures to combat money laundering. Failure to do so can lead to reputational damage and, in the worst-case scenario, bank insolvency (Zahariev, et al., 2020).

Electronic payment of wages and salaries means that individuals who previously received their remuneration in cash will now need to make an extra effort to use cash—such as withdrawing it from an ATM—if they do not wish to change their habits. This additional effort, however, is likely to result in more frequent use of payment cards and fewer cash transactions. In Bulgaria, there have been attempts to introduce such regulations for companies with more than a certain number of employees, but the debates around this innovation have been highly contentious. Additionally, this regulation does not cover micro and small enterprises, which are known for frequently operating in the grey sector and make up over 75% of the Bulgarian economy.

Obligation for electronic payment of social benefits

This regulation requires the government to disburse at least certain types of social security benefits through electronic payments via bank transfers and/or prepaid cards. The mechanism of this regulation is similar to the obligation for electronic payment of salaries and wages. The primary difference lies in the target group and the fact that social benefit payments are made exclusively by public institutions rather than by private companies. Thus, once the regulation is implemented, there should be no legal violations, which can sometimes occur with salary and wage legislation.

In the Bulgarian context, this regulation should be considered for several types of social security benefits—unemployment benefits, which represent a relatively small category of state social expenditure, pensions, which constitute a significant portion of total social spending, and sick leave and maternity benefits, which can also be characterised as substantial items. Unemployment

benefits and sick leave and maternity benefits are paid only through bank transfers, based solely on the insured income. However, pensions can still be paid in cash, but only through the national postal services.

The crucial factor for the size of the grey economy in our country is not the method of benefit payment, although institutionalizing and using electronic channels undoubtedly helps curb the sector. The important factor is that the benefits and pensions are determined by verifiable work experience and income, which should incentivize employees to demand accuracy from their employers.

Limitations on cash transactions exceeding a specified threshold

This regulation defines a specific monetary threshold for a single transaction, above which cash payments are not permitted. Therefore, payments for transactions above the set threshold must be conducted in an electronic way, thereby reducing the size of the grey economy, and increasing government revenue. Moreover, as confirmed by data on the distribution of consumer cash payments, the value of such payments is minimal at higher transaction levels, and this further decreases as the threshold rises. Additionally, in terms of high-value transactions, there should be almost no grey economy activity, as consumers are likely to request receipts for more expensive, durable goods to secure warranties.

However, significant cash transactions still occur within the grey economy, and these will remain unaffected by the regulation, as both parties involved will continue to use cash to avoid transaction registering. Therefore, the above arguments suggest that establishing high thresholds for consumer cash payments would have minimal impact on the passive grey economy.

Requirement for cash registers

This regulation requires a broader range of businesses, depending on their type of economic activity or annual turnover, to use cash registers or related fiscal devices to register each individual transaction, regardless of the payment method. The implementation process, often referred to as fiscalization, aims to provide tax administrations with a mechanism to monitor cash transactions and identify discrepancies.

Several factors influence the effectiveness of this regulation. Firstly, the introduction of mandatory cash registers is usually accompanied by enhanced fiscal control and audits. Secondly, modern fiscalization solutions, such as so-called online cash registers, which have become increasingly popular in recent years, can yield better results. In this case, each fiscal device is connected to the internet and equipped with appropriate software, allowing the real-time provision of transaction data to the tax administration. Thus, every accounting document is authorized by the tax office before being presented to the buyer.

In our country, every physical retail point is required to have a cash register. Moreover, for the convenience of traders who do not have one, the option of fiscalization "no physical retail point" has been created. Since 2019, it is no longer mandatory to keep cash books, and with the latest versions of software for fiscal devices, not only is every sale reported to the National Revenue Agency in real-time, but daily fiscal reports are automatically generated at midnight. This greatly simplifies the work of traders.

Traders who operate solely online businesses are permitted to contract with courier companies for the so-called "Postal Money Order" service, where the courier issues a receipt on behalf of the trader. Despite these highly simplified conditions, there are still traders, particularly those without permanent retail locations, who sporadically participate in exhibitions or sell their goods at markets without having a cash register. Physical stores also often fail to issue receipts.

Ultimately, unless there is continuous oversight, the requirement for cash registers constrains the development of the informal sector up to a point that Bulgaria has long surpassed. In cases where significant amounts of money are involved, accounting is typically managed with warehouse software or an ERP system linked to fiscal devices, making audits (whether internal or by institutions) exceptionally straightforward. This makes it easier to detect undeclared sales. In smaller establishments, where the contribution to the state via corporate taxes is minimal anyway, abuses are more prevalent.

Mandatory operation of POS terminals for certain types of businesses

This regulation mandates certain types of businesses to operate POS terminals at their points of sale. Since the development of the network for card payments acceptance is a critical factor for the popularity of electronic transactions, it is possible to stimulate the growth of these, replacing cash transactions, by imposing the obligation to install POS terminals in selected sectors. This measure is expected to be most effective in sectors with a high share of the overall informal economy, as well as for business activities where the penetration of POS terminals is currently relatively low.

The projected impact of the regulation on the size of the passive informal economy can be summarized as follows: it is highest for relatively large sectors where the increased distribution of POS terminals significantly contributes to the overall number of POS terminals in the economy, and for sectors where the "saturation" of POS terminals is relatively low.

Tax incentives for consumers

Another way to encourage electronic payments is to make them

financially more attractive to consumers compared to cash payments. This can be achieved by offering consumers special benefits for using payment cards – discounts, cash back, or reward points that can be redeemed for certain incentives. Such methods are widely used by private financial institutions, and their effectiveness has been confirmed by numerous studies.

Similarly, the government can provide financial motivation, for example, through appropriately designed tax incentives that reduce the tax component of retail prices, such as VAT, provided that the consumer makes a card payment at the point of sale. This should result in a reduction in cash payments and, consequently, a decrease in the size of the informal economy, thereby increasing government revenue.

It should be emphasized that such consumer incentives can be implemented through various mechanisms, many of which allow the government to reduce incurred costs but at the same time may offer lower potential benefits in terms of replacing cash payments. Although different versions of the consumer incentives discussed here have already been implemented in some countries, there are no publicly available quantitative assessments of such measures.

For example, consider a cash back incentive of 0.5% of the card transaction value. This could reduce the amount of cash payments by about 10%. In this scenario, a tax incentive of the same scale—a "government cash back"—would have a similar effect on reducing cash payments. The faster the tax relief works and the simpler its design, the greater the chance this condition will be met. For instance, an immediate benefit to consumers in the form of a VAT deduction equivalent to a predefined percentage of the card transaction could be more effective in promoting card payments than complicated tax refund mechanisms based on collecting payment card receipts or the South Korean example of an income tax deduction. These latter mechanisms might allow the government to control regulation-induced costs more effectively, which is their major advantage, but at the same time, they would reduce the number of card transactions covered by the regulation and limit the interest of some consumers in the implemented solution due to the additional administrative burden.

Tax incentives for merchants

In many countries, consumers are discouraged from using cards due to the limited number of places that accept such payments. The slow development of POS terminal networks can be a result of the high costs of card payments in some countries. Conversely, the large fees imposed on merchants may result from the low spread of electronic payments in the economy. When only a small number of people use cards, the maintenance costs incurred by merchants are spread across fewer transactions, leading to higher transaction fees.

In such cases, tax incentives that reduce the costs for merchants to accept

card payments can stimulate the growth of electronic payments, thereby decreasing cash transactions. This, in turn, would lead to a reduction in the informal economy and a subsequent increase in government revenues.

Receipt lotteries

The idea behind receipt lotteries is to reduce the size of the informal economy by limiting unreported transactions through increased issuance of standard accounting documents. Specifically, consumers are encouraged to explicitly request a receipt because these receipts can serve as free tickets in VAT lotteries, giving holders a chance to win attractive prizes. In the long term, this measure aims to get consumers accustomed to requesting fiscal receipts. It is often assumed that after a certain period, people will develop this habit, making the request for receipts socially acceptable and desirable, raising awareness about the benefits of combating the informal economy, and thus continuing to request fiscal receipts even without additional monetary incentives.

It should be emphasized that the impact of this regulation on the shadow market can be twofold. First, it is likely to increase customer demand for receipts, thereby naturally reducing the number of unreported transactions. Second, it may enhance merchants' willingness to accept electronic payments, at least to some extent. In these new circumstances, where more transactions must be recorded, card payments are not as unattractive to merchants when compared to registered cash payments as they would be when compared to unregistered cash transactions.

And yet, the effectiveness of receipt lotteries in combating the shadow economy has not been thoroughly studied in the literature. Due to the lack of data needed to evaluate the direct impact of receipt lotteries on the passive informal economy, the focus is on their indirect impact, related to the increased popularity of consumer card payments.

At first glance, econometric analysis appears to confirm the positive impact of introducing a VAT lottery on the value of card payments. However, this regulation is relatively recent and often follows the mandatory implementation of cash registers. Additionally, the influence of receipt lotteries on the value of card payments becomes statistically insignificant. This indicates that although this incentive may have some positive impact on card payments and, consequently, on the informal economy, it is not possible to draw quantitative conclusions about the strength of this impact. Since there is no clear impact on the value of card payments, it is also impossible to assess the fiscal effect of the lottery through the promotion of electronic payments. Nevertheless, it is very likely that such lotteries are an effective tool for directly combating the informal economy by reducing the number of unreported cash transactions, as merchants are required to issue receipts more frequently. However, the lack of historical experience and therefore insufficient data prevents the provision of

quantitative evidence of such a connection. The challenge of data availability is further compounded by the wide range of possible implementations of receipt lotteries, which differ in terms of ease of participation, the number and value of expected prizes, and other parameters.

Conclusion

The substantial size of the informal economy in Bulgaria poses a significant challenge with profound economic and social implications, including diminished tax revenues, reduced quality of public services, distortion of market competition, and erosion of institutional credibility, all contributing to a slowdown in economic growth. It is imperative to identify and implement effective measures to curb the grey economy.

This underscores the need to refine existing econometric methods for assessing the grey economy to better understand its determinants. In this context, there may be a tendency to overestimate the phenomenon. This is partly due to the fact that informal economic activities involve higher monetary turnover and a larger cash flow, which psychologically implies a larger sector. This, coupled with several other behavioral phenomena, poses challenges in accurately measuring the scale of the informal economy. One contributing factor is the prevalence of numerous unrecorded transactions in Bulgaria, which should ideally be subjected to taxation. Another factor is the reduction in government revenues due to mechanisms of tax evasion or fraud, often occurring within registered transactions (such as absent merchant fraud), many of which are conducted electronically. Nevertheless, the expected budgetary effects of the informal economy are significant enough to demonstrate that efforts to combat this phenomenon are worthwhile, and that the potential benefits of addressing this problem can be substantial.

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Nikolay Kalistratov is a doctoral student in the Department of Finance and Credit at the D.A. Tsenov Academy of Economics, Svushtov, Bulgaria. His dissertation topic is "The Impact of the Shadow Economy on Tax Revenues in Bulgaria." His **research interests** include tax policy and measures to combat the shadow economy.

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