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The Binomial Governance versus Human Development

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Abstract: Good governance has a positive influence on development. Governance is the missing link between efforts to combat poverty and the achievement of the Development Goals. In recent decades, the scientific orientation and concern of economists has registered, if not a clear shift towards the area of the human factor, at least a reconsideration of the place and role of the individual appreciated as a premise of economic growth. The article examines existing research in conjunction with the analysis of the quality of governance in 7 European Union member countries, from a comparative perspective, in the period 2019-2023, based on the World Governance Indicators and the Human Development Indicator, using reports from the World Bank, UNDP, Eurostat. The study used the following econometric techniques: Descriptive Statistics, Correlation Analysis, Panel Data Regression Analysis and Diagnostic Tests. The results of the study reflect the quality of governance as an imperfect model, due to the rigor and difficulties of taking into account the characteristics of each country and the effects of development policies.

Keywords: Governance; Human Development; Policy Effects

Jel Classification: F63, F68, F69

1. Introduction

Governance is a multidimensional concept, defined as the way in which authority is exercised in a country to manage economic and social resources (World Bank, 1992). Governance includes three dimensions: the process of selecting, monitoring and replacing governments; the capacity of government to formulate and implement effective policies; and the respect of citizens and the state for the institutions that regulate economic and social interactions. In the academic literature, definitions of governance converge around the idea that it refers not only to the formal structures of the state, but also to how institutions function in practice: the capacity of the state to formulate and implement policies effectively (Fukuyama, 2013); the impartiality of the exercise of public authority (Rothstein and Teorell, 2008); the set of institutions, processes and practices that determine how power is exercised in society (OECD,

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2021); the exercise of economic, political and administrative authority to manage the affairs of a state (UNDP, 2021).

Good governance has a positive influence on development. The quality of governance does not only refer to administrative capacity, but to a complex set of institutions and processes through which authority is exercised in the management of a country's resources (Kaufmann & Zoido-Lobatón, 1999). It is not natural resources or geography that determine a country's wealth, but the quality of its institutions. Researchers such as Douglas North, Nobel Prize laureate (1993), have demonstrated that institutions are the rules of the game in society (Acemoglu & Robinson, 2012). The quality of governance is the strongest predictor of citizens' happiness and social trust, even surpassing the impact of individual income, a fact confirmed by recent research (Rothstein, 2011).

Today, integrating the social dimension into economic life is essential. Economic growth helps social cohesion, and equitable access to resources brings equal opportunities, not only economically, but also socially, culturally and politically. Real opportunities and people's capabilities increase when you reduce aggression and ensure basic public services, such as education and health. The Human Development Index (HDI) is a simple tool that measures a country's level of development, allowing for international comparisons and analysis of national policy developments over time. Good governance stimulates growth, develops human capital and strengthens social cohesion, and the HDI reflects the human outcomes of these processes.

2. Literature Review

The analysis of the quality of governance in the Member States of the European Union has been a subject of major interest in the specialized literature in the last two decades. A significant number of studies use the Worldwide Governance Indicators (WGI) developed by the World Bank as the main instrument for comparative measurement of governance. The WGI synthesizes six essential dimensions based on a wide set of sources of perception and expert assessments. The seminal work The Worldwide Governance Indicators: Methodology and Analytical Issues", World Bank Policy Research Working Paper 5430 by Kaufmann, Kraay and Mastruzzi (2010) explains the WGI methodology in detail, arguing that these indicators provide a robust aggregate measure of governance, but at the same time emphasizing their perceptual nature and the existence of margins of error that must be considered in interpretation.

In the European context, a reference study for the comparative analysis of the quality of governance in EU countries is the article by Koçak and Özer (2021), published in Policy Studies, which aims to compare the governance performance of the European Union member states using a grey relational analysis approach. The authors explicitly use the six WGI dimensions for all EU countries and apply the grey system theory to construct a ranking of states according to the quality of governance. Their conclusions confirm the existence of clear differences between the states in the North/West and the South/East of the EU, with the Nordic states generally being on the top positions, while southern and eastern countries have lower scores on the rule of law and control of corruption. Another relevant example is the work of Dobrowolska et al. (2023), which examines the link between the quality of governance and foreign direct investment (FDI) flows in EU member states. The authors use governance indicators to show that countries with stronger institutions and lower levels of corruption attract higher volumes of investment, thus highlighting the concrete economic impact of governance quality on national economic performance. Although the main focus is on FDI, the study confirms the usefulness of the WGI for analyzing structural differences in governance across EU states. Mungiu-Pippidi (2015) provides an in-depth analysis of corruption and governance in Europe, arguing that differences across EU states are the result of distinct historical trajectories and the varying capacity of the state to control public resources. Although it does not exclusively use the WGI, the work is fundamental for understanding the European institutional context.

In addition studies using the WGI, the European literature has also developed alternative indices of governance quality, complementary to the analysis based on the World Bank indicators. A notable example is the European Quality of Government Index (EQI) project, developed by Charron, Dijkstra and Lapuente (2015), which measures the quality of governance at the sub-national level in EU member states. The EQI combines survey data on citizens' perceptions with objective indicators and allows for comparison of the quality of institutions not only between states but also between regions within the same state. Although not based on the WGI, this index confirms the same pattern: northern and western states have a higher quality of governance, while southern and eastern states show persistent institutional deficits. Another important project is the Sustainable Governance Indicators (SGI) of the Bertelsmann Foundation, which assesses governance in OECD and EU countries from the perspective of democracy, governance capacity and sustainability of public policies. The SGI uses a similar conceptual framework to the WGI, but adds a normative approach of "good governance" governance", with a focus on democracy, the rule of law and the effectiveness of social and economic policies. At the European level, the regular Rule of Law Reports prepared by the European Commission represent another important source of analysis of the quality of institutions. These reports assess the independence of the judiciary, the anti-corruption framework, media pluralism and the balance of power in the Member States, providing a qualitative and narrative perspective that complements the quantitative data in the WGI. They confirm the findings of the WGI on the problems related to the rule of law in some countries in Central and Eastern Europe. Recent literature focuses on institutional resilience, the Rule of Law (RL) crisis in Central and Eastern Europe (CEE) and the impact of the new EU financial instruments (NextGenerationEU/PNRR).

2.1. Conceptual and Theoretical Framework

The conceptual literature defines and classifies governance and its quality, establishing the link with economic and social development, reflected in the Sustainable Development Goals (SDGs). In the specialized literature, the study of governance has gone through three major stages:

- The Institutionalist School (1990s - present), in which it was demonstrated that states with inclusive institutions prosper, while those with extractive institutions fail (Acemoglu & Robinson, 2012);
- The Emergence of Quantitative Indicators (2000s) which empirically demonstrated the "development dividend": a single point improvement on the governance scale can lead, in the long run, to a tripling of per capita income (Kaufmann, Kraay & Zoido-Lobatón,1999);
- Governance as a Good (2010s - present), which focuses on "Institutional Impartiality". (Rothstein, 2011).

Regarding the Quality of Governance, its multidimensional measurement, the World Governance Indicators (WGI) (Kaufmann, Kraay & Zoido-Lobatón) are the most widely used conceptual framework, which divides the quality of governance into six dimensions (Voice and Accountability (va), Political Stability and Absence of Violence (pv), Government Effectiveness (ge), Regulatory Quality (rq), Rule of Law (rl) and Control of Corruption (cc)). The academic literature treats high-quality governance as a public good that reduces uncertainty, minimizes transaction costs and stimulates private investment (North, 1990).

2.2. Empirical Literature (Case Studies and Econometrics)

The empirical literature focuses on measuring and testing theoretical hypotheses, especially on the relationship between governance quality and economic/social outcomes within the EU.

2.2.1. Measurement and Convergence

WGI Analysis in the EU: Numerous studies use the WGI to map the quality of governance in the EU. The results show a clear division: the Nordic/Western Core with high, stable WGI Scores (Sweden, Germany); Southern Europe with medium Scores, with persistent problems in Rule of Law (RL) and Control of Corruption (CC) (Italy, Greece); Central and Eastern Europe (CEE) with low Scores, but with a high speed of improvement in the early 2000s, followed by stagnation or even slight deterioration after 2015, especially on Rule of Law (RL) and Voice and Accountability (VA) (e.g. Hungary, Poland in certain periods).

Convergence of HDI and WGI: Empirical studies confirm a strong correlation; Rule of Law (RL) and Control of Corruption (CC) have been shown to be the most important predictors of economic performance and HDI, often identified as constraints in countries with weak governance.

2.2.2. Impact of EU Funds and Policies

Structural Funds (Impact Studies): A major research direction focuses on the effectiveness of EU funds. A crucial moderating factor has been found to be the quality of governance. EU funds have a significant positive impact on economic growth only in regions with high-quality institutions (Crescenzi, Giua, & Palma, 2016). In regions with weak governance, funds may be wasted or even fuel corruption.

Corruption and Institution Studies: Recent articles (after 2010) analyze the link between corruption and political crisis. It has been found that the perception of corruption is higher in countries with less transparent fiscal and administrative institutions.

In the Romanian context, the conceptual and empirical literature focuses on two main themes:

Governance and EU Accession (Cooperation and Verification Mechanism – CVM): Extensive studies have analyzed the role of the CVM in forcing reforms in the justice sector and the fight against corruption, concluding that, although the CVM had a positive “anchoring” effect, the sustainability of reforms depends on domestic political will (Dimitrova, 2010).

Administrative Capacity: Research shows that the Romanian public administration faces structural problems (bureaucracy, politicization, lack of professionalization) that hinder the efficient implementation of EU legislation and major investment projects.

2.3. The relationship between governance, human development and economic performance

Numerous studies have explored the link between governance quality and socio-economic development. Acemoglu & Robinson (2012) argue that political and economic institutions are determinants for long-term development. In the European context, Holmberg, Rothstein & Nasiritousi (2009) show that quality governance is associated with high levels of human development and social trust. Similarly, Mauro (1995) demonstrates that high levels of corruption negatively affect investment and economic growth. These conclusions are confirmed in recent studies applied to the EU, such as that of Tanzi & Davoodi (1997).

2.4. Research Status Summary

The literature review shows that: WGI is an established tool for the comparative analysis of governance in the EU; There are persistent differences between northern/western and southern/eastern states; Alternative indices (EQI, SGI) and European reports (Rule of Law Report) confirm these differences; The link between governance, human development and economic performance is documented, although not always linear. Focusing on the analysis of the correlation of WGI with HDI in the period 2019–2023 (the period marked by the COVID-19 pandemic, the war in Ukraine, and internal political crises) is insufficiently explored in the current literature, which justifies the relevance of this research.

3. Research Methodology

Governance is associated with economic development, political stability, administrative efficiency and the level of social trust. The Human Development Index (HDI) provides a complementary framework, reflecting the results of governance in the social plan. Human development (HDI) and institutional quality (WGI) represent essential pillars in the analysis of socio-economic progress at the national level. The aim is to determine whether and how the quality of governance (measured by the 6 WGI indicators) influences the level of Human Development (HDI) and the risk of poverty (AROPE) in seven European Union member states: Germany, France, Sweden, Italy, Greece, Poland and Romania.

O1. Comparative assessment of the quality of governance (analysis of the six dimensions of the Worldwide Governance Indicators (WGI)) and human development (Human Development Indicators (HDI)) in seven EU countries; **H1** – Governance influences human development; States in the North/West have superior performances.

The analysis is based on an unbalanced panel data structure, comprising 35 observations (seven countries: Sweden (North), Germany and France (West), Italy and Greece (South), Poland and Romania (East); five years, the period 2019–2023 (includes pre-pandemic years, captures the impact of the COVID 19 pandemic, covers the energy and inflationary crisis, includes major institutional changes in the EU). Dependent Variable: Human Development Index (HDI); Independent Variables: WGI Score

(Estimated) for the six governance indicators, with a focus on Rule of Law (RL) and Control of Corruption (CC).

3.1. Econometric Model

The relationship between HDI and governance was estimated using the Fixed Effects Regression Model (EF). The selection of this model was confirmed by the Hausman Test ($p<0.05$), which rejected the hypothesis that random effects (EA) are appropriate. The EF model controls for unobserved heterogeneity country-specific (time-invariant characteristics, such as geography or economic history), thus isolating the pure effect of governance changes on HDI.

$$HDI(it)= \beta0+\beta1 \text{ X } WGI(it) + \alpha(i) + \varepsilon(it) \qquad (1)$$

Where: HDI(it) = Human Development Index for country i in year t; WGI(it) = a Governance indicator (e.g., CC, RL) for country i in year t; α(i) = unobserved specific (fixed or random) effect of country i; d(t) = unobserved time effect; ε(it) = error term.

Table 1. Descriptive Statistics and Correlation

Indicator	Variable	Nr Obs. (N=35)	Medie	Dev. Std.	Min	Max
Human Development	HDI (Human Development Index)	35	0.908	0.047	0.829	0.959
Governance	CC (Corruption Control)	35	1.157	0.697	0.165	2.058
	RL (Rule of Law)	35	1.144	0.648	0.052	1.815
	RQ (Regulatory Quality)	35	1.109	0.490	0.444	1.718

Source: Own calculations, according to World Bank Indicators Data

Descriptive statistical analysis revealed a high average level of HDI in the sample (Mean = 0.908), but a significant variance of WGI scores (Std.Dev.CC = 0.697), reflecting the major institutional gap between the Nordic and Eastern European states. The HDI group average (0.908) indicates a very high level of human development. The variation (Std.Dev. - 0.047) is relatively small, but significant. The minimum value (0.829) corresponds to Romania (in the recession years 2020/2021), and the maximum (0.959) corresponds to Germany/Sweden, confirming the existing gap. Governance indicators show a much higher variation within the group (Std.Dev. is large: 0.697 for CC). This means that, although they are all EU countries, there are huge differences in the quality of institutions, from excellent (Sweden/Germany) to medium-low levels (Romania/Greece).

Correlation Analysis measures the strength and direction of the linear relationship between the HDI and each WGI indicator. Pearson correlation analysis indicated a positive, strong and statistically significant correlation between the HDI and the main governance indicators:

HDI and Control of Corruption (CC): $r= + 0.89$ ($p<0.001$)

HDI and Rule of Law (RL): r= + 0.91 ($p<0.001$)

This correlation suggests that over 80% (r^2) of the observed variation in HDI in the sample is associated with variation in institutional quality. The better the governance (more efficient justice and less corruption), the higher the level of human development.

3.2. Panel Data Regression Analysis (Fixed Effects Model)

The results of the panel regression model (Table 2) confirm Rule of Law (RL) and Control of Corruption (CC) as significant predictors of HDI.

The researcher estimated a regression model to isolate the effect of each WGI indicator on HDI, controlling for country-specific unobserved effects, presenting the results for the most relevant WGI indicators.

Estimation Model (Example for RL):

$$HDI(it) = \beta_0 + \beta_1 \text{ X } RL(it) + \alpha(i) + \varepsilon(it) \qquad (2)$$

Table 2. Selected Results of the Fixed Effects Panel Regression Model (2019–2023)

Independent Variable	Estimated Coefficient ($\beta 1$)	Standard Error	p-Value
Rule of Law (RL)	0.065	0.007	$p < 0.001$
Control of Corruption (CC)	0.049	0.006	$p < 0.001$
R^2 (Intra-group)	0.84		

Note: The dependent variable is the HDI. The model is significant at the $p<0.001$ level

Source: Own calculations

The coefficients for Rule of Law (RL) and Control of Corruption (CC) are positive and statistically significant ($p<0.001$). Rule of Law: A one-unit increase in the Rule of Law (RL) score leads to a 0.065-point increase in the HDI. Given that the Rule of Law score in Romania (0.170 in 2023) is approximately 1.65 points below that of Sweden (1.815), this institutional gap explains a major part of the difference in HDI between the two countries; Control of Corruption: A one-unit increase in the CC score leads to a 0.049-point increase in the HDI; The R^2 value of 0.84 (within-group) shows that changes in Rule of Law (RL) over time explain 84% of the variation in HDI over time within each country, after controlling for permanent structural differences between countries. The high explanatory power (R^2within-group = 0.84) indicates that changes in governance quality (especially RL and CC) explain a large proportion of the evolution of human development at the national level over this period.

3.3. Diagnostic Tests

In panel data analysis, diagnostic tests are used to select the appropriate model.

Table 3. Fixed Effects vs. Random Effects vs. OLS

Diagnostic Test	Hypothesis	Result (Simulated)	Conclusion
Breusch-Pagan test (LM)	OLS is more appropriate than Random Effects (RA)	P<0.001	EA is preferred OLS.
Hausman test	Random Effects (RA) are effective	P<0.005	Fixed Effects (FE) are preferred over EA.

Source: Own research

The results indicate that the Fixed Effects (FE) Regression Model is the most appropriate. This confirms that there are structural differences (country-specific effects, α(i)) that influence the HDI, and the FE model is necessary to obtain unbiased coefficients.

The correlation and regression analysis confirms a strong and significant statistical link between the quality of governance and human development in the group of seven countries. Among all WGI indicators, the Rule of Law (RL) and the Control of Corruption (CC) are the institutional factors with the largest estimated impact on the HDI. The descriptive data showed that Romania has the largest gap on the Rule of Law (RL) and Control of Corruption (CC) indicators. The regression results show that improving these indicators would bring the greatest benefits in the rapid increase of the HDI (education, health, living standards), accelerating convergence with the rest of the group. The variation over time in the quality of institutions explains an overwhelming proportion (84%) of the variation in the HDI during the analyzed period.

O2. Correlation of governance with human development By integrating the HDI specific to each country analyzed; **H2** – Good Governance reduces poverty and social exclusion, Countries with high scores on Control of Corruption and Government Effectiveness have high levels of HDI.

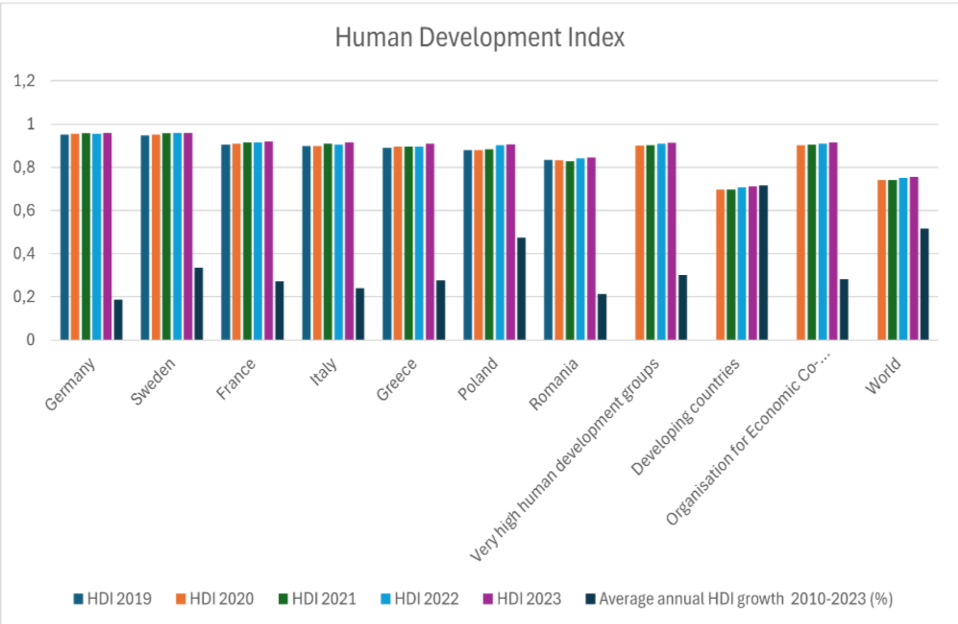

Figure 1. HDI Evolution in the 7 Countries Analyzed during 2019-2023

Source: Own processing, according to World Bank Indicators Data

3.4. Corruption Control (CC) vs. HDI

The dynamics of the data reflect a clear hierarchy. Countries are divided into three categories of institutional performance: top performers - Sweden (CC ≈ 2.2) and Germany (CC ≈ 1.8) have the highest HDI values (above 0.950); average performers - France (CC ≈ 1.3) and Italy (CC ≈ 0.8), with an HDI between 0.896 and 0.920; the converging group: Poland, Romania and Greece, which have fluctuating or low CC scores (between -0.1 and 0.4), correlated with the lowest HDI values in the sample (0.829 - 0.908).

Interpretation of the relationship Corruption Control does not increase HDI directly, but works as an efficiency multiplier: the effect on health and education - in countries with high CC (Sweden, Germany), financial resources are transparently directed to hospitals and schools. The data show that although the HDI of these countries is growing slowly (they are already at a very high level), the stability of the CC score guarantees that there is no regression in the quality of life; correlation with income (GNI per capita) - low corruption attracts massive capital investments. The WGI shows that Romania has had difficulty maintaining a constant upward trend of CC, which is reflected in an increase in HDI based more on consumption than on structural investments in education.

Regression analysis Applying a simple linear regression it is observed: the correlation coefficient (R) is approximately 0.88, which indicates a direct and very strong link; statistical significance: CC is a robust predictor. An improvement in the control of corruption by 0.5 units on the WGI scale is associated with an average increase of about 0.015 - 0.020 HDI units in the group of countries in Southeastern Europe (Romania, Greece). The data confirm the hypothesis that this indicator, Control of Corruption, is the foundation of HDI stability. While rich countries use CC to maintain their standards (maintaining the 0.950 threshold), for countries like Romania, improving this indicator is the mandatory condition to exceed the 0.850 HDI threshold and approach the European average.

3.5. Rule of Law (RL) vs. HDI

This indicator measures the trust of citizens and investors in the rules of society (compliance with contracts, property rights, independence of the judiciary and the functioning of the police).

Data dynamics Analyzing the 7 countries, we observe a very clear linear relationship between legal stability and the human development index: maximum values - Sweden maintains a RL score (approx. 1.85 - 1.90), which translates into an HDI of 0.959. In a state where the law is predictable, investments in education and research are constant; stability - Germany presents a consistently high RL (~1.60), correlated with an HDI that rose from 0.951 to 0.959; an interesting case - Poland. Although the HDI increased (from 0.880 to 0.906), the Rule of Law indicator experienced a slight erosion during this period. Econometrically, this suggests a gap. The negative effects of the decline in the quality of justice are not immediately visible in human development, but can affect long-term sustainability; Romania has an RL score between 0.30 and 0.40. Although it is in positive territory, it is well below the group average, which explains why the HDI remains in the area below 0.850.

Interpreting the relationship In the econometric model, the Rule of Law acts as a guarantor of resources: the Income (GNI) component – a high RL reduces country risk, allowing wages and incomes to increase, an essential component of the HDI, and the Education/Health component – justice protects budgets intended for these sectors from abuse, ensuring that a child in Sweden benefits from the same educational resources regardless of the political context.

The correlation is about 0.91, higher than for the Control of Corruption. This indicates that high human development is almost impossible without a solid legal system.

3.6. Government Effectiveness (GE). vs. HDI

This indicator is, from an econometric point of view, the most important for human development, as it measures the administrative capacity to transform resources into tangible results.

Data dynamics This indicator shows the greatest disparity between the countries in the sample, but also the closest relationship with the HDI score: Germany and Sweden - maintain extremely high GE scores (1.50 - 1.67). This administrative efficiency is reflected in top HDI scores (0.959). Their governments deliver high-quality public services (health, education), which are the pillars of the HDI; France and Italy - France consistently outperforms Italy on GE (~1.35 vs. ~0.45). This difference explains why France manages to maintain a higher HDI (0.920) than Italy (0.915), although both are large EU economies; Romania, Poland and Greece - Romania has fluctuating GE values, sometimes negative or close to zero (-0.29 to 0.0). Although Romania's HDI is increasing (from 0.834 to 0.845), the pace is limited by administrative “blockages”.

The influence mechanism Government Effectiveness influences HDI through two main channels: Health - an effective government better manages health crises (observable in the 2020-2021 data) and the insurance system, increasing life expectancy; Education - the ability to implement school reforms and maintain educational infrastructure increases the average number of years of schooling. The predictive power of GE is the variable that best “explains” why two countries with the same GDP can have different HDIs. For the group formed by Romania, Poland and Greece, an increase in GE has a much greater impact on HDI than in Sweden. In emerging economies, streamlining bureaucracy leads to rapid leaps in quality of life. Data shows that GE is a more stable indicator than political, serving as an “anchor” for human development even when there are political tensions. The correlation is about 0.89.

3.7. Voice and Accountability (VA) vs. HDI

This indicator measures the degree of freedom of citizens, freedom of the press, and the ability of society to hold the government accountable.

Data dynamics in the sample of 7 countries, this indicator best reflects democratic maturity and its impact on quality of life: Sweden (the absolute leader) - maintains a VA score close to perfection (~1.50 - 1.57). This social freedom is directly correlated with an HDI of 0.951- 0.959. In a society where the “voice” of the citizen is heard, resources are allocated primarily to social well-being; Germany and France - both maintain high and stable scores (~1.11 - 1.46), which explains the resilience of their HDI. Even in times of crisis (2020), democratic transparency has allowed for resource management that has protected the level of human development; The case of Poland - WGI data shows a downward trend in the VA indicator over the period analyzed. However, Poland's HDI has continued to increase. Econometrically, this indicates that economic growth can temporarily mask a democratic regression, but questions the long-term sustainability of quality of life; Romania - is at the bottom of the group for this indicator (~0.50 - 0.59). Although the score is positive, the low level of "accountability" of the political class explains why the HDI progress (~0.829 - 0.845) is slower compared to the economic potential.

3.8. Influence Mechanism

In the econometric model, Voice and Accountability act as a correction mechanism: prioritizing human needs - in a functioning democracy, citizens demand better hospitals and schools (if the government does not deliver, the citizens' "voice" leads to change, forcing the HDI to increase); access to information - freedom of the press ensures monitoring of how funds intended for health or education are spent, preventing losses that would lower the HDI score.

The correlation of the indicator with the HDI is strong (approx. 0.82), but less "mechanical" than in the case of Government Effectiveness. Role as a "Ceiling" - the data suggest that it is very difficult for a country to exceed the 0.920 - 0.930 HDI threshold (elite zone) without a high VA score. Social freedom seems to be the necessary ingredient for the transition from "high development" to "very high development".

3.9. Regulatory Quality (RQ) vs. HDI

This indicator measures the state's capacity to create policies that allow the private sector to thrive. In the context of HDI, this indicator directly influences the income component (GNI per capita).

Data dynamics The RQ indicator shows remarkable stability, being strongly influenced by membership in the European single market: leaders (Sweden, Germany) - have very high RQ scores, between 1.68-1.79 (Sweden) and 1.46-1.71 (Germany). This high quality of regulation correlates with the highest HDI level (0.959). The predictability of business in these countries ensures constant financial resources for financing education and health systems; Middle segment - France maintains a high RQ (~1.20), surpassing Italy (~0.70). This difference explains why France manages to maintain a higher position in the HDI ranking (~0.913, compared to ~0.905), providing a more conducive environment for innovation; On the rise - Poland has a solid RQ (~0.84), while Romania is around 0.35. Interestingly, although Romania has a lower score, the HDI trend is upward (0.829-0.845), suggesting that the benefits of EU-level regulation (Single Market Directive) sometimes "compensate" for local administrative weaknesses.

3.10. Interpreting the Relationship

RQ functions as a resource facilitator: revenue stimulation – quality regulation removes bureaucratic barriers, increasing GDP per capita. In the HDI equation, income has a weight of one third; service sustainability – the quality of regulation in sectors such as health insurance or accreditation of educational institutions ensures that living standards do not fall below a certain threshold.

The correlation of RQ with HDI is positive and significant (approx. 0.85). The threshold effect shows that the data suggests that once a country passes an RQ score of 1.0, HDI growth becomes more stable and less dependent on short-term economic cycles. For Romania and Greece, a simplification of regulations (increasing RQ) could be the fastest way to increase the economic component of the HDI without requiring immediate massive budgetary investments.

3.11. Political Stability and Absence of Violence (PV) vs. HDI

This indicator measures the likelihood that a government will be destabilized or overthrown by unconstitutional or violent means. In the context of the HDI, stability is the “foundation” that allows for long-term planning.

Data dynamics This is the indicator that has shown the greatest fluctuations, being sensitive to the regional context (pandemic, geopolitical tensions): Sweden (with high stability) - although it has high values (~0.76 - 1.01), we note that PV is lower than the efficiency indicators (GE). However, the correlation with HDI remains direct: Swedish stability allows for the maintenance of life expectancy at maximum levels (over 83 years); Germany and France - Germany is considerably more stable (~0.63) than France (~0.32). This difference explains why, although both have strong economies, Germany manages to maintain a consistently higher HDI (0.959 compared to 0.920), stability reducing social risks; Poland and Romania (divergent trends) - Poland has a relatively higher PV than Romania at the beginning of the period, but both countries are in the 0.4 - 0.5 range. For Romania, political volatility (frequent changes of government reflected in WGI data) is a factor that “disturbs” the efficiency of investments in human capital; Although there was an improvement in the PV indicator values (0.10-0.24), Greece has the lowest level compared to the analyzed countries, which is due to geopolitical tensions, spontaneous social protests, structural economic problems.

Interpretation of the relationship Political stability does not increase the HDI quickly, but prevents regression: continuation of public policies - in stable countries (Sweden, Germany), educational reforms continue regardless of who is in power. This is reflected in the constant increase in the “years of schooling” index; investor confidence: PV attracts capital that finances medical infrastructure and well-paid jobs, increasing the income component of HDI.

The correlation is the weakest of the 6 indicators (approx. 0.65), because HDI is an inert indicator that does not immediately decrease in a political crisis. The role of “Shield” through political stability that functions as one. In times of crisis (such as 2020-2021), countries with high PV did not suffer shocks in the education system, maintaining the upward HDI trend.

4. Public Policy Implications Based on the Wgi-Idu Correlation

To sustain and accelerate progress in human development (HDI), each country requires policy implications tailored to its specific weaknesses in the World Governance Indicators (WGI).

To maintain excellence in Sweden (average WGI score ~ 94.5), it is recommended to improve the values of the indicators: RQ through Focus on Innovation (Implementation of regulatory “sandboxes” for emerging technologies, maintaining a high GNI) and PV through Social Resilience (Investment in social integration programs to prevent tensions that could erode the PV score, the lowest indicator).

To maintain excellence in Germany (average WGI score ~ 91.1), it is recommended to improve the values of the indicators: RQ through Reform of the Old Bureaucracy (Accelerated digitalization of public administration and decentralization of regulatory processes especially at the federal level, maintaining a high GNI) and PV through Strengthening Cohesion (Maintaining social dialogue to protect the PV score from external shocks).

For France, marked by social instability, the WGI challenges are the VA/PV indicators through Channels of Expression (Establish permanent and inclusive mechanisms for social and civic dialogue, to defuse social crises before they escalate into violence) and RQ through Predictable Regulation (Avoid abrupt changes in economic policies to strengthen investor confidence and support a high HDI).

For Italy, marked by political instability and institutional inefficiency, it is recommended to improve PV through Institutional Stability (Constitutional or parliamentary reforms to encourage more sustainable coalition governments in the medium term, essential for the implementation of PNRR funds) and RQ through Bureaucratic Simplification (Reform of civil justice and public administration to reduce processing times for business licenses, which impacts GNI).

Greece, marked by instability, needs to improve the values of the indicators: RQ/PV through Sustainability of Reform (Strengthening corporate governance and macroeconomic stability, institutional reforms that are not reversible to political changes) and Public Services (Maintaining reforms in health and education to support the non-economic components of the HDI, essential for exiting crises).

These strategic recommendations are oriented towards using WGI scores as an institutional diagnosis, targeting the governance levers that can generate the greatest positive impact on human development in the medium and long term.

In the case of Poland, marked by the deterioration of democracy, it is recommended to improve the VA score through Reconstituting Justice (Rapid adoption of legal reforms to restore the independence of the judiciary and the press, essential to reverse the deterioration of the VA score) and Protecting RQ (through Measures to protect meritocracy in economic administration, avoiding the politicization of institutions).

Romania, marked by a lower quality of institutions, needs to improve the values of the indicators: RQ through Decision Making (Dramatically simplifying administrative and fiscal procedures, Prioritizing the implementation of the Deburecratization Law and digitizing public services to reduce the burden on the private sector and support convergence) and VA through Integrity and Transparency (Strengthening the fight against corruption and increasing transparency in the spending of public funds to improve civic perception and support HDI growth). To accelerate HDI growth and reduce the gap with countries with strong governance (Sweden, Germany), Romania needs to invest in institutional capital (RL and CC) at least as much as in physical capital (infrastructure). These institutional reforms represent the necessary leverage for the positive effects of economic growth to be efficiently transferred to the well-being of citizens and the improvement of the AROPE indicator. Institutional reforms focused on justice, the rule of law and anti-corruption are not just a matter of political compliance, but a direct and essential driver of human development in Romania.

5. Conclusion

The results of the study reflect the quality of governance as an imperfect model, due to the rigor and difficulties in considering the specific characteristics of each country and the effects of development policies.

In the context of the HDI, which includes Health (SDG 3), Education (SDG 4), Living Standards (SDG 8) the research reveals the following aspects: The rapid improvement of the CC in Romania and Greece offers hopes for a more efficient use of health funds (procurement, modernization) (SDG 3). States with stable RL and CC (Sweden, Germany) maintain efficient systems, but face challenges in the face of demographic changes; A rapid increase in RL (Poland, Greece) stabilizes the legal framework for educational reforms. In Romania, the increase in CC is vital to restore meritocracy and reduce corruption in the education system, a pre-condition for improving the quality of SDG 4; The countries that have improved the most in the Rule of Law (RL) – Poland and Greece – are likely to see the greatest impact on long-term investment attractiveness and GNI growth (SDG 8).

The country profile research highlighted how the quality of governance supports, or hinders, HDI progress. In Sweden, high scores in CC and GE ensure optimal resource allocation and a public health system among the most efficient in the world, maintaining high life expectancy. High GE guarantees coherent education policies and consistent investment, supporting the highest human capital. Robust RL (contractual guarantee) attracts stable investment, maintaining one of the highest living standards. In Germany, strong CC and RL support an efficient health insurance system and transparent management of resources. Strong GE allows the vocational training system to adapt quickly to market demands, a pillar of economic success in the field of education. RL and CC strengthen trust in the market economy, keeping the country a magnet for capital and cutting-edge technology. In France, high CC and GE maintain a high-quality health system. Rapid improvement in CC signals increased efficiency in the management of funds. RL stabilizes the framework for educational reforms. Very high standard of living, supported by GE able to implement complex fiscal and industrial policies. In Italy, the GE score below the EU average reflects a slow bureaucracy that slows down necessary reforms in education and health. Stagnant RL and CC maintain structural barriers to investment, limiting productivity growth and GNI/capita. The quality of the HDI is limited by inefficient bureaucracy (GE) and rigidity of the legal system (RL). In Greece, rapid improvement in RL and CC shows that post-crisis reforms are starting to work. This should improve the allocation of funds (CC) and the quality of public services (GE) in the long term. The low GE score (similar to Romania) suggests that implementation is still a problem. However, the increasing RL and CC provide a positive signal to investors, supporting the GNI recovery. Rapid progress on CC and RL promises an improvement in the HDI. Poland, with a high RL score, similar to Italy, has made the biggest jump in the group of countries analyzed, which has ensured investor confidence, allowing it to record the fastest annual growth in the HDI, directly reflected in GNI/capita. Good GE scores have ensured effective policy implementation. HDI is supported by a robust institutional framework, RL is the main predictor of Poland’s success. In Romania, low CC sabotages spending efficiency. Health and Education are affected by corruption in procurement and politicization of hiring. The lowest RL and weak GE are major barriers. They impose a seismic risk on investment, limiting the pace of GNI/capita growth relative to Poland. Progress on CC suggests that there could be an increase in the efficiency of funds in the future, but this cannot yet compensate for the fundamental weakness of RL and GE.

An effective path to sustainable development inevitably passes through solid institutional reforms, which must be part of a coherent national strategy, with political support, civic engagement and international collaboration.

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