

SOCIAL AND ECONOMIC PREDICTORS OF DEMOCRATIC CONSOLIDATION. A QUANTITATIVE ASSESSMENT

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SUMMARY

This paper examines democratic consolidation as a dynamic and non-linear process shaped by structural socio-economic conditions and institutional capacity, rather than as a fixed or irreversible political outcome. Building on classic and contemporary theories of democracy and consolidation. The study advances a quantitative and comparative analysis of European Union member states over the period 2006–2022. Democratic consolidation is operationalised through the Democracy Index developed by The Economist Intelligence Unit, while explanatory variables capture economic development, social welfare, inequality, poverty, state fragility and education, using data from Eurostat, the World Happiness Report and the Fragile States Index. Methodologically, the research combines descriptive analysis (box-plots and cartographic representations), Pearson correlation analysis and multivariate linear regression. The results indicate systematic associations between the level of democracy and socio-economic performance. The regression model explains a substantial share of cross-national variation in democratic outcomes within the EU, though notable residuals highlight the limits of purely socio-economic explanations and point to the role of additional institutional and political factors. The findings reveal persistent structural divides between Western Europe and Central and Eastern Europe and confirm the phenomenon of democratic erosion in several post-communist states. Overall, the study underscores that democratic consolidation depends not only on formal electoral institutions, but also on inclusive economic development, social protection and institutional resilience. These results have important implications for both comparative democratic theory and EU-level public policy aimed at safeguarding democratic quality and preventing democratic backsliding.

Keywords: *democracy, democratization, democratic consolidation, social, economic, predictors*

INTRODUCTION

In theory, democracy is a form of government in which citizens with the right to vote participate at regular intervals (elections) to appoint the few (the ruling elites) to govern (Schumpeter, 1942). This is the empirical or minimalist definition of democracy (Sartori, 1999), which emphasises its concrete, practical and procedural aspects, inspired by the supply and demand relationship that governs the free market in capitalist societies. Citizens with the right to vote represent demand (solutions to the problems they face), while political leaders represent supply (public policy proposals).

According to the Schumpeterian approach, democracy is no longer the rule of the people, as it was in the classical view, but the rule of leaders validated by the people. Starting from an empirical approach to democracy, G. Sartori adds to the definition a series of normative aspects that derive from the functioning of a democratic regime: a pluralistic, liberal and competitive political regime, in which power is obtained through elections and exercised on the basis of clear and predictable procedures, but limited and controlled by constitutional institutions (Sartori, 1999).

A comprehensive definition of democracy is provided by Robert A. Dahl (2000) in his work *Polyarchies. Participation and Opposition*: 1) elected officials; 2) free and fair elections; 3) inclusive suffrage; 4) the right to run for public office; 5) freedom of expression; 6) the existence of alternative sources of information; 7) associative autonomy. Guillermo O'Donnell adds two more attributes to these characteristics of polyarchy (democracy): 8) elected officials (and some appointed officials) should not be prevented from completing their term of office; 9) elected authorities should not be subject to constraints from unelected actors, such as the military or secret services. Despite the criticism it has

received over time, democracy is the most justified form of government because it ensures participation, political equality and legitimate control over power (Dahl, 2002; 2003).

Democracy is a political regime in which protracted conflicts between elites are resolved through the adoption of democratic rules as a mechanism for compromise and stabilisation (Rustow, 1970). Democratic institutions and procedures ensure political participation, electoral competition and accountability of rulers, without necessarily guaranteeing economic performance, stability or social welfare (Schmitter and Karl, 1991). Democracy and the market economy are compatible, but do not automatically converge. Economic reforms can generate social costs which, in the absence of protection and mediation mechanisms, can undermine democratic consolidation. (Przeworski, 1996).

Democracy can be achieved through revolution, popular uprising, coup d'état, special military operation, or "round-table negotiations", as was the case in the year of the collapse of communism in Central and Eastern Europe (1989). Democracy is not a state that is won once and for all (Schedler, 1998). Just as dictatorial regimes can collapse in certain historical circumstances, so too can consolidated democracies undergo phases of "democratic erosion", eventually being reclassified as hybrid regimes (illiberal democracies, partially consolidated democracies, competitive authoritarianisms). Competitive authoritarianism describes regimes in which electoral competition exists but is systematically distorted by abuse of power, resulting in a stable type of regime situated between democracy and authoritarianism (Levitsky and Way, 2010).

According to Jean Grugel, democracy is a political system that translates citizens' preferences (validly cast votes) into public policies, with effective institutions that protect and deepen individual rights and freedoms, supported by a civil society that highly values participation, opposition and contestation. In a consolidated democracy, alternatives to power are possible, but anti-democratic actors are limited in their destructive actions (Grugel, 2008).

This paper analyses the process of democratic

consolidation, understood as the transition from a totalitarian or authoritarian regime to liberal democracy, in which democracy as a system of government becomes stable and broadly accepted by political and social actors. In a consolidated democracy, a return to the previous regime is unlikely. In the classic formulation of Juan Linz and Alfred Stepan, a democracy is consolidated when anti-democratic alternatives are excluded (*democracy is the only game in town*), democratic rules are enforced, and democratic norms and values are shared by social actors (Linz and Stepan, 1996).

THEORETICAL FRAMEWORK

Since the second half of the 20th century, the study of democratic consolidation has been one of the major areas of research in political science, approached from various institutional, socio-economic and cultural perspectives. Previous studies show that democracy is not limited to the organisation of free elections, but also requires the stability and internalisation of democratic norms, the effective functioning of institutions and the capacity of the political system to deliver economic development, welfare and social inclusion (Huntington, 1991; 1996).

In this paper, democratic consolidation is conceptualised as a continuous process of institutionalisation and internalisation of democratic norms, values and practices. Consequently, democracy cannot be treated as a perfect or irreversible state, as no society fully meets the criteria of a fully consolidated democracy. In my opinion, a perfectly consolidated democracy is an ideal or a "concept on paper" (Iftimoaei, 2013, 2015). A comparative-historical analysis of political systems highlights the non-linear path of transition, democratisation and democratic consolidation. This path is marked by episodes of progress and institutional stabilisation, but also by periods of regression or even democratic collapse (Schedler, 1997).

Democratisation is the process of transition from an undemocratic (totalitarian or authoritarian) regime to a democratic regime, which involves going through a series of normative, institutional and procedural stages: political liberalisation, the adoption of a democratic constitution, and the organisation of competitive elections. The democratisation process is marked by uncertainty induced by the behaviour of political actors, the power relations between them, and the international context. This process does not always lead to a liberal or consolidated democracy. History is full of examples of countries that remain stuck in intermediate or hybrid forms of government. Transitions from authoritarianism are processes characterised by uncertainty in which the strategies, negotiations and consensus of the elites play a decisive role (O'Donnell et al., 1986).

Democratic consolidation begins after the establishment and functioning of electoral democracy and involves a process of strengthening formal democratic institutions, citizens animated by a participatory "civic culture" (Almond and Verba, 1996), with reactions to sanction illiberal behaviour, mechanisms to prevent democratic regression, and good governance. Many years after the collapse of communism, global democratisation is characterised by stagnation and fragmentation, with a high proportion of hybrid regimes and major difficulties in democratic consolidation, despite the expansion of competitive elections (Diamond, 1999; 2002a; 2002b; Diamond et al., 2004). There are many political regimes (e.g. "delegative democracies") in which electoral legitimacy coexists with a severe weakening of institutional control and accountability mechanisms, which inhibits the transformation of electoral democracy into a consolidated democracy. Delegative democracies are not consolidated (institutionalised) democracies, but they can be sustainable (O'Donnell, 1994).

Andreas Schedler proposes three scenarios for analysing democratic consolidation: 1) consolidation as the avoidance of democratic breakdown (prevention of coups, suspension of elections, authoritarianism); 2) consolidation as a process of deepening democracy (functioning of the rule of law, increased representation and good governance); 3) consolidation as neutralisation of authoritarian alternatives (combating and sanctioning illiberal discourse) (Schedler, 1997; 1998).

The democratic path is mainly determined by structural socio-economic factors (e.g. income and education), while the impact of democracy on economic performance is limited and indirect. (Barro, 1999). Economic prosperity and poverty reduction increase the likelihood of democratic stability by expanding the middle class, reducing economic dependence, and increasing the state's capacity to produce welfare. Investments in human capital, particularly in education and health, are considered central mechanisms through which economic development translates into democratic consolidation (Lipset, 1959; 1994).

Table 1.

Theoretical contributions to the study of the impact of socio-economic predictors on democratic consolidation

Contributor	Reference work	Theoretical mechanism of consolidation	Socio-economic predictors (operationalisation)
Linz & Stepan	<i>Problems of Democratic Transition and Consolidation</i> (1996)	Institutionalisation of democratic rules; functional rule of law	Public expenditure on education (% GDP); public expenditure on health (% GDP)
Lipset	<i>Some Social Requisites of Democracy</i> (1959)	Modernisation, education, human capital	Real GDP per capita; participation rate in education
Przeworski et al.	<i>Democracy and Development</i> (1996, 2000)	Democracy and economic prosperity	GDP per capita; Gini coefficient
Dahl	<i>Polyarchy</i> (2000, 2002, 2003)	Political inclusion and effective participation	AROPE; subjective poverty
Putnam	<i>Making Democracy Work</i> (2001)	Social capital, trust, civic cohesion	World Happiness Report; subjective poverty
O'Donnell	<i>Delegative Democracy</i> (1994)	Rule of law; Institutional accountability	Fragile State Index
Acemoglu & Robinson	<i>Why Nations Fail</i> (2012)	Inclusive economic institutions vs. capture	Gini coefficient; risk of poverty
Inglehart & Welzel	<i>Modernisation, Cultural Change, and Democracy</i> (2005)	Emancipatory values and self-expression	Education; subjective well-being

Source: developed by the author

High levels of income inequality, persistent poverty and social exclusion are associated with declining trust in institutions, civic apathy and receptivity to populist or authoritarian rhetoric. Indicators such as the Gini coefficient, AROPE or subjective poverty are frequently used to capture these structural mechanisms that undermine democratic functioning. Economic development favours cultural changes towards values that support the emergence and consolidation of democracy (Inglehart and Welzel, 2005).

Levels of happiness, life satisfaction and perceptions of quality of life are associated with consolidated democracy ("advanced democracy" or "liberal democracy"). Democracies that succeed in providing their citizens with a high level of well-being enjoy stronger public support and greater resilience in the face of political crises. Major differences in democratic development and performance between nations are explained by the nature of political and economic institutions; inclusive institutions support growth and democracy (Acemoglu and Robinson, 2008; 2014; 2024).

Democratic consolidation in Central and Eastern Europe is the result of complex interactions between institutions, elites, socio-economic structures, political culture and external influences, which requires the use of multiple and complementary analytical models (Grecu, 2012). The assessment of democratisation in post-communist Romania must go beyond the institutional-electoral dimension and include social indicators of well-being, inclusion and quality of life, which condition the legitimacy and sustainability of democracy (Mărginean, 1997). Referring to Romania, Claudiu Crăciun (2017) considers that our country is undergoing a second democratic transition, in which the stake is no longer the construction of democratic institutions, but the defence and consolidation of their effective functioning in the face of illiberal tendencies and state capture. In post-communist economies, the consolidation of democracy is decisively conditioned by socio-economic performance and the equitable distribution of the benefits of development, not just by the formal functioning of democratic institutions (Mádr, 2022).

DATA AND METHODS

The study consists of a quantitative and comparative approach based on data provided by the Democracy Index developed by *The Economist Intelligence Unit (EIU)*, data from *Eurostat*, *The Fund for Peace – Fragile States Index*, *World Happiness Report – World Happiness Index*. The choice of the EIU Democracy Index was justified by its synthetic nature, its extensive geographical coverage, and its sensitivity to institutional, social, and cultural variations relevant to the process of democratic consolidation.

The Democracy Index is a composite indicator that measures the quality of political regimes based on a set of 60 items, grouped into five analytical dimensions: (1) electoral process and pluralism, (2) functioning of government, (3) political participation, (4) democratic political culture, and (5) civil liberties. The data used by the EIU comes from international statistical sources, standardised assessments and opinion poll results. The scores for each dimension are normalised on a scale from 0 to 10. The aggregate score of the Democracy Index is calculated as the arithmetic mean of the five components. Based on the final score, countries are classified into four types of political regime: full democracy, flawed democracy, hybrid regime, and authoritarian regime. In this paper, the Democracy Index is available for European Union member countries for the period 2006–2022.

The empirical research is based on descriptive analysis methods (box-plot analysis and cartographic analysis), correlation analysis to identify bivariate relationships between democracy and explanatory variables, and regression analysis to test the influence of socio-economic factors on the level of democracy.

Box-plot analysis was used as an exploratory statistical tool to examine the distribution of the democracy index among European Union member states (2006–2022). This technique serves to illustrate internal variation, identify central values and dispersion, and highlight extreme cases that can guide the interpretation of the phenomenon of democratic consolidation. The box plot provides a standardised representation of the distribution through essential statistical elements such as the median, quartiles (Q1 and Q3), interquartile range (IQR) and extremes. The median indicates the ‘typical’ level of democracy within the European Union, while the quartiles delimit the area where the central half of the values are concentrated. The width of the interquartile range reflects the degree of heterogeneity in democratic consolidation between states.

As part of the research methodology, cartographic analysis was used to highlight the spatial distribution of the Democracy Index at European Union level and to capture significant territorial variations in its evolution between 2006 and 2022. The thematic maps were

generated using Philcarto software, a cartographic tool dedicated to exploratory geographical analysis, which allows coherent representations of socio-political phenomena through statistical classifications and appropriate colour schemes. The use of Philcarto is part of a mixed methodological approach, which combines box-plot analysis with territorial visualisation, facilitating the interpretation of spatial and structural differences between states.

Pearson’s correlation was used to investigate the association (intensity and direction of linear relationships) between the democracy index and the socio-economic variables considered relevant for substantiating the democratic consolidation model. This statistical technique allowed for the empirical consistency of the theoretical hypotheses to be assessed, providing a solid basis for the selection of predictors subsequently included in the regression model. Pearson coefficients were calculated for all available variables, covering economic indicators (GDP per capita, education and health expenditure), social indicators (infant mortality, school participation, relative poverty), risk indicators (state fragility index) and subjective well-being variables (*WHR*).

Multivariate linear regression analysis allows for the assessment of the ability of socio-economic variables to explain the variation in the democracy index at the level of European Union states. The regression model was constructed using the average Democracy Index for the period 2006–2022 as the dependent variable and a set of ten indicators (economic and social) as independent variables. Economic predictors (GDP per capita, spending on education and health) suggest that economic development and investment in human capital facilitate the consolidation of democratic institutions. Social predictors (participation in education, level of happiness, reduction in infant mortality) explain democratic variations, indicating that democracy is favoured by well-being, equal access to public services and high social performance. On the other hand, the state fragility index and poverty indicators are negative predictors, showing that institutional instability and social exclusion undermine democratic processes. The multivariate regression model provides a structural understanding of the mechanisms that facilitate or hinder democratic consolidation.

Research Questions (RQ):

RQ1. To what extent do socio-economic variables explain the variation in the level of democratic consolidation in European Union member states between 2006 and 2022?

RQ2. What are the socioeconomic predictors with the greatest explanatory power over the democracy index in the European Union?

RQ3. Are there significant structural differences between Western European and Central and Eastern European countries in terms of the relationship between socio-economic development and the level of democracy?

RQ4. To what extent do social welfare indicators (education, health, happiness, infant mortality) contribute to democratic consolidation, compared to

risk and vulnerability indicators (poverty, inequality, state fragility)?

RQ5. In what types of states (from a democratic and geographical point of view) does the multivariate regression model best explain the level of democracy, and where do significant deviations (positive or negative residuals) occur?

RESULTS AND DISCUSSIONS

European states are among the oldest and most stable democracies in the world, scoring 8 and above on the Democracy Index scale. The European Union (EU) is the region with the most consolidated democracies in the world. Even though the continental context is very optimistic compared to the rest of the world, where the situation is worrying from the perspective of the predominance of authoritarian and totalitarian states, there are some differences between EU member states. For the period 2006-2022, Western Europe, which includes 21 states, has an average democracy score of 8.41, and Central and Eastern Europe (7 states) has a score of 5.50, indicating the presence of flawed democracies in the region, plus a few authoritarian states (Belarus and the Russian Federation).

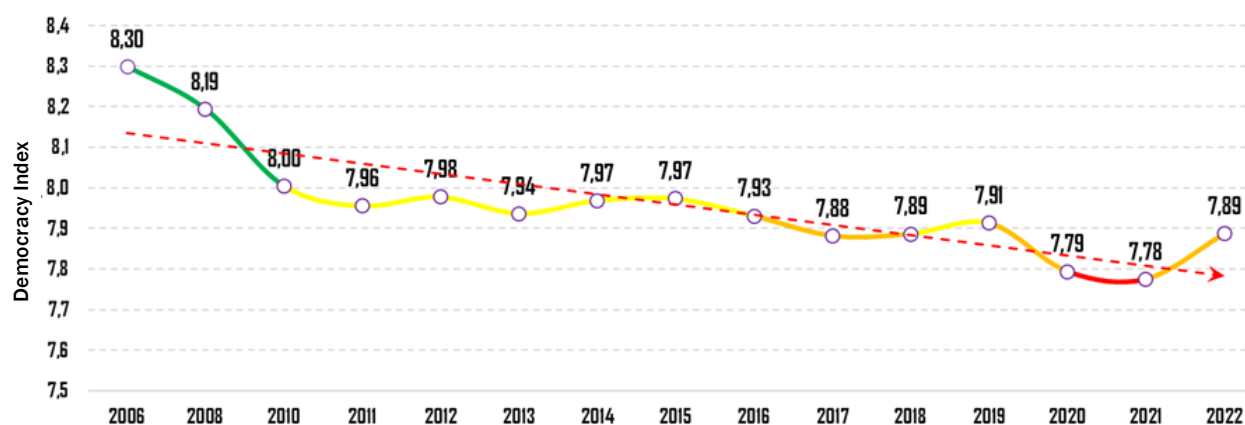
Within the European Union, differences between East and West remain, although the range of values is much smaller. At the European Union level, there are no member states with authoritarian forms of government or hybrid regimes. Instead, there are 17

flawed democracies, representing 60.7% of the states that make up the European bloc. Most often, corruption, authoritarian temptations, hate speech, discrimination, marginalization and social exclusion contributes to the flawed nature of these democracies.

The average democracy index (2006-2022) for the European Union is 7.96, and the median for the constituent states is 7.88 (Figure 3). The evolution of democracy within the European bloc has been one of erosion over the 17 years studied, from a score of 8.30, indicating harmonious cohesion in the democratic development of its members, presenting the European Union as a true democracy, to a multi-speed union in terms of democratic processes. The accession of Romania and Bulgaria has led to a considerable decline in this indicator. Although the values have become increasingly lower from year to year, following economic, social and political problems in all constituent states, 2022 shows a slight recovery trend (see Figure 1).

Figure 1.

The evolution of the Democracy Index at the level of the European Union states (EU-28)



Source: own processing based on EIU data – Democracy Index (2006-2022).

At the level of the European Union states, the highest values are recorded by the states in the Scandinavian region, which are also considered the most democratic states in the world. At the same time, these countries are considered the benchmark for measuring the level of democratic consolidation, consistently occupying the top positions in the annual ranking compiled by the EIU.

Sweden has the highest value on the democracy index scale within the European bloc. More moderate values are recorded by the countries in the historical core of the European Union (the Netherlands - 9.02, Luxembourg - 8.86 and Germany - 8.60). The lowest values are recorded by countries that were part of the communist bloc before 1989, where democratic processes are still

problematic. The lowest average values are recorded by countries such as Romania (6.59), Croatia (6.76), Bulgaria (6.88) and Hungary (6.88).

Romania is the most vulnerable country in terms of democratic erosion, barely maintaining a score above 6, where a score below 6 would place Romania among the states with hybrid forms of government (a symbiosis between democratic and authoritarian processes). The Baltic states, Estonia (7.78), Latvia (7.27) and Lithuania (7.38), which were directly part of the Soviet bloc, gain higher than the former communist states on the Eastern border of the European Union, which were independent during the existence of the “Iron Curtain”.

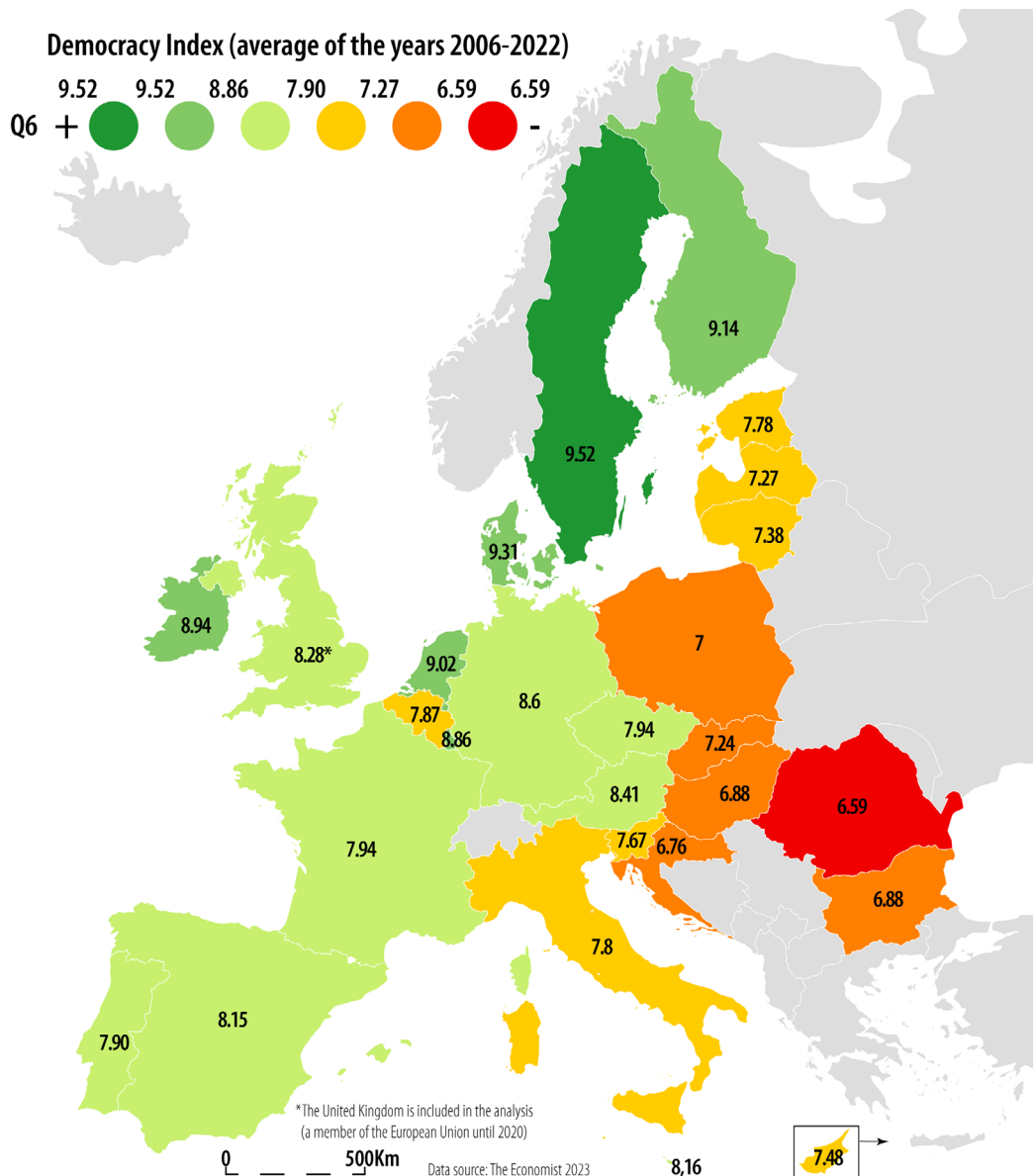
Among the European bloc countries that did not experience communism, the most worrying values regarding the erosion of democracy are the average scores recorded by Belgium and Italy. Since 2013, Belgium has gone from being a fully democratic country to one with

a flawed democracy, and the situation is deteriorating year by year, with the 2021 recording a minimum value of 7.51. The average democracy index for Belgium for the period 2006-2022 is 7.87, an average score driven by high values prior to 2013.

The democracy index values place Italy in the category of flawed democracies, and since the democracy index was launched by *The Economist Intelligence Unit* in 2006, the values have fluctuated between 7.98 (2008) and 7.52 (2019). Italy’s political problems are well known throughout the world: governmental instability and short-lived governments. Even though the cartographic representation of the average democracy index (Figure 2) places France among the flawed democracies, it has consolidated democratically, returning to the category of full democracies in 2022. France has experienced considerable variations in the stability of its democracy over time.

Figure 2.

Average democracy index for the period 2006-2022



Source: own processing with Philcarto based on EIU data – Democratic Index

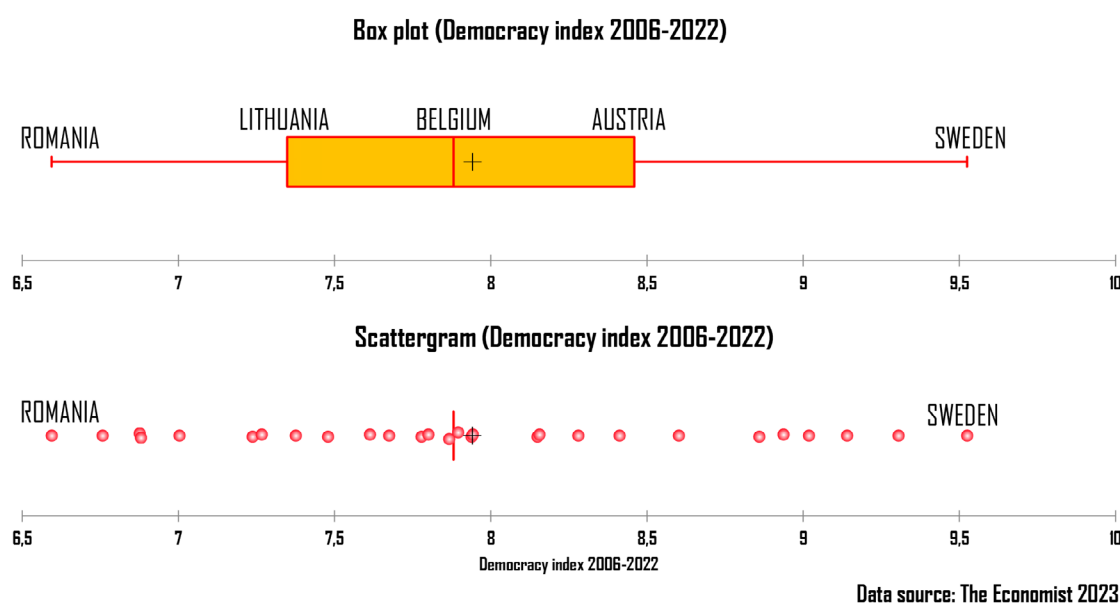
Although the European Union remains a stable democratic space at the international level, there are strong regional differences and a trend of erosion, especially among the eastern states. The phenomenon of democratic erosion confirms that the process of democratic consolidation is not irreversible and that institutions can regress in the absence of robust mechanisms for democratic protection.

An analysis of the statistical distributions of the Democracy Index (Figure 4) provides an essential insight

into the internal variations in democratic quality within the European Union. The box-plot representation allows us to examine the structure and dispersion of values, identify centres of democratic gravity, and delineate the statistical extremes that mark the lowest and highest performances. In this context, the distribution of the Democracy Index for the period 2006–2022 is an important analytical tool for understanding the degree of democratic cohesion at European level, but also the emerging gaps between Member States.

Figure 4.

Box plot analysis of the Democracy Index



Source: Own processing with XLSTAT based on EIU data – Democratic Index

The box plot indicates a relatively wide distribution of values, with significant differences between the upper pole – represented by Sweden – and the lower pole – represented by Romania. The quartiles describe an internal structure of the distribution in which the central half of the values (Q1–Q3) lies between the level reached by Lithuania and that of Austria, delimiting the range in which most Member States fall. The median, positioned at Belgium, suggests that the “typical” level of European democracy in recent years corresponds to the category of flawed democracy, as reflected in the annual rankings of *The Economist Intelligence Unit*.

Romania’s position at the bottom of the distribution highlights the persistent vulnerabilities of its internal institutional framework, placing it in the category of fragile democracies, prone to periods of political regression and instability. On the other hand, Sweden’s position at the upper end of the distribution confirms its status as a continental and global benchmark for

democratic governance, reflecting institutional stability, a mature civic culture and the robust functioning of *checks and balances*.

The box plot clearly shows that, although the European Union remains a robust democratic ecosystem at the global level, internal cohesion is affected by significant differences between Member States. The distribution indicates the emergence of a heterogeneous democratic landscape, dominated by flawed democracies and affected by phenomena of stagnation and regression. The marked dispersion and asymmetry of the distribution, visible in the box plot, support the need to use the multivariate regression and correlation analysis included in this study. The box plot not only introduces a descriptive perspective on the data, but also underpins the choice of inferential techniques, justifying the analysis of the relationships between the level of democracy and the explanatory socio-economic variables.

Table 2.*Correlation analysis**Correlation matrix (Pearson):*

Variables	Var.1	Var.2	Var.3	Var.4	Var.5	Var.6	Var.7	Var.8	Var.9	Var.10	Var.11
Var.1	1	0.5905	0.6215	-0.8689	0.8658	-0.3078	-0.4515	-0.4438	-0.5970	0.6873	0.7994
Var.2	0.5905	1	0.4962	-0.4902	0.5723	-0.3973	-0.4916	-0.4241	-0.4810	0.5153	0.3144
Var.3	0.6215	0.4962	1	-0.6501	0.5433	-0.2259	-0.3563	-0.2733	-0.2881	0.4758	0.3605
Var.4	-0.8689	-0.4902	-0.6501	1	-0.8345	0.3964	0.5081	0.3701	0.6846	-0.6094	-0.7420
Var.5	0.8658	0.5723	0.5433	-0.8345	1	-0.5479	-0.5698	-0.3017	-0.7559	0.6798	0.7425
Var.6	-0.3078	-0.3973	-0.2259	0.3964	-0.5479	1	0.6994	0.0813	0.4515	-0.4155	-0.1819
Var.7	-0.4515	-0.4916	-0.3563	0.5081	-0.5698	0.6994	1	0.4170	0.5755	-0.5480	-0.3363
Var.8	-0.4438	-0.4241	-0.2733	0.3701	-0.3017	0.0813	0.4170	1	0.3613	-0.3840	-0.1835
Var.9	-0.5970	-0.4810	-0.2881	0.6846	-0.7559	0.4515	0.5755	0.3613	1	-0.6694	-0.4696
Var.10	0.6873	0.5153	0.4758	-0.6094	0.6798	-0.4155	-0.5480	-0.3840	-0.6694	1	0.5158
Var.11	0.7994	0.3144	0.3605	-0.7420	0.7425	-0.1819	-0.3363	-0.1835	-0.4696	0.5158	1

Values in bold are different from 0 with a significance level $\alpha=0,05$

Source: developed by the author

Note:

Var 1. Democracy index 2006-2022

Var 2. GDP (%) expenditure on education

Var 3. GDP (%) current health expenditure

Var. 4 Fragile state index

Var. 5 World Happiness Report

Var. 6 Income inequality Gini coefficient

Var. 7 AROPE

Var. 8 Infant mortality rate

Var. 9 Subjective poverty

Var. 10 Participation rate in education

Var. 11 Real GDP per capita

The results of the Pearson correlation (Figure 5) highlight the existence of consistent linear relationships between the democracy index and the main socio-economic indicators included in the model. These relationships confirm the theoretical hypothesis that democratic consolidation is closely linked to the level of economic development, social welfare and institutional capacity of the state. The strongest association is observed in relation to the World Happiness Report ($r = 0.8658$), suggesting that democracy consolidates in social contexts characterised by high life satisfaction, social cohesion and institutional trust. Similarly, positive correlations with real GDP per capita ($r = 0.7994$), education participation rates ($r = 0.6873$) and public spending on health and education indicate that more robust democracies are associated with sustained investment in human capital and superior economic performance.

The democracy index is negatively correlated with indicators reflecting state fragility and social exclusion. The very strong negative correlation with the Fragile States Index ($r = -0.8689$) highlights the inverse relationship between the institutional capacity of the state and the quality of the democratic regime. This relationship suggests that states with weak institutions, poor governance and political vulnerability are more

prone to democratic erosion. The negative correlations with subjective poverty ($r = -0.5970$), AROPE ($r = -0.4515$) and infant mortality ($r = -0.4438$) indicate that inequality, poverty and social protection deficits are structural factors that limit the consolidation of democracy.

An important element of the analysis is the consistency of the relationships between the explanatory variables. Economic development and welfare indicators are positively correlated with each other and negatively correlated with poverty and fragility indicators, outlining two distinct structural dimensions: a pole of democratic development and stability and a pole of social and institutional vulnerability. This empirical structure suggests that democracy is not an isolated phenomenon, but the result of the interaction between economic, social and institutional factors.

Overall, Pearson's correlation analysis confirms the multidimensional nature of democratic consolidation and provides an empirical basis for the multivariate regression model. The relationships identified indicate that democracy tends to consolidate in prosperous, inclusive and institutionally stable societies, while poverty, inequality and state fragility are risk factors for democratic regression.

Table 3.**Regression analysis****Summary Output**

<i>Regression Statistics</i>	
Multiple R	0,9576
R Square	0,9171
Adjusted R Square	0,8652
Standard Error	0,3022
Observations	27

Anova

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	10	16,15758307	1,615758	17,69292	8,15762E -07
Residual	16	1,461157016	0,091322		
Total	26	17,61874008			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P - value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	3,1393	1,9943	1,5742	0,1350	-1,0884	7,3670
Var 1.	0,1039	0,0808	1,2855	0,2169	-0,0674	0,2753
Var 2.	-0,0011	0,0595	-0,0185	0,9855	-0,1273	0,1251
Var. 3.	-0,0233	0,0121	-1,9274	0,0719	-0,0490	0,0023
Var. 4.	0,5383	0,2299	2,3412	0,0325	0,0509	1,0258
Var. 5.	2,8336	3,2735	0,8656	0,3995	-4,1059	9,7731
Var. 6.	0,0092	0,0189	0,4848	0,6344	-0,0309	0,0493
Var. 7.	-0,1050	0,0739	-1,4202	0,1748	-0,2617	0,0517
Var. 8.	0,0135	0,0088	1,5287	0,1459	-0,0052	0,0323
Var. 9.	0,0108	0,0072	1,4984	0,1535	-0,0045	0,0261
Var. 10.	0,0000	0,0000	1,1356	0,2728	0,0000	0,0000

Multicollinearity statistics:

Variables	Var.1.	Var. 2.	Var. 3.	Var. 4.	Var. 5.	Var. 6.	Var. 7.	Var. 8.	Var. 9.	Var. 10.
Tolerance	0,5241	0,3323	0,1512	0,1227	0,2968	0,3131	0,5907	0,2300	0,3924	0,2202
VIF	1,9082	3,0096	6,6126	8,1522	3,3696	3,1943	1,6930	4,3469	2,5484	4,5410

Source: developed by the author

Note: Dependent variable: Democracy Index 2006-2022

Independent variables:

Var 1. GDP (%) expenditure on education

Var 2. GDP (%) current health expenditure

Var. 3. Fragile state index

Var. 4. World Happiness Report

Var. 5. Income inequality Gini coefficient

Var. 6. AROPE

Var. 7. Infant mortality rate

Var. 8. Subjective poverty

Var. 9. Participation rate in education

Var. 10. Real GDP per capita

$DemocracyIndex_i = \beta_0 + \beta_1 EducationExpenditure_i + \beta_2 HealthExpenditure_i + \beta_3 FragileState_i + \beta_4 Happiness_i + \beta_5 Gini_i + \beta_6 AROPE_i + \beta_7 InfantMortality_i + \beta_8 SubjectivPoverty_i + \beta_9 ParticipationEducation_i + \beta_{10} Real\ GDP\ per\ capita_i + \epsilon_i$

Following the regression analysis, it was found that, from a statistical point of view, the dependent variable, *the average Democracy Index between 2006 and 2022*, is closely related to the other independent variables in the analysis. The correlation coefficient is 86%, ,

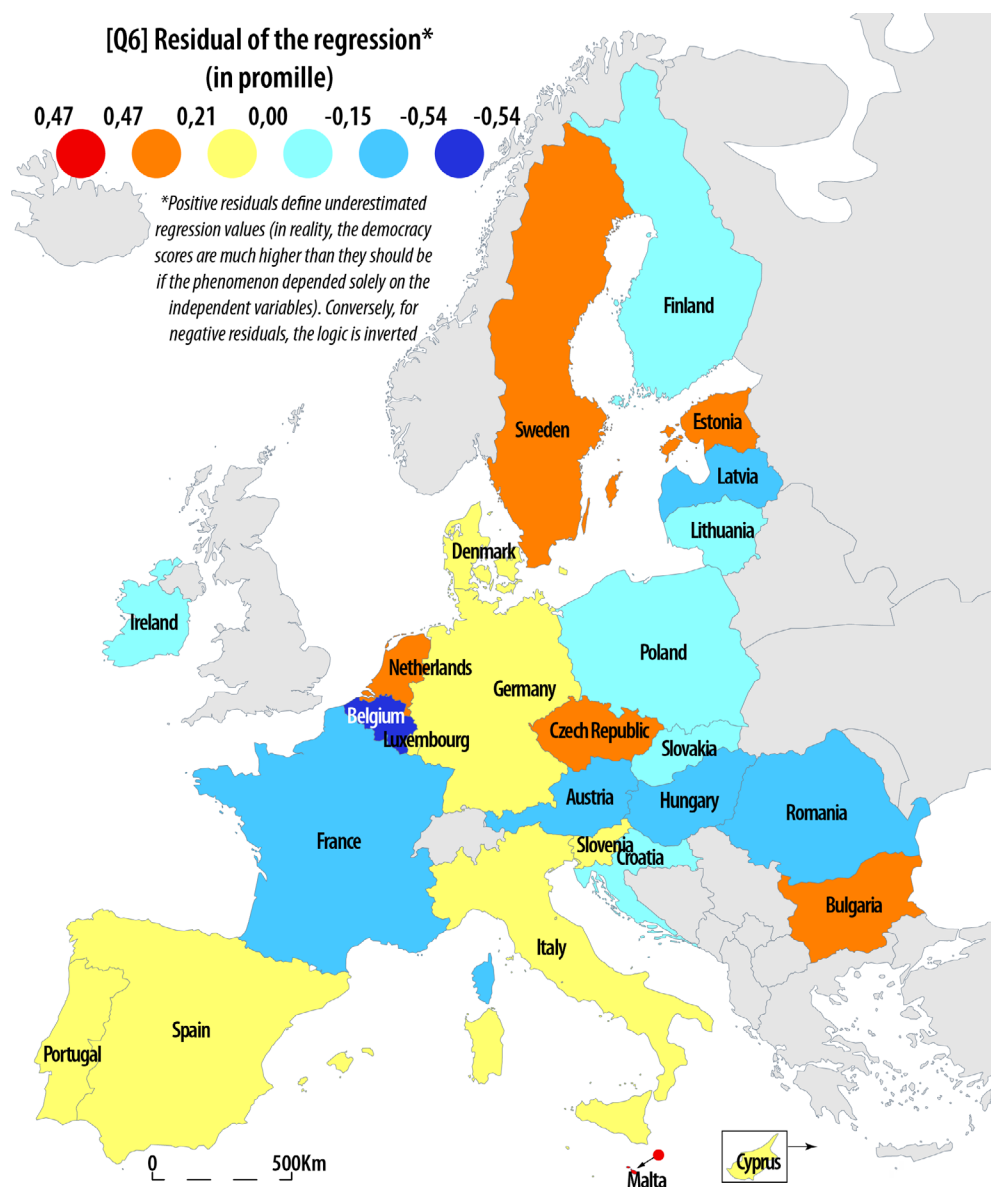
which indicates a very strong correlation between the variables used. The analysis is representative, with no multicollinearity issues, as all VIF scores are low, but not statistically significant enough (P-values).

The regression results lead to a detailed analysis of the model's prediction at the territorial level. Statistically, the regression model explains 86% of the variance, which is a very high score overall. However, from a geographical point of view, the situation is more modest. Over 51.9% of the European Union countries studied, i.e. 14 Member States, are included in the middle classes of the distribution, which are even more representative of the model. Thus, 51.9% of EU countries, located above and below the median value, benefit from a good explanation of the spatial distribution of RD‰ values, with residuals ranging from very low values of -0.15‰ to +0.21‰. More importantly, the values of these classes are homogeneous, with low standard deviations, namely $\sigma=0.18$ for negative residuals and $\sigma=0.18$ for positive values. This shows that the model has good predictive power for countries such as Finland, Ireland, Poland, Lithuania and Denmark.

At the level of the European Community, two countries (Malta and Belgium) fit the proposed regression model very well, falling into the extreme classes (red and dark blue). At the intermediate level, 10 countries, representing 37% of the European Union members (orange and blue), have a situation that cannot be adequately explained by multivariate regression (Romania, Hungary, Austria, the Netherlands, etc.).

The areas that need to be addressed by political science specialists and others are those with positive residuals, i.e. those where official statistics show higher levels of democracy than would be expected if it depended solely on the combined influence of the 10 variables used in the analysis.

Figure 7.
Regression residual analysis



Source: developed by the author

The regression residual analysis (Figure 7) also highlights the limitations of explanations based exclusively on socio-economic variables. The existence of significant deviations from the model's estimated values indicates the influence of additional institutional and political factors, such as the quality of the rule of law, the level

of corruption, civic culture or the particularities of the national political context. These results suggest the need for complementary methodological approaches that integrate qualitative and institutional dimensions into the analysis of democratic consolidation.

CONCLUSIONS

The results of the study confirm the general hypothesis that democratic consolidation is a structural and dynamic process, shaped by socio-economic performance and the quality of governance rather than constituting a definitive political outcome. The comparative analysis of European Union member states over the period 2006–2022 indicates that the functioning of democratic mechanisms is closely linked to the state's capacity to generate economic growth, reduce social vulnerabilities, and sustain high levels of individual and collective well-being. Empirical findings support perspectives that treat democracy as the result of the interaction between political institutions, socio-economic structures and values internalised at the societal level. Analysis of regional differences highlights the persistence of structural divides between Western Europe and Central and Eastern Europe. While the Nordic states and part of the western core of the Union maintain high levels of democratic quality, many Eastern European states remain classified as flawed democracies, marked by governance deficits, political polarisation and weaknesses in the rule of law. These findings suggest that the process of democratic convergence within the European Union is incomplete and that institutional integration is not automatically accompanied by uniform democratic consolidation.

The results of this research must be interpreted in relation to several methodological limitations. First, the temporal inconsistency of the data series used reduces the effective number of common observations and affects the stability of the estimates. Second, the high multicollinearity between the explanatory variables, highlighted by the VIF values, indicates conceptual overlaps between statistical indicators, limiting the interpretation of the impact of social and economic predictors. In addition, the model is exposed to the risk of endogeneity, particularly in the case of institutional and perceptual indicators, which restricts the possibility of formulating robust causal inferences. In conclusion, the linear regression model proves to be rather exploratory, without being statistically significant.

Future research could address these limitations by reducing dimensionality (e.g., principal component analysis), using panel models to control for unobserved heterogeneity, and applying dynamic models that capture delayed effects. Complementarily, the use of instrumental variable models or structural equation modelling (SEM) could contribute to a more rigorous testing of the causal relationships between socio-economic factors and the level of democratic consolidation.

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