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# An Empirical Investigation on the Relationship between Fiscal Transparency and Institutional Quality

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**Abstract**

Fiscal transparency, a cornerstone of effective public financial management, encompasses the reliability, comprehensiveness, timeliness, and accountability of reporting on public finances. The quality of institutional structures plays a pivotal role in fostering and sustaining fiscal transparency. Analysing data from 57 countries over the 2008–2021 period using ordered probit analysis, this study reveals significant impacts of political stability, absence of violence, regulatory quality, rule of law, corruption control, and government effectiveness on fiscal transparency. In economies with lower transparency levels, variables such as voice and accountability, government effectiveness, and rule of law have limited positive effects, whereas their influence strengthens in economies with higher transparency. Interestingly, while political stability and corruption control positively affect low-transparency economies, their impact turns negative in highly transparent countries. Strengthening the rule of law, improving regulatory quality, fostering accountability, and enhancing anti-corruption measures are essential for narrowing disparities in transparency and promoting sustainable, credible public financial management.

**Keywords**
Fiscal Transparency, Institutional Quality, Ordered Probit Model

**JEL Classification**
H11, G38, C35

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# Mali Şeffaflık ve Kurumsal Kalite Arasındaki İlişki Üzerine Ampirik Bir Araştırma

**Öz**

Mali şeffaflık, etkili kamu mali yönetiminin temel taşlarından biri olup, kamu maliyesine ilişkin raporlamanın güvenilirliğini, kapsamını, zamanında sunulmasını ve hesap verebilirliğini kapsar. Kurumsal yapıların kalitesi, mali şeffaflığın sağlanması ve sürdürülebilirliği açısından kritik bir rol oynamaktadır. 2008–2021 döneminde 57 ülkeyi kapsayan veriler, sıralı probit analizi kullanılarak incelendiğinde, politik istikrar, şiddet/terör yokluğu, düzenleyici kalite, hukukun üstünlüğü, yolsuzluk kontrolü ve hükümet etkinliğinin mali şeffaflık üzerinde önemli etkiler yarattığı görülmüştür. Mali şeffaflık düzeyi düşük olan ekonomilerde söz hakkı ve hesap verebilirlik, hükümet etkinliği ve hukukun üstünlüğü gibi değişkenlerin pozitif etkisi sınırlı kalırken, bu değişkenlerin etkisi şeffaflık düzeyi yüksek ekonomilerde güçlenmektedir. İlginç bir şekilde, politik istikrar ve yolsuzluk kontrolü düşük şeffaflık seviyesine sahip ekonomilerde olumlu bir etki yaratırken, yüksek şeffaflık düzeyine sahip ülkelerde bu etkiler negatif bir seyir izlemektedir. Hukukun üstünlüğünün güçlendirilmesi, düzenleyici kalitenin artırılması, hesap verebilirliğin teşvik edilmesi ve yolsuzlukla mücadele önlemlerinin geliştirilmesi, şeffaflık seviyeleri arasındaki farkların azaltılması ve sürdürülebilir, güvenilir bir kamu mali yönetiminin teşvik edilmesi açısından oldukça önemlidir.

**Anahtar Kelimeler**
Mali Şeffaflık,
Kurumsal Kalite,
Sıralı Probit Model

**JEL Kodu**
H11, G38, C35

## 1. Introduction

The concept of fiscal transparency is frequently discussed in the relevant literature, and a single common definition is usually emphasized instead of various definitions. According to the most widely accepted definition put forward by Kopits & Craig (1998), fiscal transparency is the systematic and timely disclosure by governments of information about budget data that ensures international comparability and reliability. In this perspective, fiscal transparency is an essential element of an efficient public financial management system, wherein the reporting of historical, current, and prospective public finance adheres to the standards of comprehensiveness, clarity, reliability, timeliness, relevance, and accountability. These criteria are crucial in shaping an effective public financial management system (IMF Fiscal Policies, 2024). Fiscal transparency enables governments to accurately assess the costs and benefits of policy changes, as well as potential risks to public finances in their fiscal decision-making processes. At the same time, it provides external stakeholders, such as legislatures, markets, and citizens, with the necessary information to ensure government accountability. Moreover, enhancing fiscal transparency not only reinforces the credibility of a country's fiscal plans but also contributes to strengthening market confidence by positively influencing market perceptions.

The concept of fiscal transparency is based on Public Choice Theory (Buchanan & Tullock, 1962; Niskanen, 1971). This theory suggests that public officials, similar to private individuals, engage in rational decision-making to optimize their self-interest. That is, if potential benefits exceed potential costs for public officials, they are expected to make rational decisions in order to maximise their interests. However, in the context of Public Choice Theory, fiscal transparency facilitates the monitoring of the actions of public officials by increasing the possibility of access to and evaluation of information. Thus, the likelihood of information manipulation and concealment of actions is reduced. In addition, the fact that transparency enables more efficient monitoring of legal processes and regulations suggests that fiscal transparency may play an indirect role in law enforcement. On the contrary, because non-transparent environments make it easier to avoid punishment, people may not hesitate to disrupt public order. In other words, transparency also facilitates the enforcement of laws (Kolstad & Wiig, 2009). Moreover, non-transparent environments weaken the social capital of society as a whole and further undermine institutional quality. Considering that institutional quality and financial transparency are mutually reinforcing and intertwined phenomena, it becomes inevitable that these relationships will turn into a vicious circle that further increases negativity (Chen & Neshkova, 2020).

The institutional structure's quality is a critical factor in the emergence and sustainability of fiscal transparency. As a matter of fact, in the last 20 years, there have been many studies that focus on fiscal transparency and support the idea that it is important for a quality institutional structure (Cicatiello et al., 2017; Heald, 2013). Institutional quality is generally associated with the principles of good governance. Good governance is defined as the capacity of the government to create a transparent and accountable public administration system that strengthens a democratic structure (Riddell, 2007: 374). This process aims to be open to citizen participation and to utilise public resources effectively. At the same time, it expresses an understanding of governance that reinforces social trust by increasing efficiency in administration. In short, fiscal transparency, which can be considered one of the essential elements for public financial management systems, is expected to support a good governance structure and thus increase institutional quality. On the other hand, an increase in institutional quality will create an effect that will lead to an increase in fiscal transparency. In other words, transparency is an intertwined factor that will feed institutional quality, and institutional quality will feed more transparency. Therefore, when political, institutional, and governance factors are associated with fiscal transparency measures, these factors are more likely to be considered as determinants rather than explanatory parameters (Andreula, 2009: 13).

This study aims to empirically analyse how indicators of institutional quality affect different levels of fiscal transparency. It was conducted in 57 countries for the period 2008–2021. In this framework, this study aims to provide various contributions to the existing literature. Firstly, this study is based on a panel focusing on a large and recent period. Thus, the research will be addressed on a global scale rather than at a regional or country level. In addition, this study, which uses the ordered probit method, can also evaluate the interrelationship between fiscal transparency and governance quality. On the other hand, instead of focusing on a single dimension of governance structure, this research adopts a more comprehensive perspective and focuses on a broad governance structure that shapes institutional quality. Furthermore, despite the increasing global focus on transparency, empirical studies regarding its drivers remain scarce. In other words, this study focuses on the role of the determinants in the institutional structure rather than the positive effects that financial transparency may bring about and analyses its interaction with the elements within the institutional structure. Policy proposals that ignore institutional elements and focus solely on economic factors will be insufficient to effectively shape the information structure of national financial systems.

Considering the reasons that constitute the original value of this study, its contributions to the existing literature also emerge. In this framework, the following sections of the study are organised as follows. Firstly, a comprehensive conceptual and theoretical framework on the concept of fiscal transparency and institutional quality is drawn. Immediately afterwards, the empirical literature on the relationship between fiscal transparency and institutional quality is presented. In the empirical application part of the study; firstly, the data set used is introduced, then the method and model used are introduced and the estimation findings obtained because of the analyses are presented. Finally, the study is completed with conclusions and policy recommendations.

## 2. Theoretical Framework: Fiscal Transparency and Institutional Quality

The literature represents the notion of transparency, defined as the open sharing of information that enables institutions, whether public or private, to assess their performance, in various forms, such as budget transparency and fiscal transparency. For example, OECD research highlights "budget transparency," which involves the comprehensive and timely disclosure of all relevant fiscal data. Conversely, IMF studies adopt the term "fiscal transparency," which pertains to the public disclosure of the government's structural and functional details, along with its historical, current, and future fiscal policies and outcomes (Badun, 2009: 481; IMF Fiscal Policies, 2024).

The IMF's 2024 Fiscal Transparency Code emphasizes four key components in ensuring fiscal transparency. First, it emphasizes the importance of an effective financial reporting system that ensures the provision of timely, comprehensive, and reliable data on government finances and performance. Second, it emphasizes the need for an effective budgeting process that clearly articulates budget objectives and policy goals and provides reliable projections of public finances. Thirdly, the importance of a fiscal risk management system that provides for the disclosure, analysis and management of fiscal risks, and the need for a coherent and coordinated fiscal decision-making process across government. Finally, it emphasises the critical importance of establishing a transparent regulatory framework for the ownership, taxation and utilisation of natural resources. These are critical elements for a fair and effective revenue management system.

It is also possible to say that the discourse on fiscal transparency refers to two distinct constructs. Firstly, the accessibility of the information sought refers to the availability of data on various topics, such as political and budgetary issues, administrative processes, operational aspects or the performance of public institutions. The second relates to the flow of information necessary to evaluate organizations, focusing on relationships with stakeholders. Following Heald (2013), the flow of information in this second construct can be divided into upward and downward transparency (the interrelationship between subordinates and superiors), representing vertical dimensions, and outward and inward transparency (the interrelationship between those outside and those inside the organization), representing horizontal dimensions (Bisogno & Cuadrado-Ballesteros, 2022: 3).

In this study, the Open Budget Index, which is published by governments around the world and is essentially a tool that compares basic budgetary information, is used to represent fiscal transparency. This index, which is based on surveys of independent researchers, was first published in 2006 and was subsequently updated in 2008, 2010, 2012, 2015, 2017, 2019, 2021, and most recently in 2023. However, the Open Budget Index also reflects the transparency values of several years prior to the year of data publication, as the 2023 score incorporates an assessment of the past 16 months (Open Budget Survey/Methodology, 2023). In this index, which is scored between 0-100, 0-40 indicates low fiscal transparency, 41-60 indicates limited fiscal transparency, and 61-100 indicates adequate fiscal transparency.

The matter of transparency has been examined in several research across various disciplines within the social sciences, particularly in economics and political science. Kosack & Fung (2014: 65) state that the principle of transparency envisages the open disclosure of information on government institutions, policies, and programs. It is assumed that this principle enables citizens to hold officials accountable for spending and performance. It is argued that this approach will result in more accountable, responsive, and effective governance, reducing governance inefficiencies and mismanagement of public resources. Consequently, one might assert that openness is a crucial instrument for enhanced governance. Simultaneously, it is anticipated that enhanced governance will ultimately yield favourable outcomes for transparency.

In recent years, institutional quality and the evaluation of the performance of the government have become the main interests of the New Institutional Economics School, which emerged under the leadership of Douglas North (1990). According to the New Institutionalists, a quality institutional structure dominated by fiscal transparency will enhance the bonds of trust. This leads to significant direct and indirect contributions to the economic growth of countries through trust in the levels of governance. According to North (1990), the institutional structure of a country is the most fundamental element in shaping its economic performance. Despite possessing operational market economies, comparable technologies, and corresponding physical and human capital stocks, countries now exhibit disparities in their economic performance. The most important reason for these differences is the difference in institutional quality and social norms (Wallis, Killerby, & Dollery, 2003). Trust in institutions consists of trust in the integrity and quality of politicians and bureaucrats, as well as in the effectiveness of public institutions. If citizens do not trust individual administrators, a crisis of moral legitimacy emerges; if they do not trust the effectiveness of public institutions, a crisis of functional legitimacy emerges. In order to prevent these crises, it is necessary to improve the quality-of-service delivery, fight corruption, incorporate performance and quality-enhancing elements into state administration, ensure the rule of law, operationalize democracy, promote participation, and increase transparency and accountability (Bouckaert & Walle, 2001).

The New Institutional Economics emphasizes the role of institutional frameworks in shaping economic performance, highlighting institutional quality as a critical determinant of long-term growth and development. In this framework, institutional quality aligns closely with the principles of good governance, which emphasize transparency, accountability, and the effective implementation of policies. Good governance, as a reflection of institutional quality, facilitates the transformation of governmental roles in societies by adhering to democratic principles. It promotes the involvement of non-governmental entities, including citizens and civil society organizations, in decision-making processes and ensures broad public engagement in governance (Ferranti et al., 2009). The concept of good governance also encompasses mechanisms that enhance the transparency and efficiency of governments, reinforcing the democratic structures that underpin institutional quality. However, the measurement of institutional quality, and by extension good governance, is often complicated by the diversity of indicators available. Consequently, multiple indices derived from survey data have been developed to evaluate institutional performance. One of the most widely used tools for assessing institutional quality and good governance is the World Governance Indicators, developed by the World Bank. These indicators provide a comprehensive framework to evaluate organizational performance and governance structures (Bisogno & Cuadrado-Ballesteros, 2021; Da Cruz & Marques, 2017; Figankaplan, 2017; Lee & Whitford, 2009). The Worldwide Governance Indicators Project defines good governance as the customs and structures through which a nation exercises its power, including how governments are elected, overseen, and altered; their ability to devise and implement policies efficiently; and the extent to which they adhere to institutions regulating economic and social interactions between citizens and the state (Kaufmann, Kraay, & Mastruzzi, 2009: 1).

The World Bank's Worldwide Governance Indicators, which have been providing information on governance structure for more than 200 countries since 1996, is an advanced resource that covers the largest number of countries and allows for comparable assessments. It provides important information on the quality and functioning of countries' institutional structures and is based on a research dataset initiated by Daniel Kaufmann & Aart Kraay in 1999 (World Bank, 2024). The governance indicators are built on six key components: quality of regulation, voice and accountability, rule of law, control of corruption, and government effectiveness, political stability and absence of violence/terrorism. Following the work of Kaufmann et al. (2010), it is possible to evaluate these six indicators in three different dimensions (Bisogno & Cuadrado-Ballesteros, 2021: 5).

The first dimension, which denotes the mechanisms via which governments are chosen, overseen, and altered, comprises two primary indicators. First, there is the "voice and accountability" indicator, which reflects citizens' perceptions of the levels of freedom of expression, freedom of association, independence of the media and participation in elections. Second, there is the "political stability and absence of violence/terrorism" indicator, which assesses political stability and the likelihood of violence, including terrorism. These indicators reflect the extent to which governments are committed to democratic processes and the overall security situation of the country.

To understand the second dimension, which assesses how well governments can design and implement policies, two main indicators are analysed. The first, “government effectiveness”, assesses factors such as the quality of public services, policy-making processes, and the level of government adherence to those policies. The second indicator, “quality of regulation”, measures the ability of governments to create and enforce rules and regulations. Together, these two indicators provide important information about governments' management capacities and how effective their policies are.

The third dimension reflects the institutional structures regulating the economic and social relations between citizens and the state. This dimension has two main indicators. The first, the ‘rule of law’ indicator, assesses compliance with community rules, the effectiveness of contracts, the protection of property rights, trust in and commitment to police and judicial institutions, as well as perceptions of the likelihood of crime and violence. The second indicator, 'corruption control', gauges the degree to which people perceive the use of public power for personal benefit. These indicators provide critical data for analysing the state's capacity to ensure the rule of law and its ability to prevent the abuse of public power. Moreover, of these six criteria, government effectiveness, regulatory quality, rule of law, and control of corruption can be associated with the quality of government service delivery, while voice and accountability, political stability, and the absence of violence and terrorism provide a framework for the presence and state of democracy (Helliwell et al., 2014, 2018; Ott, 2010).

In short, fiscal transparency and a quality institutional structure are two important mutually reinforcing resources. Indeed, the complexity in bureaucratic structures, characterized by excessive regulations, fragmented authority, and lack of oversight, can often lead to practices that conceal real balances, such as misreporting, inefficiencies, and corruption. These practices undermine fiscal transparency by obstructing access to accurate and timely financial information, which is essential for holding governments accountable. This lack of transparency, in turn, erodes the institutional quality required for effective governance, creating a vicious cycle where weak institutions further perpetuate non-transparent practices. Because of this situation, non-transparent management of public resources can have devastating consequences for both the economies and democratic structures of countries, as it diminishes trust, increases fiscal risks, and weakens market confidence. Both governments and international organizations should focus on maintaining fiscal transparency and increasing trust and credibility to prevent these problems (Manessiotis, 2011; Rios et al. 2016; Santiso, 2005). In this framework, this study addresses the relationship between fiscal transparency and institutional quality by referring to the concept of institutional quality as a reflection of good governance and aims to put forward constructive policy recommendations.

## 3. Empirical Literature Review

A diverse array of fiscal transparency initiatives has been established by international entities like the International Budget Partnership (IBP) and Transparency International, alongside non-governmental groups such as the IMF and OECD. These extensive indexes indicate that fiscal transparency varies significantly among countries. Examining the origins of this variation may facilitate further research to ascertain the factors influencing fiscal transparency. Despite the increasing prominence of fiscal transparency in recent years, current research predominantly focuses on the correlation between fiscal transparency and budgetary performance, fiscal discipline, and various economic variables (Baldrich, 2005; Fomina & Vynnychenko, 2017; Gleich, 2003; Hameed, 2005; Jarmuzek, 2006). Nevertheless, most studies concerning the correlation between fiscal transparency and institutional quality typically concentrate on a singular facet of governance. This section will delineate key research that examine the correlation between fiscal transparency and institutional quality, which are prominent in literature.

Alt & Lassen (2006) examined the relationship between political polarization and election cycles as an important indicator of institutional structure and the independence of the media with fiscal transparency. As a result of dynamic panel data analyses for 19 OECD countries in 1989–1998, a significant negative relationship was found between institutional quality and fiscal transparency, especially in countries with low transparency and high polarization. In addition, it was also found that financial transparency is negatively affected when the independence of the media is low.

Andreula et al. (2009) performed research to examine the correlation between fiscal transparency and institutional characteristics, utilizing data from 82 countries from 2000 to 2010. The research utilized the ordinary least squares (OLS) and two-stage least squares (2SLS) methodologies. The results demonstrate that elevated institutional quality and governance correlate with enhanced fiscal transparency metrics. The findings indicate that robust institutional frameworks and governance practices positively influence fiscal transparency.

Zucolotto & Teixeira (2014) analysed the effects of fiscal transparency on corruption levels, accountability systems, legislative effectiveness, and democratic processes in countries. According to the findings of the study, countries with higher fiscal transparency have stronger and more effective accountability mechanisms, resulting in less corruption and higher standards of democracy.

Albassam, 2015; in his analysis based on the 2006-2012 period for 50 countries selected according to the availability of data, Albassam investigated the relationship between fiscal transparency and good governance indicators published by the World Bank in the first stage and the effect of human development in this process in the second stage by logistic regression analysis. As a result, he found that institutional quality has a determinant effect on fiscal transparency and this effect is mostly driven by the quality of regulations and government effectiveness. Moreover, the analytical findings demonstrate that human development substantially affects the correlation between fiscal transparency and both regulatory quality and government performance.

Cimpoeru & Cimpoeru (2015) examined the impact of governance structure on fiscal transparency across a sample of 94 countries from 2009 to 2012. This study is predicated on the governance components delineated by the World Bank, including participation and accountability, regulatory quality, political stability and absence of violence, rule of law, government effectiveness, and corruption control. The researchers employed the Ordinary Least Squares (OLS) approach to examine the impact of governance structure on fiscal transparency. The primary thesis of the study posits that fiscal transparency is significantly affected by factors including the level of citizen participation in governmental elections; the freedom of expression, association, and the press; the quality of public services; independence from political influence; public trust in and adherence to the rule of law (particularly regarding contractual obligations, property rights, and the efficacy of police and judicial systems); and the perceived threat of crime and violence.

Cicatiello et al. (2017) employed data from 36 nations spanning the years 2003 to 2013 in their investigation of the political drivers of fiscal transparency. In their study, in which static and dynamic panel data analysis methods were applied together, they revealed that the rule of law is important. In other words, since the government's control over the legislature will lead to government ideology, financial transparency will be negatively affected by this situation. De Simone et al. (2017) conducted dynamic panel data estimations with 116 countries in a period covering a ten-year period (2003–2012) in their study investigating the impact of fiscal transparency on corruption. They concluded that fiscal transparency has a negative relationship with the level of corruption as an indicator of institutional quality.

Montes & Luna (2020) analysed the impact of fiscal transparency and legal variables on anti-corruption views across a sample of 82 nations from 2006 to 2014, employing panel data technique. The primary hypothesis of the paper posits that fiscal transparency can constrain the discretionary authority of public officials, lawmakers, and legislators by diminishing knowledge asymmetries. The study's findings indicate that open fiscal policies positively influence perceptions of corruption. Furthermore, the influence of the rule of law on anti-corruption perceptions is amplified by enhanced fiscal transparency.

Bisogno & Cuadrado-Ballesteros (2022) examined the correlation between fiscal transparency and governance quality through the lens of public choice theory and principal-agent relationships, analysing data from 96 countries between 2008 and 2019. The study used a two-stage system GMM approach to carry out the estimates. The findings support that higher levels of fiscal transparency positively affect the quality of governance, and likewise, a favourable quality of governance increases fiscal transparency.

Dracea et al. (2024) examined the correlations between fiscal transparency and governance measures, and their impact on the human development index for 14 EU member states from 2006 to 2021. The analyses conducted via robust regression modelling, structural equation modelling, and Gaussian graphical models indicate that enhancing governance and human development can facilitate fiscal transparency, while increased fiscal transparency can foster improved governance and elevated human development by ensuring the efficient allocation of public resources.

## 4. Empirical Practice

### 4.1. Data

Fiscal transparency is both an important cause and an important consequence of institutional quality. Therefore, understanding the relationship between fiscal transparency and institutional quality will be particularly instructive for policymakers. With this aim in mind, this study aims to investigate the impact of institutional quality indicators on different levels of fiscal transparency in 57 countries for which data are available for the period 2008–2021. The selection of these 57 countries is based on the availability of consistent and comparable data on fiscal transparency and institutional quality indicators over the study period. Given the reliance on internationally recognized sources such as the Open Budget Index and the World Governance Indicators, the analysis is limited to countries that provide comprehensive and reliable data for these measures. In this framework, the study utilizes the ordered probit model, which enables comparisons between different levels of fiscal transparency. In addition, in the estimations to be made, the relationship between institutional quality and fiscal transparency will be evaluated comparatively by categorizing low fiscal transparency, limited fiscal transparency, and adequate fiscal transparency. This study empirically analyses the relationship between fiscal transparency and institutional quality and uses Open Budget Index data as an indicator of fiscal transparency. As an indicator of institutional quality, globally recognized governance indicators such as political stability and absence of violence, voice and accountability, government effectiveness, rule of law, quality of regulation, and control of corruption are used. The World Bank Group's collection of global governance indicators is regarded by numerous scholars as "the most comprehensive and reliable set of publicly available governance indicators" (Arndt & Oman, 2006: 28).

This study categorizes fiscal transparency into three distinct levels and assesses it using the Open Budget Index issued by the IBP, created in 1997 to advocate for transparent and inclusive processes. This index evaluates three primary elements of the accountability framework utilizing data from the Open Budget Survey: the accessibility of budget information to the public, avenues for public engagement in the budgeting process, and the function and efficacy of legislative and supreme audit bodies. This framework identifies eight essential papers that governments must disseminate to the public throughout the budget process. The documents comprise the pre-budget statement, executive budget proposal, enacted budget, citizens' budget guide, the middle of the year and end-year fiscal reports, and the audit report. De Renzio & Masud (2011) and Wehner & De Renzio (2013) evaluate the Open Budget Index using a 0–100-point scale, comprising 95 questions that assess the quantity and promptness of budget information disclosed in eight essential budget papers. The index relies on data obtained from surveys and is regarded by numerous scholars and organizations as the most dependable and valid instrument for assessing transparency levels (Santiso, 2006; Wehner & De Renzio, 2013).

Since 2006, the Open Budget Index has been a crucial source, reflecting the global state of budget transparency and offering insights into government public finance management. As emphasized by Renzio & Masud (2011: 607), the resulting data point to two different situations. The average global standards of fiscal transparency are exceedingly inadequate. In other words, governments in many countries provide very limited budget information to their citizens. However, these levels are slowly improving, and fiscal transparency is generally increasing. In this framework, Graph 1 below shows the average fiscal transparency indices of the 57 countries included in the analysis for the years 2008, 2010, 2012, 2015, 2017, 2019 and 2021. When the graph is analyzed, it is seen that the average is generally in the 50-point band, which indicates limited fiscal transparency. It is also observed that there is a general upward trend in fiscal transparency from 2008 to 2021, except for 2017.

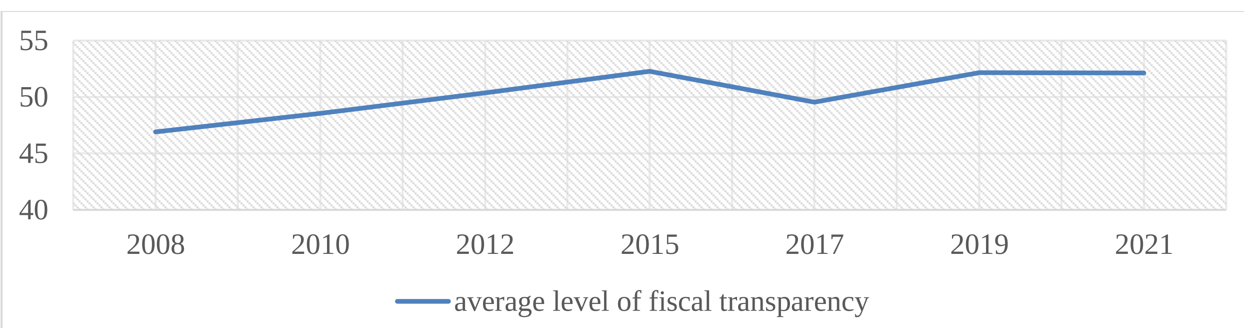


*Figure 1.* Course of the Average Level of Fiscal Transparency in the Analysed Countries over the Years. Prepared by the authors using data from the Open Budget Index (2024).

This study aims to empirically test the relationship between the course of fiscal transparency represented by Graph 1 and institutional quality indicators. For this purpose, the institutional quality indicators used in the study will be compared to the global governance indicators published by the World Bank in 2024. As mentioned in the theoretical framework section of the study, governance indicators are evaluated in six dimensions. These are: voice and accountability; political stability and absence of violence or terrorism; quality of regulations; rule of law; control of corruption; and government effectiveness. All the governance indicators used in the study score between -2.5 and 2.5.

Table 1

*Sample and Data Set*

| **Sample** | **Data** | **Description of Data** |
|---|---|---|
| Albania, Algeria, Angola, Argentina, Azerbaijan, Bangladesh, Bolivia, Botswana, Brazil, Bulgaria, Burkina Faso, Cameroon, Chad, Colombia, Costa Rica, Croatia, Czech Republic, Ecuador, Egypt, El Salvador, France, Georgia, Ghana, Guatemala, Honduras, India, Indonesia, Jordan, Kazakhstan, Kenya, Malawi, Mexico, Mongolia, Morocco, Namibia, Nepal, New Zealand, Nicaragua, Nigeria, Norway, Pakistan, Papua New Guinea, Peru, Philippines, Poland, Romania, Russia, Slovenia, Sri Lanka, Sweden, United Republic of Tanzania, Turkey, Uganda, United Kingdom, USA, Vietnam, Zambia. | **Dependent Variable** | |
| | fis_tran | Open budget index as an indicator of fiscal transparency |
| | **Explanatory Variables** | |
| | voi_acc | voice and accountability |
| | pol_sta | political stability and absence of violence/terrorism |
| | qua_req | the quality of regulation |
| | rul_law | rule of law |
| | con_cor | control of corruption |
| | gov_eff | government effectiveness |

*Source.* Prepared by the authors.

In Table 1 above, the countries and variables used in the study are given. In the study, the Open Budget Index (2024) published by the IBP was used to represent fiscal transparency. The index in question scores between 0-100. All explanatory variables are scored in indices ranging from -2.5 to 2.5. All the explanatory variables used are taken from the World Bank/Worldwide Governance Indicators (2024) database.

In the following Table 2, descriptive statistics of the variables used in the study are presented.

Table 2

*Descriptive Statistics*

| | Observation | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| fis_tran | 798 | 50.6528 | 20.8565 | 0 | 93 |
| voi_acc | 798 | -0.0238 | 0.7919 | -1.56 | 1.74 |
| pol_sta | 798 | -0.2753 | 0.8396 | -2.81 | 1.56 |
| qua_req | 798 | -0.0757 | 0.7689 | -1.61 | 2.04 |
| rul_law | 798 | 0.0047 | 0.7755 | -1.39 | 2.08 |
| con_cor | 798 | -0.1589 | 0.8325 | -1.63 | 2.02 |
| gov_eff | 798 | -0.2146 | 0.8738 | -1.53 | 2.38 |

*Source.* Prepared by the authors.

**4.2. Methodology and Findings**

The study employs the Open Budget Index (2024), published by the International Budget Partnership (IBP), as the dependent variable to measure fiscal transparency. This index assigns scores ranging from 0 to 100, where scores between 0 and 40 represent countries with low fiscal transparency, scores between 41 and 60 denote countries with limited fiscal transparency, and scores between 61 and 100 indicate countries with adequate fiscal transparency. Given the ordinal and categorical nature of the dependent variable, an ordered probit model was deemed appropriate to estimate the probability of observations falling into these ordered categories.

The ordered probit model allows for the analysis of discrete and ordinal determinants, providing a robust framework for examining the relationship between institutional factors and fiscal transparency, as outlined below.

$$Y^{*}=X_{i*}\beta +€ \quad (1)$$

Y* represents an observable ordinal variable coded as 1, 2, and 3 in line with the responses to the fiscal transparency question discussed in the previous section., Y* determinants show,

$$Y^{*} \quad \text{If} \quad Y^{*} < \gamma 1 \qquad Y=1 \quad (2)$$

$$\text{If} \quad \gamma 1 \leq Y^{*} < \gamma 2 \qquad Y=2 \quad (3)$$

$$\text{If} \quad \gamma 2 \leq Y^{*} < \gamma 3 \qquad Y=3 \quad (4)$$

Once the range of variation of Y* has been determined, it is possible to establish the relationship between this range and the discrete variable Y* and then calculate the probability of Y* for each range of variation. For $\gamma 1$, $\gamma 2$ and $\gamma 3$ are the thresholds to be estimated according to the parameter β. (Greene, 1997). In order to estimate the probit model, likelihood method is used. This method generally indicates the error in the model when an independent variable is added to the analysis.

In the ordered probit model, interpreting the link between the independent variables and the dependent variable through the $\beta$ coefficient is challenging. To understand this relationship more clearly, the marginal effects of the relevant factors should be estimated. Marginal effects regarding each independent variable are obtained by making use of sample averages of dependent variables. Marginal effects are calculated by taking the derivative of the probability function with respect to the independent variable.

This situation is presented in the equation below.

$$P\,(y= i)\,/\partial X = \wp\,(M_{i-1-}\,\beta X) - \wp(Mi - \beta X)\,\beta \qquad (5)$$

In this framework, the findings obtained as a result of the analyses are presented in Table 3 below.

Table 3

*Ordered Probit Results*

| Dependent var: Fiscal Transparency | | | | |
|---|---|---|---|---|
| **Variables** | **Coefficient** | **Dy/dx(predict=1)** | **Dy/dx(predict=2)** | **Dy/dx(predict=3)** |
| voi_acc | 0.7122 *** (7.05) | -0.1523257 | 0.0085199 | 0.1438057 |
| pol_sta | -0.3987*** (-5.13) | 0.0819381 | -0.04583 | -0.0773551 |
| gov_eff | 1.2638*** (6.26) | -0.2597356 | 0.0145276 | 0.2452079 |
| qua_req | 1.1994*** (7.47) | -0.2464834 | 0.0137864 | 0.232697 |
| rul_law | 0.5770*** (2.88) | -0.118594 | 0.0066332 | 0.1119608 |
| con_cor | -1.6359*** (-7.99) | 0.3361854 | -0.0188037 | -0.3173818 |
| Cut 1 | -0.92467 | - | - | |
| Cut 2 | 1.013358 | - | - | |
| loglikelihood | -554.08963 | - | - | |

| | | | | |
|---|---|---|---|---|
| LR chi2(11) | 601.21 | - | - | |
| N | 798 | - | - | |

*Note.* *** indicates statistical significance at 1% level.
*Source.* Prepared by the authors.

The model examines the impact of intuitional quality indicators—voice and accountability, political stability and absence of violence or terrorism, regulatory quality, rule of law, control of corruption, and government effectiveness—on fiscal transparency. The findings indicate that political stability and absence of violence, regulatory quality, rule of law, control of corruption, and government effectiveness significantly influence fiscal transparency. In contexts of lower fiscal transparency, the likelihood that variables such as voice and accountability, government effectiveness, rule of law, and regulatory quality positively affect fiscal transparency decreases. Conversely, in economies with higher fiscal transparency, these variables exhibit a positive relationship with fiscal transparency. Furthermore, political stability and corruption control demonstrate a positive effect in economies with low levels of fiscal transparency but exert a negative effect in economies with high transparency. These results align with and contribute to the existing literature (e.g., Benito & Bastida, 2009; Bisogno & Cuadrado-Ballesteros, 2022; Kolstad & Wiig, 2009; Relly & Sabharwal, 2009; Schmidt-Hebbel, 2012; Stiglitz, 2002), further emphasizing the dynamic relationship between institutional factors and fiscal transparency across varying economic contexts.

## 5. Conclusion

Fiscal transparency refers to the public dissemination of information regarding government structure, functions, fiscal policy goals, and public sector accounting. This transparency is essential for a precise evaluation of the costs and benefits of governmental actions. A high degree of fiscal transparency denotes the provision of trustworthy, complete, timely, clear, comprehensible, accessible, and internationally comparable information regarding government activities within the economic framework. Such transparency increases the efficiency and accountability of public administration, allowing citizens and other stakeholders to better assess government performance and decisions.

The importance of structural reforms in the development of the economies of countries cannot be disputed. As a result of structural reforms, countries' fiscal transparency levels and institutional quality tend to improve. When the theoretical and empirical literature is analysed, there is an increasing relationship between fiscal transparency and institutional quality as transparency increases. Interestingly, the findings of this study reveal that while political stability and corruption control positively affect low-transparency economies by fostering trust and reducing inefficiencies, their impact turns negative in highly transparent countries. This counterintuitive result may stem from diminishing marginal returns in environments where transparency is already high, leading to potential trade-offs between stability-focused policies and the dynamism required for further transparency improvements. Briefly, a country with a high level of institutional quality may find it easier to enhance fiscal transparency as robust governance structures facilitate the implementation of transparency initiatives. However, in countries with low institutional quality, structural barriers such as weak rule of law or pervasive corruption may constrain efforts to improve transparency. This study underscores these dynamics, contributing to the understanding of the nuanced relationship between fiscal transparency and institutional quality.

Countries can further enhance fiscal transparency through structural reforms, such as steps to strengthen the credibility of budget frameworks, clear and comprehensive presentation of fiscal reports, and disclosure of fiscal risks. At the same time, fiscal transparency needs to be transformed from an end into a means to address growing practical concerns about governance and public sector performance. In short, greater transparency also helps to underpin the credibility of a government's management of public finances and increase market confidence.

In this direction, our study supports the implementation of structural reforms recommended by international organizations such as the IMF and the World Bank, which are the most emphasized policy recommendations all over the world, in line with the countries' own dynamics in order to increase fiscal transparency and institutional quality. Thus, social and political dynamics in countries will be limited. The inclusion of fiscal transparency in policy-making processes helps to gain a sense of legitimacy, while at the same time providing greater accountability and oversight leads to increased efficiency and productivity.

## Declaration of Research and Publication Ethics

This study which does not require ethics committee approval and/or legal/specific permission complies with the research and publication ethics.

## Researcher’s Contribution Rate Statement

The authors contributed equally to the article.

## Declaration of Researcher's Conflict of Interest

There are no potential conflicts of interest in this study.

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