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ISSUES OF ASSESSING THE IMPACTS OF INFORMAL EMPLOYMENT ON THE INCOME TAX GAP IN THE REPUBLIC OF ARMENIA

The article examines the relationship between Armenia's informal sector and its tax system. The main aspects of legislative and practical policy related to this issue are considered. Based on the developed new methodological tools, taking into account the informal employment factor of the RA economy, the tax leakage/gap of the personal income tax was estimated, based on both the official data of the Statistical Committee of

the RA and the estimates of the International Labor Organization, and a comparative analysis of the results was carried out. The assessment of the tax gap caused by informal employment for the domestic economy was also combined with international assessments for comparable countries using the aforementioned methodological tools, which demonstrated that Armenia can be classified as a country with an above-average loss rate. Accordingly, both the policy loopholes and measures aimed at preventing shadow employment and the mechanisms for increasing the benefits of formal employment through incentives were studied.

Keywords: *informal employment, personal income tax, tax gap, tax expenditure, tax exemption, social credit*

JEL: H24, H26, O17

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INTRODUCTION. The existence of the shadow economy, as a set of economic activity and income derived from it outside the state regulation system and tax visibility horizon, forces the state to implement complex legislative, institutional, and functional regulations, as well as explanatory, awareness-raising, and propaganda work aimed at increasing the culture of tax compliance. In this regard, if we consider policy measures aimed at eliminating the tax shadow through the lens of the tax toolkit, we can distinguish three main policy directions: setting optimal tax rates and administration, developing targeted tax incentives, and ensuring sufficient social credits.

The purpose of this research is to study and quantify the fiscal impacts of informal employment in the Republic of Armenia, taking into account international experience in this area and its local implications. Although the level of informal employment has somewhat decreased in the context of decades of reforms in the RA economy, it continues to have a significant impact on financial flows and economic processes, significantly distorting the effectiveness of decisions made in the areas of fiscal and monetary policy and their implementation. Within the framework of the study, an attempt was made to examine the quantitative and computational aspects of the issue, which are important from both the legal and legislative perspectives, as well as the policy making context.

LITERATURE REVIEW. The issues of the relationship between the tax system and informal employment are actively discussed in the economic literature from various perspectives. In essence, the main trend of the discussion includes research on the direction and content of the causal relationships between these two factors. Research based on the MIMIC model using the example of 7 Latin American countries (*Irandoost, 2024*) revealed the negative impact of the shadow economy on tax revenues. Some researchers, *including Alif Sukhairi Wijaya and Suparna Wijaya (2025)*, conducted a systematic analysis of the aforementioned connections and found that the degree of influence of the

shadow economy on tax revenues depends on the country's characteristics, particularly its economic structure and the specifics of its tax systems. Among the factors that reinforce this negative relationship are a high tax burden, regulatory complexity, corruption, low institutional efficiency, and the level of public tax awareness. Another group of researchers (*Dybka et al., 2019*) estimates that, depending on the country's specifics, the scale of the shadow economy can amount to 2.8-29.9 percent of GDP. World Bank experts (*Awasthi and Engelschalk, 2018*) associate the negative impact of shadow transactions on tax revenues with the abuse of cash transactions and the widespread practice of not issuing receipts in commercial transactions. Another group of researchers (*Torgler and Schneider, 2009*) links the high level of informality to cultural and institutional factors.

An analysis conducted by World Bank experts (*Ohnsorge et al., 2022*) related to the factors determining the shadow economy highlights the effects of tax rates, administration, as well as the "moral" aspects of the fiscal factor. This view is also shared by a number of other authors dealing with the issue (*Schneider and Asslani, 2022*), who, studying the experience of EU countries such as Austria, Denmark, Greece, Germany, Romania and Italy, note that tax policy is a cornerstone factor among the factors determining the shadow economy, among which high tax rates, inadequate level of tax control and audits, and the quality of services provided by the state play a crucial role. They force a number of firms to operate in the shadow, thereby increasing the tax burden on firms operating in the legal sphere, which in turn forces them to engage in shadow activities. (*Azuma and Grossman, 2002*).

According to a World Bank analysis, in emerging markets between 2010 and 2018, tax rates in countries with an above-median shadow economy were 3 percentage points higher on profit tax and 4 percentage points higher on personal income tax than in countries with below-median levels. The report also notes that, compared to the 1990s, profit tax and personal income tax rates have decreased by 13 and 15 percentage points, respectively, to an average of 24 percent in 2020 (*Ohnsorge et al., 2022*). In parallel with these trends, the ratio of direct and indirect taxes in the process of determining the tax burden has also been studied, since, according to some authors, (*Gnossen, 1998*), developing countries have begun to increase the share of indirect taxes, in particular, value added tax, in total tax revenues, aiming to mitigate the market distortions caused by direct taxes by shifting the tax burden from producers and workers to consumers.

According to some estimates (*Ohnsorge et al., 2022*), the number of countries applying the VAT system expanded from 29 to 91 between 1990 and 2020. In parallel, as mentioned, one of the most significant factors contributing to the emergence of the shadow economy is the administrative burden and transaction costs. In particular, according to the World Bank analysis, in developing countries with a higher than median level of shadow economy, it

took an average of 33 hours more per year to fulfill tax obligations than in countries with a lower median level, as a result of which budget revenues from income tax and profit tax are higher in these countries (in countries with a lower median level) by 0.6 and 0.8 percentage points of GDP, respectively (*Ohnsorge et al., 2022*). This report also shows that in countries with an above-average level of shadow economy, the sense of tax compliance and moral perception of the phenomenon is also very low. In particular, the moral perception index of tax discipline, on a 0-10 point scale, is 2.5, which supports the above phenomenon. According to a group of researchers, the shadow economy erodes the tax base, essentially increasing the tax pressure on the budget, which in many cases forces governments to compensate for tax losses at the expense of increased inflation (Mazhar & Méon, 2017).

METHODOLOGY AND DATABASE. If we consider informal employment from a methodological point of view through the prism of taxation, then the existence of this phenomenon itself is a unique combination of both a tax policy gap (tax legislative privileges) and a disciplinary gap (distortions of the taxable base by business operators, under declarations, and other manifestations of illegal behavior). In this regard, informal employment was considered within the framework of the study as a hypothetical tax base that is not converted into budget revenues due to economic policy priorities and sector peculiarities of tax declarations (for example, tax exemptions for the agricultural sector) or illegal behavior of business operators. In this regard, from an economic policy perspective, it is crucial to ensure the measurability of this phenomenon. This study aims to assess the income tax losses (gap) resulting from informal employment.

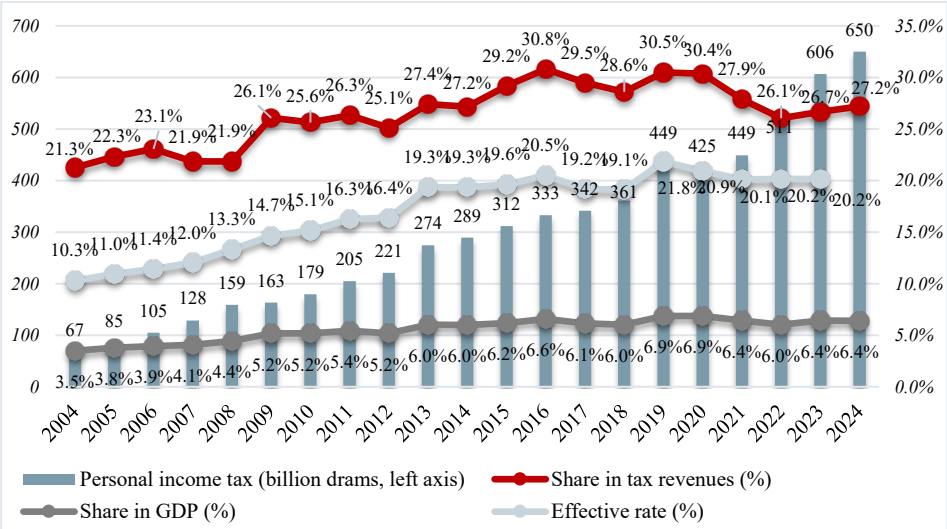
The analysis is based on the estimates provided by the Statistical Committee of the RA regarding informal employment in Armenia (Labor Market in Armenia, 2020-2024). Within the framework of the analysis, estimates were limited to the period 2019-2023, due to the need to ensure comparability of employment indicators, taking into account changes in the employment assessment methodology in 2018 (Labor Market in Armenia, 2024), as well as the fact that data on informal employment is limited to 2023.

In the context of research, three approaches were used to estimate the income tax gap in the Republic of Armenia, taking into account the informal employment factor. **Approach 1** involved calculating the wage fund formed by informal workers as the product of the number of informal workers and the average wage in the economy to which the statutory income tax rate was applied (See Appendix 1).

Since the RA Labor Office also publishes the structure of informal employment by economic sectors, within the framework of this study, the income tax gap was also estimated using alternative approaches and the **2nd approach**, applying the logic of the calculation approach specified in Appendix

1 to the sectoral gap in the economy, in particular, obtaining approximate sectoral wage funds through the product of the number of informally employed in 4 sectors of the economy: agriculture, industry, construction and services and the average wage of the corresponding sector. In parallel, the income tax gap was estimated using the **3rd approach**, based on assessments by International Labor Organization experts (Elgin et al., 2021) of informal employment in the Republic of Armenia.

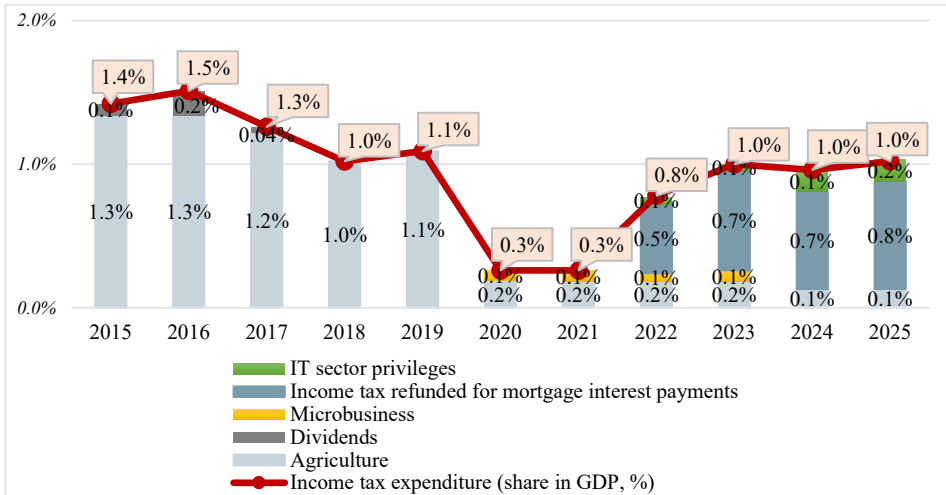
ANALYSIS AND DISCUSSION. Trends in personal income tax and tax expenditures in the Republic of Armenia. As part of the research, we have addressed the main framework of the shadow labor market and existing tax regulations in Armenia. If we examine the trend of personal income tax in the Republic of Armenia since the beginning of the century, we can see that this type of tax has experienced significant growth in both absolute and relative terms (see Figure 1).



Source: The database of the Ministry of Finance of the RA and calculations conducted by the authors

Figure 1. Personal income tax trends in the Republic of Armenia in 2004-2024

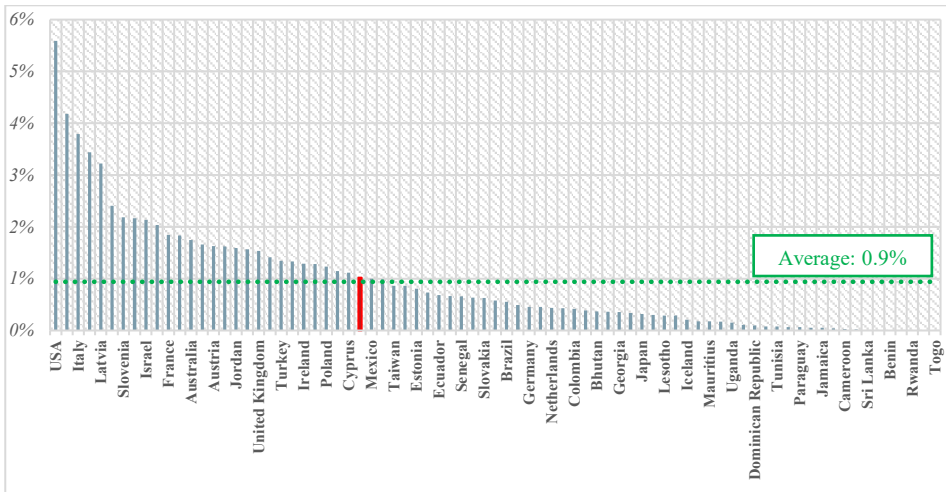
The above trends suggest exploring additional opportunities that tax policy adjustments can provide, particularly through the use of tax incentives. A study of tax expenditures on income tax shows that in the previous decade, incentives were largely concentrated in the agricultural sector (Tax Code of the Republic of Armenia", Article 148), averaging 0.6% of GDP, or 38.4 billion drams in absolute terms. In parallel, it is worth noting that total tax expenditures on this type of tax have fluctuated, on average, around 1-1.5% of GDP, or 69-115 billion drams in absolute terms (see Figure 2).



Source: The database of the Ministry of Finance of the RA and calculations conducted by the authors

Figure 2. Trends in tax expenditures (privileges) on income tax in the Republic of Armenia in 2015-2025 (% of GDP)

An international comparison of tax expenditures shows that, on average, the level of exemptions at 1% of income tax is roughly in line with the long-term average of about 80 countries that publish tax expenditures (see Figure 3).



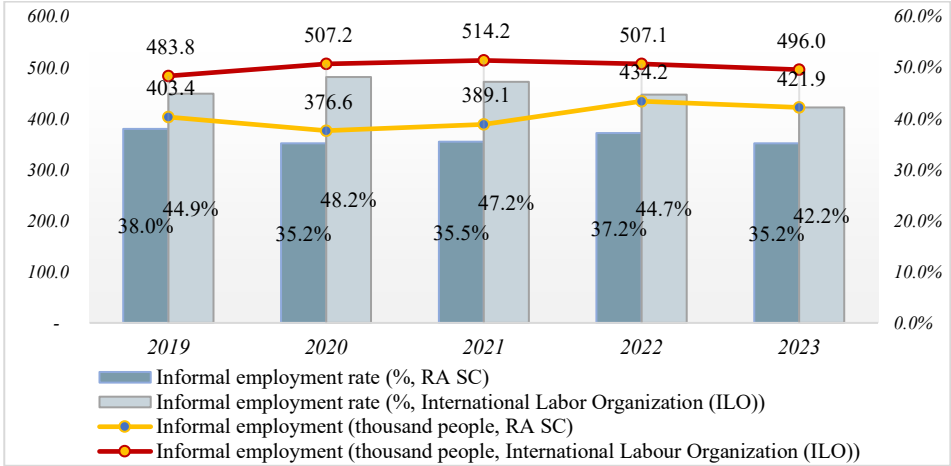
Source: The Global Tax Expenditure Database and calculations conducted by the authors

Figure 3. Average tax expenditures on personal income tax for about 80 advanced and emerging countries (% of GDP)

Returning to the study of tax expenditure structure, we consider it necessary to address the sharp decrease in income tax expenditures in 2020, which is due to changes in both legislative and methodological approaches to assessing tax expenditures. In particular, until 2020, tax expenditures for individual entrepreneurs (IEPs) were included in income tax expenditures, however, starting from 2020, due to the new legislative regulation, the fact that the above-mentioned entities are payers of profit tax and turnover tax, and the

obligation to pay income tax only on personal income, these tax expenditures have been included in profit tax expenditures (Budget Message-Explanatory Memorandum of the Government of the RA, 2020). In this context, from the perspective of policymakers, it is crucial to highlight that tax legislative mechanisms should not serve as a pressure lever for start-up entrepreneurs and small and medium-sized businesses, which is one of the most important directions for addressing the problem of employment among the population.

Analysis of the income tax gap in the Republic of Armenia in the context of informal employment. Official estimates of informal employment in the Republic of Armenia differ somewhat from internationally accepted estimates, particularly those of the International Labor Organization. Generally, the latter estimates indicate a higher level of informal employment than those of the Statistical Committee of the RA (see Figure 4).

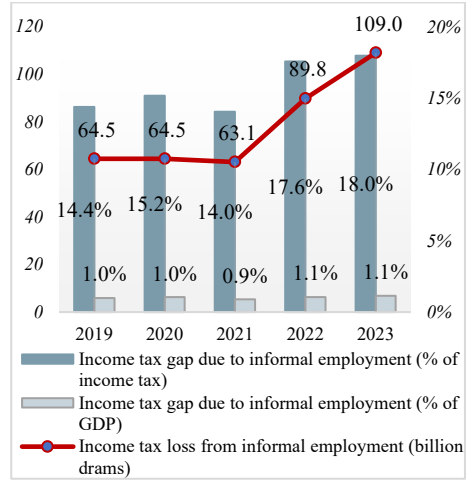
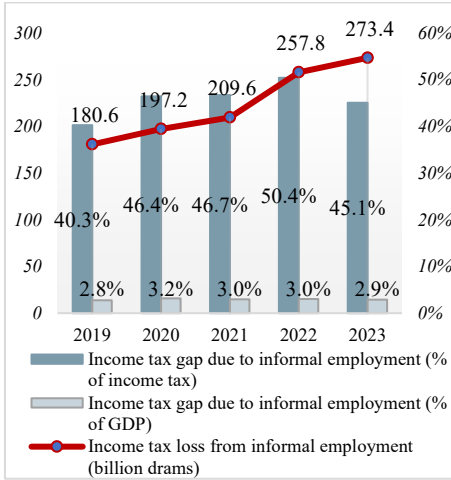


Source: The RA SC database, ILO estimates, and calculations conducted by the authors

Figure 4. Trends in informal employment in the Republic of Armenia in 2019-2023 according to the RA SC and ILO estimates

Guided by the first approach to estimating the income tax gap, the income tax gap was estimated at 273.4 billion drams in 2023, in the ratio of 606.5 billion drams in actual terms, making up 45.1% or 2.9% of GDP, compared to 6.4% in actual terms (Figure 5.1). In parallel, taking into account the imperfection of tax administration mechanisms in the agricultural sector, as well as the high probability of social tension in the case of taxation of the sector and the high sensitivity of the issue, in both the 1st and subsequent approaches, the impact of the agricultural sector was also filtered out in parallel with the main calculation and the income tax gap filtered out of the impact of the agricultural sector was presented (Figure 5.2). It is worth noting that in this case, the tax gap is incomparably smaller, amounting to 109 billion drams as of 2023, which is 18% of the actual tax collection and 1.1% of GDP. In parallel, the dynamics of continuous growth in absolute terms of income tax losses due to informal employment are evident, despite the transition from a progressive income tax

system to a flat one during the above-mentioned period, which was accompanied by a reduction in tax rates.

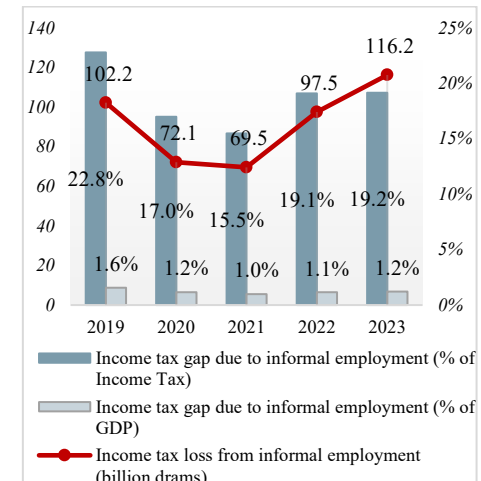
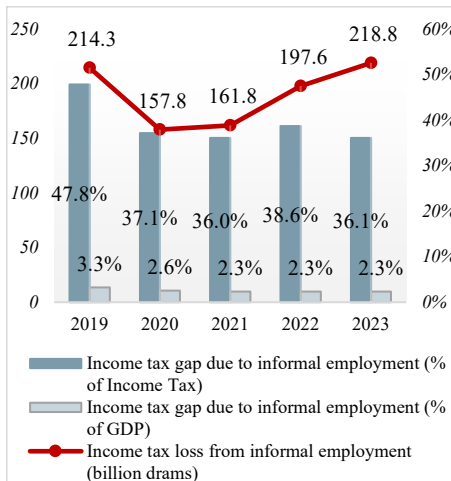


Source: The Statistical Committee of the RA and calculations conducted by the authors

Figure 5.1. Income tax gap due to informal employment in 2019-2023

Figure 5.2. Income tax gap due to informal employment, adjusted for the impact of agriculture

Within the framework of this study, based on the second **methodological approach** to estimating the income tax gap, approximate sectoral wage funds were calculated for four sectors of the economy: agriculture, industry, construction, and services, as outlined in Appendix 1. They were calculated based on the product of the number of informally employed individuals in a given sector and the average wage (Figures 6.1 and 6.2).

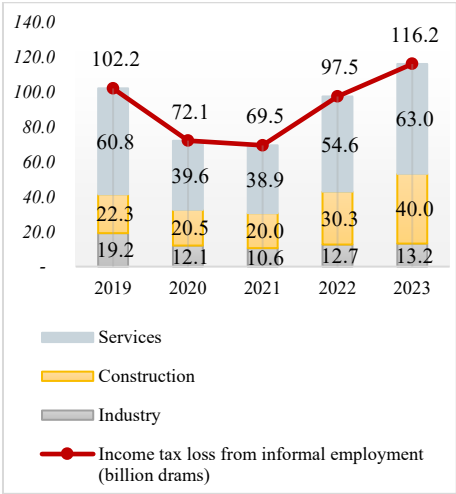
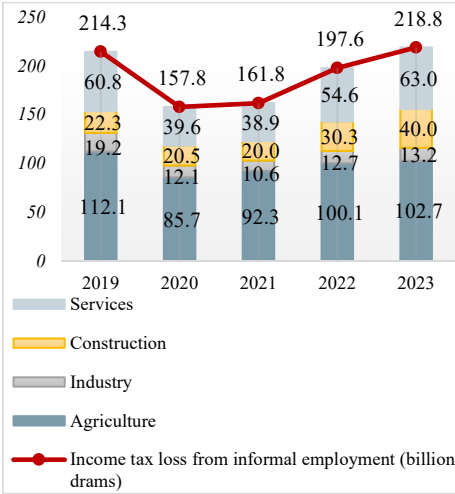


Source: The Statistical Committee of the RA and calculations conducted by the authors

Figure 6.1. Income tax gap due to informal employment, calculated based on sectoral estimates of informal employment

Figure 6.2. Income tax gap due to informal employment, calculated based on sectoral estimates of informal employment, adjusted for the impact of agriculture

According to the results of the above assessment, the income tax gap in 2023 was estimated at 218.8 billion drams, compared to the actual 606.5 billion drams, making up 36.1% or 2.3% of GDP. If we filter out the impact of agriculture, the tax loss is smaller in this case as well. As of 2023, it amounts to 116.2 billion drams, or 19.2% of actual tax collection, and 1.2% of GDP. This approach also made it possible to assess the sectoral structure of the income tax gap caused by informal employment, and the analysis shows that the majority of the gap falls on the agricultural sector: a total of 46.6% or 102.7 billion drams as of 2023, services: 28.8% or 63 billion drams, construction: 18.3% or 40 billion drams, and industry: 6.0% or 13.2 billion drams (Figure 7.1, 7.2).

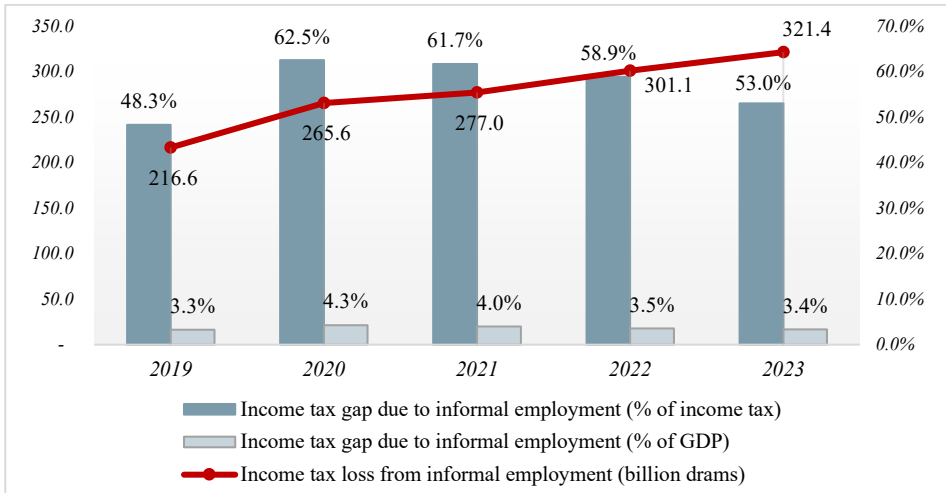


Source: The Statistical Committee of the RA and calculations conducted by the authors

Figure 7.1. Income tax gap due to informal employment, calculated based on sectoral estimates of informal employment

Figure 7.2. Income tax gap due to informal employment, calculated based on sectoral estimates of informal employment, adjusted for the impact of agriculture

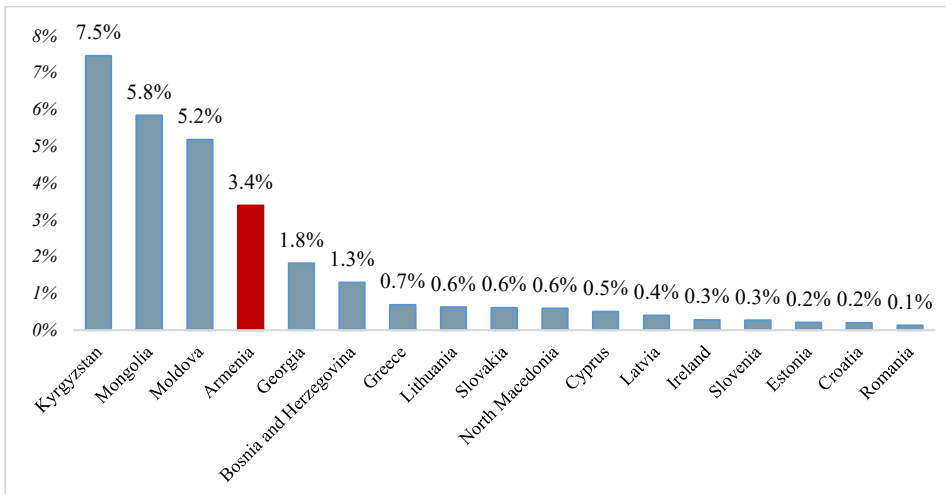
In the case of the **3rd approach** to estimating the income tax gap, guided by the logic presented in Appendix 1, applying the resulting indicator of the level of informal employment from the survey of experts of the International Labor Organization to the number of employed persons published by the RA Statistics Committee, which can be seen from Figure 4, is relatively higher than the estimates of the RA Statistics Committee. As a result, it can be seen that the estimates using this approach yield a relatively higher tax loss indicator: as of 2023, it amounts to 321.4 billion drams, or 53% of actual tax collection, and 3.4% of GDP (Figure 8).



Source: The Statistical Committee of the RA and calculations conducted by the authors

Figure 8. *Income tax gap due to informal employment, calculated based on international estimates of informal employment*

Using the above methodology, based on the World Bank's data on employment, the UN's data of average wages, the International Labor Organization's estimates of informal employment (Elgin et al., 2021) and the "Trading Economics" database of income tax losses due to informal employment in countries comparable to Armenia, the loss of income tax due to informal employment was estimated.



Source: The World Bank, UN, ILO, Trading Economics and calculations conducted by the authors

Figure 9. *Income tax gap due to informal employment (as a proportion of GDP) as of 2023*

It can be seen from the estimates that Armenia's tax gap ranks among countries with higher-than-average losses in comparison. In particular, Armenia's indicator is exceeded by countries such as Kyrgyzstan, with 59% informal employment and an income tax gap of 7.5%, Mongolia, with 42%

informal employment and an income tax gap of 5.8%, and Moldova, with 52% informal employment and an income tax gap of 5.2%, while Georgia, with 56% informal employment and an income tax gap of 1.8%, the Baltic States, with an average of 3% informal employment and an income tax gap of 0.4%, and a number of other countries comparable in terms of economic development, record incomparably lower indicators in terms of tax losses (Figure 9).

Summarizing the assessment results, it can be noted that during the observed period of 2019-2023, the income tax gap due to informal employment amounted to an average of 230 billion drams in absolute terms, 47% in relation to the actual amount of income tax, and 3.1% in relation to GDP, but when we filter out the impact of agriculture, the income tax gap amounts to an average of 85 billion drams, 17% in relation to the actual amount of income tax, and 1.1% in relation to GDP (Table 1).

Table 1

Summary results of the income tax loss/gap assessment in the Republic of Armenia for 2019-2023

							Filtered out agriculture					
			2019	2020	2021	2022	2023	2019	2020	2021	2022	2023
Income tax loss/gap	Absolute value (billion drams)	Aggregated approach	181	197	210	258	273	65	64	63	90	109
		Sectoral estimates	214	158	162	198	219	102	72	70	98	116
		International estimates	217	266	277	301	321	-	-	-	-	-
		Average	204	207	216	252	271	83	68	66	94	113
	Actual income tax (%)	Aggregated approach	40%	46%	47%	50%	45%	14%	15%	14%	18%	18%
		Sectoral estimates	48%	37%	36%	39%	36%	23%	17%	15%	19%	19%
		International estimates	48%	63%	62%	59%	53%	-	-	-	-	-
		Average	45%	49%	48%	49%	45%	19%	16%	15%	18%	19%
	Ratio to GDP (%)	Aggregated approach	2.8%	3.2%	3.0%	3.0%	2.9%	1.0%	1.0%	0.9%	1.1%	1.1%
		Sectoral estimates	3.3%	2.6%	2.3%	2.3%	2.3%	1.6%	1.2%	1.0%	1.1%	1.2%
		International estimates	3.3%	4.3%	4.0%	3.5%	3.4%	-	-	-	-	-
		Average	3.1%	3.3%	3.1%	3.0%	2.9%	1.3%	1.1%	0.9%	1.1%	1.2%

Source: The RA Statistical Committee and calculations conducted by the authors

The above results are also comparable to the estimates of the Ministry of Finance of the Republic of Armenia and the State Revenue Committee, with a GDP ratio of 1-1.5%, and significantly exceed the IMF estimates, with a GDP ratio of 0.1-0.3% (International Monetary Fund, Fiscal Affairs Dept., 2025). However, it should be noted that the above-mentioned assessments by state agencies and the IMF include the income tax disciplinary gap but do not account for the gap in tax policy caused by legislative privileges. If this is taken into consideration (approximately 1% of GDP), almost identical indicators are obtained. In this regard, the use of targeted tax policy tools aimed at reducing the emergence of informal employment becomes highly relevant, specifically

defining optimal tax rates and administration, developing targeted tax incentives, and ensuring the availability of sufficient social benefits.

International legislative experience and the realities of Armenia. In general, considering the experience of several advanced countries, we can state that preventive administrative mechanisms can impose substantial fines for law-breaking organizations, and the envisaged punishment can include imprisonment. From this perspective, it is essential to examine the preventive-deterrent

(or “punitive”) tax administrative mechanisms employed in cases of informal employment in the Republic of Armenia and other countries. In countries comparable to the Republic of Armenia, such as Slovakia and Latvia, the fines for this form of violation are quite strict and targeted. In particular, Slovak legislation provides fines not only for an organization that has not registered an employee (from 2 to 200 thousand euros, depending on the severity of the offense), but also for an unregistered employee - 331 euros, while in Latvia fines can reach up to 7100 euros (European Labour Authority, 2023). According to Romanian legislation, cases involving the detection of 5 or more unregistered employees within an organization during an inspection are considered a criminal offense, and in such situations, imprisonment is provided for (Schneider and Asllani, 2022). In developed countries, such as Germany, legal relations related to shadow employment are regulated not only by the tax or criminal code, but also separately by the norms of the "Act to Combat Undeclared Work and Unlawful Employment" (Act to Combat Undeclared Work and Unlawful Employment, 2004), while the Criminal Code, in addition to fines, provides for imprisonment for a period of about 6 months to 10 years in case of regularly repeated violations (Criminal Code in the version published on 2021), while in France, the systematic nature of illegal labor relations leads to imprisonment of the employer for a period of 3 years and a fine of 45,000 euros. In Austria, in parallel with the fine mechanism (in the amount of 3,630-5,000 euros), a punitive mechanism of about 2 years of imprisonment has been applied since 2007 (Schneider and Asllani, 2022).

It should be noted that the legislation of the Republic of Armenia has relatively lenient approaches in cases of detecting informal employment. In particular, in the case of the existence of this problem, a fine is imposed in the amount of 250,000 drams, based on the Article 412 of the Tax code of the RA for each informal employee, as well as for those who violate the requirements of the RA Law "On Voluntary Work" and perform informal voluntary work (*Tax Code of the RA, Article 412*). By the way, the fine is levied on the employer, while no punishment is provided for an unregistered employee. From an administrative point of view, there are also legislative gaps in the event of a regular repetition of the offense.

Another issue of a legislative nature concerns the system of tax incentives. Tax incentives, also commonly referred to as **tax expenditures**, often enable

policymakers to send signals to the economy, both at the sectoral and individual levels, regarding the importance of developing a specific segment of the economy from a policy perspective. In this context, the formation of a system of targeted incentives is a kind of mutually beneficial transaction between the state and the economic entity and/or sector of the economy, which, on the one hand, gives an opportunity to give impetus to the development of sectoral priorities, and on the other hand, creates incentives for the economic entity to operate in a field visible to the state. These incentives primarily include the system of sectoral support and social credits, which in turn comprise systems of education, healthcare, credit incentives, and tax holidays.

The other group of measures aimed at reducing the shadow economy concerns state regulations of the labor market and employment. First of all, this concerns the use of support packages with state policy tools for programs to create high-paying jobs by the private sector (co-financing, subsidies, tax breaks, tax holidays, etc.).

Upon examining the tax legislation of the Republic of Armenia, we can observe preferential conditions that deviate somewhat from the general tax rules applied to individual entrepreneurs. In particular, according to the Tax Code, individual entrepreneurs are considered to be payers of profit tax (*Tax Code of the RA, Article 103*) and the obligation to pay profit tax for economic entities operating in the turnover taxation system is 5,000 drams per month, while in the case of the general taxation system, the rate is 23 percent of the tax base (*Tax Code of the RA, Article 125*). In addition to this component, it is worth noting that since 2022, tax expenditures on income tax refunds for servicing mortgage interest payments have increased significantly, amounting to an average of 0.7% of the country's GDP. This is a unique type of social credit that creates internal incentives for employees to act in the tax field. In parallel, the current tax legislation provides for the possibility of social credits, including income tax refunds, when using educational services, healthcare, and in the case of purchasing a house through a mortgage (*Tax Code of the RA, Article 147.1*). If we compare the above with international practice, we can see that in advanced economies, such as France, the possibilities for income tax refunds are broader and include services like childcare, nanny services, tutoring, apartment and house cleaning, and gardening. In this case, the taxpayer can receive a refund of 50% of the tax paid, with a maximum annual limit of 6,000 euros (*French Taxes, 2024*).

The Armenian tax system also provided for a preferential status for employees of organizations operating in the micro-entrepreneurship regime (with a turnover of up to 24 million drams), in particular, by setting a monthly income tax liability of 5,000 drams for each employee, which, however, ceased to operate from the second half of 2023 and these entities began paying income tax at the standard rate of 20% (*Tax Code of the RA, Article 271*). In terms of this privilege, tax expenditures from 2020 to 2023 amounted to 0.1% of GDP,

or 4.7-7.7 billion drams in absolute terms. In parallel, tax policy measures imply targeting not only low-paid and low-to medium-level sectors of economic complexity, but also highly productive sectors that generate a large share of added value, as well as sectors that offer a decent level of remuneration. In particular, in this context, it is essential to address the primary measures of the RA tax policy in the information technology sector, which primarily target small, newly established start-up companies. These measures aim not only to foster development and growth but also to bring the aforementioned companies into the realm of tax visibility. It is noteworthy that tax expenditures on the IT sector privileges increased by approximately four times in absolute terms between 2022 and 2025, amounting to 16.3 billion drams, or 0.1% of GDP. In parallel, if previously certified IT sector organizations benefited from the privilege of 0% profit tax and a reduced 10% income tax rate for a period of 5 years (*Tax Code of the RA, Article 448*), then, the new state support program for the high-tech sector, which has now been adopted, provides for a large-scale package of tax incentives, which, as in the case of previous incentives, provides additional incentives for both employees and entrepreneurs to operate in the field of tax visibility:

- 200% deduction of the salary of personnel performing professional work from the gross income subject to profit tax, as well as the establishment of a reduced 10% income tax rate in the case of the above-mentioned employees ("Law of the Republic of Armenia on State Support for the High-Tech Sector", Article 5),
- provision of state support in the case of attracting a labor migrant, as well as a new employee, in the amount of 60% of the calculated income tax, as well as in the case of training and retraining of employees according to the classifications established by the Government, in the amount of 50% of the income tax per employee who has undergone training (*Tax Code of the RA, Article*),
- Establishing a 1% turnover tax rate on income from activities included in the list of high-tech activities defined by the government (*Tax Code of the RA, Article*), etc.

CONCLUSIONS. Informal employment, as a set of economic activities and derived income outside the scope of tax visibility, necessitates the state's implementation of complex legislative, institutional, and functional regulations, particularly in defining optimal tax rates and administration, developing targeted tax incentives, and providing sufficient social benefits. Our estimates indicate that Armenia's tax gap, rooted in informal employment, can be ranked among countries with higher-than-average losses (3.4%) compared to similar countries.

Studying the international experience of combating shadow employment and comparing it with the RA example, we can conclude that the RA legislation

provides for relatively mild approaches in the event of this issue, in particular, the absence of institutional-punitive mechanisms in the event of a continuous violation and the employee operating in the shadow (only the organization is fined).

Armenia's tax benefits and social credits are quantitatively comparable to the long-term average of countries that publish tax expenditures, around 1%. However, the benefits are fragmented and in some cases conflict with the long-term policy goals of mass employment and involving broad segments of the population in economic processes (for example, the elimination of income tax benefits in the micro-enterprise regime).

The problems of reducing shadow employment through tax instruments can also be effectively solved if they are combined with other regulatory levers and mechanisms. In particular, tax incentives and incentive mechanisms should be combined with targeted state policy measures in the areas of employment and education.

References

1. Act to Combat Undeclared Work and Unlawful Employment of 23 July 2004 (Federal Law Gazette I, p. 1842), amended by Article 22 of the Act of 25 June 2021 (Federal Law Gazette I, p. 2099). https://www.gesetze-im-internet.de/englisch_schwarzarbg/englisch_schwarzarbg.html
2. Awasthi, R. & Engelschalk, M. (2018). Taxation and the Shadow Economy: How the Tax System Can Stimulate and Enforce the Formalization of Business Activities. *Policy Research Working Paper; No. 8391*. World Bank. <http://hdl.handle.net/10986/29603>
3. Azuma, Y., and Grossman, H. I. (2002). A theory of the informal sector (No. w8823). *National Bureau of Economic Research*. P.19. https://www.nber.org/system/files/working_papers/w8823/w8823.pdf
4. Cnossen, S. (1998). Global Trends and Issues in Value Added Taxation. *February International Tax and Public Finance*, 5(3), Doi: 10.1023/A:1008694529567. pp. 399-428. <https://link.springer.com/article/10.1023/A:1008694529567>
5. Criminal Code in the version published on 13 November 1998 (Federal Law Gazette I, p. 3322), as last amended by Article 2 of the Act of 22 November 2021 (Federal Law Gazette I, p. 4906), Section 266a, "Withholding wages and salaries". https://www.gesetze-im-internet.de/englisch_stgb/englisch_stgb.html
6. Dybka, P., Kowalczyk, M., Olesiński, B., Rozkrut, M., & Torój, A. (2019), Currency demand and MIMIC models: towards a structured hybrid method of measuring the shadow economy. *International Tax and Public Finance*, 26:4–40. <https://doi.org/10.1007/s10797-018-9504-5>
7. Effective penalty measures for tackling undeclared work, including through cost administrative actions, European Labour Authority, 2023, 8-9. <https://www.ea.europa.eu/sites/default/files/2023-04/UDW-Toolkit-Effective-penalty-measures-20.04.pdf>

8. Elgin, C., M. A. Kose, F. Ohnsorge, & S. Yu. (2021). "Understanding Informality". *CERP Discussion Paper 16497*, Centre for Economic Policy Research, London.
<https://www.worldbank.org/en/research/brief/informal-economy-database>
9. International Monetary Fund. (2025). Fiscal Affairs Dept. "Republic of Armenia: Technical Assistance Report-Personal Income Tax and Social Security Contribution Gaps". *Technical Assistance Reports 2025*, 009, accessed August 15, 2025, p. 10.
<https://doi.org/10.5089/9798400299995.019>
10. International Monetary Fund. (2025). Fiscal Affairs Dept. "Republic of Armenia: Technical Assistance Report-Personal Income Tax and Social Security Contribution Gaps Estimation Based on Operational Audits". *Technical Assistance Reports 2025*, 055, accessed August 15, 2025, p. 7.
<https://doi.org/10.5089/9798229008884.019>
11. Irandoust, M. (2024). Informality and Taxation: Evidence from Seven Latin American Countries. *Hacienda Pública Española / Review of Public Economics*, 248-(1/2024): 91-114.
<https://dx.doi.org/10.7866/HPE-RPE.24.1.5>
12. Mazhar, U., & Méon, P. (2017). Taxing the unobservable: The impact of the shadow economy on inflation and taxation. *World Development*, 90, 89-103.
<https://doi.org/10.1016/j.worlddev.2016.08.019>
13. Torgler, B., Schneider, F., (2009). The impact of tax morale and institutional quality on the shadow economy. *Journal of Economic Psychology*, 30(2), 228-245.
<https://d-nb.info/988453800/34>
14. Ohnsorge, F., & Shu, Yu, eds. (2022). The Long Shadow of Informality: Challenges and Policies. Washington, DC: World Bank. p. 271-278. doi:10.1596/978-1-4648-1753-3.
<https://openknowledge.worldbank.org/server/api/core/bitstreams/f3fbcde3-8891-424e-a574-6f247030a230/content>
15. Schneider, F., & Asllani, A. (2022). Taxation of the Informal Economy in the EU, Publication for the Economic and Monetary Affairs Subcommittee on tax matters (FISC). Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg. p. 51.
[https://www.europarl.europa.eu/RegData/etudes/STUD/2022/734007/IPOL_STU\(2022\)734007_EN.pdf?fbclid=IwY2xjawIvqhBleHRuA2FlbQIxMAABHQ-oc2tVw-MHtRaYT6ecRRzTS-8hBXWJkkKyUf-igWm-alPYrK2l_vUQrw_aem_MTgizlINLT8s62KhbHJRYA](https://www.europarl.europa.eu/RegData/etudes/STUD/2022/734007/IPOL_STU(2022)734007_EN.pdf?fbclid=IwY2xjawIvqhBleHRuA2FlbQIxMAABHQ-oc2tVw-MHtRaYT6ecRRzTS-8hBXWJkkKyUf-igWm-alPYrK2l_vUQrw_aem_MTgizlINLT8s62KhbHJRYA)
16. Wijaya, A. S., & Wijaya, S. (2025). Shadows and shortfalls: Unraveling the relationship between informal economies and fiscal capacity. *Educoretax*, 5(4), 544–558.
<https://doi.org/10.54957/educoretax.v5i4.1481>
17. https://minfin.am/hy/page/_hy_chart/
18. Global Tax Expenditure Database.
<https://gted.taxexpenditures.org/data-download/>
19. <https://data.worldbank.org/indicator/SL.EMP.TOTL.SP.ZS>,
20. <https://data.worldbank.org/indicator/SP.POP.TOTL>
21. https://w3.unece.org/PXWeb2015/pxweb/en/STAT/STAT_20-ME_3-MELF/60_en_MECCWagesY_r.px/

22. <https://tradingeconomics.com/country-list/personal-income-tax-rate>
23. <https://www.worldbank.org/en/research/brief/informal-economy-database>, <https://tradingeconomics.com/country-list/personal-income-tax-rate>
24. <https://www.bailet.fr/en/what-does-french-law-say-about-domestic-staff-employment/#:~:text=8224%2D1%20of%20Labour%20Code,him%20with%20an%20official%20payslip>
25. "Tax Code of the Republic of Armenia", <https://www.irtek.am/views/act.aspx?aid=150068>
26. Data from the statistical reports "Labor Market in Armenia" for 2020-2024. <https://armstat.am/am/?nid=82&id=2625>, <https://armstat.am/am/?nid=14>
27. "2020 Budgetary Message-Explanatory Memorandum of the Government of the Republic of Armenia", Appendix 6. https://minfin.am/hy/page/petakan_byuje_2020t_nakhagits
28. "Law of the Republic of Armenia on State Support for the High-Tech Sector", Article 5. <https://www.arlis.am/DocumentView.aspx?DocID=201049>

Appendix 1

Calculation of the income tax gap due to informal employment based on the RA SC aggregated estimate of the informally employed

		2019	2020	2021	2022	2023
Informal employment (thousands of people)	1	403.4	376.6	389.1	434.2	421.9
Average monthly salary (thousands of AMD)	2	128.7	189.7	204.0	235.6	270.0
Approximate annual salary fund (billion AMD)	(3)=(1)*(2)*12months	623	857	953	1,227	1,367
Income tax rate	4	29.0%	23.0%	22.0%	21.0%	20.0%
Income tax loss from informal employment (billion AMD)	(5)=(3)*(4)	180.6	197.2	209.6	257.8	273.4
Actual income tax (billion AMD)	6	448.7	424.9	449.0	511.3	606.5
GDP (billion AMD)	7	6,543	6,182	6,992	8,501	9,493
Income tax gap due to informal employment (% of Income Tax)	(8)=(5)/(6)*100	40.3%	46.4%	46.7%	50.4%	45.1%
Income tax gap due to informal employment (% of GDP)	(9)=(5)/(7)*100	2.8%	3.2%	3.0%	3.0%	2.9%

Source: The Statistical Committee of the RA and calculations conducted by the authors