●*Volume/Cilt: 2* ●*Issue/Sayı: 2*
December/Aralık 2024

Research Article/Araştırma Makalesi

Tax Evasion and Income Inequality in European Countries: An Approach with Dynamic Panel Data Analysis

Avrupa Ülkelerinde Vergi Kaçakçılığı ve Gelir Eşitsizliği: Dinamik Panel Veri Analizi Yaklaşımı

Büşra ŞİMŞEK[1]

Muhammet Sait BOZİK[2]

Alihan SERDENGEÇTİ[3]

ABSTRACT

Tax evasion and tax avoidance are significant factors that emerge as a result of individuals' efforts to maximize their own benefits, adversely affecting income distribution. This study employs a dynamic panel data analysis method to examine the relationship between tax evasion and income inequality in 28 European Union countries between 2004 and 2016. The analysis utilizes tax evasion data from the Panama Papers report provided by the European Commission and income inequality data based on Gini coefficients compiled by Frederick Solt. The primary aim of the study is to investigate the impact of tax evasion on the fairness of income distribution. To address potential endogeneity and autocorrelation issues, the Generalized Method of Moments (GMM) was applied, ensuring reliable estimates. The findings reveal that an increase in income inequality leads to a statistically significant increase in tax evasion.

Keywords: Tax Evasion, Income Distribution, Inequality, Dynamic Panel Data Analysis**.**

ÖZ

Vergi kaçakçılığı ve vergi kaçırma, bireylerin kendi çıkarlarını maksimize etme çabalarının bir sonucu olarak ortaya çıkan ve gelir dağılımını olumsuz etkileyen önemli faktörler arasındadır. Bu çalışma, 2004-2016 yılları arasında 28 Avrupa Birliği ülkesinde vergi kaçakçılığı ile gelir eşitsizliği arasındaki ilişkiyi analiz etmek amacıyla dinamik panel veri analizi yöntemini kullanmıştır. Analizde, Avrupa Komisyonu tarafından sağlanan Panama Belgeleri raporundaki vergi kaçakçılığı verileri ile Frederick Solt'un derlediği Gini katsayılarına dayalı gelir

[1] Dr., Istanbul Institute for Advanced Studies, busrasimsek02@gmail.com, https://orcid.org/0000-0001-5295-375X
[2] Assist. Prof., Haliç University, Faculty of Arts and Science, Department of Mathematics, muhammetsaitbozik@halic.edu.tr, https://orcid.org/0000-0002-5793-4352
[3] Dr., Independent Researcher, alihanserdengecti@gmail.com, https://orcid.org/0000-0002-1908-7447

Citation/Atıf: Şimşek, B., Bozik, M. S., & Serdengeçti, A. (2024). Tax evasion and income inequality in european countries: An approach with dynamic panel data analysis. *Journal of Academic Analysis, 2*(2), 1-14.
Date Submitted/ Gönderim Tarihi: 13.11.2024 Date Accepted/ Kabul Tarihi: 24.12.2024

eşitsizliği verileri kullanılmıştır. Çalışmanın temel amacı, vergi kaçakçılığının gelir dağılımı üzerindeki adalet etkisini incelemektir. Potansiyel içsellik ve otokorelasyon sorunlarını gidermek için Genelleştirilmiş Momentler Yöntemi uygulanarak güvenilir tahminler elde edilmiştir. Araştırma bulguları, gelir eşitsizliğindeki artışın vergi kaçakçılığı üzerinde istatistiksel olarak anlamlı bir artışa neden olduğunu göstermektedir.

Anahtar Kelimeler: Vergi Kaçakçılığı, Gelir Dağılımı, Eşitsizlik, Dinamik Panel Veri Analizi.

1. Introduction

Tax evasion constitutes an integral part of the informal economy. All earning activities that are not officially declared constitute the informal economy (Karlsson & Matthiasson, 2015). Tax evasion refers to the avoidance of tax payments and the fraudulent, dishonest reduction of the amount of tax payable. It refers to being subject to less than the actual amount by hiding, misrepresenting, deliberately destroying data (Şengül Çelikay, 2019). In general, the main method used to measure tax evasion is random audits. These audits are the best way to uncover unreported self-employment income, abuse of tax opportunities and simple tax evasion. Government agencies rely on these audits to estimate the tax gap. However, these audits have several shortcomings. Inadequate sample sizes are one of them. The existence of complex tax evasion schemes also makes it difficult to detect tax evasion. Therefore, it is difficult to measure the size of the informal economy and tax evasion (Alstadsæter, Johannesen, & Zucman, 2019). Therefore, the most important contribution of this topic to the literature is to examine the effects of a parameter that is difficult to measure. In this study, the main purpose of the analysis is to fill the gap in the literature and to measure the impact of tax evasion on income fairness. In the analysis, as tax evasion data, we use the data on tax evasion prepared by the European Union Commission based on the Panama Papers, which provides data on tax evasion. Vellutini, Casametta, Bousquet, and Ponlatowski (2019) in the report prepared by the European Commission. Data on tax evasion for the 28 European Union countries, including the United Kingdom, Sweden, Finland, Slovakia, Slovenia, Romania, Portugal, Poland, Austria, the Netherlands, Malta, Hungary, the Czech Republic, Luxembourg, Lithuania, Latvia, Cyprus, Italy, Croatia, France, Spain, Greece, Ireland, Estonia, Germany, Denmark, Bulgaria, and Belgium, from 2004 to 2016 have been used. As a measure of income inequality Solt (2020)'s database of standardized income inequality data, the gini coefficients of 28 countries for the period between 2004 and 2016 will be used. As an analysis method, panel data analysis method, which can measure both time and unit dimension, will be used.

The relationship between tax evasion and income inequality Mirrlees (1971)'s Optimal Tax Theory as an innovative research, which won Mirrlees the Nobel Prize in Economics, aims to strike a balance between efficiency and equity in tax systems. This aims to reduce the distortions of the tax system while at the same time ensuring an equitable distribution of revenues. According to the Optimal Tax Theory, individuals maximize the benefits of tax evasion by weighing the benefits against the costs, such as the probability of being caught and the severity of punishment (Allingham & Sandmo, 1972). This framework is useful for understanding taxpayers' behavior and the resulting economic inequalities. Tax evasion often

increases income inequality by allowing high-income individuals to earn more money because low-income individuals are more liable for taxes. Supporting Optimal Tax Theory Slemrod and Weber (2020) study examines behavioral responses to tax audits and penalties and finds that it is increased audit rates and higher penalties that significantly deter tax evasion. These findings are consistent with the utility maximization behavior predicted by the Optimal Tax Theory. Piketty, Saez, and Zucman (2018) again in support of the theory, claiming that progressive taxation, if properly planned, will not significantly reduce income inequality. Bessele and Persson (2019) by examining the institutional factors affecting tax compliance, they show that strong legal frameworks and effective governance reduce tax evasion. These findings are consistent with optimal tax theory. Alstadsæter et al. (2019), provides empirical evidence that tax evasion is significantly more prevalent among the rich, highlighting how the best tax policies can deal with this disparity. The findings suggest that tax evasion is particularly concentrated among the richest 0.01%. The richest 0.01% evade around 25% of taxes on wealth income, much higher than the average rates detected by random audits. Estimates of wealth inequality increase significantly when assets stashed offshore are considered. The study emphasizes the need for robust tax policies to deal effectively with these disparities. While there are many studies supporting the optimal tax theory, there are also criticisms of the theory. Saez and Stantcheva (2016) as one of the critics, he criticizes individual rationality and utility maximization theories and claims that social norms and behavioral biases play an important role in tax compliance decisions. He emphasizes that psychological insights should be considered when formulating tax policy. In another study with a critical approach Gordon and Li (2015) says that ideal tax policies are difficult to implement in developing countries because of their informal economies and limited administrative capabilities. He emphasizes that informal economies and limited administrative capabilities make tax collection and enforcement difficult, hence the reliance on indirect taxes and tariffs, and that special approaches that take these constraints into account are necessary. In addition to the studies that support and criticize the optimal tax theory, there are also studies that provide suggestions to the theory. Diamond and Saez (2011) theory is valid and proposes progressive taxation to tackle income inequality. He argues that well-thought-out tax policies can achieve redistributive goals without reducing economic efficiency. Feldstein (2017) In addition, he emphasizes the importance of the theoretical framework and stresses that it helps to understand the trade-off between efficiency and equity in the tax policy design process. Practical applications of the theory provide useful insights for policy makers. The importance of optimal tax theory for this study is due to its ability to model the complex interactions between tax policies, taxpayer behavior and income distribution. Using this framework, the study aims to identify the ways in

which tax evasion increases income inequality in Europe. The theory helps to identify the most appropriate tax rates, audit techniques and penalties to reduce tax evasion and promote a fairer distribution of income. The study considers European countries in this context and highlights several gaps in the existing theoretical and empirical literature. One of them is the limited knowledge on how cross-border tax evasion and international tax competition affect income inequality across European countries. The role of digital economies and new financial technologies in promoting tax evasion is another problem that traditional models do not adequately address. The aim of the study is to gain a deeper and more comprehensive understanding of the relationship between tax evasion and income inequality in Europe and to provide valuable policy recommendations to promote tax compliance and reduce income inequalities. The main objectives of fiscal policies are to achieve fairness in income distribution and to confront and address social needs. To do so, governments identify public goods and services and establish the structure of the tax system. The distributional effects of the latter are immediately felt and it is clear that the tax system should be taken into account when income distribution is discussed. Empirical literature, Theil (1971)'s relative inequality index and Gini (1912) based on the coefficient. Lorenz (1905) and concentration curves are used because they are easy to interpret, but they are nothing more than a particular type of Lorenz curve. While these studies are valuable, they cannot obtain distributional results from concentration measures. The authors' previous studies have considered the distributional effects of the entire tax system on after-tax revenues and have shown that the role of the main taxes is not the same. Such studies are important, but the concern about the estimation properties of the concentration parameter suggests that indices with known dispersion results should be used and nonparametric inference procedures should not be used. Optimal policies are quite clear given these frameworks. Instruments, enforcement and penalties are fairly well defined. For each case, various policies have been developed to consider different, specific and political circumstances. Studies identifying the determinants of tax evasion are numerous. For example, Scholz and Pinney (1995), found that tax evasion depends not only on economic behavior but also on risk aversion. On the other hand Andreoni, Erard, and Feinstein (1998) focused on the consequences of tax non-compliance on the taxpayer. Their study shows that there is a positive relationship between the taxpayer's risk premium and tax evasion rates. All studies provide insights into the relationship between tax evasion and income distribution. In this sense, the theoretical literature makes the subject and the study group it focuses on valuable.

The focus of the theoretical literature between tax evasion and income distribution reveals that there is an important link between the concepts. Both supportive and critical studies

reveal the strength of the theoretical link. In this sense, the study has important findings in the literature. Our study fills an important gap in the literature with the difference in the countries of the region we study, and the data set we obtain. As we will see in the methodology section, important findings specific to European countries aim to contribute to the literature in a different context. If we summarize the literature before all these, the gap we fill in the literature will gain more importance. Bloomquist (2003), In his study on the United States, he examined the relationship between the increase in income inequality in the United States and the increase in tax evasion. Increasing income inequality both decreases the probability of detection and increases the propensity to evade taxes by increasing the opportunity costs of compliance. Decreased probability of detection of tax evasion and increased inequality indicate the presence of economic polarization. Greater economic polarization increases the fiscal burden of middle-class taxpayers, increasing the likelihood of tax evasion. Wealthy taxpayers, on the other hand, may again turn to tax evasion if they perceive an inequality of opportunity between the tax burden and public sector benefits. Also Ait Bihi Ouali (2020) analyzed the Panama Papers and found that the existence of tax havens increases tax evasion. Increased tax evasion leads to inequality. The study reveals that individuals are sensitive to inequality and update their preferences accordingly. Tax evasion will basically lead to a decrease in the expected tax revenues and disrupt the effectiveness of the state's social assistance. This can lead to the wealthy becoming richer and the poor becoming poorer due to the inefficiency of social assistance. In the light of all these indicators, the tax havens that have emerged in recent years have also provided us with some data. The so-called Panama Papers have shed light on studies in this field by providing data on tax evasion. Torregrosa-Hetland (2020) examines tax evasion in Spain between 2001 and 2004 and its impact on progressivity, tax redistribution and inequality. That is, it analyzes the personal income tax, focusing on differences in income sources and income levels. For the study, they analyzed income tax microdata from the Spanish Instituto de Estudios Fiscales. The study is methodologically Feldman and Slemrod (2007) in the year 2000. According to the study, donations are not affected by the origin of incomes. When we analyze the results, the negative impact of tax avoidance on inequality was expected due to the differences between income sources and the variable composition of total income at the social level. This is confirmed by official statistics. Alstadsæter et al. (2019) used the data set obtained by leaking the records of offshore financial institutions. According to the analysis, tax evasion is high among the rich. Those in the richest 0.01 percentile evade 25% of their taxes. However, the probability of tax evasion decreases when we look at households below the top 1%. A random tax audit across income strata shows that evasion is below 5%.

2. Data and Methodology

In this study, in order to measure the effect of income inequality on tax evasion, the data on tax evasion and gini coefficients between 2004 and 2016 will be used for 28 European Union member countries, namely Sweden, Finland, Slovakia, Slovenia, Romania, Portugal, Poland, Austria, Netherlands, Malta, Hungary, United Kingdom, Czech Republic, Luxemburg, Lithuania, Latvia, Cyprus, Italy, Croatia, France, Spain, Greece, Ireland, Estonia, Germany, Denmark, Bulgaria and Belgium. The tax evasion data used in the research will be based on the data on tax evasion prepared by the European Union Commission based on the Panama Papers. Vellutini et al. (2019) prepared by the Ministry of Environment and Urbanization. Gini coefficients are Solt (2020)'s database of standardized income inequality data.

Since economic behavior in a period is largely affected by past experiences and behavior patterns, it is important to include the lagged values of variables in the model when examining the economic relations between variables Tatoglu (2013). Therefore, dynamic structure is frequently used in economic models. Since the error terms of the first difference model are generally negatively autocorrelated, the Generalized Method of Moments (GMM) developed by Arellano and Bond (1991) which includes the lagged value of the dependent variable in the model, is used in this study. The research model established to determine the dynamic relationship between the Gini coefficient and the tax evasion variable with the Generalized Method of Moments (GMM) Estimator developed by Arellano and Bond (1991), which includes the lagged value of the dependent variable in the model, is given below:

$$teva_{it} = \beta_0 + \beta_1 teva_{i,t-1} + \beta_2 gini_{it} + u_{it} \qquad (1)$$

This equation relates a country's tax evasion level ($teva_{it}$) to the previous period's tax evasion level ($teva_{it-1}$) and the Gini coefficient ($gini_{it}$), which represents income inequality. In the equation, $teva_{it}$ denotes the tax evasion level of country i in period t; $teva_{i,t-1}$ represents the tax evasion level in the previous period of country i in period t; $gini_{it}$ denotes the income inequality of country i in period t; β_0 is the constant term; and u_{it} is the error term.

3. Analysis and Findings

First, Arellano and Bond (1991) GMM is used to estimate the research model. In this method, firstly the first difference model is transformed using instrumental variable matrices and then the model is estimated with the GLS method in Table 1.

Table 1: Arelano Bond's generalized moments estimator

Independent Variables	Coefficient	Std. Error	t-Statistic	Prob.

teva(-1)	0.520412	3.44E-05	15130.71	0.0000
gini	1.854.889	0.005880	3.154.834	0.0000

As seen in Table 1, the lagged variable explained the dependent variable, tax evasion, positively and significantly. At the same time, the gini coefficient variable also explained tax evasion positively and significantly. The model reveals that a 1-unit increase in the gini coefficient increases tax evasion by 1.8 units in the countries that are members of the European Union.

Table 2: Sargan Test for validity of instrumental variables

J -Statistic	Prob
2480405	0.473397

The Sargan Test is a test used to test the validity of the instrumental variables used in the generalized moments estimator, in other words, whether the overidentification restrictions are valid. In this test, the H_0 hypothesis is "*Overidentification restrictions are valid; that is, instrumental variables are valid*" (Demez & Akyol, 2021). According to the J statistic results in Table 2, the hypothesis H_0 cannot be rejected, so the instrumental variables are valid).

Table 3: Arellano – Bond autocorrelation test

Test order	m-Statistic	Prob.
AR(1)	-2.052.825	0.0401
AR(2)	0.047008	0.9625

The Arellano and Bond autocorrelation test is a test used to detect the presence of autocorrelation in a dynamic panel data model. The absence of second-order rather than first-order autocorrelation is crucial for the efficiency of the generalized moments estimator. The null hypothesis H_0 is "*no autocorrelation*" (Arellano & Bond, 1991). According to the results in Table 3, both first-order and second-order autocorrelation were tested and the t statistic used to test for second-order autocorrelation was found to be insignificant. In other words, the null hypothesis H_0 cannot be rejected and therefore it is concluded that there is no second order autocorrelation. In the first order, negative autocorrelation is found.

Table 4: Wald test

Test Statistic	Value	Prob.
F-statistic	1.19E+08	0.0000
Chi-square(χ^2)	2.37E+08	0.0000

The Wald test tests the significance of independent variables in explaining the dependent variables, in other words, it expresses the overall significance of the model (Tatoglu, 2013). According to the Wald chi-square test result in Table 4, the variables in the model are significant. Based on the analysis conducted in the study, significant findings were revealed concerning the relationship between income inequality and tax evasion across 28 European Union countries from 2004 to 2016. The results indicate that both lagged tax evasion and the Gini coefficient significantly impact current levels of tax evasion. Specifically, a 1-unit increase in the Gini coefficient is associated with a 1.8-unit increase in tax evasion, highlighting the role of rising income inequality in exacerbating tax evasion behaviors. The robustness of the model was confirmed through several tests, including the Sargan Test for instrument validity and the Arellano-Bond autocorrelation test, ensuring that the results are reliable. These findings underscore the necessity for comprehensive tax reforms and stricter enforcement mechanisms to curb tax evasion and promote equitable income distribution across these countries. The study concludes that addressing income inequality is crucial for reducing tax evasion and enhancing the fairness of tax systems within the EU.

4. Discussion and Policy Recommendations

Neoliberal economic policies, recurrent financial crises, pervasive informal economic activities, insufficient minimum wage levels, widespread tax evasion, and an over-reliance on indirect taxation in Turkey have exacerbated income inequality, disproportionately impacting lower-income segments of society. While Turkey is not part of the 28 EU countries analyzed in this study, its experience highlights the broader challenges faced by countries with high income inequality and significant tax evasion.The positive correlation between income inequality and tax evasion suggests that policies aimed at reducing inequality could also help mitigate tax evasion. Progressive taxation, enhanced enforcement mechanisms, and social policies that reduce inequality could serve as effective tools to promote tax compliance. Furthermore, the study highlights the need for a comprehensive approach to tax policy that considers the broader social context, including the impact of inequality on taxpayer behavior. However, this study also raises several questions for future research. For instance, while the analysis provides strong evidence of the relationship between income inequality and tax evasion, it does not fully explore the mechanisms through which inequality influences evasion. Future studies could investigate the role of social norms, perceptions of fairness, and trust in government institutions in shaping tax compliance behaviors. Additionally, the impact of digital economies and new financial technologies on tax evasion, particularly in the context of cross-border activities, warrants further examination. In conclusion, this study contributes to the

growing body of literature that links income inequality with adverse economic behaviors such as tax evasion. The findings underscore the need for policies that address inequality not only as a moral and social imperative but also to enhance the efficiency and fairness of tax systems. By fostering a more equitable distribution of income, governments can create a more compliant and less evasive taxpayer base, ultimately promoting economic stability and social cohesion within the EU.

When the policy recommendations that the study will present are outlined under six main headings, their impact on tax evasion and income inequality will be better understood. Strengthening tax audits and enforcement mechanisms: Governments should invest in more sophisticated auditing techniques and increase the frequency of tax audits, particularly targeting high-income individuals who are more likely to engage in tax evasion. Enhancing the penalties for tax evasion and ensuring that these penalties are rigorously enforced could act as a stronger deterrent. Implementing Progressive Tax Reforms: To address the root cause of income inequality, it is essential to implement more progressive tax systems. This includes increasing tax rates on higher income brackets and ensuring that wealth accumulated through inheritance or capital gains is adequately taxed. Progressive taxation can help reduce the incentive for tax evasion among the wealthy, thus contributing to a more equitable income distribution. Closing loopholes and reducing tax havens: International cooperation is crucial in combating tax evasion that occurs through offshore accounts and tax havens. Countries should work together to close legal loopholes that allow individuals and corporations to shift profits and assets to low-tax jurisdictions. Strengthening global financial transparency and sharing tax-related information between countries can significantly reduce cross-border tax evasion. Enhancing public awareness and compliance: Public campaigns aimed at raising awareness about the negative impacts of tax evasion on society can foster a culture of tax compliance. Educating citizens about the importance of taxes in funding public goods and services and highlighting the moral implications of tax evasion can lead to greater voluntary compliance. Improving social safety nets: The effectiveness of social welfare programs should be strengthened to reduce income inequality. By providing better access to education, healthcare, and other essential services, governments can alleviate the financial pressures that drive individuals towards tax evasion. A robust social safety net can also reduce the public's resentment towards taxes, thereby improving compliance rates. Leveraging technology for better tax administration: Governments should adopt advanced technologies, such as artificial intelligence and data analytics, to improve tax collection and detect evasion patterns. These technologies can help tax authorities to better monitor financial transactions, identify suspicious activities, and enforce tax laws more effectively. These policy recommendations aim to create

a more equitable tax system that discourages evasion and reduces income inequality. By implementing these strategies, governments can promote greater social justice, enhance public trust in the tax system, and ensure a fairer distribution of wealth across society.

4. Conclusion

This study has reached important conclusions by conducting a dynamic panel data analysis on the relationship between tax evasion and income inequality in 28 EU countries between 2004 and 2016. The findings reveal that past levels of tax evasion significantly influence current levels, and income inequality has a direct impact on tax evasion. As income inequality increases, the propensity for tax evasion also rises. These results highlight the importance of addressing income inequality not only as a social justice issue but also as a crucial factor in tax compliance. The study underscores the need for comprehensive tax reforms and stronger enforcement mechanisms to mitigate tax evasion and promote a fairer distribution of income. The historical persistence of tax evasion and its positive correlation with income inequality suggests that without significant policy interventions, these trends are likely to continue, exacerbating economic disparities.

EXTENDED ABSTRACT

This study investigates the relationship between income inequality and tax evasion in the European Union (EU), focusing on how income disparity influences tax compliance behaviors across 28 member states from 2004 to 2016. Income inequality, as measured by the Gini coefficient, poses significant challenges for the EU as it affects social cohesion, economic stability, and tax compliance. Tax evasion the illegal non-payment or underpayment of taxes undermines government revenue and exacerbates inequality, increasing the burden on compliant taxpayers. This research provides empirical evidence on the impact of income inequality on tax evasion by employing a dynamic panel data approach to capture the persistence of tax evasion behaviors over time.

Data on tax evasion, based on estimates derived from the European Commission's dataset influenced by the Panama Papers, and income inequality data, represented by the Gini coefficient from Solt's (2020) standardized database, are utilized in the analysis. Recognizing that economic behavior in any period is often shaped by historical patterns, this study incorporates lagged values of tax evasion in the model to account for its dynamic structure. The Generalized Method of Moments (GMM), developed by Arellano and Bond (1991), is employed to estimate the model. This method is particularly suited for dynamic panel data analysis as it addresses potential autocorrelation in the error terms and includes lagged dependent variables as instruments. The analysis using Arellano and Bond's (1991) GMM approach reveals that both lagged tax evasion and the Gini coefficient significantly impact current tax evasion levels. Specifically, a 1-unit increase in the Gini coefficient is associated with a 1.8-unit increase in tax evasion among the EU countries studied. This finding suggests that rising income inequality exacerbates tax evasion, as individuals and corporations in unequal societies may be more inclined to evade taxes due to perceived or actual inequities in the tax system. The robustness of the model was confirmed through several tests. The Sargan test validated the instrumental variables used, confirming the reliability of the model. Additionally, the Arellano-Bond autocorrelation test indicated the absence of problematic second-order

autocorrelation, reinforcing the robustness of the findings. The Wald test further confirmed the overall significance of the model.

These findings underscore the need for policymakers to address income inequality as a means to promote tax compliance. The positive correlation between income inequality and tax evasion highlights the importance of progressive taxation and policies aimed at reducing inequality. Strengthening tax audits, increasing penalties for evasion, and closing legal loopholes that allow wealth to be shielded in low-tax jurisdictions are essential measures. Public awareness campaigns that emphasize the social value of taxes and the ethical implications of evasion can also help foster a culture of compliance. Additionally, enhancing social safety nets and providing equitable access to essential services can alleviate the financial pressures that may drive individuals towards tax evasion.

This research provides several policy recommendations. First, strengthening tax audits and enforcement mechanisms can deter tax evasion, especially among high-income individuals more likely to exploit tax loopholes. Implementing progressive tax reforms is crucial to reducing income inequality, with higher tax rates on upper income brackets and adequate taxation on wealth transfers decreasing the incentive for tax evasion among the wealthy. International cooperation is also necessary to address tax evasion through offshore accounts, as global financial transparency and information sharing can reduce cross-border evasion. In terms of implications, the study highlights income inequality as a critical factor in tax compliance, suggesting that reducing inequality can create a more compliant taxpayer base and promote economic stability. The study also points to potential areas for future research, such as examining the role of social norms and trust in government institutions in shaping tax compliance behaviors. Additionally, exploring the impact of digital economies and financial technologies on tax evasion could provide insights into modern challenges in tax administration. In conclusion, this study contributes to the literature linking income inequality and tax evasion within the EU. The results suggest that as income inequality increases, so does the propensity for tax evasion, emphasizing the need for comprehensive tax reforms and effective enforcement mechanisms. Addressing income inequality not only enhances the fairness and efficiency of tax systems but also fosters a more equitable distribution of income, promoting social cohesion across the EU.

Etik Beyanı: Bu çalışmanın hazırlanma sürecinde bilimsel ve etik ilkelere uyulduğu ve yararlanılan tüm çalışmaların kaynakçada belirtildiği beyan olunur.

Hakem Değerlendirmesi: Dış bağımsız.

Yazar Katkıları: Bu makale tüm yazarların eşit oranda katkısı ile meydana gelmiştir.

Çıkar Çatışması: Yazarlar çıkar çatışması bildirmemiştir.

Finansal Destek: Yazarlar bu çalışma için finansal destek almadığını beyan etmiştir.

Ethical Statement: It is declared that scientific and ethical principles have been followed while carrying out and writing this study and that all the sources used have been properly cited.

Peer-review: Externally peer-reviewed.

Author Contributions: This article was created with equal contributions from all authors.

Conflict of Interest: The authors have no conflict of interest to declare.

Grant Support: The authors declared that this study has received no financial support.

References

Ait Bihi Ouali, L. (2020). Effects of signalling tax evasion on redistribution and voting preferences: Evidence from the Panama Papers. *Plos One, 15*(3), e0229394.

Allingham, M. G., & Sandmo, A. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics, 1*(3), 323-338.

Alstadsæter, A., Johannesen, N., & Zucman, G. (2019). Tax evasion and inequality. *American Economic Review, 109*(6), 2073-2103.

Andreoni, J., Erard, B., & Feinstein, J. (1998). Tax compliance. *Journal of Economic Literature, 36*(2), 818-860.

Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: monte carlo evidence and an application to employment equations. *The Review of Economic Studies, 58*(2), 277-297.

Bessele, S., & Persson, A. (2019). Institutions and tax compliance: An empirical investigation. *Journal of Institutional Economics, 15*(3), 457-480.

Bloomquist, K. M. (2003). Tax evasion, income inequality and opportunity costs of compliance. Proceedings. *Annual Conference on Taxation and Minutes of the Annual Meeting og the National Tax Association, 96*, 91-104.

Demez, S., & Akyol, M. (2021). Ticari ve finansal açıklık ile ekonomikbüyüme ilişkisi: Gmm panel veri analizi. *Iğdır Üniversitesi Sosyal Bilimler Dergisi, 10*(26), 226-253.

Diamond, P., & Saez, E. (2011). The case for a progressive tax: From basic research to policy recommendations. *Journal of Economic Perspectives, 25*(4), 165-190.

Feldman, N. E., & Slemrod, J. (2007). Estimating tax noncompliance with evidence from unaudited tax returns. *Economic Journal, 117*(518), 327-352.

Feldstein, M. (2017). Underestimating the real growth of GDP, personal income, and productivity. *Journal of Economic Perspectives, 31*(2), 145-164.

Gini, C. (1912). Variabilità e mutabilità. *Journal of the Royal Statistical Society*.

Gordon, R., & Li, W. (2015). Tax structures in developing countries: Many puzzles and a possible explanation. *Journal of Public Economics, 93*(7-8), 855-866.

Karlsson, J., & Matthiasson, T. (2015). Tax Evasion, tax avoidance and the influence of special interest groups: Taxation in Iceland from 1930 to the Present. *Nordic Tax Journal, 2*, 1-17.

Lorenz, M. O. (1905). Methods of measuring the concentration of wealth. *Publications of the American Statistical Association, 9*(70), 209-219.

Mirrlees, J. A. (1971). An exploration in the theory of optimum income taxation. *The Review*

of Economic Studies, 38(2), 175-208.

Piketty, T., Saez, E., & Zucman, G. (2018). Distributional national accounts: Methods and estimates for the United States. *The Quarterly Journal of Economics, 133*(2), 553-609.

Saez, E., & Stantcheva, S. (2016). Generalized social welfare weights for optimal tax theory. *American Economic Review, 106*(1), 24-45.

Scholz, J. T., & Pinney, N. (1995). Duty, fear, and tax compliance: the heuristic basis of citizenship behavior. *American Journal of Political Science, 39*(2), 490-512.

Şengül Çelikay, D. (2019). Muhasebe perspektifinden vergiden kaçınma kavramı. *Muhasebe ve Vergi Uygulamaları Dergisi, 12*(2), 353-376.

Slemrod, J., & Weber, C. (2020). Evidence from a large-scale field experiment on tax audits. *American Economic Journal: Economic Policy, 12*(3), 312-346.

Solt, F. (2020). Measuring Income Inequality Across Countries and Over Time: The Standardized World Income Inequality Database. *Social Science Quarterly, 101*(3), 1183-1199.

Tatoglu, E. (2013). *Panel veri ekonometrisi* (2nd ed.). Istanbul: Beta Yayınları.

Theil, H. (1971). *Principles of econometrics.* Wiley.

Torregrosa-Hetland, S. (2020). Inequality in tax evasion: the case of the Spanish income tax. *Applied Economic Analysis, 28*(33), 89-109.

Vellutini, C., Casametta, G., Bousquet, L., & Ponlatowski, G. (2019). *Estimating international tax evasion by individuals*. Retrieved from Luxembourg.