Ghețu, Raluca Andreea; Căpățînă, Cristina Simona; Brezeanu, Petre

Article

The impact of public governance on fiscal pressure in selected emerging countries

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The Impact of Public Governance on Fiscal Pressure in Selected Emerging Countries

Raluca Andreea GHEȚU* – *Cristina Simona CĂPĂȚÎNĂ** – *Petre BREZEANU**

Abstract

   The purpose of our article is to assess the effect of diverse indicators pertaining to government quality and risk on fiscal pressure. The analysis focuses on 14 emerging countries in the European Union from 2002 to 2020. The results reveal that public governance indicators account for 51 percent of the variance in fiscal pressure, with the quality of regulations, corruption, and rule of law indicators having the most significant impact. This empirical study addresses an essential concern for policymakers, specifically the quality of public governance and its subsequent influence on fiscal pressure, with direct repercussions on the lives of citizens.

Introduction

   Taxation is typically regarded as a critical policy tool used through various budgetary measures to generate revenue for effective governance while mitigating the undesirable effects of excessive tax burdens. Fiscal pressure, as an essential component of the tax system, is perceived as a means of collecting revenue through taxes and duties. The most commonly used measure for determining the level of tax pressure is the ratio of tax revenues to gross domestic product (Celikay, 2020; Vasileva et al., 2020; Paientko and Oparin, 2020). Fiscal pressure is often considered

   * Raluca Andreea GHEȚU – Cristina Simona CĂPĂȚÎNĂ – Petre BREZEANU, Bucharest University of Economic Studies, 6 Piata Romana, 1st district, 010374 Bucharest, Romania; e-mail: gheturaluca12@stud.ase.ro; capatinacristina12@stud.ase.ro; petre.brezeanu@fin.ase.ro

in specialized literature as a macroeconomic indicator measuring the degree of state intervention in the economy. Harbers (2015) argues that tax pressure is a crucial indicator of the economic power wielded by the state, reflecting the extent to which public budget revenues are generated through various tax instruments and the degree to which the nominal income of the population is subject to taxation.

Taxes and levies constitute a major source of revenue for both developed and developing countries (Topal and Sahin, 2017), and Bušovská (2014) empirically demonstrates that in a specific period of time the fiscal burden in the European Union presented a convergence trend. However, the issue of high taxation in developing countries has attracted significant interest among scholars (Vintilă and Tibulcă, 2012). In the European Union, most developed countries with a larger financial size have a higher level of fiscal pressure, which does not necessarily have negative effects on economic growth, because citizens do not feel a sense of tax burden, in contrast to the effect felt by citizens in the developing countries of the European Union (Furceri and Sousa, 2011a; 2011b). This raises fiscal and governmental questions about what influences the level of fiscal pressure. Studies indicate that citizens' trust in the public governance system plays a vital role, as countries with higher indicators of public governance quality can develop a greater financial dimension of government without negative effects from increased fiscal pressure (Sineviciene and Railiene, 2015). Taxes and duties are seen by taxpayers as a source of revenue for the government but a cost burden for themselves (Pehlivan, 2014). When citizens witness mismanagement of their tax contributions, and lack adequate protection under the rule of law, a sense of being deceived may arise within them. Corruption can affect the probability of organized crime being detected (Barone et al., 2022), this phenomena being considered a key determinant of financial crime in the literature. Individuals who engage in illegal activities and violate laws to make significant profits gain power and immunity by buying political positions, with corruption being closely related to the risk of money laundering (Achim and Borlea, 2020). Public and private corruption may lead to a demand for money laundering, which could help clean the revenues obtained through corrupt activities. Căpățînă and Ghețu (2021) showed that fiscal health influences 20 percent of the money laundering rate variation at a 95 percent confidence level.

Torgler and Schneider (2007) showed that, by enhancing social institutions, including tax morale, voice and accountability, the rule of law, government effectiveness, regulatory quality, and by reducing corruption, it is possible to mitigate the inclination to engage in underground activities. When taking a reflective perspective on the matter, it becomes evident that the most effective policy approach to address the shadow economy entails reducing the tax burden, accompanied by a subsequent decrease in fiscal and business regulations (Kelmanson et al., 2019).

The phenomenon of fiscal pressure is increasingly prevalent in the tax systems of every nation and proves to be challenging to approach theoretically. This is because the level of fiscal pressure remains subject to various random elements associated with multiple factors, such as the diversity of mandatory levies, the nature of taxes, their integration into final prices, and the volume of services provided by taxpayers. The adverse effects of mandatory levies, stemming from the fiscal pressure phenomenon, are closely linked to numerous changes in economic and social life. These effects manifest themselves in both macroeconomic and microeconomic spheres, impacting legal, financial, economic, and psychological aspects. They affect not only the state as the tax collector but also the citizen as the taxpayer. Therefore, tax collection imposes a fiscal burden on both the private and public sectors. The level of imposition caused by fiscal pressure has been characterized at various levels, including macroeconomic, microeconomic, and individual, depending on its scope. External and internal factors that have been shown to influence the level of fiscal pressure are diverse and encompass variables such as the per capita Gross Domestic Product, fiscal and monetary policies adopted, the regime of public institutions, tax rates, and the method of calculating the tax base.

The significance of our study stems from the interest of researchers in the concepts of both taxation and public governance (Houndjo et al., 2023; Chen et al., 2021). Existing literature has yet to examine how both risk (ICRGs) and quality (WGIs) indicators of public governance affect financial pressure. Therefore, our study centers around three quality indicators (the quality of the regulatory framework, the rule of law, and the control of corruption), as well as three political risk indicators (government stability, democratic accountability, and the quality of the bureaucracy). We employ an econometric model to analyze their economic impact on fiscal pressure within the group of emerging economies in the European Union.

The empirical analysis was carried out utilizing a purposefully selected sample of 14 countries chosen for their levels of government and fiscal development. Slovakia, Bulgaria, Latvia, the Czech Republic, Romania, Greece, Croatia, Hungary, Lithuania, Malta, Cyprus, Poland, Estonia, and Slovenia are among the nations represented in this sample. The study covers 2002 to 2020, a period defined by severe economic upheavals such as the financial crisis in 2007, the real estate crisis in 2008, and the commencement of the healthcare crisis in 2020. The justification for selecting these countries stems also from the shared characteristics of the Central Eastern and Southeastern European regions, which are characterized by high tax loads and poor institutional quality. (Amir and Gökmenoğlu, 2023). Many developing countries struggle with issues of poor governance, such as corruption, lack of transparency, and inefficiency of public administration These factors can undermine institutional well-being and the ability of governments to manage economic resources effectively.

For example, we can see in Figure 1, unsatisfactory progress in corruption control in Greece, during 2000 – 2020, a country that scored 0.66 points in 2000 but recorded a score of 0.06 points at the end of 2020, a decrease of 0.6 points. Besides Greece, Hungary also shows a negative trend.

The European Union's average score is 1.03 points, and the only states from our study that are at or above the EU average are Cyprus and Estonia. Latvia shows a positive trend in corruption control, followed by Lithuania and the Czech Republic. The data indicate that Hungary has become more corrupt over time, with a decrease of approximately 0.69 points, while Romania and Bulgaria have obtained the lowest score and are classified as the most corrupt states from our sample.

F i g u r e 1
Control of Corruption
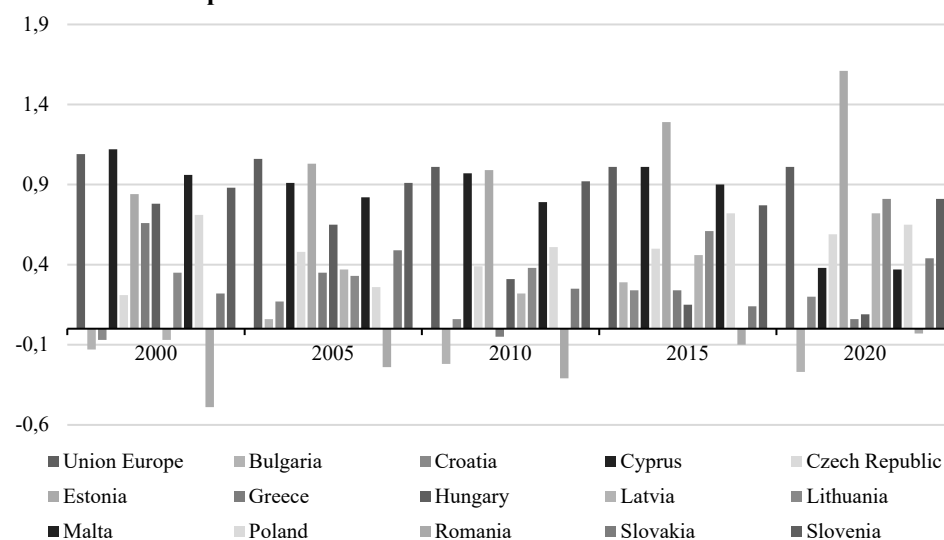
Source: Own calculation based on AMECO.

Regarding the rule of law, an indicator that shows the extent to which economic agents have trust in and adhere to the societal rules imposed by the state, we can observe from Figure 2, that Bulgaria consistently records the lowest score for citizen trust throughout the analyzed period, followed by Romania, which starts the early 2000s with a score of –0.2 points (the lowest score among the 14 emerging states) and ends the year 2020 with a score of 0.37 points. Other states that record low scores in citizen trust in the governmental system are Croatia and Greece. While the European Union's average remains stable, the emerging states that have maintained a satisfactory position above the EU average are Malta, Cyprus, the Czech Republic, and Estonia. Lithuania and Latvia show an increasing trend in citizen trust, unlike Hungary, which records a decreasing trend.

F i g u r e 2
Rule of Law
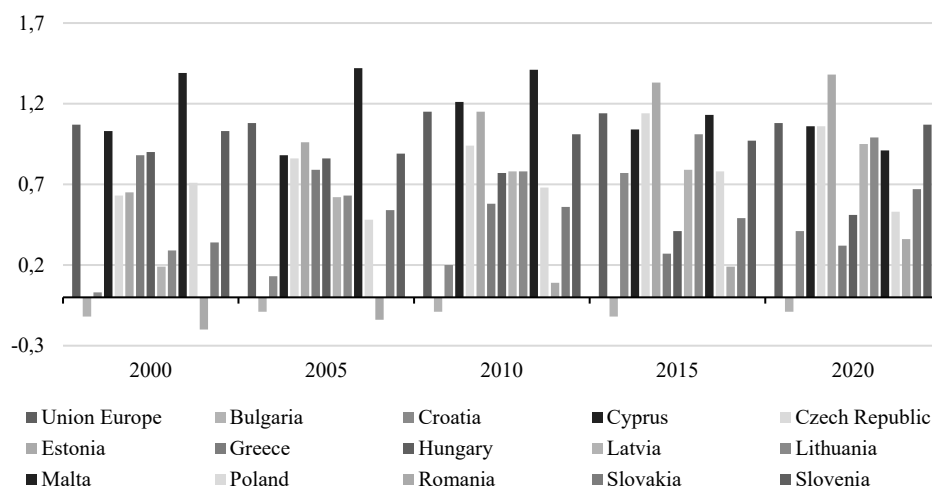
Source: Own calculation based on AMECO.

In terms of government stability, which measures the government's capacity to deliver on its assumed programs, the selected emerging countries recorded values ranging from 6.7 to 9.49 during the period 2000 – 2020, based on data provided by Political Risk Service (Figure 3).

F i g u r e 3
Government Stabillity

Source: Own calculation based on AMECO.

Malta registered the highest level of government stability among the analyzed states in the year 2000. In fact, most of the analyzed states recorded a higher level of government stability at the beginning of the 2000s, unlike at the end of the analysis period. These phenomena could be attributed to the long period of analysis marked 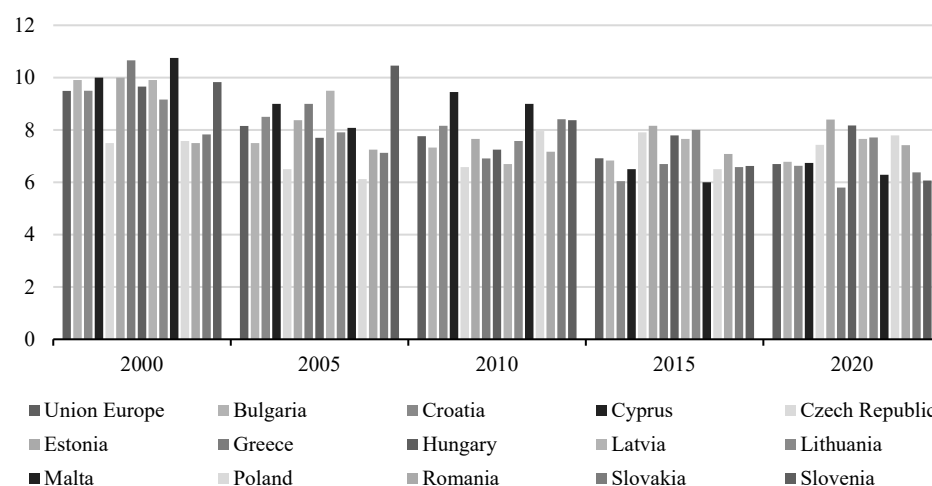by numerous political and economic instabilities. The emerging states with the lowest government stability indicators are Slovakia, Malta, Greece, and Cyprus, while Poland and Romania exhibit the most favorable fluctuations in the government stability indicator. The state that consistently remained below the European Union average during the analyzed period is the Czech Republic.

The objective of this investigation is to gauge the impact of governmental efficacy on the extent of the fiscal weight carried by the citizenry within the emerging nations. These states find themselves in need of increased support to navigate the complex landscape of fiscal and governmental regulations.

In the context of fiscal pressure, it is a recurring pattern for emerging nations to persistently dwell beneath the benchmark established by the European Union for fiscal burdens, as elucidated in Figure 4. Among these emerging states, there exist certain stalwarts in the realm of elevated fiscal pressure during the interval spanning from 2000 to 2020. Croatia, Hungary, and Slovenia stand as paragons in this regard, and as of 2015, Greece likewise ascends to this echelon. On the opposite end of the spectrum, we find Romania and Bulgaria, occupying the lowest rungs in terms of fiscal pressure, with respective averages of 28.2 percent and 29.4 percent.

F i g u r e 4
Fiscal Pressure
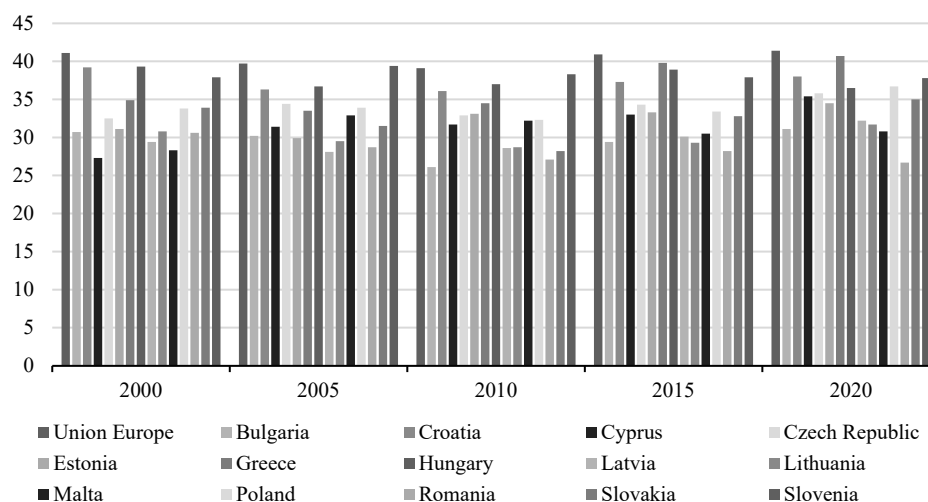
Source: Own calculation based on AMECO.

Our ultimate goal is to interpret the results of the econometric analysis and provide policymakers with valuable information on which institutional risk or quality indicators affect the level of fiscal pressure. By measuring institutional quality and monitoring government risk indicators, we can ensure that emerging markets thrive and prosper in the long term. In the current economic sphere, it is clear that ignoring some indicators from the sphere of taxation and public governance in the formulation of budgetary policies can have unfavorable economic consequences, such as the reduction of fiscal revenues (Topal and Sahin, 2017).

A noteworthy contribution to the literature, our findings aim to contribute to the existing literature by revealing a remarkable correlation between fiscal pressure and both indicators of quality and risk of public governance. Furthermore, the study's novelty lies also in its evaluation of a specific time period and its focus on 14 emerging countries that are members of the European Union. This knowledge can assist decision-makers from developing economies in improving and rationalizing the economic, social, and political landscape, as the selected indicators in the analysis are integral parts of the overall economic-governmental sphere with a direct impact on society as a whole.

The structure of the paper is outlined as follows. In the subsequent section, a comprehensive literature review is presented, followed by the third section that elucidates the process of variable selection and discusses the model specifications utilized in our study. The fourth section details the methodology employed. Empirical findings and a discussion of the results are presented in section five. Ultimately, section six concludes the paper with remarks and policy recommendations.

1. Review of Literature

In exploring the concepts of fiscal pressure and public governance, it is evident that these phenomena transcend geographical boundaries (Picatoste et al., 2016). Across the globe, scholars recognize the importance of maintaining an optimal level of fiscal pressure in promoting favorable social and economic conditions within the realm of public governance (Topal and Sahin, 2017).

Recent empirical studies underscore the significance of both taxation and good governance. Efficient administration is vital for augmenting revenue collection and alleviating the tax burden on taxpayers. Enhanced governance consistently results in an effective tax and fee collection system, thereby fortifying the state's economic framework (Izadkhasti et al., 2022). Șandor and Creța (2014) posit that public governance indicators continue to attract significant attention in the field of governance, as they serve to incentivize the implementation of targeted fiscal reforms in countries striving to improve their scores.

The literature offers a range of indicators on six broad dimensions of governance: Voice and Accountability, Government Effectiveness, Regulatory Quality, Political Stability and Absence of Violence/Terrorism, Rule of Law and Control of Corruption, based on the methodology of the Worldwide Governance Indicators (WGI) project. These indicators are assigned values between –2.5 and +2.5, with those closest to +2.5 being interpreted as the most optimistic (Kaufman, 2007).

Of the six governance indicators developed by the World Bank (1996) the indicators of control of corruption, quality of regulatory framework and rule of law are the most frequently used in empirical studies by various authors, especially in relation to the phenomenon of fiscal pressure, as they show the most statistical significance with this phenomenon of taxation.

Pamba (2023) empirically demonstrated the influence of these three WGI indicators on financial size (represented by the ratio between total tax revenues and gross domestic product) for several emerging countries in Africa. Tan et al. (2023) analyzed the relationship between governance quality and fiscal pressure in emerging countries, emphasizing the significance of regulatory quality, rule of law, and control of corruption in shaping tax systems and revenue generation.

According to Rose-Ackerman (2008), control of corruption is a crucial factor that affects the levels of revenue collected by the State through taxes, as it undermines public trust in the system and may cause taxpayers to refuse to pay taxes. Arif and Rawat (2018) showed a direct and positive relationship between the level of corruption and the level of fiscal pressure on a group of emerging EAGLE states.

In addition to the corruption indicator, the regulatory quality has attracted the attention of researchers in the light of the intensification of the globalisation process and international capital competition. This indicator favours the fight against the phenomenon of fiscal pressure. With the help of its monitoring, governments have introduced various fiscal incentives, such as tax reductions, to stimulate the economy following the analysis of this indicator (Holland and Vann, 1998). Gunay and Topal (2021) empirically demonstrated that there is a direct and positive relationship between the quality of regulations and fiscal pressure for a group of emerging states in Sub-Saharan Africa. In the fight against the phenomenon of fiscal pressure, we also found in the literature the WGI indicator called Rule of Law. This indicator represents the frameworks, standards and procedures in the public system that support the legal influence of business (Pamba, 2023). An empirical study conducted by Kirchler et al. (2008) showed a significant and positive relationship between tax compliance and the rule of law. Additionally, the study performed by Nuță and Nuță (2020) identifies a positive and significant correlation between the rule of law and fiscal pressure.

In addition to indicators of government quality, indicators of public governance risk have also become of interest (Kesternich and Schnitzer, 2010). According to

Krayenbuehl (1985), government risk pertains to the likelihood of a sovereign state being incapable or unwilling to meet its financial obligations. Simon (1984) describes government political risk as encompassing the "political and social developments that can impact the value or repatriation of foreign investments."

With regard to the phenomenon of fiscal pressure, the empirical studies that included the analysis of these public governance risk indicators reported the importance of monitoring them for the economic sphere of society and public governance (Bird et al., 2006). Musa et al. (2023) examined the influence of government risk factors, such as political stability and bureaucratic quality, on fiscal pressure in selected emerging economies. At the same time, Mebratu's latest study (2023) empirically showed a positive and direct relationship between government stability and fiscal pressure in a group of emerging states in Sub-Saharan African nations during the period of 2000 – 2020, arguing that successful sustainable reform depends on the adoption of good governance principles, especially those that support reducing tax inefficiencies and assessing the drivers of government risk that have a significant impact on tax rates. The scientific research of Acemoglu and Robinson (2006) presents an index developed under the name of democratic accountability as an indicator of financial distribution.

Bureaucratic quality provides an assessment of institutional strength and the quality of the civil service, serving as a buffer that tends to minimize policy revisions when governments change (Khan et al., 2021). Mebratu's (2023) also showed that in states with a lower level of fiscal pressure, such as developing states, there is a direct and positive relationship between bureaucracy quality and fiscal pressure.

Building upon existing literature, our study seeks to address a research gap by investigating the influence of public governance, encompassing both quality of governance and political risk, in emerging economies, with a specific focus on the CESEE region. To accomplish this, we utilize indicators developed by the World Bank (1996) based on Daniel Kaufmann's methodology (1999), as well as indicators provided by Political Risk Services (1980). Through our findings, we aim to offer significant insights and policy recommendations to effectively manage fiscal pressure in these transition countries, emphasizing the importance of institutional quality and political risk management.

2. Data and Model Specification

2.1. Data

Our study utilizes a panel dataset comprising fourteen emerging economies from the European Union, specifically Slovakia, Bulgaria, Latvia, the Czech Republic, Romania, Greece, Croatia, Hungary, Lithuania, Malta, Cyprus, Poland, Estonia,

and Slovenia. The dataset covers the period from 2002 to 2020, which encompasses significant economic events such as the banking crisis of 2007, the real estate crisis of 2008, and the onset of the healthcare crisis in 2020. The selection of countries was based on their level of government and fiscal development, as well as their prevalence of large tax burdens and low institutional quality, which are characteristic of countries in the Central Eastern and Southeastern Europe region (Amir and Gökmenoğlu, 2023). We collected data from various sources, including the World Bank, AMECO, and the University of Oklahoma Libraries website.

To represent the dependent variable, the tax burden (TB) indicator was created, composed of a country's overall level of taxation as a percentage of GDP. Observational values range from 0 to 100, where a higher value implies a greater tax burden. The data was obtained from the AMECO database.

To represent the public governance quality, we selected three indicators: the quality of regulation (QR), rule of law (RL) and corruption control (CC) (Table 1). The indicators used were gathered from the World Governance Indicators. The observed values of these indicators range from –2.5 to +2.5, with higher values indicating better institutional quality.

T a b l e 1

Indicators of Public Governance Quality

The quality of regulation **(QR)**	The quality of regulation **(QR)** assesses the ability of the government to design and implement effective policies and regulations that support the development of the private sector, based on citizens' perception (Șandor and Creța, 2014).
The rule of law **(RL)**	A reflection of the extent to which societal actors respect and trust the rules of society (Nuță and Nuță, 2020). These frameworks and legislative priorities guarantee an impartial legal system of governance. The indicator of the rule of law evaluates the overall image of the government (Hoene and Pagano, 2008).
Corruption control **(CC)**	Refers to the extent to which public officials and governing bodies exploit their public authority for personal benefit (Șandor and Creța, 2014).

Source: Own processing based on specialized literature.

T a b l e 2

Indicators of Public Governance Risks

Governmental stability **(GS)**	An indicator that measures the capacity of the government to deliver on its assumed programs and maintain its position in office (Torgler and Schneider, 2007).
Democratic accountability **(DA)**	An indicator used to measure the responsiveness of the government to the citizens' needs: the less responsive, the more likely the government will fall (Castañeda, 2018)
Bureaucracy quality **(BQ)**	Measures the extent to which bureaucracy is independent of politics and government changes, hence, countries that possess a strong and competent bureaucracy capable of governing without major policy shifts or interruptions in government services are awarded higher scores (Rauch and Evans, 2000).

Source: Own processing based on specialized literature.

To represent the public governance risks, we selected also three indicators, developed by the International Country Risk Guide (ICRG): governmental stability (GS), democratic accountability (DA) and bureaucracy quality (BQ) (Table 2).

2.2. Model Specification

The following basic empirical model is estimated:

$$TB_{it} = \beta_0 + \beta_1 QR_{it} + \beta_2 GS_{it} + \beta_3 RL_{it} + \beta_4 CC_{it} + \beta_5 DA_{it} + \beta_6 BQ_{it} + \varepsilon_{it} \qquad (1)$$

In the regression equation (1), which covers the period from 2002 to 2020, TB_{it} represents fiscal pressure for each unit-time combination, where subscripts '*i*' and '*t*' denote the specific unit and corresponding time period, respectively. Additionally, the equation involves the following variables:

TB_{it} – Fiscal pressure for unit '*i*' at time '*t*.'
QR_{it} – Quality of regulations for unit '*i*' at time '*t*.'
GS_{it} – Governmental stability for unit '*i*' at time '*t*.'
RL_{it} – Rule of law for unit '*i*' at time '*t*.'
CC_{it} – Corruption control for unit '*i*' at time '*t*.'
DA_{it} – Democratic accountability for unit '*i*' at time '*t*.'
BQ_{it} – Bureaucracy quality for unit '*i*' at time '*t*.'
ε_{it} – Random residual associated with each unit-time combination.

3. Methodology

In order to delve into our research question, our study employs panel data econometrics. Panel regression is a statistical modelling method that is designed to accommodate panel data, also known as cross-sectional or longitudinal data. This type of multiple regression analysis is commonly used in econometrics to examine the behaviour of panel units over time. These units can take the form of societies, countries, regions, and so forth. Panel multiple regression enables the researcher to control for both the unit-specific effect and the time-related effect when estimating the regression coefficients.

The empirical analysis commences by conducting an analysis of descriptive statistics for the relevant datasets. We calculate the average, maximum, minimum, median, and standard deviation for each variable separately, and also examine the values of two indicators of a standard normal distribution and the Jarque-Bera test. Through this approach, we seek to gain a comprehensive understanding of the underlying data and evaluate the validity of our hypotheses.

To ensure the validity of our regression model, we conducted an assessment of the stationarity of the data series. To this end, we employed the Augmented Dickey-Fuller test, which tests the null hypothesis that the data series is non-stationary

and contains a unit root, versus the alternative hypothesis that the data series is stationary.

Our methodological approach initially involved the use of the OLS model, based on several specialized studies, such as the study called 'Determinants of Government Debt in Sub-Saharan African Countries,' conducted by Nikolaidou and Okwoche (2023), or the study conducted by Pamba (2023). Additionally, the extension of the model by determining the fixed and random effects was supported by the research of Hossain (2014), who analyzed the links between governments and citizens' willingness to pay taxes and duties for a number of 55 emerging states during the period of 2002 – 2012. However, subsequent to conducting the Hausman and Wald tests, we produced the fixed effects model to capture the individual-specific heterogeneity.

4. Empirical Findings

T a b l e 3
Descriptive Statistics of the Data Sets

	TB	QR	GS	BQ	DA	RL	CC
Mean	33.029	0.028	7.422	2.768	5.633	0.024	0.006
Med.	32.900	0.081	7.436	3.000	5.500	0.107	–0.040
Max.	42.700	0.808	10.583	4.000	6.000	0.961	1.193
Min.	25.400	–0.931	4.042	1.000	5.000	–0.920	–0.864
Std. Dev.	3.771	0.323	1.158	0.665	0.381	0.429	0.430
Skewnes	0.199	–0.211	0.226	–0.918	–0.475	–0.315	0.237
Kurtosis	2.246	2.656	2.744	4.694	1.838	2.378	2.391
Jrq.Bera	8.058	3.287	3.003	69.185	24.992	8.683	6.610
Prob	0.018	0.193	0.223	0.000	0.000	0.013	0.037
Sum	8785.8	7.606	1974.2	736.35	1498.5	6.543	1.724
SumDev	3768.6	27.646	355.58	117.33	38.557	48.719	49.072

Source: Own processing in Eviews 12.1.

The average fiscal pressure across the examined countries was 33.029 percent, with the highest observed value reaching 42.7 percent. The quality of regulation varied from a minimum of –0.931 percent of GDP, recorded by Romania in 2003, to a maximum of 0.808 percent, achieved by Estonia in 2010. This reflects that in Estonia during that period, there was the best-regulated economic environment. The median value of 0.107 percent of GDP suggests that half of the countries had values below this threshold, while the other half had values above it.

The average level of government stability was estimated to be 7.422 percent, with Hungary in 2009 having the minimum value of 4.042 percent. The indicator for bureaucratic quality ranged from a low of 1 percent held by Romania from 2003 to 2020, to a maximum of 4 percent among the emerging countries, held by Cyprus during the same period. Data that may indicate persistent problems in the

efficiency and effectiveness of government bureaucracy in the country, which can have various consequences on the economy and governance. On average, bureaucratic quality exhibited a growth rate of approximately 3 percent.

In terms of democratic accountability, the highest value among emerging countries was 6 percent, recorded by Cyprus, Greece, Hungary, Malta, Poland, and Romania, while the minimum value was 5 percent. The average level of the rule of law was found to be 0.107 percent, with the minimum value of 0.961 percent recorded by Malta in 2008, reflecting possible deficiencies in compliance with the law and institutions during that period.

The control of corruption indicator was found to have an average value of –0.04 percent, with the minimum value being –0.864 percent registered by Romania in 2002. The standard deviation of this indicator indicates that the analysis values deviate from the average value by 0.43 percent. This suggests that corruption levels in certain countries may differ from average due to variations in anti-corruption efforts and system effectiveness. These statistics provide valuable insights into the distribution of different indicators among the emerging countries analyzed and serve as a useful reference for further analysis.

Moving forward, our analysis proceeds by presenting the correlation between the independent variables in Table 4.

T a b l e 4

Matrix of Correlation

	TB	RQ	GS	BQ	DA	RL	CC
TB	1.000	–0.143	–0.130	0.551	–0.036	0.137	0.207
RQ	–0.143	1.000	0.227	0.366	–0.027	0.799	0.747
GS	–0.130	0.227	1.000	0.057	–0.097	0.215	0.282
BQ	0.551	0.366	0.057	1.000	0.109	0.499	0.545
DA	–0.036	–0.027	–0.100	0.109	1.000	–0.044	–0.101
RL	0.137	0.799	0.215	0.499	–0.044	1.000	0.853
CC	0.201	0.747	0.289	0.545	–0.101	0.853	1.000

Source: Own processing in Eviews 12.1.

According to Table 4, there exists a weak inverse relationship between the quality of regulations and governmental stability, democratic accountability, the rule of law, and the control of corruption. Meanwhile, a moderate direct relationship can be observed between the quality of bureaucracy and the quality of regulation, the rule of law, and the control of corruption. The rule of law and control of corruption are directly related, albeit not strongly correlated. Table 4 also reveals the absence of significant correlations between the independent variables. Therefore, all of the aforementioned variables will be included in the multiple regression model with panel data.

We conducted panel unit root tests, and the results, shown in Table 5, indicate the stationarity of data series.

T a b l e 5

Stationarity of Data Series

Type of test	Augmented-Dickey-Fuller	
Hypothesis	I(0)	I(1)
Data series	Prob.	Prob.
QR	0,198	0,000
TB	0,341	0,000
GS	0,013	0,000
BQ	0,000	0,000
DA	0,000	0,000
RL	0,422	0,000
CC	0,944	0,000

Source: Own processing in Eviews 12.1.

As presented in Table 5, we observe that the indicators related to government stability, bureaucratic quality, and democratic accountability are stationary data series, with a probability level below the 5 percent significance threshold.

For the other variables, we conducted first differences to determine the presence of unit roots within the data series. After this process, we observe that the data series pertaining to the quality of regulation, fiscal pressure, the rule of law, and control of corruption all become stationary. These findings further support the reliability of our regression model and provide a robust foundation for our subsequent analysis.

The subsequent section presents and deliberates on the outcomes of the econometric model using the OLS method as shown in Table 6.

T a b l e 6

Results of the Ordinary Least Square (OLS) Model

Variables	Coefficients	T-statistic	P-values
RQ	–7.799***	–8.949	0.000
GS	–0.428***	–2.880	0.004
DA	–0.893**	–2.022	0.044
RL	1.750**	2.096	0.037
CC	2.111***	2.626	0.009
BQ	3.299***	10.874	0.000
C	32.272***	11.541	0.000
R-squared	0.513		
Ad R-squared	0.502		
F-statistic	45.453***		
Skewness	0.007		
Kurtosis	3.257		
Jarque-Bera	0.734		
Probability	0.693		
Total observations	266		

Note: The dependent variable is the tax burden (TB). P-values ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$ stand for significance at 1%, 5%, and 10%, respectively and F-critical values *** $F < 4$, ** $F < 10$, * $F < 15$ for an Alpha level of 0.01.

Source: Own processing in Eviews 12.1.

In light of the econometric model generated, it is noteworthy that the independent variables consisting of the quality of the regulatory framework, government stability, the rule of law, corruption control, democratic responsibility, and quality of the bureaucracy have been found to exert significant and meaningful effects on the course of fiscal pressure in the emerging states of the European Union. It is worth highlighting that the associated probability falls below the 5 percent significance threshold, underscoring the robustness and statistical significance of these findings. The coefficient of determination reveals that the regression model elucidates 51.3 percent of the variance in the fiscal pressure level. Notably, a one percentage point increase in the quality of the regulatory framework is associated with a significant 7.799 percentage point decline in the level of fiscal pressure, holding other factors constant.

It is noteworthy that the quality of the regulatory framework displays a negative relationship with fiscal pressure. This aligns with the findings of Yeman et al. (2018) who similarly revealed a negative correlation between these two variables. Additionally, a one percentage point rise in government stability is linked to a 0.428 percentage point reduction in fiscal pressure, all else constant. Hence, one can deduce that government stability exhibits an inverse relationship with fiscal pressure within the European state under analysis, mirroring its impact on fiscal pressure levels in other countries within the Asian context (Gao and Liu, 2021).

The analysis also indicates that a one percentage point increase in bureaucratic quality results in a 3.299 percentage point increase in the level of fiscal pressure, holding other factors constant. This highlights a positive relationship between the quality of bureaucracy and the occurrence of fiscal pressure. The results support Mebratu's (2023) study, which showed that in developing states there is a direct and significant relationship between fiscal pressure rates and the quality of bureaucracy.

On the other hand, a one percentage point increase in democratic accountability corresponds to a 0.893 percentage point reduction in fiscal pressure, while other factors remain constant. As a result, it becomes evident that democratic accountability exerts an inversely proportional influence on fiscal pressure. This result supports the research of several authors, such as Dioda (2012) in Latin America and the Caribbean.

The rule of law indicator exhibits a positive relationship with fiscal pressure, with a one point increase resulting in a 1.75 percentage point rise in the dependent variable, all else constant. The findings support prior research (Nuta et al., 2020) which revealed a similar positive correlation between the rule of law variable and fiscal pressure.

It is observed that a one-point increase in corruption control results in a 2.111 percentage-point increase in the level of fiscal pressure, holding all other factors

constant. Similar to our findings, prior research by Ghețu et al. (2021), also demonstrates a positive relationship between the corruption perception index and fiscal pressure among different states of the European Union.

By testing the normality of the errors we notice that the values estimated by the skewness and kurtosis are very close to the standard values, respectively, 0 and 3. These values help us to conclude that the null hypothesis of the Jarque-Bera test is accepted, so we can say that the errors from the model belong to a normal distribution.

To assess the robustness of the quantitative research findings and comprehensively account for potential fixed or random effects in the panel regression model, we conducted the Hausman test. The test yielded a Chi-Square value of 13.777 with a corresponding P-Value of 0.032, indicating a significant correlation between residuals and explanatory variables. This result strengthens the validity of our panel regression model.

Subsequently, we conducted the Wald test, which revealed the most suitable model, whether it be the fixed-effect model or the pooled model. The Wald test results indicated a Chi-Square value of 263.651 with a P-Value of 0.000, confirming that the coefficients of the explanatory variables were statistically different from zero. This result strongly suggests that the fixed-effects model is the appropriate choice for our analysis.

Consequently, we estimated a fixed effects model and the corresponding results were presented in Table 7. The test results demonstrate that the model is significant with regard to the correlation coefficient (R-squared = 0.843, Adjusted R-squared = 0.830), and valid based on the F-statistic test.

T a b l e 7

Results of the Fixed Effects Model

Variables	Coefficients	T-statistic	P-values
RQ	–3.126***	–3.684	0.000
GS	–0.321***	–3.599	0.000
DA	2.226***	2.650	0.009
RL	–3.008***	–3.630	0.000
CC	2.980***	3.839	0.000
BQ	–0.377	–0.393	0.694
C	24.058***	4.542	0.000
R-squared	0.843		
Ad R-squared	0.830		
F-statistic	69.270***		
Skewness	0.030		
Kurtosis	3.109		
Jarque-Bera	0.171		
Probability	0.918		
Total observations	266		

Note: The dependent variable is the tax burden. P-values; ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$ stand for significance at 1%, 5%, and 10%, respectively and F-critical values ***$F < 4$, **$F < 10$, *$F < 15$ for an Alpha level of 0.01.

Source: Own processing in Eviews 12.1.

The empirical findings reveal a positive correlation between the level of tax pressure and the predictors of democratic and corruption control. Yet, the results also illustrate a negative relationship with the analyzed independent variables. Notably, a one percentage point increase in the quality of the regulatory framework is associated with a significant decrease of 3.126 percentage points in the level of fiscal pressure, all else equal. This aligns with the findings of Durusu-Ciftci et al. (2018) who similarly revealed a negative correlation between these two variables.

Similarly, an increase of one percentage point in government stability leads to a reduction of 0.321 percentage points in fiscal pressure while holding other factors constant. This shows that more stable governance seems to lead to less fiscal pressure in these states. This trend is observed in several regions (Gao and Liu, 2021) and may have significant implications for fiscal policy and governance in general.

When the bureaucratic quality increases, the level of fiscal pressure will decrease by 0.377 percentage points if other factors remain unchanged.

When democratic accountability increases by one percentage point, fiscal pressure will increase by 2.226 percentage points if other factors remain constant. This result is in contrast to the findings of various authors, who have also conducted research in other regions of the world (Dioda, 2012). These results could be explained by significant variations in political contexts, which can vary considerably between several regions.

When the rule of law indicator increases by one unit, the level of fiscal pressure decreases by 3.008 percentage points, assuming other factors remain constant. Moreover, an increase of one unit in corruption control leads to a 2.980 percentage point increase in fiscal pressure, while other factors are held constant. Consistent with our findings, previous research by Ghetu et al. (2021) supports these conclusions. These results suggest that the interplay between governance factors and tax pressure is nuanced and requires careful consideration.

Finally, we consider that bureaucracy quality is not statistically significant in the fixed-effect model, suggesting that it does not have a consistent and significant impact on the dependent variable when considering specific individual unit variations in the data set. To ensure the validity of the analysis, the Jarque-Bera test was conducted to assess the normality of the errors. The results indicate that the errors conform to a normal distribution, supporting the reliability of the model.

Concluding Remarks

Our research underscores the critical role of fiscal pressure and the impact of quality indicators and governmental risk on it. A noteworthy contribution to the literature, this study is the first to examine the influence of risk indicators (ICRG)

on fiscal pressure, in addition to quality indicators (WGI). This approach allowed us to gain a more comprehensive perspective and highlight the complex interactions between these factors.

The Global Governance Indicators (WGI) and Government Risk Indicators (ICRG) provide a means of comparing the quality and risk of public governance across many countries over an extended period. The availability of such indicators promotes interest in the concept of public governance and serves as a stimulus for certain states to improve government quality and minimize risk.

Our case study represented a comprehensive and detailed analysis of the relationship between fiscal pressure and public governance factors in 14 emerging economies from the European Union, over an 18-year period. Our findings brought to light several significant conclusions.

In our research, we employed a multiple regression model with panel data, which revealed that all six independent variables (regulatory framework quality, government stability, rule of law, corruption control, democratic accountability, and bureaucracy quality) have a statistically significant influence on the level of fiscal pressure. This suggests that improving governance and ensuring an adequate regulatory framework can contribute to enhancing the efficiency of the fiscal system and reducing the tax burden on citizens and businesses.

When the variables of democratic accountability and corruption control increase by one unit, the level of fiscal pressure increases. This implies a recommendation to focus on enhancing the moral integrity of public employees, fostering their professional development, and optimizing the salary structure within the public sector. Additionally, it underscores the importance of investing in the digitalization of administrative tools and processes. Conversely, when the variables of government quality, government stability, and rule of law increase by one unit, the level of fiscal pressure decreases. These findings underscore the significance and influence of taxation levels in the emerging states of the European Union and highlight the crucial role played by the implementation and support of the principles underlying the concept of good governance. Specifically, the findings indicate that the collection of tax revenues by the state is more efficient in democratic states that adhere to the moral values of good governance, as compared to states characterized by lower government quality. However, variables such as control of corruption and democratic accountability leave room for continuous analysis by policymakers regarding the public system's impact on the private sector.

Public governance has a profound impact on fiscal pressure, with significant implications for a country's development. The efficient management of public resources, transparent decision-making processes, and responsible fiscal policies directly influence the level of fiscal pressure experienced by a nation. By prioritizing

effective governance practices, countries can alleviate fiscal burdens and create an environment conducive to sustainable development.

In conclusion, our study underscores that fiscal pressure in emerging economies in Europe is influenced by a variety of public governance factors. Understanding these interactions and their implications for fiscal and governmental policies can play an essential role in promoting sustainable economic and social development in these countries.

Future research could further explore these aspects, considering other relevant variables for the concept of public governance and expanding the analysis to include a larger number of states and periods.

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