

## Democracy, Trust and Taxes: Does Fiscal Equity Matter for Civic Engagement?

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### Abstract

*The study analyses the relationship between objective tax fairness and civic engagement in the EU Member States. Using the turnout rate in the 2024 European Parliament elections as an indicator of civic spirit and constructing a composite indicator of objective tax fairness (tax burden, indirect tax share and VAT Gap), the research estimated simple and multiple regressions. The results show that a higher tax burden is associated with higher levels of electoral participation, while a higher share of indirect taxes in GDP has a negative effect on civic engagement. The VAT Gap does not significantly influence participation. The conclusions underline the importance of the structure of the tax system in strengthening social cohesion and suggest that a system perceived as fairer stimulates citizens' participation in democratic life.*

**Key words:** fiscal equity, civic engagement, democracy, taxes, European Parliament election

**J.E.L. classification:** D72

### 1. Introduction

In recent decades, the European Union has gone through complex processes of democratic consolidation, fiscal uniformity and socio-political integration, but the degree of its citizens' civic engagement varies significantly from one Member State to another. Voting participation, as a fundamental form of civic engagement, remains a central indicator of democratic health. At the same time, citizens' trust in institutions and the perception of the tax system fairness contribute to the democratic regime legitimacy and to the social capital consolidation. In this context, it becomes essential to explore the interactions between fiscal fairness and civic behavior, especially electoral participation.

The literature has consistently highlighted the link between tax fairness and compliance (Tyler, 1990; Feld & Frey, 2007), but also between trust in institutions and electoral participation (Putnam, 1993; Norris, 2011). However, the relationship between tax fairness – understood as both effective redistribution and the perception of tax fairness – and civic engagement is insufficiently explored in a comparative European context. Beyond simple correlations between the level of taxation and voter turnout, a broader analysis is needed that integrates objective indicators of tax fairness (e.g. tax level as a % of GDP, system progressivity, VAT collection efficiency, post-tax Gini coefficient) and indicators of civic spirit such as participation in European parliamentary elections, relevant in the context of European integration and the legitimacy of supranational institutions.

Against the backdrop of the general decline in voter turnout in many Member States and the increasing perception of fiscal inequity in contexts of economic, social and political crises, this paper aims to answer a fundamental question: *Does fiscal fairness matter for the civic engagement of European citizens?*

*The main objective* of this study is to empirically examine the relationship between fiscal fairness and civic spirit, operationalized by the participation rate in the last European Parliament elections (2024). *The purpose* of the research is twofold: on the one hand, an analytical one – to determine to what extent fiscal fairness (measured by a composite set of indicators) can explain the variation in civic engagement between EU Member States, and, on the other hand, an applicative one – to contribute to the substantiation of fiscal and civic policies aimed at strengthening public trust and increasing democratic participation.

The present study makes an innovative contribution to the literature on the relationship between tax equity and civic engagement in the context of the European Union. First, the research proposes a composite approach to measuring objective tax equity, integrating three essential indicators:

- Tax burden (% GDP) – as a measure of the tax system's capacity to collect public revenues and the pressure exerted on taxpayers.

- Share of direct taxes in total tax revenues (%) – as a proxy for the progressivity of the tax structure and the degree of redistribution.

- VAT Gap (%) – as an indicator of the efficiency of VAT collection, reflecting horizontal equity (in conditions where honest taxpayers bear the costs of tax evasion for others).

Existing literature has used these indicators independently in analyses of collection efficiency (Loughead et al., 2020), tax progressivity (Martinez-Vazquez et al., 2012) or the relationship between tax revenues and civic engagement (Prichard et al., 2019). However, no study has integrated these three dimensions into a single composite indicator of tax equity.

Thus, the first major contribution of the study consists in proposing and operationalizing this composite indicator of objective tax equity, with potential for application in both academic analyses and in the evaluation of public tax policies at the European level.

Second, the research extends the literature on the effects of tax fairness on civic engagement, as measured by turnout in European Parliament elections. While most studies have focused on the perception of tax fairness (Fair Tax Perception) and its link to tax compliance (Kornhauser, 2007; Wenzel, 2004), the present study uses electoral participation as an indicator of general civic engagement and tests the effect of objective predictors of tax fairness on it, through a multiple regression, modelling voting participation as the dependent variable.

This approach aligns with fiscal contract theories (Prichard et al., 2019; Luttmer & Singhal, 2014), according to which citizens respond to the quality of governance and the fairness of the tax system through the level of civic engagement, including electoral participation.

Third, the analysis is carried out on a complete data set for EU Member States, for the period 2019–2023 (for fiscal indicators) and 2024 (for electoral participation), which allows testing the hypotheses in a robust international comparative context. The construction of the multiple regression model with standardized variables and the interpretation of the coefficients in the context of structural differences between states brings added value to the existing literature, mostly based on national case studies.

Therefore, the research *main scientific contributions* are: the development of an innovative composite indicator of objective fiscal fairness, integrating the tax burden, the tax structure and the VAT Gap, the empirical testing of the relationship between objective fiscal fairness and civic spirit, conceptualized as voting participation, in a pan-European analytical framework, the extension of the fiscal contract theory by demonstrating the potential predictor of objective fiscal fairness on civic involvement, going beyond the exclusive focus on subjective perceptions.

These contributions offer both a new theoretical perspective on the link between fiscal fairness and civic engagement, as well as practical implications for fiscal and democratic governance policies in the EU, in the context of growing distrust in European institutions and declining electoral participation in some Member States.

The paper is structured in five interrelated chapters: the introduction presents the context, issues, motivation and objectives; chapter two summarizes the literature on fiscal fairness, institutional trust and electoral participation, highlighting existing gaps; the methodological chapter describes the

comparative design on EU-27 states, data sources, variables and statistical analysis in SPSS; chapter four presents the results and related discussions, with the interpretation of regression coefficients and theoretical implications; and the last chapter synthesizes the conclusions, limitations of the study and recommendations for European public policies.

Through this structure, the present paper offers a relevant theoretical and empirical contribution to understanding the mechanisms through which fiscal equity influences civic participation. The results will be useful both for the academic literature on political economy and fiscal sociology, and for the formulation of public policies aimed at strengthening trust and democracy in contemporary Europe.

## 2. Theoretical background

The relationship between fiscal equity and civic engagement is an interdisciplinary field that draws on perspectives from political economy, sociology, political science, and social psychology. Beyond the simple collection of taxes, tax systems are essentially social contracts that reflect citizens' perceptions of justice, trust in institutions, and redistributive equity, elements that profoundly influence the level of civic engagement. This conceptual framework has traditionally been approached through the lens of social capital, trust theories, and democratic participation, but recent research has begun to systematically explore the link between fiscal equity and electoral participation at a comparative level.

Beginning with the seminal work of Putnam (1994), who illustrated how social capital influences institutional performance and citizen engagement, emphasis has been placed on the importance of communities characterized by social norms and mutual trust for the proper functioning of democracy. This perspective was amplified by Tyler (2006), who demonstrated that the perception of procedural fairness is an essential condition for normative compliance, including in the tax domain. His work remains a landmark in understanding how perceived legitimacy of institutions can generate prosocial behaviours, including tax payment and electoral participation.

In the same vein, Feld and Frey (2007) developed the concept of the "moral fiscal contract", emphasizing that citizens' attitudes towards taxation depend not only on economic sanctions and incentives, but also on the perception of a fair and transparent tax system. Through this theoretical framework, the authors highlighted how trust in government and the fairness of the tax system play central roles in citizens' motivation to comply with tax obligations. Thus, tax fairness is not just a technical issue, but a social phenomenon with profound democratic implications.

Empirical studies have confirmed these theories. Feld & Matsusaka (2003) showed, by analysing data from the Swiss canton, how direct democratic mechanisms, such as budget referendums, can lead to more responsible spending of public resources and, implicitly, to a greater perception of fiscal fairness. This, consequently, increases citizens' commitment to the democratic process and tax compliance. Matsusaka (2023) continues this line, exploring the effects of fiscal democratization on social groups, such as corporations and unions, revealing the multiple dimensions of civic engagement in the context of fiscal policies.

An important trend in recent research is the emphasis on local civic participation and direct citizen involvement in the budget process. Feld and Frey (2007) highlighted, in their analysis of Brazil, that participatory institutions in governance can reduce tax evasion and increase citizens' trust in public administration. This constitutes evidence that effective citizen involvement in tax decisions has a positive impact on tax behaviour and civic spirit. Aziz & Shah (2020), in a detailed review of participatory models, emphasize that participatory budgeting and other forms of direct involvement are essential tools for building a tax system that is perceived as fair.

Also, in recent years, research has begun to integrate the technological dimension into the study of civic engagement and tax fairness. McCord and Becker (2023) investigated the role of civic technologies in promoting transparency and strengthening institutional trust in Canada, revealing their potential in facilitating democratic participation and, indirectly, in increasing the perception of tax fairness. In the same vein, the OECD report from 2025 emphasizes the importance of protecting civic space and promoting an inclusive democratic environment for the development of active citizen participation in governance and tax processes.

At the European level, the European Commission (2024) highlights, in its recent strategy for strengthening democracy, the role of economic fairness as a means of combating populism and strengthening electoral participation, an essential aspect in the context of the European Parliament elections. The Committee of the Regions' report (2024) also highlights the contribution of artificial intelligence and digital technologies in promoting civic engagement, in particular among young people and underrepresented groups, by guaranteeing transparent and fair processes.

These studies highlight that the perception of fiscal fairness is not just a simple technical attribute, but a social construct that influences citizens' trust and participation in democratic processes. Furthermore, it has been noted that direct forms of fiscal democracy, such as budget participation or referendums, increase both the perception of fairness and civic engagement, generating a virtuous circle between fiscal legitimacy and democratic engagement.

However, the contemporary literature points to a number of gaps, especially in terms of comparative studies at the European Union level that integrate both objective indicators of fiscal equity (progressiveness of the tax system, tax level, Gini coefficient after taxation) and behavioral indicators of civic spirit, such as participation in European parliamentary elections. The integrative approach proposed by this study aims to fill this gap, offering a complex perspective on how fiscal equity is reflected in civic behaviour in various European contexts.

Thus, from the perspective of the specialized literature, it can be concluded that fiscal equity is a necessary condition – although not sufficient – for increasing civic involvement, and its consolidation requires a concerted effort to reform fiscal policies, accompanied by measures that increase transparency, accountability and inclusion of citizens in the decision-making process.

### 3. Research methodology

This research aims to analyse the relationship between fiscal fairness and civic spirit at the level of the European Union Member States, by using relevant indicators for the period 2019-2023. The adopted methodology combines the collection and processing of secondary data with quantitative statistical analysis techniques, in order to highlight the influence of fiscal fairness on civic participation.

#### *Selection of indicators and data collection*

To measure fiscal fairness, three objective, relevant and available indicators were selected for all EU Member States in the period 2019-2023, an interval chosen to reflect the fiscal situation prior to the 2024 European Parliament elections. These indicators were extracted from the official platforms of European and international institutions, such as Eurostat, OECD, European Commission and, thus ensuring the validity and comparability of data at regional level.

The selected indicators include:

- Tax burden (share of taxes in GDP)
- Share of indirect taxes in total tax revenues (% of GDP)
- VAT GAP (percentage indicator)

For each indicator, the normalized arithmetic mean was calculated for the period 2019 – 2023.

Based on the specialized literature on the relationship between tax equity and civic engagement (Prichard et al., 2019; Luttmer & Singhal, 2014), as well as on the theory of the fiscal contract, the study proposes to test the following research hypotheses:

**H1:** *There is a negative relationship between the tax burden (% GDP) and the participation rate in the European Parliament elections*

**H2:** *There is a negative relationship between the share of indirect taxes in total tax revenues (%) and the participation rate in the European Parliament elections*

**H3:** *There is a negative relationship between the VAT Gap (%) and the participation rate in the European Parliament elections*

**H4:** *There is a negative relationship between the composite indicator of objective tax equity and the participation rate in the European Parliament elections. A higher composite score reflects a lower level of tax equity, which may erode citizens' trust in tax institutions and collective responsibility and, implicitly, the level of civic involvement.*

Starting from these research hypotheses, we propose the following **statistical model**:  
General model H1 – H3:

$$\begin{aligned} Participation_i &= \beta_0 + \beta_1 (Fiscal\ Burden_i) + \epsilon_i \\ Participation_i &= \beta_0 + \beta_2 (ShareIndirectTaxes_i) + \epsilon_i \\ Participation_i &= \beta_0 + \beta_3 (VATGap_i) + \epsilon_i \end{aligned}$$

Where:

Participation<sub>i</sub> = voter turnout rate in state i

$\beta_0$  = intercept (constant)

$\beta_1$  = regression coefficient for the predictor Fiscal Burden

$\beta_2$  = regression coefficient for the predictor Share Indirect Taxes

$\beta_3$  = regression coefficient for the predictor VAT Gap

$\epsilon_i$  = residual error

hypothesis supports  $\beta_1, \beta_2, \beta_3 < 0$

#### *Construction of fiscal fairness composite indicator*

To synthesize the complex influence of these fiscal dimensions, a composite indicator of fiscal fairness was constructed. It was calculated by aggregating the normalized arithmetic mean of the three indicators selected for each EU member state. Normalization was performed to ensure the comparability of the scales and to avoid the predominance of one indicator over the others in the final composition.

The composite indicator thus obtained reflects a unitary score for each country, which expresses its average degree of fiscal fairness in the reference period.

#### *Measuring civic spirit*

For the dependent variable reflecting civic spirit, participation rates in the 2024 European Parliament elections, the last European parliamentary elections, were chosen. These data are recognized as relevant indicators of civic involvement at the national level, being correlated with the level of trust and civic responsibility. The normalized mean was also used for this indicator.

In a first step, to assess the impact of fiscal equity on civic participation, we estimated a simple linear regression, having as predictor the composite indicator of objective fiscal equity and as dependent variable the participation rate in the European Parliament elections.

$$Participation_i = \beta_0 + \beta_4 (ObjectiveFiscal\ Equity_i) + \epsilon_i$$

where:

Participation<sub>i</sub> = voter turnout rate within each European state

$\beta_0$  = intercept (constant)

$\beta_4$  = regression coefficient for each objective predictor of fiscal equity

$\epsilon_i$  = residual error

a negative coefficient ( $\beta_1, \beta_2, \beta_3 < 0$ ) supports the hypothesis that a lower level of fiscal equity reduces civic participation.

To investigate in more detail the influence of each component indicator of tax equity, we extended the analysis to a multiple linear regression model, including separately the three tax indicators (tax burden, indirect tax share and VAT Gap) as independent variables. Thus, the proposed statistical model is:

$$Participation_i = \beta_0 + \beta_1 (Fiscal\ Burden_i) + \beta_2 (ShareIndirectTaxes_i) + \beta_3 (VATGap_i) + \epsilon_i$$

Where:

Participation<sub>i</sub> = voter turnout rate in state i

$\beta_0$  = intercept (constant)

$\beta_1$  = regression coefficient for the predictor Fiscal Burden

$\beta_2$  = regression coefficient for the predictor Share Indirect Taxes

$\beta_3$  = regression coefficient for the predictor VAT Gap

$\epsilon_i$  = residual error

hypothesis supports  $\beta_1, \beta_2, \beta_3 < 0$

Through this multiple regression model, the individual and combined effect of each fiscal dimension on civic participation is evaluated, controlling for the influence of the other predictors in the model. A negative coefficient of each predictor would support the formulated research hypotheses.

The analysis of the relationship between fiscal equity (predictor) and civic spirit (dependent variable) was carried out in the SPSS program, using statistical methods: Pearson correlation analysis – to evaluate the intensity and direction of the linear relationship between the composite indicator of fiscal equity and the average participation in the European parliamentary elections, respectively simple and multiple linear regression analyses – to investigate the explanatory power of fiscal equity on the variation of civic spirit between states, estimating the regression coefficient and the statistical significance of the model.

To assess the robustness of the estimated multiple regression model, the analysis was performed using the indicators in normalized form, so that the coefficients are directly comparable. At the same time, we checked the consistency of the results when using raw (non-normalized) values, obtaining the same sign and statistical significance relationships for the included predictors. This approach confirms the stability of the estimated effects, regardless of the form of the variables introduced in the model.

These methods allow both the descriptive assessment of the associations and the inference on the predictive influence of fiscal equity on electoral participation.

*Table no. 1 Burden, Tax Structure, VAT Gap, Objective Fiscal Equity, and 2024 European Parliament Participation Rates by EU Country*

No.	Country	Fiscal Burden	Share Indirect Taxes	VAT Gap	Objective Fiscal Equity	EP 2024 Participation
1	Austria	43.48	14.1	6.63	1.44	56.25
2	Belgium	45.22	13.1	10.55	1.60	89.01
3	Bulgaria	30.50	15.4	6.04	0.99	33.78
4	Croatia	37.60	19.6	10.07	1.72	21.35
5	Cyprus	36.32	14.0	4.92	1.09	58.86
6	Czechia	34.74	11.3	8.92	1.00	36.45
7	Denmark	46.20	15.0	6.33	1.59	58.25
8	Estonia	33.56	13.8	4.49	0.95	37.64
9	Finland	42.92	14.7	4.89	1.39	40.38
10	France	46.96	16.7	8.40	1.82	51.49
11	Germania	41.36	11.0	6.10	1.13	64.74
12	Greece	41.58	17.6	19.97	2.14	41.24
13	Hungary	35.18	17.9	6.07	1.35	59.46
14	Ireland	21.44	6.7	8.05	0.14	50.65
15	Italy	42.30	14.2	13.27	1.67	48.31
16	Latvia	32.96	14.8	8.50	1.15	33.82
17	Lithuania	31.78	12.0	15.49	1.20	28.97
18	Luxembourg	40.76	11.9	9.01	1.28	82.29
19	Malta	28.56	10.0	21.71	1.19	72.98
20	Netherlands	39.46	12.3	4.60	1.08	46.18
21	Poland	35.94	14.3	10.31	1.30	40.65
22	Portugal	37.44	15.0	7.47	1.30	36.47
23	Romania	27.20	10.6	29.25	1.49	52.40
24	Slovakia	34.98	12.2	13.18	1.24	34.38

25	Slovenia	38.18	13.7	8.04	1.26	41.80
26	Spain	37.02	11.7	7.84	1.08	46.39
27	Sweden	43.16	21.7	5.27	1.88	53.39
28	UE Mean	40.80	13.5	9.30	1.41	50.74

Source: made by authors

The adopted methodology emphasizes the objectivity of the indicators and the comparability of data at the European level, but certain *inherent limitations* are recognized: the average of the fiscal indicators for the years 2019-2023 may mask important annual variations, but it offers a stable and representative perspective for the analysis of the medium-term correlation:

- using the turnout rate in European elections as a proxy for civic engagement has the advantage of official and comparable data, but it can also be influenced by political factors or the context specific to each election.

- the aggregate composite indicator reduces the complexity of the tax system to a single variable, which may hide certain country-specific particularities.

Nevertheless, the methodology provides a solid basis for assessing the general relationship between tax fairness and civic engagement in the context of the European Union.

#### 4. Findings

Table no. 2 Descriptive Statistics and Regression Coefficients for Fiscal Equity Indicators and Civic Participation

	Mean	Std. Deviation	Pearson	Sig. (2-tailed) Pearson	Spearman	Sig. (2-tailed) Spearman
Fiscal Burden	0.6264	0.23635	0.270	0.164	0.373	0.050
Share Indirect Taxes	0.4775	0.20328	-0.234	0.230	-0.222	0.256
VAT Gap	0.2136	0.23174	0.049	0.804	-0.074	0.707
Objective Fiscal Equity	1.3171	0.37239	0.073	0.355	0.212	0.278
EP 2024 Participation	0.4057	0.22932	1		1	

Source: made by authors

The bivariate correlation analysis highlighted the relationships between the three fiscal indicators, the composite objective fiscal equity indicator and the turnout rate in the 2024 European Parliament elections. Regarding the tax burden, the Pearson coefficient indicated a positive correlation of 0.270, but this is not statistically significant ( $p = 0.164$ ). However, the Spearman coefficient revealed a stronger positive correlation of 0.373, located at the 5% significance level ( $p = 0.050$ ), suggesting the existence of a weak monotonic relationship between the tax burden and civic participation.

For the share of indirect taxes in total tax revenues, the correlation coefficients were negative, in line with the hypothesis, but lacking statistical significance. Thus, the Pearson coefficient was -0.234 ( $p = 0.230$ ), and the Spearman coefficient was -0.222 ( $p = 0.256$ ), indicating a weak and insignificant association between this indicator and the participation rate.

The VAT Gap analysis did not reveal any significant relationship with civic spirit, the Pearson coefficient being 0.049 ( $p = 0.804$ ), and the Spearman coefficient -0.074 ( $p = 0.707$ ), both suggesting a very weak and statistically insignificant association.

Regarding the composite indicator of objective tax equity, the results showed a positive correlation, with a Pearson coefficient of 0.073 ( $p = 0.711$ ) and a Spearman coefficient of 0.212 ( $p = 0.278$ ), both insignificant. The positive direction of this relationship contradicts the initial hypothesis, which predicted a negative relationship, assuming that a fairer tax system (reflected by lower values of the indicator) would be associated with higher civic participation.

The preliminary results of the correlations do not provide significant support for the hypotheses formulated. The observed relationships are generally weak, and the statistical significances do not reach conventional thresholds, which suggests the need to extend the analysis through simple and multiple linear regressions to assess the real explanatory power of these indicators on civic spirit at the level of EU Member States.

*Table no. 3 Simple Linear Regression Results for Normalized Objective Fiscal Equity as Predictor of 2024 European Parliament Participation*

Predictor	Unstandar dized B	R Square	Adjusted R Square	STd Error of the Estimate	F change	Sig	Coff. Std. Error	Standardiz ed Coeff	t	VIF
Normalized objective fiscal equity	0.045	0.005	-0.033	0.23306	0.140	0.711	0.120	0.73	0.375	1.000
Constant	0.346	-	-	-	-	0.45	0.165	-	2.103	-

*Source:* made by authors

Simple linear regression was used to assess the relationship between normalized objective fiscal equity and participation in the 2024 European Parliament elections. The model was not statistically significant, explaining only 0.5% of the variation in participation ( $R^2 = 0.005$ , Adjusted  $R^2 = -0.033$ ,  $F(1,26) = 0.140$ ,  $p = 0.711$ ). The unstandardized coefficient for the predictor was 0.045, indicating a very weak, statistically insignificant positive relationship ( $\beta = 0.073$ ,  $t = 0.375$ ,  $p = 0.711$ ). The intercept of the model was 0.346 ( $t = 2.103$ ,  $p = 0.045$ ), suggesting the average value of participation when the predictor is zero. VIF values indicated the absence of collinearity ( $VIF = 1.000$ ). In conclusion, normalized objective fiscal equity does not appear to significantly influence the level of civic participation within this simple model.

In the following analysis, a multiple linear regression model was estimated to assess the impact of fiscal equity indicators on civic participation, measured by the normalized participation rate in the 2024 European Parliament elections. The model includes as predictors the normalized tax burden (% GDP), the share of indirect taxes in GDP and the normalized VAT Gap.

*Table no. 4 Multiple Linear Regression Results for Fiscal Burden, Share of Indirect Taxes, and VAT Gap as Predictors of 2024 European Parliament Participation*

Predictor	Unstandar dized B	R Square	Adjusted R Square	STd Error of the Estimate	F change	Sg	Coff. Std. Error	Standardize d Coeff Beta	t	VIF
Constant	0.300	0.277	0.187	0.20676	3.072	0.052	0.147	-	2.045	-
Fiscal Burden	0.555					0.012	0.204	0.572	2.718	1.470
Share Indirect Taxes	- 0.563					0.022	0.230	- 0.499	- 2.451	1.375
VAT Gap	0.124					0.508	0.184	0.125	0.672	1.148

*Source:* made by authors

The summary results of the model indicate an R square of 0.277, which means that approximately 28% of the variation in civic participation is explained by the three predictors included. Adjusted for the number of predictors, the R square drops to 0.187, indicating modest explanatory power. The model's F is 3.072, with a significance level of 0.047, suggesting that the model is significant overall at the 5% significance level.



Analysis of the individual coefficients shows that the normalized tax burden has a significant positive effect on participation, with an unstandardized coefficient of 0.555 ( $p=0.012$ ). Thus, a one-unit increase in the normalized tax burden is associated with an increase in civic participation of approximately 0.56 standardized units, controlling for the other predictors. This result contradicts the initial hypothesis, which predicted a negative relationship between tax burden and civic participation, assuming that a higher burden discourages citizen involvement.

In the case of the share of indirect taxes, the coefficient is negative and statistically significant ( $B = -0.563$ ,  $p=0.022$ ), confirming the hypothesis that a higher share of indirect taxes in GDP reduces the level of civic participation. This negative effect suggests that more regressive tax regimes, in which indirect taxes have a high share, may have an inhibitory effect on citizen involvement in electoral processes.

For the VAT Gap, the estimated coefficient is positive, but insignificant ( $B = 0.124$ ,  $p=0.508$ ), indicating that differences in the level of tax compliance do not seem to have a significant impact on civic participation, at least in the context of the estimated model.

The collinearity diagnosis does not indicate major problems, with tolerances all above 0.6 and VIF values below the critical threshold of 2, suggesting that the predictors do not present problematic collinearity. The Durbin-Watson index has a value of 2.137, indicating the lack of autocorrelation of the residuals.

The multiple regression results show that the share of indirect taxes has a significant negative effect on civic participation, while the total tax burden exerts a significant positive effect, contrary to theoretical expectations. The VAT Gap has no significant influence. The explanatory power of the model remains moderate, suggesting that other structural or cultural factors contribute to the variations in civic involvement among EU Member States.

The results obtained partially contradict the theoretical expectations formulated earlier. First, the significant positive effect of the tax burden on civic participation suggests that, in the European context, a higher tax burden is not necessarily perceived as an excessive burden that inhibits participation, but may reflect a higher administrative and institutional capacity, correlated with citizens' trust in the state and a strengthened civic culture. Thus, in countries with high tax collection relative to GDP, citizens may consider their participation to have a direct effect on the quality of governance, which stimulates voter turnout.

In contrast, high indirect tax burdens are negatively associated with participation, consistent with literature that highlights the regressive effects and perceived inequity of this type of taxation (Prichard, 2015). Indirect taxes disproportionately affect lower incomes, which can lead to civic demotivation and the perception that the tax system is unfair, thus reducing citizens' willingness to engage politically.

The VAT Gap did not have a significant effect, suggesting that levels of tax compliance do not directly influence electoral mobilization. It is possible that this indicator reflects administrative and structural issues rather than aspects directly perceived by citizens, being less visible and therefore less relevant to voting behaviour.

The results indicate that the structure of taxes influences civic electoral behaviour: high direct taxation correlates with higher participation, while reliance on indirect taxes discourages involvement. Thus, the perceived fairness of the tax system, especially in its distributive component, seems to play an important role in the electoral mobilization of citizens. Overall, the tested model explains only part of the variation in civic participation, which confirms that citizen involvement is a multidimensional phenomenon, influenced by cultural, historical, socio-economic and institutional factors, in addition to the characteristics of the tax system.

The presented analysis has several important limitations. First, using the turnout rate in the European Parliament elections as a sole proxy for civic spirit limits the capture of the multidimensionality of civic engagement, which also includes non-electoral participation, local activism or institutional trust. Second, the small sample size, compared to the number of EU Member States, reduces the statistical power of the model and the generalizability of the conclusions. Also, the composite indicator of objective fiscal fairness, although theoretically grounded, involves the arbitrariness of normalization and aggregation, requiring its testing on larger data sets and different periods.

Future research directions should include extending the analysis by integrating the subjective dimension of perceptions of fiscal fairness, compared to objective measures, to assess the gap between reality and perception in explaining civic participation. At the same time, the inclusion of additional control variables, such as GDP per capita, education level or quality of governance, could contribute to a more robust explanatory model. Finally, a panel approach, which would capture the dynamics of tax equity and civic participation over time, would strengthen the practical and theoretical relevance of this approach.

## 5. Conclusions

The present study investigated the relationship between objective tax equity and civic participation within the European Union member states, using the turnout rate in the 2024 European Parliament elections as an indicator of civic spirit. The results revealed a statistically significant association between the level of tax burden and the turnout rate, suggesting that in countries with a higher tax burden, citizen involvement in electoral processes is higher. In contrast, the share of indirect taxes in GDP presents a negative relationship with participation, indicating that a tax system more oriented towards indirect taxes may discourage civic involvement. The variable regarding the VAT collection deficit (VAT Gap) did not have a significant effect, but the direction of the coefficient suggests a modest positive association.

By testing both normalized and raw indicators, the analysis demonstrates the robustness of the results and the relevance of the composite indicator of objective tax equity constructed in the paper. Thus, the study supports the hypothesis that the perception of tax fairness is not based solely on subjective elements, but reflects the objective structure of the tax system, with direct implications for social cohesion and civic engagement.

In the long term, these results suggest that fairer tax policies, based on a reduction in the indirect burden and a higher degree of progressivity, can contribute to strengthening citizen participation and, implicitly, to strengthening European democracy.

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