

Electoral Volatility and Government Performance in European Countries: A Multivariate Analysis

Domenico Maddaloni^a, Angela Delli Paoli^a, Felice Addeo^a, Domenico Fruncillo^a

Abstract

The recent growth in electoral volatility is causing increasing concern in political circles and growing interest among political scientists. This article aims to present the results obtained by our research group in examining electoral volatility in European countries. The analysis focuses on the results of the last two elections for the national parliament (lower house). We calculate electoral volatility using the Pedersen index but refer to volatility between party blocs. Rather than merely testing the skeptical trust perspective, the article offers a refinement of this theoretical framework by showing that electoral volatility responds more strongly to evaluations of government performance than to subjective levels of political trust. We also consider some control variables relating to the institutional political environment. Our multivariate analysis does not falsify the idea that national differences in electoral volatility are caused by the degree to which the political system conforms, or fails to conform, to voter expectations.

Keywords: Electoral volatility, government performance, European countries, multivariate analysis, Pedersen index.

1. Introduction

Electoral volatility refers to the degree to which a population's voting patterns fluctuate or change over a specific period. This dimension of electoral behavior is crucial for understanding the dynamics of party systems, government formation, and voter behavior, as it influences the stability and predictability of electoral outcomes. Overall, electoral volatility plays a significant role in shaping political landscapes and has far-reaching effects on various governance and decision-making processes. Recently, electoral volatility

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Received: 08 May 2025
Accepted: 22 January 2026
Published: 02 October 2026



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has increased in many European countries, prompting some scholars to hypothesize a creeping de-institutionalization of party systems at the national and European levels (Chiaromonte & Emanuele, 2022). However, this development is not homogeneous and occurs with different intensities in European countries.

As is well known, scholars consider overall volatility as mainly caused by the turnover of the electoral body and changes in voter preferences. In this article, we focus on the second type of electoral volatility. More specifically, we will try to assess some factors of electoral volatility at the national level through a causal model based primarily on Norris's (2022) work on skeptical trust. In her recent work, the author proposes a model linking political participation in democratic regimes to the degree of trust that voters have in political institutions and actors and this trust to the level of trustworthiness perceived by citizens, which ultimately depends on the performance of these institutions and actors. To answer this research issue, we will attempt to (1) define a valid concept of volatility in the context of cross-country comparative research on trust and electoral behavior in Europe, (2) measure levels of electoral volatility in European countries in recent times, and (3) define and test a causal model of electoral volatility through multivariate analysis.

2. On volatility and its causes: a literature review from a skeptical trust perspective

In research on electoral volatility in democratic regimes, political trust emerged due to the crisis of collective subjectivities in early modernity (Giddens, 1990, 1991). This crisis led to the decline of mass parties based on well-defined ideologies and intense feelings of identification and belonging. This process of party dealignment has developed in many dimensions of political participation, such as party membership (Hooghe & Kern, 2015; van Biezen et al., 2012) and election turnout (Franklin, 2004; Hooghe, 2014). Not surprisingly, this has also resulted in a growing electoral volatility.

Many scholars (e.g., Chiaromonte & Emanuele, 2022) view these phenomena negatively as indicators of increasing instability in the party system and, to some extent, in democratic regimes. Not surprisingly, theoretical perspectives linking electoral volatility to the growing instability of the political arena also associate volatility with changes in party models, the fragmentation of the party system (Bartolini & Mair, 1990; Tavits, 2008) or its growing level of polarization (Dalton, 2008; Mainwaring et al., 2016). However, research on these topics often presents mixed results, which has prompted other scholars to look for different explanations. More specifically, from a post-materialist

perspective, some scholars have argued that the decline of ideological affiliations may result in new reflexive modes of political participation – for example, the development of new social movements and nongovernmental organizations (Dalton & Welzel, 2015; Norris, 1999). Thus, political disaffection may also be associated with new and different types of civic engagement and democratic participation.

In this context, the skeptical trust perspective developed by Norris (2022) may allow for an analysis of electoral volatility that places this phenomenon in a more positive light. Norris points out that increasing electoral volatility can indicate the spread of a skeptical attitude (“trust, but verify!”) toward politics. According to Norris (2022), political trust should not be judged solely by its rise or fall but rather by the quality of skeptical judgments that accurately reflect the performance of actors (in this case, political institutions, particularly the government and the parties that support it). In turn, these skeptical judgments, whether positive or negative, are based on judgments of trustworthiness, i.e., assessments of competence, integrity, impartiality, and the strength of institutional barriers to accountability (Norris, 2022).

In addition, historical and cultural heritage can influence the relationship between attitudes toward political actors, also reflecting on electoral behavior and, therefore, volatility. Differences in generalized levels of trust may have caused variations in national parliamentary election turnout levels in European countries over the past 30 years (Addeo et al., 2024). Some authors have noted that “structurally low trust undermines the formation of stable party preferences and thereby stimulates volatility” (Voogd et al., 2019, p. 669). However, Voogd and collaborators recognize that much of today's electoral volatility is also driven by medium- or short-term fluctuations in feelings of trust toward political actors about their performance.

Therefore, an approach based on skeptical trust can contribute to a better understanding of volatility, especially in the case of first-order elections such as national parliamentary elections. Electoral volatility can indicate the degree to which voters are satisfied with the policies implemented in the inter-election period (Dalton, 2013). Moreover, it can be seen as the voters' response to politicians' actions. Indeed, a change in the vote share of the ruling coalition or party could indicate the degree of public satisfaction with the policies pursued by the latter (Dassonneville, 2015).

The skeptical trust perspective recently developed by Norris can explain electoral volatility as a reaction of voters to the performance of parties (particularly those in government), linking the former's expectations to the latter's performance. In these circumstances, the change in voting preferences and growing electoral volatility could be considered a reaction to widespread voter disillusionment with the parties that had won the previous elections.

However, this occurs in a complex societal context in which other factors come into play. Research on this topic has focused primarily on two dimensions. The first dimension is the institutional and political one. Political-institutional theories of electoral volatility focus on political systems, party organizations, and electoral rules and their role in shaping voter behavior and inter-party competition. For example, electoral laws, particularly those that favor proportional representation and thus multi-party competition, can influence voters' propensity to switch parties. Following Downs (1957), some argue that proportional representation produces greater ideological congruence between parties and voters and reduces the individual propensity to switch parties (Golder & Lloyd, 2013; Golder & Stramski, 2009). Others emphasize the greater choice options available to voters in systems based on proportional representation. In turn, these changing outcomes may depend on other variables at play. One of these is the degree of fragmentation of the party system (Bartolini & Mair, 1990; Tavits, 2008), which is related not only to electoral rules but also to the historical legacy of the country's political contrasts and recent social and cultural changes “from modernization to post-modernization” (Inglehart, 1997). Another variable at play here is the polarization in the political arena, which has recently become increasingly important and seems to mark a return to the ideological politics of early modernity (Emanuele, 2019). This change has generated debate about the effects of polarization on the stability of party systems and the quality of democracy in Europe (Cabada & Charvat, 2023; Casal-Bertoa & Rama, 2021).

Another set of variables related to these issues concerns the integrity of electoral processes and political corruption. The choices to abstain or switch parties could be driven by considerations related to these issues. Some scholars agree that widespread perceptions of electoral corruption and malpractice are associated with electoral instability (see, for example, Della Porta, 2004). Voters may become disillusioned with the political establishment and seek alternative options, resulting in changes in party support and electoral outcomes (Bacchus & Boulding, 2021). According to others, electoral malpractices may directly or indirectly intimidate parties and voters, reducing electoral volatility (Donno & Roussias, 2012). The evidence on these arguments can be considered mixed.

The issue of media pluralism is sometimes linked to that of electoral integrity, as the decline in media pluralism is often seen as an indicator of the democratic regress that seems to be taking place in many democratic regimes, including those in the European Union (Cianetti & Hanley, 2021). Media coverage, including sensationalism or bias, can shape public opinion and influence election outcomes. Media pluralism can influence electoral volatility to the extent that it relates to the perception of electoral integrity and voters' judgments about the government and the parties that support it (Fumarola,

2020). On the other hand, the type of media and the information they provide can also influence electoral volatility. Different media platforms may target different audiences with different political leanings, potentially resulting in fragmented voter preferences and increased volatility (Meer et al., 2013).

The last set of variables related to the political and institutional environment refers to political knowledge, political efficacy, political sophistication, or interest in politics. Research results show an inverse relationship between this set of variables and volatility: the greater the interest in politics and the greater the political effectiveness, the lower the electoral volatility (Dassonneville, 2012). However, interest in politics and perceptions of political effectiveness are unevenly distributed across a country's population.

The second dimension at play when discussing the main causes of electoral volatility is the government's performance in terms of its policies' impact on the daily economic and social life. Electoral volatility can increase when voters perceive an increasing gap between their expectations and the reality they experience daily. Therefore, economic voting theory argues that "although voters do not look exclusively at economic issues, they generally value them more heavily than any other" (Lewis-Beck & Stegmaier, 2000, p. 183). Recent research on several European countries, including Greece (Nezi, 2012), shows the continued relevance of these findings.

However, researchers are also aware that "the order of elections - is it national or local? - can condition the economic effect [on voters' choice]" (Lewis-Beck & Paldam, 2000, p.120). Voters mainly attribute responsibility for economic and social policy actions to national governments (Talving, 2017). In contrast, they usually attribute little consideration to national governments that share these responsibilities with supranational (in particular, the European Union) or international (e.g., the International Monetary Fund) institutions. These results confirm the role of national parliamentary elections as first-order elections. Another issue at stake when considering the economic voting perspective is that "voters look at the economy but may emphasize different indicators at different times" (Lewis-Beck & Paldam, 2000, p.120). From this perspective, it may be useful to measure the effect of economic dynamics on electoral behavior based on a general economic indicator such as the GDP growth rate in the inter-election period or election year (Dassonneville, 2015).

In conclusion, the electoral variability we intend to study concerns the parties supporting governing coalitions in elections to national parliaments in European countries. We believe that political trust, based on incumbents' reliability judgment, is the main intervening variable explaining this type of electoral volatility. In turn, this should be influenced by the variables related to the areas discussed above. Therefore, we can assess the role played by:

1. the performance of the government, about (a) socio-economic conditions (b) the state of democracy,
2. the domestic political arena,
3. countries' inequalities in educational or cognitive skills, and
4. long-term factors, such as generalized trust, in influencing electoral volatility in European countries. First, however, we will look at recent trends in electoral volatility in the countries covered by our research.

3. Measuring electoral volatility across European countries

Electoral volatility is usually calculated using Pedersen's (1979) index. This index is the semi-sum of the differences between the vote percentages obtained by each party in a given election and those obtained by the same party in the previous election. It refers to the entire party system, not to the positions or performance of a single party. It is based on the aggregate election result, that is, the overall data observed concerning territorial units rather than individual voter behavior.

Dividing by two simplifies the index calculation, which assumes a range of variation from 0 to 100. In this way, it is possible to analyze the results by placing them between two extreme situations. Value zero is quantified when there is no voting movement. In contrast, the value 100 corresponds to the opposite situation where all types of movement occur due to the disappearance of all old parties and the presence of new political forces. This interpretation of index values is based on the assumption that volatility represents cumulative individual voting changes. Therefore, while expressing aggregate volatility, the index value can be considered the minimum share of voters who have changed their vote.

We calculated the volatility index for 31 European countries (27 EU Member States, plus Norway, Switzerland, United Kingdom, and Ukraine: Fruncillo et al., 2023) by considering the percentage of votes attributed to each list out of the total votes for parties in the last two national parliamentary elections¹. We have focused our analysis to the last two elections because,

¹ As for Luxembourg, we had to consider that since there are multiple voting, the total number of valid ballots differs from the total number of votes to parties. Therefore, we assumed the actual votes corresponding to the ballots counted net of null and white ballots. As for Spain, we considered elections held in November 2019 and 2023. As for Greece, we considered the elections held in 2019 and in June 2023. As for Bulgaria, the ballot papers in which the option "I do not support anyone" was selected were assimilated to blank or null ballots and included in the total number of abstainers.

according to many scholars, electoral volatility in European countries has increased significantly in recent years. This new feature of the European countries' political system is associated with several other changes. "First, voters have become much more prone to shifting their party preference between elections. (...) Second, new parties, which mobilize new issues and conflicts and even challenge the fundamentals of liberal democracy, have emerged (...). Third, due to these massive changes, political elites have encountered increasing difficulties in forming governments. (...) Finally, innovative coalition governments with unprecedented party alliances have been experimented with in most countries" (Chiaramonte & Emanuele, 2022, pp.1-3).

The value of the index could be altered by different acronyms for the same parties in the election rounds that do not correspond to an actual change in the structure of the electoral offer. This would result in a higher index value even without an actual change in voting choices. Therefore, we harmonized both electoral supply and electoral results by assimilating the different acronyms or aggregating them by considering their electoral alliances in each round. This process involved merging alliances, coalitions, and competing parties in the two elections under different acronyms.

Table 1 shows the main results of our exercise. According to our calculations, the average EV calculated for each country is 21.78. Malta, Switzerland, Sweden, the United Kingdom, and Luxembourg are the countries with the lowest value, less than 10. Lithuania, Slovakia, and Slovenia are the countries where the Pedersen index of electoral volatility is highest, above 40. In these countries, the problematic consolidation of the electoral system has led to an increase in electoral volatility. Relatively high indices are also found in countries such as Italy and the Netherlands, where the crisis of the national party system occurred in only a few election rounds. Moreover, the index may not be adequate to compare the volatility of political systems where the number of parties and lists varies widely.

These two drawbacks – the problematic assessment of the continuity of different party acronyms and the influence of the unstable number of parties and lists present at elections on the value of the index – urged us to make cross-country comparisons by aggregating parties into groups or blocks. This can be done according to various criteria of aggregation. Following the theoretical framework previously defined (see section 1), we grouped parties according to their participation in the governing majority after the first election. This approach allows us to link the variation in support for winning parties to the confidence they continue to enjoy and their trustworthiness derived from the consistency between their promises and subsequent activities as government supporters. Moreover, this approach allows us to measure volatility with reference to the same number of blocks in all countries, making the comparison

less uncertain. It also allows us to identify substantial differences between countries with established party coalitions and those with more fluid voting patterns. In addition, we calculated two kinds of inter-block volatility, the first related to government and opposition (or the winning and the losing side in the first election) (PEV) and the second one with a third block which includes null votes, blank ballots and abstentions (EEV) (see Table 1). Therefore, the first type of volatility refers to the valid votes, while the second one refers to the total registered voters. This addition is because it may be interesting to consider not only the vote switching from the governing coalition to the opposition parties from one election to the next but also the shift from the voting area to the non-voting area. In the latter case, the issue of electoral volatility overlaps with voter turnout, a topic which has also received increasing attention in recent times (Addeo et al., 2024).

Although the index values are lower because they do not take into account variations within the same block, the average PEV value calculated for all countries is 10.34. The countries with the lowest values are Sweden, Malta, Spain, Greece, and the United Kingdom, while Ukraine is at the opposite end. In the case of EEV, we can see that Switzerland, Bulgaria, the United Kingdom, Sweden, and Luxembourg are the countries where volatility is lowest. In contrast, Slovenia, Ukraine, Slovakia, Lithuania, and Italy have the highest volatility. In general, the position occupied by a given country in this ranking can be influenced by the evolution of abstentionism in that country.

The electoral volatility index based on party blocks provides valuable insights into the political landscape of different countries. Adding the block of invalid votes plus abstainers to the ones defined by the support or opposition to government results in a lower index value for all countries. The rankings, however, are only partially different. Bulgaria, the United Kingdom, Cyprus, Switzerland, and Sweden have the lowest values, while Slovenia, Ukraine, Slovakia, Italy, and the Netherlands have the highest.

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Table 1. Electoral volatility in the last national parliamentary elections by country

Country	EV on the total votes to parties (PEV) (a)		EV on the total number of registered voters (EEV) (b)	
	Total Volatility (c)	Block Volatility (d)	Total Volatility (c)	Block Volatility (d)
AUSTRIA	21.34	3.81	18.63	5.44
BELGIUM	21.40	10.27	18.78	9.14
BULGARIA	14.09	3.58	5.56	1.55
CROATIA	12.65	4.03	17.87	14.75
CYPRUS	20.11	2.92	13.4	2.04
CZECH REP	15.88	6.68	11.82	7.16
DENMARK	27.76	4.46	23.51	4.14
ESTONIA	16.55	12.76	10.50	8.09
FINLAND	13.16	6.03	9.04	4.20
FRANCE	22.46	6.57	11.20	3.43
GERMANY	13.97	6.95	10.83	5.49
GREECE	19.36	0.71	12.66	3.44
HUNGARY	14.06	4.85	9.74	3.40
IRELAND	18.39	6.82	13.09	5.38
ITALY	35.49	25.18	28.84	19.13
LATVIA	50.16	20.86	30.59	14.08
LITHUANIA	25.64	9.84	13.58	5.45
LUXEMBOURG	9.09	3.47	7.89	4.04
MALTA	2.37	0.07	9.57	7.73
NETHERLANDS	35.16	22.89	27.95	18.21
POLAND	20.91	8.21	19.51	12.81
PORTUGAL	16.35	13.24	13.05	11.74
ROMANIA	23.76	18.11	12.38	9.30
SLOVAKIA	44.79	27.83	31.42	20.25
SLOVENIA	43.47	30.09	35.51	30.00
SPAIN	17.53	0.28	14.36	4.12
SWEDEN	6.49	0.04	6.94	3.09
UNITED KINGDOM	8.25	1.28	6.36	1.90
NORWAY	10.20	8.43	8.60	6.99
SWITZERLAND	5.54	3.15	3.33	2.40
UKRAINE	68.68	47.13	35.34	24.47
TOTAL AVERAGE	21.78	10.34	15.87	8.82

Source: Our own elaborations on the TRUEDEM longitudinal cross-country turnout database (www.truedem.eu).

Notes:

- a) PEV was calculated using the percentages of votes obtained by each party or block out of the total votes to parties (Votes to party or block/total votes to parties)
- b) EEV was calculated using the percentage of votes obtained by each party or block out of the total number of registered voters (votes to party or block/total registered voters)
- c) PEV-T is equal to the semi-sum of the absolute changes in the percentage of votes obtained by each list in the two elections considered
- d) PEV-B is equal to the semi-sum of the absolute value changes in the percentage of votes obtained by the parties included in each of the two blocks.

4. Explaining cross-country differences in electoral volatility: a theoretical model

We can now explore volatility in European countries, focusing on institutional, societal, and cultural causes of switching vote intentions at an aggregate level.

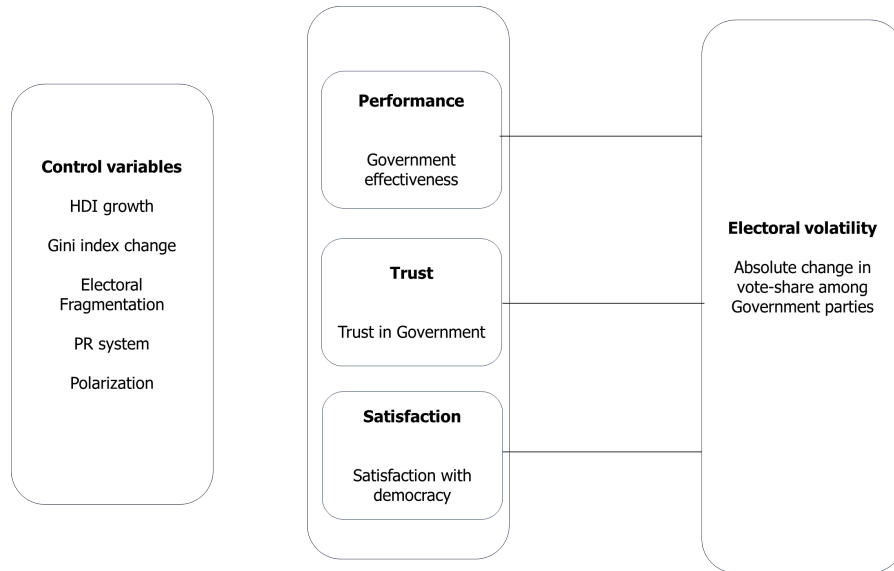
Political trust is one factor that could be held responsible for changing voting preferences. The debate about the nature of political trust has two main traditions. According to the first, trust is a cultural factor, a stable and nonreactive attitude that is a necessary outcome of the socialization process and is not object-specific or related to political performance (Voogd et al., 2019). The second perspective sees political trust as an evaluative factor, or the consequence of a rational evaluation of political actors (Hardin, 1999). From this perspective, trust is closely related to political affection or disaffection, as shown by studies that found a strong association between low satisfaction with democracy and political trust (Söderlund, 2008).

Political trust, therefore, can be considered object-specific and related to the performance evaluation of the actor under consideration. Both trust in parliament and trust in government are fundamental components of political trust (Zmerli & Newton, 2017). However, from the latter perspective, it is worth distinguishing trust in government from trust in parliament. The reason for this distinction is that (1) the government is the most visible political institution, and (2) the government leaders are primarily responsible for political outcomes. Therefore, these types of trust are more relevant than trust in parliament because they are subject to the evaluative judgment of citizens. In this tradition, trust in government is derived from individual evaluations of government performance (Weber et al., 2017).

In this perspective, party switching and volatility can be seen as a way to express dissatisfaction with government performance. We hypothesize that a mechanism can relate trust in government to electoral volatility in national elections: trust in government is assumed to fluctuate based on changes in the political environment during a period of government. Citizens evaluate government performance by adjusting their party preferences accordingly (Erikson et al., 2002). In other words, poor government performance does not meet voters' expectations and increases distrust in the government, making it more likely to abandon the coalition for which they previously voted, resulting in increased volatility (Hetherington, 1999). Hence the following research hypothesis:

H1: When government performance and trust in government decrease, government volatility increases.

Figure 1. The theoretical model



5. Research Design

Our attempt is to evaluate the theoretical model using a multivariate analysis approach. The specific theme of the research is to explore potential factors influencing electoral volatility based on the idea that government effectiveness may play a key role in explaining it when controlling for other electoral, economic, and social variables.

A multiple regression analysis using the enter method (von Eye & Schuster, 1998; Frost, 2020) was applied to a sub-dataset of national elections extracted from the TRUEDEM datasets (Tufiş et al., 2023; Fruncillo et al., 2023). The extracted dataset contains data from 27 EU countries plus four other countries (Norway, Switzerland, the United Kingdom, and Ukraine). The time frame chosen for data collection and analysis is the last two elections held in each nation so that the reference years may change from country to country (Table 2). In addition, some variables will be operationally defined to consider the variation in measured data between the last two elections.

Table 2 - Countries and elections included in the analysis

<i>Country</i>	<i>Electoral Timeframe</i>
Austria	2017-2019
Belgium	2014-2019
Bulgaria	2019-2023
Croatia	2020-2024
Cyprus	2016-2021
Czechia	2017-2021
Denmark	2019-2022
Estonia	2019-2023
Finland	2019-2023
France	2017-2022
Germany	2017-2021
Greece	2019-2023
Hungary	2018-2022
Ireland	2016-2020
Italy	2018-2022
Latvia	2018-2022
Lithuania	2016-2020
Luxembourg	2018-2023
Malta	2017-2022
Netherlands	2021-2023
Norway	2017-2021
Poland	2019-2023
Portugal	2022-2024
Romania	2016-2020
Slovak Republic	2020-2023
Slovenia	2018-2022
Spain	2019-2023
Sweden	2018-2022
Switzerland	2019-2023
Ukraine	2014-2019
United Kingdom	2017-2019

According to the theoretical model discussed earlier (Figure 1), multiple regression analysis involves three sequences that aim to explain the variance of the same variables. The variables were entered into the analysis following this sequence:

Step 1 - Model A: The multiple regression analysis begins with the independent variables related to “quality of government,” i.e., government effectiveness (as conceptualized by the World Bank in its research Worldwide Governance Indicators²), trust in government (retrieved from the TRUEDEM

² <https://www.worldbank.org/en/publication/worldwide-governance-indicators>.

political trust dataset: Tufiş et al., 2023), and satisfaction with democracy and trust in government (defined as the extent to which citizens are satisfied with democracy in their country³);

Stage 2-Model B: The second stage of the model is to test some control variables related to the socio-economic dimension, namely development (Human Development Index) and inequality (Gini index);

Stage 3-Model C: The last stage adds some control variables related to the political system. These institutional factors are supposed to influence volatility: polarization, electoral fragmentation, and the presence of a proportional system.

The following section will discuss the operational definitions of all the variables used in this multiple regression analysis. Statistical analysis of the data was conducted using IBM SPSS 23.0 software.

6. Measures

Having defined the theoretical model, we can now describe the operational definition of each variable used in the multivariate analysis. A summary of the variables may be found in Table 3.

6.1 *Dependent variable: electoral volatility*

Electoral volatility is usually defined as the net change within the electoral party system resulting from individual vote transfers (Pedersen, 1979). As we have seen before, although we recognize that volatility is typically calculated at the level of individual parties, our study focused on party systems. This emphasis on systemic measures aligns with the established stream of research on institutionalization (Birch, 2003; Casas-Zamora, 2005; Mainwaring & Zoco, 2007).

Thus, systemic volatility represents the aggregate change in party coalition vote shares between the last two elections (within-coalition volatility). From this perspective, significant fluctuations in volatility could indicate weak party system attachment. As mentioned earlier, only two political formations were considered: Government (the sum of the electoral results of the parties supporting the Government) and Opposition (the sum of the electoral results of the parties not supporting the Government). Therefore, volatility as measured by Pedersen's index is:

³ <https://ourworldindata.org/grapher/citizen-satisfaction-with-democracy?tab=table>.

$\frac{1}{2} \sum_k |pk(t) - pk(t-1)| \quad K=1 \dots k$ parties (coalitions in our case), where:
 $pk(t)$ percentage of votes to party K at election t
 $pk(t-1)$ percentage of votes to party K at the previous election.

Based on this, we considered two types of electoral volatility to be used as the dependent variable in two different models. The first type of inter-block electoral volatility (PEV, see Table 1) was calculated after the first election, with parties grouped according to their involvement in each country's governing majority. This procedure allows us to connect fluctuating support for the winning parties and the trust and reliability derived from their consistent track record in delivering on promises and acting as political and governmental actors. By assessing volatility using the same number of blocks across nations, this technique can reduce the risk associated with comparing index results.

The second type of inter-block election volatility (EEV, see Table 1) was also calculated using party blocks as a reference. In this case, we expanded the blocks based on the support or opposition of the parties to the government, including the block of null votes plus abstainers. Although this volatility calculation approach is consistent with the theoretical basis of the index, it presents challenges. One specific concern is the problem of denominator heterogeneity, which refers to the fact that different criteria are used to identify registered voters in European countries. Because of this, index values calculated for multiple nations may be biased and unsuitable for cross-national comparisons. However, we will still use this form of electoral volatility in a second multiple regression model to test for possible variations in volatility when considering null votes and abstentions. This third block can be seen as an expression of distrust of the existing government and political institutions as a whole.

6.2 *Independent variables*

We identified three independent variables.

6.2.1 *Trust in government*

It is drawn from the “Long-term trends of political trust dynamics (1980-2023)” dataset, produced in the context of TRUEDEM project (Tufiş et al.,

2023). It is based on European countries' respective barometers and harmonized⁴.

6.2.2 *Government performance*

To measure government performance, we used the government effectiveness index, a composite index that measures the quality of bureaucracy, infrastructure, primary education, and policy formulation and implementation (Kaufmann & Kraay, 2023).

6.2.3 *Satisfaction with democracy*

In investigating the impact of political disaffection on volatility, a phenomenon often linked to electoral volatility (Söderlund, 2008), we considered satisfaction with democracy. This measure, which estimates the average degree of agreement with the item “Overall, how satisfied or dissatisfied are you with the functioning of democracy in [your country]?” is taken from the work of Claassen (2022). It provides a clear and direct way to assess citizens' satisfaction with the democratic process in their country.

6.3 *Control variables*

We controlled for several institutional and economic variables. Indeed, institutions can limit or enhance the prospects of opposition parties at election time. The type of electoral system – referring to the majoritarian or proportional nature of electoral systems – can influence electoral stability. More proportional systems are seen as more volatile because of their openness to the entry of new parties that offer more options for change (Bartolini & Mair, 1990). The electoral formula is also expected to affect voter volatility based on incentive-based explanations: while in majoritarian systems, supporters of minor and marginal parties may be disincentivized to switch votes believing that their vote will not make a difference (wasted vote argument), in PR systems (particularly

⁴ Based on suggestions from the TRUEDEM research network, we tried to calculate an indicator of citizens' perceived trustworthiness towards the government using the technique proposed by van der Meer and van Erkel (2024). Unfortunately, the results obtained using this indicator about the above dependent variable did not meet our expectations.

with low thresholds and large district sizes) smaller parties may enter parliament with a modest share of votes, and this may also encourage vote switching (Norris, 2004). Therefore, we hypothesize that PR systems should increase the opportunity for emerging parties with dispersed support to enter parliament with a modest share of votes, which may provide an incentive for citizens who support them to vote for them.

The party system may also significantly affect volatility. A more fractionalized party system could lead to higher levels of electoral volatility (Bartolini & Mair, 1990; Bischoff, 2013; Mainwaring & Zoco, 2007; Powell & Tucker, 2014). There are several reasons for this: more options for both politicians, who can easily create new parties, and for voters, who can easily change their preferences; more chances for new parties to succeed; and fewer divisions between parties.

Although there is a range of measures of political fragmentation, we have opted for definitions that go beyond simply counting the number of parties and weighing it by the number of endorsements received. Specifically, we opted for electoral and political fragmentation as calculated by Laakso and Taagepera (1979). The electoral fragmentation index represents the number of electoral parties: 1 divided by the sum of the squared percentage of votes of all parties in an election

$$N = \frac{1}{\sum_{n=1}^i p_i^2}$$

Where p_i is the fractional share of votes of the i^{th} party.

We also added the degree of polarization in the electoral environment, which is assumed to strongly influence party switching. Polarization, i.e., ideological distance between parties, is supposed to be inversely related to volatility: the more diverse the options, the less reason to switch. Polarization is measured through the percentage of votes obtained by 'anti-establishment' parties. These parties perceive themselves as challengers to the established parties, emphasize a divide between the political establishment and the people, and introduce challenging political and political system issues (Sartori, 2005).

Finally, our research delves into the influence of social and economic conditions on voting change. We follow Söderlund's (2008) argument that the level of development and short-term economic considerations can influence the likelihood of voting for other political parties. Economic recession or rising inequality may cause voters to abandon their preferred party because they decide to follow alternatives proposed by emerging parties or as punishment for incumbent voters who are considered responsible for worsening economic conditions (Tavits, 2005; Mainwaring & Zoco, 2007).

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To fully understand these factors, we consider the short-term HDI growth rate and the Gini index. The UNDP Human Development Index, a composite index that combines longevity (life expectancy at birth), education (years of schooling for adults 25 years and older and years of expected education for school-age children), and standard of living (gross national income per capita). The Gini index is the most comprehensive way to operationalize income inequality. We collected data for this variable from the OECD database.

Table 3. - Summary of variables

Variable	Direction
Trust in government	-
Government performance	-
Satisfaction with democracy	-
Gini index	+
HDI growth rate	-
Proportional Representation	+
Electoral fragmentation	+
Polarization	+

7. Multiple regression analysis

We performed a multivariate analysis based on OLS regression analysis. We run two multiple regressions, one for each measure of electoral volatility we proposed (see the previous sections). The statistical procedure is the same in both analyses: model A first entered government performance, dissatisfaction with democracy, and trust in government alone. Model B adds socio-economic indicators (HDI growth and Gini index). Model C adds institutional factors supposed to affect volatility (electoral fragmentation, polarization, and proportional system). The timeframe considered is the last election for volatility and the variation that occurred in the data for each variable during the time between the two elections.

Tables 4 and 5 summarize the univariate statistics and the three multiple regression models by providing information about the model summary and the statistical coefficients (standardized beta and significance).

Table 4. Univariate statistics of the variables used in the Multiple Regression Analysis (National elections dataset)

<i>Descriptive Statistics</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Std. Dev.</i>
Inter-block Volatility (PEV, total: valid votes)	0.04	47.13	10.34	10.84
Inter-block Volatility (EEV, total: registered voters)	1.55	30.00	8.81	7.20
Trust in the National Government	12.80	76.20	37.38	15.84
Satisfaction with Democracy variation	-0.26	0.28	0.02	0.13
HDI growth	-0.35	0.53	0.27	0.16
Gini coefficient [OECD]	0.22	0.38	0.29	0.04
Electoral fragmentation index [TRUEDEM]	1.92	10.94	6.13	2.17
Proportional System	0	1	0.77	0.43
Polarization	1.20	60.90	23.23	11.99

7.1 First Multiple Regression Analysis: PEV as dependent variable

All the tested models are statistically significant, and the several values of the adjusted R square indicate relevant goodness of fit of the models: from 111 (step 1) to 442 (step 3). The last value means that approximately 44,2% of two-blocks volatility (PEV) variance is explained by the variables used in this analysis.

More specifically, at step 1, Government effectiveness and Satisfaction with Democracy have negative effects ($\beta = -,407$ and $\beta = -,153$, respectively) on inter-block volatility (PEV), while Trust in National Government has no relevant effect ($\beta = -,066$). All the variables have no statistical significance at this stage.

In step 2, the introduction of the socioeconomic variables, the growth of HDI and Gini in the time frame shows a significant negative effect on PEV. However, while the negative relationship ($\beta = -,333$) with the HDI is predictable (the lower the HDI growth, the higher the volatility), an interesting result at this stage of the model is that the GINI shows a negative and statistically significant effect ($\beta = -,287$).

The last run of the multiple regression analysis (step 3) shows the relevance of the Electoral fragmentation as it has a statistically significant and positive effect ($\beta = ,456$) on PEV: the higher the fragmentation, the higher the volatility. Moreover, this final model highlights that the other institutional factors, polarization and the presence of a proportional system, have no statistically significant effect on PEV. However, it seems that while the proportional system has a negative relationship, the effect of polarization is almost null. Moreover, the Trust in the National Government changes the sign of its effect while remaining near zero.

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Table 5. Results of Multiple Regression Analysis on the National Elections with enter method: model summary and final model (Step 1-3). Dependent Variable: PEV

Model	Variable	Std. Beta	Sig.
1 Adjusted R Square = ,111	(Constant)		.000
	Trust in the National Government	-.066	.796
	Government Effectiveness	-.407	.121
	Satisfaction with Democracy variation	-.153	.397
2 Adjusted R Square = ,302	(Constant)		.002
	Trust in the National Government	-.088	.702
	Government Effectiveness	-.303	.221
	Satisfaction with Democracy variation	-.150	.352
	HDI growth	-.333	.060
3 Adjusted R Square = ,442	Gini coefficient	-.287	.082
	(Constant)		.007
	Trust in the National Government	.048	.820
	Government Effectiveness	-.453	.053
	Satisfaction with Democracy variation	-.100	.498
	HDI growth	-.300	.088
	Gini coefficient	-.375	.025
	Electoral fragmentation index	.456	.009
	Proportional System	-.231	.187
	Polarization	-.051	.749

n.=31

7.2 Second Multiple Regression Analysis: EEV as dependent variable

The second multiple regression was carried out using three-blocks volatility (EEV) as the dependent variable.

First of all, all the tested models are statistically significant, in this case, the adjusted R square values are slightly higher than those of the previous regression analysis: from ,143 (step 1) to 0,454 (step 3). This means that this model's predictive power is higher (45,4%).

As in the previous analysis, in step 1, government effectiveness and satisfaction with democracy have a negative effect ($\beta = -0,306$ and $\beta = -0,100$). One interesting difference with the previous run is that the Trust in the National Government has a negative effect, too ($\beta = -0,104$). All the variables have no statistical significance at this stage.

The regression analysis results in step 2 show a significant difference: while the Gini index still shows a negative and statistically significant effect ($\beta = -.476$), the HDI has no appreciable or statistically significant effect on EEV.

Step 3 of the multiple regression analysis shows similar results compared to the previous exercise: electoral fragmentation has a statistically significant and positive effect ($\beta = ,347$) on the EEV, while the other institutional factors,

polarization, and proportional system, have no statistically significant effect on the dependent variable. As in the previous model, Trust in the National Government varies in the sign of its effect, while remaining close to zero.

Table 6. – Results of Multiple Regression Analysis on the National Elections with enter method: model summary and final model (Step 1-3). Dependent Variable: EEV

Model	Variable	Std. Beta	Sig.
1 Adjusted R Square = ,143	(Constant)		.000
	Trust in the National Government	-.104	.694
	Government Effectiveness	-.306	.254
	Satisfaction with Democracy variation	-.100	.592
2 Adjusted R Square = ,358	(Constant)		.000
	Trust in the National Government	-.067	.781
	Government Effectiveness	-.404	.123
	Satisfaction with Democracy variation	-.126	.454
	HDI growth	.040	.822
3 Adjusted R Square = ,454	Gini coefficient	-.476	.008
	(Constant)		.002
	Trust in the National Government	.029	.908
	Government Effectiveness	-.514	.057
	Satisfaction with Democracy variation	-.091	.595
	HDI growth	.060	.761
	Gini coefficient	-.540	.007
	Electoral fragmentation index	.347	.071
	Proportional System	-.159	.427
	Polarization	-.054	.769

n.=31

8. Discussion

Government effectiveness affects volatility among blocks more than trust in government. Successful implementation of policies seems to strengthen voters' attachment to incumbent parties, thus reducing volatility. We expect this, by extension, to increase the level of trust in the government, but it does not. This finding could be due to a time effect: low output and performance affect trust in the long run. It could also be due to a lack of consideration of trends to distinguish between specific and widespread trust. A long-term trend of distrust in government may turn into disaffection with all political institutions, regardless of their performance.

Rather than contradicting the skeptical trust model, this finding can be interpreted as a refinement of it. The absence of a direct effect of trust in government, combined with the strong impact of government effectiveness, suggests that voters' electoral reactions are driven primarily by evaluations of

concrete performance outcomes. In this sense, trust may operate as a more general or long-term orientation, while electoral volatility reflects immediate accountability judgments linked to policy effectiveness.

The results suggest that although there may be heterogeneous motivations for volatility, performance ratings drive voters' party switching more than disaffection and political detachment, as evidenced by the non-significance of the relationship between satisfaction with democracy and volatility. This may stem from the fact that political disaffection drives abstention more than volatility. Political disaffection increases the likelihood of abstaining from voting more than switching party coalitions. However, this would require further surveys comparing abstainers and stable and unstable voters.

If all this is true, and performance ratings and accountability drive volatility more than disaffection, then volatility may not necessarily be considered a malfunction of democracy. In some cases, it may even favor democracy, following Norris's skeptical trust model (Norris, 2022).

Contrary to expectations, proportional systems seem less volatile. However, proportional representation do not significantly affect volatility. One reason for this could lie in evaluating government performance and dealignment and weak party attachment, which makes proportionality a negligible factor.

As hypothesized, electoral fragmentation is a significant predictor of volatility. In contrast, polarization is not: the number of voting alternatives probably strengthens the link between dissatisfaction with the government and the propensity to switch parties. With few options in the face of low government performance, loyalty to the government may remain. In contrast, with more options, voters may express dissatisfaction by switching to another party. This may indicate that when the number of options is large, dissatisfaction with government performance is unlikely to lead to abstention but more likely to volatility.

However, one can also consider the reverse direction of the relationship between the number of parties and volatility. Greater fragmentation, expressed in more options, may also affect unstable electorates, especially in older democracies.

In addition, growth in human development, implying successful economic performance, can play a significant role in decreasing volatility between blocks. It can be interpreted as another indicator of good government performance: government parties successfully deliver on their promises and are rewarded. It is also interesting to find that higher social inequality (captured by a high level of the Gini index) contributes to decreasing inter-block volatility. This result may be due to social inequalities, which may support social and political radicalization in voting behavior.

An alternative interpretation is that higher levels of inequality may reduce electoral volatility by reinforcing more stable and, in some cases, polarized political alignments. In this sense, inequality may strengthen ideological anchoring among specific social groups, limiting short-term electoral mobility even in contexts of dissatisfaction with incumbents.

9. Conclusion

This article examined cross-national differences in electoral volatility in European countries by testing a theoretical model that links voters' confidence in political actors to government performance and broader institutional and socio-economic conditions. Drawing on Norris's skeptical trust perspective, electoral volatility was conceptualized not simply as an indicator of democratic instability, but as a possible outcome of evaluative judgments regarding incumbents' performance and accountability. Using two alternative measures of inter-block electoral volatility and a multivariate regression design, the analysis explored the extent to which volatility can be explained by variations in government effectiveness, political trust, satisfaction with democracy, and characteristics of the political and socio-economic context.

Overall, the findings provide a qualified and coherent answer to the research questions guiding the study. The results show that government effectiveness is negatively associated with electoral volatility, suggesting that successful policy implementation strengthens voters' attachment to incumbent parties and reduces switching between governing and opposition blocs. By contrast, trust in government and satisfaction with democracy do not exert a direct and statistically significant effect on volatility once other factors are considered. These findings indicate that voters' electoral behavior responds more strongly to performance-based evaluations than to diffuse political attitudes, supporting the idea that volatility reflects judgments about trustworthiness and accountability rather than generalized political disaffection.

The analysis also highlights the importance of contextual factors. Electoral fragmentation emerges as a robust predictor of higher volatility, suggesting that a wider supply of political alternatives facilitates vote switching when voters are dissatisfied with incumbents' performance. Socio-economic conditions further contribute to explaining cross-national differences: improvements in human development tend to stabilize electoral support, while higher levels of inequality are associated with lower inter-block volatility. Taken together, these results suggest that electoral volatility is shaped by an interaction between performance

evaluations and the structure of political opportunity, rather than by institutional rules or ideological polarization alone.

Despite these contributions, the study has several limitations. First, electoral volatility is sensitive to definitional and measurement choices. Alternative operationalizations - particularly those incorporating abstention and non-voting - may capture different dimensions of electoral change and yield partially divergent results. Second, the focus on the last two elections in each country limits the possibility of fully assessing long-term dynamics of trust, performance, and volatility. In this respect, it should be noted that part of the elections included in the analysis took place before and after the COVID-19 pandemic. While the pandemic may have influenced electoral behavior and voters' evaluations of incumbents, isolating its specific impact would require a dedicated analytical design and additional variables that go beyond the scope of the present study.

Future research could build on these findings in several ways. Extending the model to include dimensions related to migration dynamics and crime rates could help capture additional sources of voter dissatisfaction and insecurity that may influence electoral volatility in specific national contexts. Moreover, adopting a longitudinal perspective and applying qualitative comparative analysis (QCA) could provide further insights into the combinations of conditions under which high or low levels of electoral volatility emerge in European democracies. Such developments would allow for a more nuanced assessment of whether electoral volatility represents a democratic risk or, conversely, a functional mechanism of accountability.

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