



The Impact of Tax Control on Tax Revenues: An Aggregate Metric Analysis of the Case of Albania

Arjana LLESHAJ¹
Dorina KOCI (JANKU)^{2*}
Llesh LLESHAJ³

¹General Directorate of Taxes, Ministry of Finance, Albania.

²Email: arjana.lleshaj@taime.gov.al

Tel: +355674881005

³Department of Finance, Faculty of Economy, University of Tirana, Albania.

³Email: dorinajanku@feut.edu.al

Tel: +355692470118

³Email: lleshlleshaj@feut.edu.al

Tel: +355672933968

Licensed:

This work is licensed under a Creative Commons Attribution 4.0 License.

Keywords:

Tax control

Tax evasion

Tax revenue

Empirical analysis

Econometric assessment.

JEL Classification

H26; C50.

Received: 6 June 2022

Revised: 27 July 2022

Accepted: 12 August 2022

Published: 25 August 2022

(* Corresponding Author)

Funding: This study received no specific financial support.

Competing Interests: The authors declare that they have no competing interests.

Abstract

Tax administration constantly monitors taxpayers through tax control to meet the legal obligations of the tax field. The main purpose of this function is to advise taxpayers and maintain operational control through continuous monitoring. Motivated by the importance of tax control, this paper aims to provide an empirical contribution to the analysis of tax control's effects on the level of tax revenues. The database obtained in the analysis is both quantitative and qualitative according to the evidence of direct operational controls performed on businesses. The variables analysed are total tax revenues from value added tax (VAT), profit tax, personal income tax (PIT), withholding tax, etc.; tax control variables and macroeconomic variables. The methodology used in this paper is based on linear models with many variables as well as statistical tests to find the potential levels and equilibrium, elasticity and structural estimation of tax revenues. The findings of this paper provide a focused contribution on current issues for tax control policymakers, as well as other public entities, and they make an academic contribution to the legal and economic interpretation of the importance of tax control.

1. Introduction

According to Albanian legislation, an audit by the tax administration is an examination of the taxpayer's tax statements, accounts, books and tax records, including all documentation relating to income, expenses, assets and liabilities, and financial relationships with third parties. The tax administration checks the accuracy of all documents relating to legal status, residence, economic activity, payments and tax liabilities, as well as any other document that affects the determination of tax liability (Tax Procedures in the Republic of Albania, 2008).

Also, as defined in EU legislation, "Tax audit is concerned with ensuring the registration and tracking of tax responsibilities of individuals and organizations, to ensure compliance with tax laws related to direct and indirect taxes". The audit aims to prevent, detect and address the enforcement of tax laws and compliance with them by interacting with economic operators (EU, 2019). It influences the behavior of economic operators in various ways by encouraging an increase in declarations and the payment of taxes (D'Agosto, Manzo, Pisani, & D'Arcangelo, 2018).

Many studies have been conducted on the impact of tax control on revenue generation in underdeveloped or developing countries, as their high level of tax evasion and low level of tax revenues collected make the study of tax control necessary (Todorović, Ljajić, & Ivanović, 2016). Such problems are also evident in Albania, and as there are no other exhaustive works in this field, this study has special importance. Moreover,

on the path of EU integration and in cooperation with other international organizations, such as the International Monetary Fund (IMF) and the World Bank, tax control in Albania is striving to improve according to the European model.

Taxpayers are evasive when it comes to tax issues. Therefore, they need to be motivated, whether through incentives or penalties, to pay the legally obliged amount. The use of tax control helps the tax administration encourage and enforce the payment of these obligations, as a way of affecting the behavior of taxpayers. Tax audits in the tax administration of the Republic of Albania include the Desk Audit and Field Audit. Their purpose is to encourage taxpayers to become aware of the self-declaration and self-assessment of their tax liabilities under applicable law, as well as to take coercive measures when compliance with tax legislation is not achieved voluntarily. In both its forms, tax control increases the declaration and payment of taxes that taxpayers are obliged to pay, thus increasing tax revenues.

Several major and immediate reasons motivated us to conduct this study. First, in Albania, tax control and the effect on tax revenues is the subject of official publications through the reports of the General Directorate of Taxes and the Ministry of Finance. However, these reports lack an empirical or time-extended analysis. Therefore, this study aims to fill this analytical and metric gap. Many Albanian government policies on tax control have been developed based on consultations with international institutions such as the IMF, European Commission and World Bank, but these consultations and suggestions have been based on the practices of similar countries and not an in-depth and specific empirical study of Albania. Our study, therefore, aims to fill this research gap as well.

Second, businesses, citizens and all Albanian stakeholders must understand and familiarize themselves with the efficiency of the policies through which tax control is implemented. Efficient tax control by the tax administration guarantees free market competition as well as transparency on the level of budget income for Albanian citizens. In this context, our study aims to show the precise efficiency of tax control in generating income and guaranteeing fair control.

Thirdly, even at the academic and curricular level in Albanian universities, no in-depth empirical studies have yet been conducted in this field, leaving a huge space for research. Therefore, we are motivated to do such a study and, through it, we aim to promote scientific, academic and professional debate on these issues and to advance scientific research and curricula in this area based on evaluation models, not only in the approaches of national institutions but also those of neighboring countries.

This paper will assess how tax control affects tax revenues and types of revenues from key tax items compared to other macroeconomic components that affect tax revenues, such as GDP, economic openness, and others. The impact of tax audits is studied by taking as indicators the number of audits and the level of audit findings or disclosures, in terms of additional liabilities and penalties that accompany these liabilities, according to fiscal legislation in the Republic of Albania.

2. Literature Review

Third-party reporting reduces non-compliance, whereas working in a cash-prevalent industry increases it. Many people who are unlikely to be non-compliant receive tax audits – costly for both the audited individual and the taxpayer – because data that are informative about their likelihood of non-compliance are not used (Advani, 2022). Audits serve to shift the behaviour of taxpayers who are audited. Audits increase tax payments substantially in following years, although this effect is short-lived when third-party reporting is not available (DeBacker, Heim, Tran, & Yuskavage, 2018). Public disclosure acts as an additional deterrent to tax evaders, and the deterrent effect is concentrated in the first stage of the two-stage model (whether to evade or not). Public disclosure thus increases compliance, mainly on the extensive margin (Alm, Bernasconi, Laury, Lee, & Wallace, 2017).

The prior literature has extensively studied the relationship between tax enforcement policies and tax compliance (Alm & McClellan, 2012). The standard tax compliance portfolio model, first studied by Allingham and Sandmo (1972) implies that rational individuals, especially those whose incomes are not subject to third-party sources of information, do not report any income (Allingham & Sandmo, 1972). So, the tax burden that taxpayers bear is not always reconciled in value with the tax burden set by legislation. According to an empirical study of some EU countries, Japan and the US, the legal tax rate is not equal to the effective tax rate (Nicodème, 2001). Tax non-compliance thus means that legal tax obligations are not fulfilled, and the tax administration must intervene to increase the level of declarations, tax compliance, and consequently tax revenues. The tendency towards tax evasion is a kind of collective contract. A study conducted in Italy on the effect of the role of audit rules in tax compliance showed that the choice of effective control rules by tax agencies significantly affects tax compliance rates (Casagrande, Di Cagno, Pandimiglio, & Spallone, 2015).

Tax administration interventions comprise several levels, from the notification and awareness of taxpayers to their control and penalization for non-fulfillment of tax obligations (OECD, 2014a). The effectiveness of controls and the impact on the growth of tax revenues can be seen by tracing the performance indicators of controls, such as the number of controls or additional taxes (Okello, 2014). To analyse the impact of tax audits, they are expressed in the above indicators, but the effects are much broader as the analysis examines all accounting information and promotes reporting according to accounting standards and laws.

Also, the importance of tax control is supported by accounting and tax information as well as additional information (Blaufus, Schöndube, & Wielenberg, 2020), and has a strategic position alongside auditors to increase the effectiveness of financial reporting and business standardization. The use of information from many sources means that tax audits make an important contribution to the fight against non-declaration of income. The entire control system of the tax administration puts pressure on not accepting the under-declaration of income as a phenomenon from which we are only protected when the business is subject to control, because the more undeclared work is accepted, the higher the probability that someone is conducting it Feld and Larsen (2012).

According to Downing and Langli (2019), the quality of tax compliance decreases for businesses that are not required to have auditors. It is therefore difficult to ensure a uniform tax compliance performance between businesses that have auditors and those that do not. A lack of audits leads to a lack of in-depth knowledge of accounting and tax rules. Thus, to reduce this gap, which can cause more tax evasion, audits are conducted by the tax administration, so that the tax compliance performance of honest taxpayers does not decrease (Chiarini & Monteleone, 2016). The improvement of tax audit performance translates to increased tax revenue but has become a more difficult process with the increased complexity of businesses. However, the latest IMF report found that audit activity and outcomes should be more systematically evaluated, particularly as focus shifts to desk audit post-fiscalization, because many audits add little value in terms of compliance impact. So, field audits need to be reduced in favor of desk-based audits, and it is recommended that the use of desk audits and electronic services be expanded to reduce the need for face-to-face contact. The desk audit monitoring unit should: (1) identify tasks that should be eliminated, automated, or assigned to more appropriate areas, and (2) understand the factors contributing to the low revenue results (IMF, 2022).

In recent years, OECD strategies for candidate countries to join the EU, aiming to unify the functioning of tax administrations and approximation of tax legislation with the EU, have included and piloted border controls, including tax control, in countries where certain companies have subsidiaries. This is an innovative approach to improving control skills and tackling tax evasion. It aims to facilitate targeted tax audit assistance programs in developing countries around the world. Tax audit experts work directly with local officials to develop the country's tax administration regarding current audits and audit-related issues, such as international taxes, and share general audit practices for specific cases. Tax benefits outweigh their generation and increase the revenue capacity of the state budget, as they increase the bilateral responsibility and thus the fiscal contract between state and citizens (OECD, 2020). Also, in the framework of the international progress that is being made in the fight against tax evasion, countries exchange fiscal and financial information as needed in real time, as part of the agreements on the automatic exchange of information (OECD, 2014b).

Currently, Albania participates in the global collaboration for automated exchange. As it is challenging to guarantee transparency from businesses in Albania, the process of gathering information from the entities is continuous. The current Albanian business culture is not conducive to transparency and control. The business culture is also unreceptive to opportunities. According to Barrachina (2021), particularly in Southern countries, perceptions of opportunities are closely correlated with educational attainment, access to funding and the state of the job market. Improving education associated with entrepreneurship, improving labor market conditions and facilitating access to financing could help potential entrepreneurs identify a greater number of business opportunities. More emphasis on education than punishment is necessary, given this tax control situation.

3. Research Methodology

This study's analysis is based on quarterly time series data from 2011 to 2020 (the period for which official data is available) for fiscal macroeconomics indicators. The variables' definitions and descriptive statistics are shown in Table 1.

Table 1. Definitions and descriptive statistics of variables.

Abbreviation	Description of the variables	Mean	Std. deviation
Dependent variable:			
TR	Tax revenues (total fiscal revenues in millions ALL).	32504.19	6503.82
Independent variable:			
NLE	Number of legal entities	6721.03	763.77
GDP	Gross domestic product growth (in %)	1.86%	6.31%
NA	Number of audits by the fiscal administration	664.95	256.94
VP	Value of penalties (in millions ALL)	2721.43	2988.30
VAE	Value of added exposure (in millions ALL)	3791.84	3072.06
EO	Economic openness (import + export / GDP)	56.29%	4.15%

To achieve an efficient model, we first checked the variables' stationarity using the Augmented Dickey-Fuller (ADF) Test of Unit Root (Dickey & Fuller, 1979). This test is fundamental to ensure a stationary series.

Only after a time series is stationary can a variable be accepted as dependent or independent in a regression model (Goldman, 2020). The basic equation of the ADF test linked with the constant and the trend (first-order integral) is:

$$\Delta X_t = \lambda_0 + \lambda_1 t + \lambda_2 X_{t-1} + \sum_{i=1}^{p-1} \lambda_i \Delta X_{t-1} + \varepsilon_t$$

The first difference $\Delta X_t = X_t - X_{t-1}$ in the period t , where λ_0 is the constant and t is the trend, with the null hypothesis, $H_0: \lambda_2 = 0$ (time series data is non-stationary).

In many studies in this field, as cited above in this study’s literature review, the impact of public audits on tax revenues is not analyzed as a correlation between the two variables; rather, the analysis extends to several independent variables in the group. In addition, these independent variables (involved in the tax audit) have both a direct effect and a delayed effect (lag effect). The most popular statistical technique for analyzing processes that vary over time, whether in nature or economics, is the autoregressive model. Autoregressive models are remarkably flexible at handling a wide range of different time-series patterns. Regarding the statistical approach and our collected data, the model with the best fit is a combined autoregressive model, which means a multiple variable model with lag effects. In this study, we apply the technique and analysis of multiple linear regression models in their autoregressive form to estimate the correlations between the variables. The analysis begins by estimating the statistical significance of the model:

$$TR_t = \beta_0 + \beta_1 NLE_t + \beta_2 GDP_t + \beta_3 NA_t + \beta_4 VP_t + \beta_5 VAE_t + \beta_6 EO_t + \varepsilon_t$$

In which β_i are the model parameters, or coefficients of independent variables in the model, for $i = 1, 6$ (in this study, the change of the dependent variable ΔTR is explained by the coefficients β_i when Δ independent variable = + 1 unit, “*ceteris paribus*”). ε_t is the regression residual or error term, the only variable that is not provided or not explained by the model, and should be stochastic. The error term is known as the statistical error of the model and is a community of other influencing factors not included in the model.

Estimating parameters β_i is accomplished using the ordinary least squares method, meaning we must minimize the square of errors (Gujarati & Porter, 2009). For this evaluation to set up conclusions with high statistical reliability, we rely on all the basic assumptions of the Gauss-Markov theorem:

Assumption 1 (linear in parameters): the model should be linear, meaning it can be applied to the least squares method. Linearity should be according to parameters.

Assumption 2 (random sampling): the random sampling assumption means that we have data that can be used to estimate the parameters and that the data were chosen to be representative of the population.

Assumption 3 (no perfect collinearity): in the sample (and therefore in the population), none of the independent variables is constant, and there are no exact linear relationships among the independent variables.

Assumption 4 (zero conditional mean): the error term has an expected value of zero given any values of the explanatory variables.

Assumption 5 (homoskedasticity): the error term has the same variance given any values of the explanatory variables.

Assumption 6 (normality): the population error term is independent of the explanatory variables and is normally distributed with zero mean and constant variance.

4. Empirical Analysis and Findings

First, using the ADF test, the stationarity of the time-series data was determined. Table 2 shows the time series that were stationary in level, first-order stationary, or second-order stationary. These variables were then used for parametric estimation of the multiple regression model of Albanian tax revenues.

Table 2. Time series stationarity test (ADF: unit root test).

Variables	Level		First difference		Second difference	
	t-stat.	Prob.	t-stat.	Prob.	t-stat.	Prob.
TR	-1.93	0.61	-1.48	0.81	-9.54	0.00
EO	-1.54	0.79	-2.66	0.09	-7.10	0.00
NA	-2.29	0.42	-5.21	0.00	---	---
NLE	-1.67	0.74	-6.63	0.00	---	---
VP	-4.89	0.00	---	---	---	---
GDP	-4.41	0.00	---	---	---	---
VAE	-1.00	0.27	-8.78	0.00	---	---

Note: First-order stationary shows that the series is first-order integral (i.e., it is stationary at first difference, or symbol Δ), and second-order stationary shows that the series is second-order integral (i.e., it is stationary at second difference, or symbol Δ^2).

The scientific steps of finding the right analytical model next required us to analyse the level of optimal lags that should be included in the model. Estimating the relevant statistical criteria, we concluded that the optimal lag = 1 (see Table 3).

Table 3. The optimal lag estimation.

Lag	LR	FPE	AIC	SC	HQ
0	NA	2.33	78.2	78.5	78.3
1	166*	9.70*	75.0*	77.5*	75.9*
2	51.1	1.79	75.3	79.9	76.9

Note: * statistical significance (p < 0.01) of lag criteria.

According to the empirical analysis of the multiple regression model of the Albanian situation, we identified the relationships between the dependent variable tax revenues (TR) and the independent variables (with lag = 1), as shown in Table 4.

Table 4. Parametric estimations of the model.

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C	-766	593	-1.29	0.21
D(D(EO))	-566	315	-1.79	0.08
D(NLE)	1.01	2.40	0.42	0.67
D(NA)	11.0	6.25	1.76	0.09
VP	-1.30	0.62	-2.07	0.05
GDP	752	944	0.79	0.43
D(VAE)	1.26	0.61	2.05	0.05
D(D(TR(-1)))	-0.72	0.12	-5.83	0.00
D(D(EO(-1)))	-630	310	-2.02	0.05
D(NLE(-1))	-2.02	2.59	-0.78	0.44
D(NA(-1))	1.33	7.25	0.18	0.85
VP(-1)	1.56	0.57	2.72	0.01
GDP(-1)	-2.07	9.82	-0.21	0.83
D(VAE(-1))	-0.33	0.34	-0.97	0.33
AR(2)	-0.91	0.08	-10.6	0.00
R-squared	0.79	Akaike info criterion		19.3
Adjusted R-squared	0.64	Schwarz criterion		19.9
Log likelihood	-323	Hannan-Quinn criterion		19.5
F-statistic	5.42	Durbin-Watson stat		1.48
Prob(F-statistic)	0.00			

As determined by the Fisher test, the model is statistically significant at a significance level of p < 1%. The model also has a satisfactory determinant coefficient referring to real economies, with an adjusted R² = 65%. The general form of the model is:

$$\Delta^2 TR_t = -766.57 - 0.73\Delta^2 TR_{t-1} + 11.06\Delta NA_t + 1.33\Delta NA_{t-1} - 1.30VP_t + 1.57VP_{t-1} + 1.27\Delta VAE_t - 0.33\Delta VAE_{t-1} + 7528.65GDP_t - 2072.09GDP_{t-1} - 56635.52\Delta^2 EO_t - 63012.43\Delta^2 EO_{t-1} + 1.01\Delta NLE_t - 2.03\Delta NLE_{t-1} - 0.91\varepsilon_{t-1} + \varepsilon_t$$

To analyze this model for its variables, we identified tax revenues (TR) with statistically significant positive correlations when other variables were constant “*ceteris paribus*” (up to the level of p < 10%):

- *Number of audits by the fiscal administration (NA)*: if the number of audits in the current quarter increases by 1%, this will increase the tax revenues by 11%.
- *Value of penalties (VP)*: if the value of last quarter's penalties had increased by 1%, the current tax revenue would have increased by 1.57%.
- *Value of added exposure (VAE)*: if the value of the current quarter's added exposure increases by 1%, tax revenues will increase by 1.27%.

However, the model also identified tax revenues (TR) with statistically significant negative correlations when other variables were constant “*ceteris paribus*” (up to the level of p < 10%):

- *Last quarter tax revenues (TR)*: if the last quarter's tax revenues had increased by 1%, current tax revenues would have increased by 0.73%.
- *Value of penalties (VP)*: if the value of penalties for the current quarter increased by ALL 1 million, tax revenues would be ALL 1.3 million less.
- *Economic openness (EO)*: if the economic openness increases by 1% (increase in foreign trade), this will reduce tax revenues by ALL 5.7 million. The last quarter's economic openness has a negative impact as well.

Two variables were statistically insignificant:

- Gross domestic product growth (GDP), because its values are almost stable (little variation), except for the last two years.
- Number of legal entities (NLE), because the changes in fiscal policies were unrelated to any trend in the number of registered businesses

The model analyzed in Table 4 above successfully passed the basic assumptions of the residual model tests. Table 5 below summarizes the results of the tests that proved the usefulness and best fitness of the model.

Table 5. Residual test estimations.

Test	Null hypothesis	Test results		Decision
		Statistic test	Probability	
Model function: Ramsey RESET-test	H ₀ : "the model has linear form"	F-statistic = 0.1116	0.7420	H ₀ is not rejected
Multicollinearity: VIF-test (Variance Inflation Factors)	H ₀ : "the model has no multicollinearity {Cov(ε _i ; ε _j) = 0 dhe Cov(x _i ; x _j) = 0, i ≠ j}"	Uncentred – VIF < 10	---	H ₀ is not rejected
Autocorrelation: LM- test (Breusch-Godfrey)	H ₀ : "the model has no autocorrelation {Cov(ε _t ; ε _{t-p}) = 0 për p = 1, 2, 3, 4}"	Chi-squared = 5.0261	0.0810	H ₀ is not rejected
Heteroskedasticity: Breusch-Pagan- Godfrey	H ₀ : "the model has no heteroskedasticity {E(ε _t ²) = constant}"	F-statistic = 0.4961	0.9024	H ₀ is not rejected
Normality of the residual distribution: Jarque-Bera-test	H ₀ : "the residual {ε _t } is not normally distributed"	Chi-squared = 1.3396	0.5117	H ₀ is not rejected

Thus, the results revealed that in the current period, an increase in tax revenue is the immediate consequence of an increase in checks, since a taxpayer who is selected for control has the right to make a declaration of income that he has not made until that moment, receiving penalties that are 50% lower than those imposed after the control, thereby reducing the level of informality. An increase in tax income is also the immediate result of an increase in the value of the added exposure at the level of 5.7% since the additional obligations that result from the verification of the performed controls are not collected immediately by the tax administration. The impact of an increase in imposed penalties on tax revenues is negative in the current period since, to cover these penalties, taxpayers are forced to re-budget the destination of liquid funds. This, of course, requires time as the change in the destination of the funds may also require a decrease in investments in normal business activity, therefore, in the current period, it is followed by a decrease in the level of tax revenues. Meanwhile, the penalties imposed in a previous period bring an increase in tax revenue, since, if they are postponed, they produce additional obligations due to delays. This forces the taxpayer to adopt positive behaviors in the formalization of their activities and tax compliance. Also, the level of income affects the following quarter negatively, since tax income is used at a significant level to cover public expenses. Therefore, the investment level of this income is very low.

Economic openness, both in the current period and in a previous period, has a negative impact on tax revenues since Albania's economic openness ratio shows that the volume of imports is much lower than that of exports. Because this ratio is lower than 1, it indicates that economic openness is followed by the transfer of income abroad, such as through import spending.

5. Conclusions

The results of the empirical model suggest we should look at the impact of the variables at two levels: the impact on the current period and the impact on the previous period. The study results show that the tax revenues of the current period are positively and statistically significantly correlated with:

- *The number of audits by the tax administration*: For the period under study (2011-2020), the increase in the number of field audits led to an increase in tax revenues due to a decrease in informality and an increase in the level of tax returns.

- *The value of penalties:* The effect of imposing penalties on the behavior of taxpayers is immediate and leads to the formalization of activity and an increase in tax compliance.
- *The value of findings or exposures:* This connection was expected as any additional tax liability evidenced by the tax audit is additional revenue, on the condition that these liabilities are generally recognized and paid by taxpayers.

Also, the empirical model shows that the tax revenues of the current period are inversely and statistically significantly correlated with:

- *The level of tax revenues of the previous year:* The level of tax revenues does not encourage their further growth as these revenues are not invested in the economy but are mainly used to cover current expenditures; consequently, they do not bring an additional return in the economy.
- *The value of penalties:* The impact of penalties on tax revenues in the following period is negative as, in the short term, the imposition of penalties and their coverage directly causes a reduction of funds for businesses, meaning that businesses have less money to invest in their activity, leading to a reduction in the level of future tax revenue.
- *Economic openness:* This variable, both at its current value and that of a year ago, reduces tax revenues because in Albania economic openness is a macroeconomic indicator with a value of less than 1, and its increase would aim to increase exports.

This study gives a complete overview of scientific metric analysis at the aggregate level. Unfortunately, the data for sectoral analysis are missing, which is a limitation of the study. The usefulness of the study and its findings is as a research aid for policymakers at the central and local levels, especially in the areas of fiscal administration and control.

From the empirical analysis, we conclude that tax control has an immediate positive effect on tax revenues when the purpose and the measures taken are awareness-raising, tax compliance-encouraging and not penalizing. In this context, as international organizations suggest for the purpose of adaptation to EU legislation and eventual membership, increasing the number of desk audit monitoring checks and reducing the number of field audits results in less physical disturbance of the taxpayer's premises, more frequent monitoring and increasing awareness of tax compliance. Also, as it results in an increase in investments and the creation of a favorable business climate due to prudent fiscal policies, high-quality management of tax revenues, reinvestment of tax revenues and an increase in the level of purchases within the country, it will generate higher turnover in the economy and, consequently, higher tax revenues. Nevertheless, the study of the effects of fiscal policy on macroeconomic indicators and the creation of a favorable business climate in Albania would benefit from further research.

References

- Advani, A. (2022). Who does and doesn't pay taxes? *Fiscal Studies*, 43(1), 5-22. Available at: <https://doi.org/10.1111/1475-5890.12257>.
- Allingham, M. G., & Sandmo, A. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics*, 1(3-4), 323-338. Available at: [https://doi.org/10.1016/0047-2727\(74\)90037-1](https://doi.org/10.1016/0047-2727(74)90037-1).
- Alm, J., Bernasconi, M., Lairy, S., Lee, D. J., & Wallace, S. (2017). Culture, compliance, and confidentiality: Taxpayer behavior in the United States and Italy. *Journal of Economic Behavior & Organization*, 140(C), 176-196. Available at: <https://doi.org/10.1016/j.jebo.2017.05.018>.
- Alm, J., & McClellan, C. (2012). Tax morale and tax compliance from the firm's perspective. *Cycle*, 65(1), 1-17. Available at: <https://doi.org/10.1111/j.1467-6435.2011.00524.x>.
- Barrachina, M. (2021). Similarities and differences in the European entrepreneurial activities. *International Journal of Applied Economics, Finance and Accounting*, 11(2), 48-55. Available at: <https://doi.org/10.33094/8.2017.2021.112.48.55>.
- Blaufus, K., Schöndube, J. R., & Wielenberg, S. (2020). *Strategic interactions between tax and statutory auditors and different information regimes: Implications for tax audit efficiency*. Paper presented at the Arqus Discussion Papers in Quantitative Tax Research. <http://www.econstor.eu/bitstream/10419/213011/1/1687848696.pdf>
- Casagrande, A., Di Cagno, D., Pandimiglio, A., & Spallone, M. (2015). The effect of competition on tax compliance: The role of audit rules and shame. *Journal of Behavioral and Experimental Economics*, 100(59), 96-110. Available at: <https://doi.org/10.1016/j.jsocec.2015.08.006>.
- Chiarini, B., & Monteleone, S. (2016). Discretionary policy, strategic complementarity and tax evasion: A strategic analysis of the Italian audit mechanism. *Political Economy*, 33(1), 99-117. Available at: <https://doi.org/10.1007/s40888-016-0024-4>.
- D'Agosto, E., Manzo, M., Pisani, S., & D'Arcangelo, F. M. (2018). The effect of audit activity on tax declaration: Evidence on small businesses in Italy. *Public Finance Review*, 46(1), 29-57.
- DeBacker, J., Heim, B., Tran, A., & Yuskavage, A. (2018). Once bitten, twice shy? The lasting impact of IRS audits on individual tax reporting. *Journal of Law and Economics*, 61(1), 1-35. Available at: <https://doi.org/10.1086/697683>.
- Dickey, D. A., & Fuller, W. A. (1979). Distribution of the estimators for autoregressive time series with a unit root. *Journal of the American Statistical Association*, 74(366a), 427-431. Available at: <https://doi.org/10.2307/2286348>.
- Downing, J., & Langli, J. C. (2019). Audit exemptions and compliance with tax and accounting regulations. *Accounting and Business Research*, 49(1), 28-67. Available at: <https://doi.org/10.1080/00014788.2018.1442707>.

- EU. (2019). EU tax competency framework: Role descriptions-tax audit. pp. 4. Available at: <https://doi.org/10.2778/603542>. Retrieved from: https://taxation-customs.ec.europa.eu/system/files/2019-10/3.4._taxcompeu_role_descriptions_-_tax_audit_-_kp0219826enn.pdf.
- Feld, L. P., & Larsen, C. (2012). Self-perceptions, government policies and tax compliance in Germany. *International Tax and Public Finance*, 19(1), 78-103. Available at: <https://doi.org/10.1007/s10797-011-9196-6>.
- Goldman, E. (2020). *Data analysis in finance*. New York, USA:: Pace University.
- Gujarati, D. N., & Porter, D. C. (2009). *Basic econometrics* (5th ed., pp. 55-61): McGraw-Hill Inc.
- IMF. (2022). Albania: Enhancing tax administration capacity during challenging times. IMF Staff Country Reports.
- Nicodème, G. (2001). Computing effective corporate tax rates: comparisons and results. Economic paper, No. 153. Retrieved from: https://ec.europa.eu/economy_finance/publications/pages/publication942_en.pdf.
- OECD. (2014a). Common reporting standard, for AEOI. Retrieved from: <https://www.oecd.org/tax/automatic-exchange/about-automatic-exchange/>.
- OECD. (2014b). *Tax compliance by design: Achieving improved SME tax compliance by adopting a system perspective*. OECD Publishing.
- OECD. (2020). Removing administrative barriers, improving regulatory delivery. Retrieved from: <http://www.oecd.org/coronavirus/policy-responses/removing-administrative-barriers-improving-regulatory-delivery-6704c8a1/>.
- Okello, A. (2014). Managing income tax compliance through self-assessment. Retrieved from: <http://www.imf.org/external/pubs/ft/wp/2014/wp1441.pdf>.
- Tax Procedures in the Republic of Albania. (2008). Law no. 9920. Albania. Retrieved from: <http://www.tatime.gov.al/c/6/69/procedurat-tatimore>.
- Todorović, M., Ljajić, S., & Ivanović, A. R. (2016). Effects of tax audit on tax evasion and grey economy in the republic of Serbia. *Entrenova-Enterprise Research Innovation*, 2(1), 250-255.