CORRUPTION AND DEVELOPMENT IN THE NEW EU MEMBER STATES: A COMPARATIVE ANALYSIS

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ABSTRACT: *Within the European Union, corruption is a complex phenomenon, with profound implications for governance, the economy and citizens' trust in institutions. Although all Member States have formal mechanisms to combat corruption, the perceived level of corruption varies considerably from one country to another. The new Member States of the European Union, especially those in Central and Eastern Europe, have undergone major political, economic and institutional transformations in recent decades. While EU accession entailed clear commitments to the rule of law, transparency and the fight against corruption, the post-accession reality shows a mixed picture. In many of these countries, corruption remains a structural challenge, affecting good governance, economic development and public trust in democratic institutions. The Corruption Perceptions Index (CPI) shows notable differences between new and old Member States, and these differences are strongly correlated with a number of other indicators – GDP per capita, quality of the rule of law, level of human development, political stability, degree of digitalization, independence of the judiciary, freedom of the press, degree of government transparency and other indicators. Analyzing these correlations in the context of new EU members provides important insights into how corruption is influenced by structural factors and the quality of post-accession reforms.*

Keywords: *corruption, economic growth, human development, digitization*

JEL Classification: *F43, O40*

1. INTRODUCTION

Corruption, defined as the abuse of power for personal gain, is considered a major obstacle to economic and social development. Corruption has devastating effects on national economies. It reduces the efficiency of resource allocation, generates economic inequalities and undermines public trust in government institutions. Furthermore, it contributes to increasing transaction costs and discourages foreign investment, negatively affecting economic growth and competitiveness. Corruption also has a direct impact on the quality of governance, leading to political decisions influenced by personal interests rather than the common good.

To better understand the dynamics of this phenomenon, it is essential to analyze the relationship between corruption and other socio-economic and institutional indicators. The Corruption Perceptions Index (CPI) provides an useful reference framework for such comparative analyses. It is published annually by Transparency International, which

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standardizes 8-13 sources (e.g. World Economic Forum, Bertelsmann Foundation, Economist Intelligence Unit). Particularly in the European context, this index correlates significantly with indicators such as GDP per capita, the quality of the rule of law, the level of human development, political stability, the degree of digitalization, freedom of the press, the degree of government transparency and other indicators. Exploring these correlations allows for the highlighting of common patterns between Member States and reveals persistent challenges related to integrity in public administration in the EU.

Another indicator with a role in assessing the quality of governance is the Corruption Perceptions Index, which represents the perception of the extent to which public power is exercised for private purposes. This is also a composite index, built from multiple sources (opinion polls, expert reports, international organizations and private institutions, e.g. Freedom House, Global Insight, Economist Intelligence Unit, etc.).

2. LITERATURE REVIEW

Both the theoretical and empirical literature on corruption has fueled an intense debate over the past three decades. A number of authors, including Krueger (1974), Myrdal (1989), Shleifer and Vishny (1993), Tanzi and Davoodi (1998), and Mauro (1995, 1998), have argued that this practice has a negative impact on economic development. They draw attention to the way in which corruption distorts public policy goals and redirects resources from collective to personal interests, which generates significant losses for society (Krueger, 1974). Ehrlich (1999) argues that, depending on the stage of economic development, a negative relationship between the level of corruption and per capita income can be expected.

Most empirical studies have consistently found a negative relationship between corruption and economic growth, and examples supporting possible positive effects are rare (Mauro, 1995; Tanzi and Davoodi, 1998). Research by Li et al. (2000) confirmed that there is a negative association between corruption, investment and economic progress, while indicating that the causal influence runs from corruption to development, and not vice versa.

However, there is also a body of literature that highlights arguments in favor of a positive role of corruption in increasing economic efficiency. Most commonly, these perspectives are based on the hypothesis that corruption can "grease" economic mechanisms, facilitating bureaucratic processes and accelerating decisions (Leff, 1964; Huntington, 1968; Bardhan, 1997; Treisman, 2000; Ramirez, 2014). In this direction, Beck and Maher (1986) argue that, in certain contexts, corruption can contribute to increased efficiency, especially if institutions are weak and poorly functioning (Acemoglu and Verdier, 2000; Meon and Weill, 2010).

The same issue was also analyzed by Méon and Sekkat (2005). They investigated the effects of corruption on economic growth, asking whether it functions as a facilitating factor ("greases the wheels") or, on the contrary, as an obstacle ("grinds the wheels") of economic progress. Their conclusions indicate that, in conditions of a fragile rule of law and inefficient governance, corruption tends to amplify the negative effects on investment. Song et al. (2021) reach the same conclusion, namely that in developing countries corruption can lead to more efficient decision-making and minimize transaction costs, since corruption can shorten administrative procedures.

3. CORRELATIONS BETWEEN CORRUPTION AND OTHER ECONOMIC INDICATORS

Corruption remains one of the greatest challenges to global development. Measuring corruption is essential to understanding its impact on national economies and to developing

effective policies to combat this phenomenon. Indicators such as the Corruption Perceptions Index, the Global Governance Indicators, the Control of Corruption Index and others provide valuable information to analyze corruption globally and its links to other indicators. Determining the direction of the relationship between corruption and other factors – whether it represents a cause or an effect – is often difficult. In many cases, corruption and these indicators may be interdependent manifestations of the same systemic dysfunctions. Although the identified correlations provide valuable information, they should be interpreted with caution, avoiding drawing definitive conclusions about causal relationships.

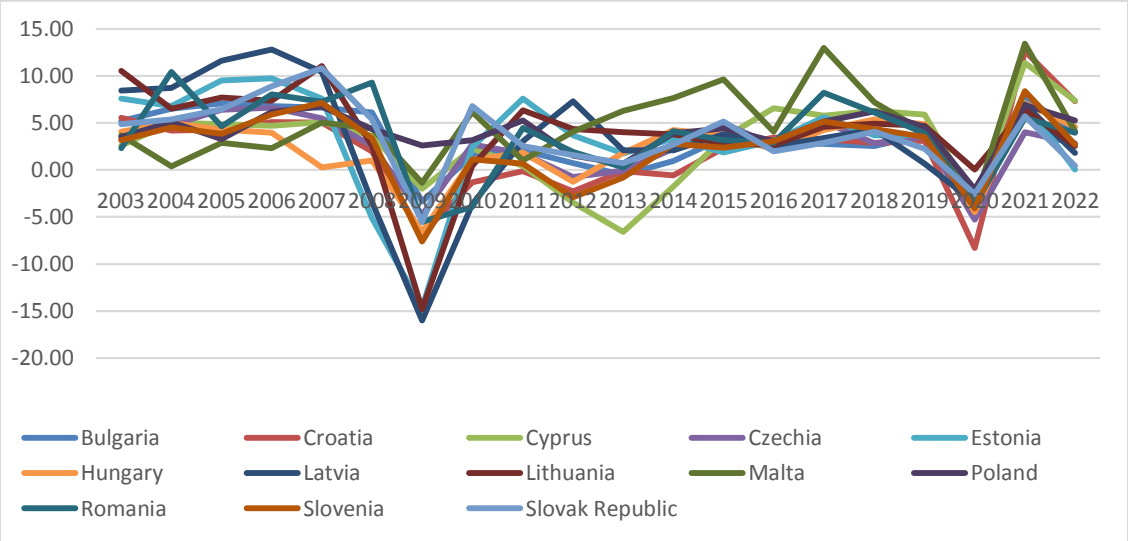
In the following, the observed correlations between corruption and other economic indicators relevant to the economies of the new EU Member States will be analyzed.

3.1. Corruption and Economic Growth

Corruption has a significant negative impact on economic growth by distorting market mechanisms and reducing the efficiency of resource allocation. In corrupt economies, investment – both domestic and foreign – is discouraged because the business environment becomes unpredictable and unofficial costs increase. Corruption also affects tax revenue collection and diverts public funds from productive projects to personal or political purposes. These mechanisms contribute to reducing productivity, stifling innovation and reducing economic competitiveness in the long term. Countries with higher levels of corruption tend to have lower GDP per capita and slower economic growth compared to countries that have effective control over corruption.

Figure 1 shows the economic growth recorded by the new EU Member States between 2003 and 2022. The year 2003 was chosen to capture the evolution of economic growth starting one year before accession. Taking into account the economic and political context, several conclusions can be drawn: countries with stable economic policies, coherent reforms and early European integration such as Poland and Estonia had a more solid evolution; exogenous factors (global crises, pandemics, regional conflicts) had a major impact, demonstrating the vulnerability of small and open economies (Latvia and Lithuania).

Figure 1. Economic Growth of the New EU Member States Between 2003 and 2022

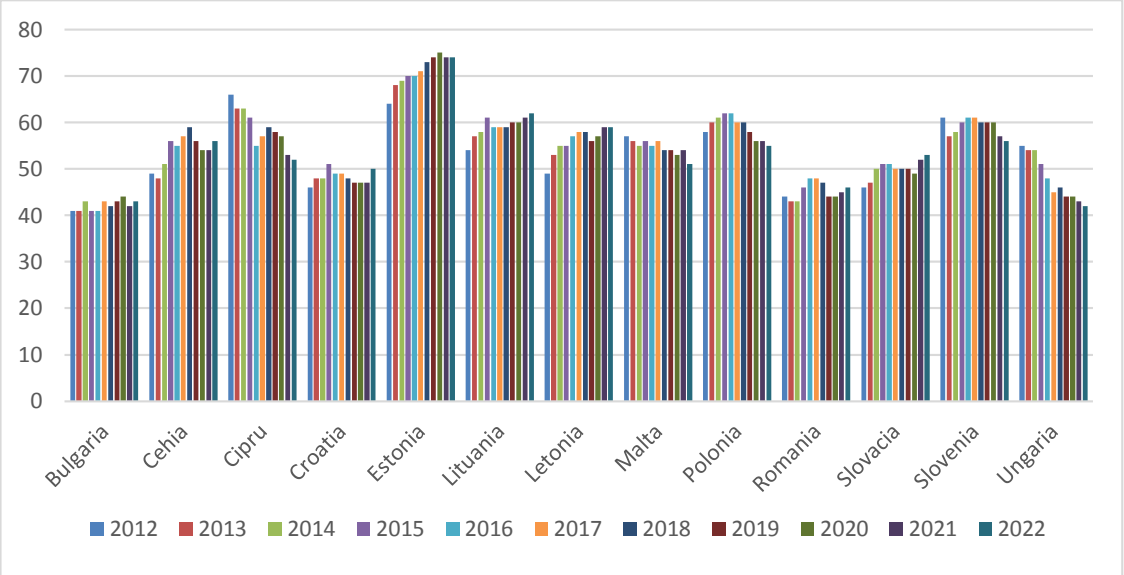


Source: World Bank, statistics https://data.worldbank.org/

The new EU Member States have adopted diverse growth strategies, with the developments of these economies reflecting both their historical and institutional heritage and their capacity to adapt to the standards and opportunities offered by membership of the European Union.

The Corruption Perceptions Index is an important indicator, developed by Transparency International, and its main purpose is to assess the perceived level of corruption in a country's public sector, as seen by experts and business people. It does not measure actual cases of corruption, but rather the perception of them, making it an indirect but useful indicator. A higher score (less perceived corruption) suggests a more functional state, with more efficient institutions and more rigorous law enforcement. The way corruption is perceived in the new Member States between 2012 and 2022 is represented in Figure 2.

Figura 2. The Corruption Perception Index (CPI) of New EU Member States



Source: World Bank, statistics https://data.worldbank.org/

3.2.Corruption and Human Development

The Human Development Index is a multidimensional indicator that provides a synthetic measure of human development. Corruption and human development are generally negatively related: as corruption increases, the HDI score tends to decrease. Countries with high levels of corruption (low scores on the Control of Corruption or Corruption Perceptions Index) tend to have lower HDI scores.

The Human Development Index (HDI) is a fundamental benchmark in the analysis of a country's capacity to respond to economic and social challenges. In this context, Ul Haq (1995) proposes a conceptual extension of the HDI by integrating additional variables, designed to strengthen the link between the theoretical construct and socio-economic realities. Among these variables, corruption is highlighted as a relevant determinant, with the potential to explain structural dysfunctions and significant transformations within democratic regimes, including in situations where the HDI records high values.

The HDI scale considers 0 (zero) for countries with very low human development and 1 (one) for countries with very high human development, being they separated in 4 groups, according to the degree of human development, whose values are (UNDP, 2015; Alves; et al., 2017):

- Very high human development: 0.800 and above;

- High human development: 0.700 - 0.799;
- Medium human development: 0.550 - 0.699;
- Low human development: below 0.550

From table no. 1 it can be concluded that a high Human Development Index implies a low level of corruption (Estonia and Slovenia), and a low level of human development also implies high corruption (Bulgaria and Hungary being the most corrupt countries of those analyzed). Sarabia et al. (2020) analyzes the relationship between HDI and CPI in EU countries during the period 2013-2019 and shows that there is a high correlation between the Human Development Index and the level of corruption. The crisis had a significant impact on the citizens of the European Union, eroding their optimism and considerably diminishing their trust in democratic prospects. This degradation of trust was accompanied by increasingly visible social tensions, generated by factors such as high unemployment, increased migratory flows and the generalized perception of corruption in the political sphere.

3.3.Corruption and digitalization

The relationship between corruption and digitalization is also bilateral: digitalization can reduce corruption, but the level of corruption can, in turn, affect the implementation and efficiency of digitalization processes. Androniceanu et al. (2019) analyze the level of digitalization of European Union Member States, identifying groups (clusters) of countries with similar characteristics in this area. Romania and Bulgaria were included in a cluster characterized by a low level of digitalization, having the fewest changes in the digital field, according to the European Commission report. The study highlights the significant differences between European Union Member States in terms of digitalization, emphasizing the importance of implementing national digitalization strategies to reduce existing gaps.

Digitalization, especially in public administration (e-government), can significantly contribute to limiting corruption by: reducing direct contact between citizen and official, which limits opportunities for bribery; increasing transparency by publishing government data (open data); automation of decision-making processes, which reduces arbitrariness; Traceability of transactions (e.g. blockchain in public procurement) and through corruption reporting applications (e.g. whistleblower platforms).

The digital progress of EU Member States in four areas can be measured by the DESI index (Digital Economy and Society Index), an index of the European Commission that has in its structure human capital (digital skills of the population), connectivity (internet access and quality), integration of digital technology by companies, digital public services.

The values of this indicator for 2022 are presented in table no. 1. It can be seen that the most digitalized countries are Malta, Estonia and Slovenia, whose economic growth in recent decades has also been based on digitalization. Romania is in last place, with Bulgaria ahead of it, at a fairly large distance. Not only does digitalization limits corruption, but also the other way around (Němec et al., 2022; Santiso, 2022). Corruption can slow down or distort digitalization, through: the capture of digitalization decisions by corrupt elites for their own interests, the falsification or manipulation of digital data, overvalued public IT projects, with rigged tenders and useless technologies, the lack of real political will for authentic digitalization in a corrupt system.

These studies suggest that the relationship between corruption and digitalization is complex and bidirectional. Corruption can hinder the effective implementation of digital technologies, while digitalization can help reduce corruption, provided it is accompanied by institutional reforms and political commitment.

3.4.Corruption and Innovation

The complex relationship between corruption and innovation is a topic of interest in contemporary economic literature. Empirical studies suggest that the impact of corruption on innovation varies significantly depending on the institutional context and the level of development of economies.

Traditional economic theory suggests the negative impact of corruption on innovation, through:

- Inefficient allocation of resources (corruption can lead to investments in unproductive or low-quality projects).
- Reduced incentives for innovation (corrupt environments can discourage investment in research and development).
- Erosion of trust in institutions (a climate of corruption can undermine the protection of intellectual property rights).

On the other hand, the "greasing the wheels" theory suggests that in economies with weak institutions, corruption can facilitate innovation by:

- Reducing bureaucracy (informal payments can speed up administrative processes).
- Overcoming regulatory obstacles (corruption can allow firms to avoid restrictive regulations).

3.5.Corruption and Political Stability

The relationship between political stability and corruption is analyzed through the lens of political instability. Alesina and Perotti (1993) conducted an empirical study on 70 countries during the period 1960–1985, highlighting a negative relationship between income inequality and the level of investment. According to their conclusions, economic inequality increases social tensions and generates political instability, which, in turn, discourages investment and negatively affects economic growth. In a similar vein, Acemoglu and Robinson (2012) argue that political and economic institutions play a fundamental role in determining the trajectory of economic development and political stability in the long term.

In this context, corruption appears as a key factor influencing both the quality of institutions and political stability. Weak, corrupt or captured institutions not only limit equitable access to resources, but also worsen inequalities and amplify social instability. Thus, efficient and transparent governance becomes essential for strengthening political and economic institutions, reducing corruption and stimulating sustainable investment. According to the model proposed by Acemoglu and Robinson (2012), sustainable economic development cannot be achieved in the absence of a solid institutional framework, capable of counteracting corrupt practices and ensuring a fair distribution of opportunities.

There is generally a bidirectional relationship between political stability and corruption:

- corruption affects political stability by eroding citizens' trust in institutions and political leaders; increasing the risk of protests, riots, or even government instability, especially in democratic or hybrid regimes; fueling political polarization and the perception of inequality. Corruption can lead to revolutions or violent regime changes, if combined with economic crises (e.g. Arab Spring).

- the effects of lack of political stability on corruption are translated into difficulties for governments to enforce laws and maintain effective control mechanisms; the lack of transparency of stable authoritarian regimes that can hide endemic corruption; a power vacuum in fragile or conflict-affected states that could lead to generalized corruption.

Of the countries analyzed, Malta and the Czech Republic are the most politically stable, but not necessarily in terms of corruption.

Table no. 1 presents the values corresponding to 2022 – the last year for which complete and updated values are found for all the indicators presented above.

The conclusions are divided into two directions:

1) Regarding the relationships between the indicators, the following emerge:

- From innovation point of view, the most innovative countries are Estonia, Malta and Cyprus. The worst performers are Romania and Slovakia. Darker colors mean a higher degree of innovation.
- From digitalization point of view, the first places are Malta, Estonia and Slovenia. In last place is Romania, far behind Bulgaria. Dark colors mean high digitalization.
- Malta has the highest GDP per capita, and Bulgaria the lowest.
- In first places in terms of human development, Slovenia, Malta and Cyprus are ranked. In last place is Bulgaria, preceded by Romania.
- Estonia is perceived as the least corrupt country among the new EU Member States, with Bulgaria and Hungary being the most corrupt. Dark colors indicate low corruption.
- Estonia also has a higher level of corruption control, compared to Hungary and Bulgaria.
- Malta, the Czech Republic and Estonia are the most politically stable countries. Bulgaria, Cyprus and Romania are in last place. Dark colors indicate high political stability.

2) Regarding the correlations of corruption with other indicators, the situation is as follows:

• GDP per capita, PPP: countries with higher GDP, as a rule, have a lower perception of corruption, but this relationship is not universal (e.g. Malta).

• Digital economy and society: there is a positive correlation between the digital economy and the CPI, with more digitally advanced countries having a lower perception of corruption (e.g. Estonia, Cyprus).

• Human development: the positive correlation is evident between the HDI and the CPI, being a signal that more humanly developed countries tend to have less perceived corruption.

• Innovation: more innovative countries, as a rule, have a higher CPI, indicating better governance.

• Political stability: Political stability is directly related to the perception of corruption; countries with political instability tend to have a lower CPI.

Table no. 1 The Values of Some Macroeconomic Indicators for the New EU Member States in 2022

	Corruption Control Index	GDP per capita, PPP (constant 2021 international $)	Digital Economy and Society Index	Human Development Index	Global Innovation Index	Political Stability (WGI)	Corruption Perceptions Index
Bulgaria	-0,158	31564,78	37,7	0,799	39,5	0,313	43
Czechia	0,663	48390,66	49,14	0,895	42,8	0,814	56
Cyprus	0,421	51669,30	48,35	0,907	46,2	0,423	52
Croatia	0,147	39864,16	47,55	0,878	35,6	0,672	50
Estonia	1,544	43690,41	56,51	0,899	50,2	0,727	74
Lithuania	0,746	46651,21	52,71	0,879	37,3	0,653	62
Latvia	0,693	37685,01	49,71	0,879	36,5	0,486	59
Malta	0,238	57659,82	60,88	0,915	49,2	0,911	51
Poland	0,506	43405,02	40,55	0,881	37,5	0,505	55
Romania	0,016	39380,25	30,58	0,827	34,1	0,431	46

	Corruption Control Index	GDP per capita, PPP (constant 2021 international $)	Digital Economy and Society Index	Human Development Index	Global Innovation Index	Political Stability (WGI)	Corruption Perceptions Index
Slovakia	0,213	38638,44	43,45	0,855	34,3	0,445	53
Slovenia	0,767	47064,15	53,37	0,926	40,6	0,709	56
Hungary	-0,103	40353,00	43,76	0,851	39,8	0,678	42

Source: https://www.wipo.int/documents/d/global-innovation-index/docs-en-wipo-pub-2000-2022-en-main-report-global-innovation-index-2022-15th-edition.pdf, https://commission.europa.eu/index_en, https://www.worldbank.org/ext/en/home, World Bank, https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.KD,https://www.worldbank.org/en/publication/worldwide-governance-indicators, European Commission, https://digital-strategy.ec.europa.eu/en/policies/desi

4. CONCLUSION

In conclusion, Estonia stands out as a complete performer: innovation, digitalization, integrity and stability, remaining the classic example of a highly performing Nordic country. Malta has a very strong digital economy relative to its small size and is also performing well in innovation, human development and political stability. Hungary is problematic in terms of perceived corruption, despite a relatively good HDI. Romania and Bulgaria are consistently at the bottom of all rankings.

Countries that score well in stability, corruption and digitalization also have higher human development and stronger innovation (e.g. Estonia, Malta, Slovenia). Corruption and political instability problems drag down development and innovation scores (e.g. Romania, Bulgaria, Hungary). Overall, the analysis suggests that economic development, digitalization, political stability and the level of innovation are factors that contribute to a lower perception of corruption and better control of it. However, each country has its specificities, and some of the correlations are not always perfect (e.g. Malta and Romania), which suggests that other factors (cultural, historical, etc.) also play an important role in the perception of corruption.

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