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Democratic Distance: Global Divergence and Spatial Spillovers in Political Values

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Abstract

This study investigates whether democratic values, representation, rights, participation, and rule of law, are converging or diverging across countries over the period 1991 to 2022. Using panel data from 152 countries drawn from the Global State of Democracy Indices, we employ spatial econometric techniques, including Spatial Durbin and General Nesting Spatial Models, to assess both absolute and conditional σ-convergence. Our results reveal a global pattern of divergence across all four dimensions, with significant spatial dependence. Spatial spillover effects vary by dimension: representation and participation show robust positive externalities, while rights and rule of law display limited or negative spatial diffusion. A continent-level disaggregation uncovers substantial heterogeneity: Africa and South America exhibit positive regional convergence effects, whereas Europe, North America, and Asia show weak or even adverse spillovers. These findings suggest that democratic development is not uniformly diffused but shaped by complex spatial dynamics and regional political contexts. The study contributes to theories of democratic diffusion by reframing convergence as a spatial process of value alignment rather than institutional isomorphism.

Keywords: democracy, spatial econometrics, political institutions, spatial spillovers.

JEL Classification: C23, D72, H11, O43, R11.

Introduction

Democratic backsliding and rising authoritarianism have renewed scholarly interest in how democratic values evolve and diffuse across regions. While democracy was once presumed to follow a linear and universal trajectory toward consolidation, recent decades have revealed a more fragmented and regionally varied pattern. Even amid regression in some regions, democratic clustering continues to persist, suggesting the importance of regional and cross-border influences in shaping democratic trajectories.

Early theories of democratization emphasized the importance of domestic preconditions. Lipset's et al. (1993) "social requisites of democracy" posited that rising income, education, and urbanization create a middle class supportive of democratic governance. Subsequent work by Tilly (1978, 1984) and Rueschemeyer et al. (1992) emphasized the transformation of class structures and the weakening of landed elites through industrialization. These theories emphasized economic growth and social change as key drivers of democracy within individual states.

However, democratization is not solely a domestic process. Comparative political scholars have increasingly recognized the role of international and regional diffusion in shaping democratic transitions. Huntington's (1991) theory of democratic waves pointed to both temporal and spatial clustering of democratic regimes. Scholars such as Starr (1991) and Gleditsch & Ward (2006) expanded this by empirically demonstrating contagion effects, wherein democratic changes in one country spill over into neighbouring states through economic ties, cultural similarity, or institutional emulation.

Historically, the global spread of democracy has been linked to broader geopolitical transformations. From the Enlightenment era to the post-World War II order, successive hegemonic powers such as Britain and the United States promoted democracy as part of their ideological and geopolitical agendas (Modelski & Perry, 1991; Taylor, 1996). The collapse of the Cold War bipolar system in 1989 removed a major ideological counterweight, accelerating the diffusion of liberal democracy in Eastern Europe, Latin America, and parts of Africa (Levitsky & Way, 2020).

More recently, scholars have identified new mechanisms of diffusion: regional organizations promoting democratic norms (Way & Levitsky, 2023), international aid conditionalities (Stokke, 1995), and the role of digital technologies in spreading civic values (Tucker et al., 2017; Margetts, 2018). Despite these mechanisms, democratic transitions have not always led to liberal consolidation. Many countries have experienced renewed ethnic tensions, illiberal elections, or democratic reversals (Kaplan, 1997). Still, procedural democracy, through competitive elections, civil liberties, and rule of law, remains attractive as a path to peace, development, and inclusion (Held, 2014).

The study of democratic diffusion has thus evolved from asking whether democracy spreads to how democratic values themselves, representation, participation, rights, and rule of law, diffuse over time and space. This shift in focus requires moving beyond binary regime classification to consider the convergence or divergence of democratic qualities within and across regions. From an empirical standpoint, democratic diffusion can be conceptualized as a spatial process. Countries are embedded in regional systems, and their democratic trajectories are influenced by neighbours through institutional learning, political competition, and normative pressure. Yet, few studies have formally tested whether democratic values are converging globally, or if regions are fragmenting into divergent democratic orders.

This paper addresses that gap by assessing whether democratic values are converging across countries and whether spatial proximity affects this convergence. Using data from the Global State of Democracy Indices (GSoD) across 152 countries between 1991 and 2022, we test for spatial \u03c3-convergence in four key dimensions of democracy: representation, rights, participation, and rule of law. By applying spatial panel econometric models, including Spatial Durbin and General Nesting Spatial Models, we evaluate both the extent of democratic convergence and the role of regional spillover effects.

Our contribution is twofold. Theoretically, we reconceptualize democratic diffusion as a process of value convergence, not merely regime change. Empirically, we provide new evidence on the spatial interdependence of democracy, showing how regional democratic norms shape national democratic performance. Our findings have implications for how international and regional actors can support democracy, not in isolation, but as part of broader spatial networks.

1. Literature Review

Democratic Diffusion

Following Huntington's seminal work, The Third Wave of Democracy (1991), scholars have sought to understand the uneven spread of democracy across time and space. The wave theory describes periods of intense democratization followed by democratic backsliding (Huntington, 1991; Markoff, 1996; Olimat, 2008). This perspective highlights two core patterns: temporal clustering, where regime changes occur in similar time periods, and spatial clustering, where geographically proximate countries adopt similar political systems.

Explanations for these clusters include military and strategic alliances, democracy imposition through occupation (e.g., post-WWII Japan and Germany), technological diffusion (Modelski & Perry, 1991, 2002), and institutional emulation. Democracy may also spread due to conditional aid, diplomatic pressure, or incentives for joining international organizations (Kopstein & Reilly, 2000; Levitsky & Way, 2005; Gleditsch & Ward, 2006). Another line of explanation attributes clustering to similarities in domestic factors, such as economic development and institutional maturity (Lipset, 1959; Burkhart & Lewis-Beck, 1994).

Cederman & Gleditsch (2004) formalize this by modelling the survival benefits of democracies located within democratic clusters, arguing that democracies help each other resist external threats and form 'zones of peace.' Broadly, most definitions of democratic diffusion emphasize the spread of political ideas, behaviours, and norms through communication networks and contextual receptivity (Rogers, 2003).

A Theory of Diffusion

In the 1970s, the assumption that democracy required specific cultural or economic prerequisites was challenged. Democratic transitions in less developed countries such as Portugal, Greece, and Spain demonstrated that institutional change could occur without the full set of 'preconditions.' This prompted a theoretical shift from modernization prerequisites to transition theories emphasizing elite bargains and external influence.

Huntington (1991) theorized that diffusion during democratic waves results from three factors: the destabilizing effects of global communication and mobility on authoritarian regimes; shared geographic or cultural contexts that facilitate diffusion; and external demonstration effects that accelerate the adoption of democratic reforms. Markoff (1996) extended this by emphasizing the importance of external actors in facilitating regime change.

Empirical studies support the idea that democratization is often externally induced. O'Donnell et al. (1986) found that external influences played a role in 58 out of 61 democratic transitions. Other literature underscores diplomacy, foreign aid, and military interventions as additional tools of democracy promotion (Denk & Silander, 2007).

Contemporary Research on Democratic Diffusion

Recent research on democratic diffusion can be categorized into geographical clustering studies and advanced quantitative modelling. Geographic studies (e.g., O'Loughlin et al., 1998; Kopstein & Reilly, 2000) show that democracies tend to cluster spatially, even after controlling for domestic conditions like GDP or education. These works suggest that democratization in one country increases the likelihood of similar transitions in its neighbourhood. Gleditsch (2002) and Gleditsch & Ward (2006) used panel models to show

that regional institutions, such as the EU or OAS, play critical roles in reinforcing democratic norms.

Similarly, Pevenhouse (2002), Wejnert (2005), and Brinks & Coppedge (2006) highlight that proximity to democratic neighbours and alignment with Western powers (especially U.S. influence) increases the likelihood of democratization.

A Model of Diffusion

The latest scholarship has introduced new methodologies and broadened the scope of variables linked to democratic diffusion. Beissinger (2022), Weyland (2021), and Grinin & Korotayev (2022) use transnational network analysis to trace how ideas, protests, and regime strategies travel across borders.

Digital technologies have emerged as key mechanisms of diffusion. Howard & Hussain (2013) and Tucker et al. (2017) document how social media can facilitate mass mobilization even under authoritarian regimes. Mukherjee (2016) links economic interdependence and trade openness with democratization pressures, while Kelley & Simmons (2015) show how international institutions diffuse democratic norms through performance assessments, aid conditions, and legitimacy cues.

Åberg & Denk (2020) examine how cultural and regional contexts shape democratic waves, while Lachapelle et al. (2020) explore how autocrats adapt in response to democratic pressures. Norris & Inglehart (2019) frame democratization within global cultural exchange, showing that globalization and media can support democratic values even in semi-authoritarian regimes.

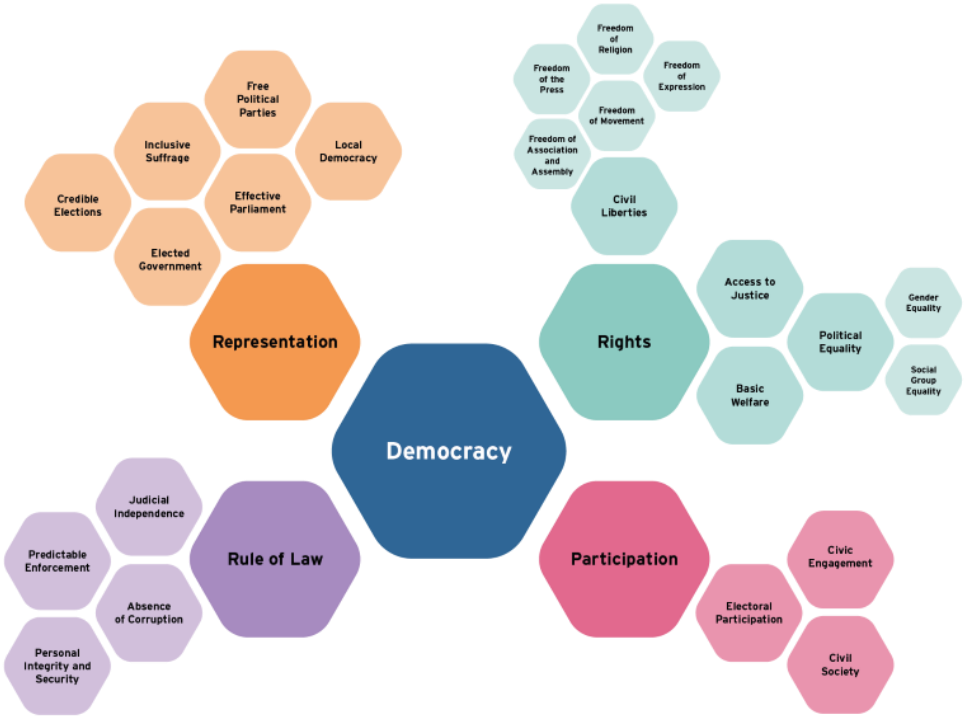
Recent works using advanced methods, such as Boix (2020) and Pevehouse & Glenn (2024), further model the causal pathways of democratic transitions, incorporating external influence, regional norms, and socio-economic interdependence. These studies argue for analyzing democracy as a multi-dimensional construct, with different dimensions, rights, participation, representation, and rule of law, potentially diffusing at different speeds and through different channels.

Building on these insights, this study contributes by examining how core dimensions of democracy, representation, rights, participation, and rule of law, diffuse across space and time. Using data from 152 countries from 1991 to 2022, we test for spatial \u03c3-convergence in democratic values using spatial panel econometric models. This approach allows us to evaluate both global divergence and regional clustering, offering a more granular view of how democracy spreads in practice.

2. Data and Methodology

This study investigates whether countries are converging or diverging in democratic values, and the extent to which regional proximity influences these patterns. Specifically, we ask: Are democratic values converging globally? And do regional spillover effects shape these convergence trends? We use data from the Global State of Democracy (GSoD) Indices developed by the International Institute for Democracy and Electoral Assistance (IDEA), an intergovernmental organization. The GSoD Indices offer a multidimensional framework for assessing democratic progress between 1975 and 2022 at global, regional, and national levels. Unlike composite democracy indices, GSoD enables disaggregated analysis across four key dimensions: Representation, Rights, Participation, and Rule of Law (Figure 1).

Figure 1: Conceptual Framework: The Global State of Democracy



Note: The figure presented above is obtained from the Global State of Democracy Indices, made available by the International Institute for Democracy and Electoral Assistance (International IDEA). For additional information and access to the dataset, refer to https://www.idea.int/data-tools/tools/global-state-democracy-indices

The dataset includes scores for 174 countries, compiled from 157 indicators derived from expert surveys, standardized coding, observational data, and institutional reports. Approximately half of the indicators originate from the Varieties of Democracy project, making the dataset comprehensive and widely validated. Each country-year observation receives a score between 0 and 1 for each democratic dimension, where 0 denotes the weakest and 1 the strongest democratic performance. These continuous scores allow for subtle analysis of democratic changes over time. The four democratic dimensions: Representation, Rights, Participation, and Rule of Law, serve as the dependent variables in our analysis. We also include control variables commonly associated with democratization, including:

- GDP per capita growth (World Bank)[1];
- Trade openness (% of GDP) (World Bank);
- Mean years of schooling (Global Data Lab)[2];
- Life expectancy (Global Data Lab).

To address endogeneity concerns, particularly the reverse causality between democracy and economic outcomes, we follow Kingsley and Graham (2017) in using 5-year lagged independent variables. The growth rate is computed as:

[1] Refer to https://data.worldbank.org/

[2] The Global Data Lab (GDL) functions as an independent hub for data analysis and scholarly investigation, situated within the academic environment of the Nijmegen School of Management, Radboud University. For more details, refer to https://globaldatalab.org/about/mission/

- for country ‘i’ and year ‘t’:

$$\text{Growth rate}_{it} = \frac{\ln(\text{per capita GDP (constant price in dollars)}_{it}) - \ln(\text{per capita GDP (constant price in dollars)}_{it-5})}{5} \quad (1)$$

Panel data for 152 countries from 1991 to 2022 are used to ensure a balanced panel and consistent coverage.

σ-Convergence Framework

We adopt the concept of σ-convergence, which refers to declining cross-sectional dispersion of a variable (e.g., democracy score) over time. If dispersion falls, convergence is present; if it rises, divergence occurs. Following Sala-i-Martin (1996) and Rey & Montouri (1999), we test for both absolute and conditional σ-convergence, with and without spatial spillovers. The absolute convergence model is:

$$Y_{it} = \alpha + \sigma \times Y_{it-5} + \sum_{i=2}^{N} \delta_i \times C_i + \varepsilon_{i,t} \quad (2)$$

where: Y_{it} represents dependent variable for a country 'i' at year ‘t’ where Y_{it-5} represents its initial value. Equation 2 represents Fixed Effect panel data model which controls the country-fixed effect (δ_i) associated with the country dummy variable C_i. In conditional convergence, control variables are incorporated.

$$Y_{it} = \alpha + \sigma \times Y_{it-5} + \sum_{i=2}^{N} \delta_i \times C_i + \sum_{k=1}^{K} \beta_k \times X_{itk} + \varepsilon_{i,t} \quad (3)$$

where: X_{itk} represents the control variables.

The coefficient σ in both equations show whether there exists convergence or divergence. If it is positive, then it means there is a divergence and if it is negative then it means there is a convergence. But econometrically, this coefficient can be understood estimated or overestimated due to omission of significant spatial effects (LeSage and Pace, 2009; Elhorst, 2014). The spatial spillover effect can come from all three component: dependent variable, independent variable and error term.

$$Y = \rho WY + X\beta + WX\theta + \lambda W\varepsilon + u \quad (4)$$

where: W is a spatial weight matrix, β denotes a K × 1 vector embodying parameters for K exogenous explanatory variables. The term ρWY encapsulates the endogenous spatial interaction effect, while WXθ signifies the exogenous spatial interaction effects. The vector Y holds a dimension of N × 1, where N represents the aggregate count of regions, and X denotes an N × K matrix. λWε integrates $\lambda \sum_{j=1}^{N} w_{ij} \times \varepsilon_{j,t}$ and u incorporates $u_{i,t}$.

Equation 4 is accompanied by several nested models delineated below, each characterized by specific nomenclature denoting its model type:

If ρ = 0, θ ≠ 0 and λ ≠ 0 then model is known as Spatial Durbin Error Model (SDEM), (4.1)

If ρ = 0, θ ≠ 0 and λ = 0 then model is known as Spatial Lagged Model (SLX), (4.2)

If ρ = 0, θ = 0 and λ ≠ 0 then model is known as Spatial Error Model (SEM), (4.3)

If ρ = 0, θ = 0 and λ = 0 then model is known as Ordinary Least Square Model (OLS), (4.4)

If $\rho \neq 0$, $\theta = 0$ and $\lambda = 0$ then model is known as Spatial Autoregressive Model (SAR), (4.5)

If $\rho \neq 0$, $\theta = 0$ and $\lambda \neq 0$ then model is known as Spatial Autoregressive Model with Autoregressive Disturbances (SARAR), (4.6)

If $\rho \neq 0$, $\theta \neq 0$ and $\lambda = 0$ then model is known as Spatial Durbin Model (SDM), (4.7)

If $\rho \neq 0$, $\theta \neq 0$ and $\lambda \neq 0$ then model is known as General Nesting Spatial Model (GNS), (4.8)

Drawing upon the specifications of ρ, λ, and θ, the most suitable model can be discerned from the aforementioned alternatives (LeSage and Pace, 2009; Elhorst, 2014). Following the methodology outlined by LeSage and Pace (2009) and Elhorst (2014), Hazrana et al. (2019) undertake a robustness check to identify the fitting spatial model. Notably, all spatial models are nested within the overarching GNS model. Consequently, to ascertain the model that best fits the sample data relative to its nested counterparts, a Likelihood Ratio (LR) test is conducted. For non-nested models, selection among alternatives is guided by information criteria such as the Akaike Information Criterion (AIC). It is essential to highlight that the independent variable, denoted as Y_{it-5}, holds significant relevance in the context of the study. The analytical frameworks that incorporate the spillover impact of this independent variable include the SDEM, SLX), SDM), and GNS. Consequently, to determine the most suitable spatial econometric model among above models, LR tests and AIC are employed. Results for the preferred model are discussed in the results section.

Evaluating the appropriateness of spatial models vis-à-vis Ordinary Least Squares (OLS), tests including Moran's I, the Lagrange Multiplier (LM) test, and the Wald test for spatial effects are employed. Furthermore, the LR test is employed specifically to discern the optimal spatial model among alternatives. Moran's I, as delineated by Anselin (1992), serves as a statistical metric for gauging spatial autocorrelation, thereby providing insights into the presence and strength of spatial patterns within the dataset.:

$$\text{Moran's I} = \left(\frac{N}{W}\right)\frac{\left(\sum_{i=1}^{n}\sum_{j=1}^{n} w_{ij}(Y_i - Y_{average})(Y_j - Y_{average})\right)}{\sum_{i=1}^{n}(Y_i - Y_{average})^2} \quad (5)$$

where: Y_i is a dependent variable that comes in a model and w_{ij} is an element from spatial weight matrix W.

The weight matrix used in this work is inverse distance weight matrix. Inverse distance weighting is a fundamental technique in spatial analysis used to assess the relationships between points in geographical data. Essentially, it assigns greater significance to points that are closer together, with the idea that closer points should have a stronger influence on each other. However, this approach has its challenges. When distances between points are large, the resulting weights can become extremely small, potentially diminishing the meaningfulness of the analysis. Conversely, if distances are small, weights might become disproportionately large, distorting the analysis. This may result into result where coefficient of spatial lagged variable more than 1. To address these issues, normalization of spatial weight should be done. Therefore, spatial weight matrix is normalized. The normalization can be done using three methods: row, minmax and spectral. This work uses spectral normalization to maintain the network structure as it is. To create the weight matrix, the shape file for countries provided by world bank is used.

Considering this spatial econometric discussion, the empirical representation for convergence and spatial convergence can be written as below.

i) Panel data absolute σ convergence

$$\text{Representation}_{it} = \alpha + \sigma \times \text{Representation}_{it-5} + \sum_{i=2}^{N} \delta_i \times C_i + \varepsilon_{it} \quad (6)$$

$$\text{Rights}_{it} = \alpha + \sigma \times \text{Rights}_{it-5} + \sum_{i=2}^{N} \delta_i \times C_i + \varepsilon_{it} \quad (7)$$

$$\text{Participation}_{it} = \alpha + \sigma \times \text{Participation}_{it-5} + \sum_{i=2}^{N} \delta_i \times C_i + \varepsilon_{it} \quad (8)$$

$$\text{Rule of Law}_{it} = \alpha + \sigma \times \text{Rule of Law}_{it-5} + \sum_{i=2}^{N} \delta_i \times C_i + \varepsilon_{it} \quad (9)$$

ii) Panel data conditional σ convergence

$$\text{Representation}_{it} = \alpha + \sigma \times \text{Representation}_{it-5} + \sum_{i=2}^{N} \delta_i \times C_i + \sum_{k=1}^{K} \beta_k \times X_{itk} + \varepsilon_{it} \quad (10)$$

$$\text{Rights}_{it} = \alpha + \sigma \times \text{Rights}_{it-5} + \sum_{i=2}^{N} \delta_i \times C_i + \sum_{k=1}^{K} \beta_k \times X_{itk} + \varepsilon_{it} \quad (11)$$

$$\text{Participation}_{it} = \alpha + \sigma \times \text{Participation}_{it-5} + \sum_{i=2}^{N} \delta_i \times C_i + \sum_{k=1}^{K} \beta_k \times X_{itk} + \varepsilon_{it} \quad (12)$$

$$\text{Rule of Law}_{it} = \alpha + \sigma \times \text{Rule of Law}_{it-5} + \sum_{i=2}^{N} \delta_i \times C_i + \sum_{k=1}^{K} \beta_k \times X_{itk} + \varepsilon_{it} \quad (13)$$

iii) Panel data spatial absolute σ convergence

$$\text{Representation}_{it} = \alpha + \sigma \times \text{Representation}_{it-5} + \sum_{i=2}^{N} \delta_i \times C_i + \rho \sum_{j=1}^{N} w_{ij} \times \text{Representation}_{jt} + \lambda \sum_{j=1}^{N} w_{ij} \times \varepsilon_{jt} + u_{it} \quad (14)$$

$$\text{Rights}_{it} = \alpha + \sigma \times \text{Rights}_{it-5} + \sum_{i=2}^{N} \delta_i \times C_i + \rho \sum_{j=1}^{N} w_{ij} \times \text{Rights}_{jt} + \lambda \sum_{j=1}^{N} w_{ij} \times \varepsilon_{jt} + u_{it} \quad (15)$$

$$\text{Participation}_{it} = \alpha + \sigma \times \text{Participation}_{it-5} + \sum_{i=2}^{N} \delta_i \times C_i + \rho \sum_{j=1}^{N} w_{ij} \times \text{Participation}_{jt} + \lambda \sum_{j=1}^{N} w_{ij} \times \varepsilon_{jt} + u_{it} \quad (16)$$

$$\text{Rule of Law}_{it} = \alpha + \sigma \times \text{Rule of Law}_{it-5} + \sum_{i=2}^{N} \delta_i \times C_i + \rho \sum_{j=1}^{N} w_{ij} \times \text{Rule of Law}_{jt} + \lambda \sum_{j=1}^{N} w_{ij} \times \varepsilon_{jt} + u_{it} \quad (17)$$

iv) Panel data spatial conditional σ convergence

$$\text{Representation}_{it} = \alpha + \sigma \times \text{Representation}_{it-5} + \sum_{i=2}^{N} \delta_i \times C_i + \sum_{k=1}^{K} \beta_k \times X_{itk} + \theta_0 \sum_{j=1}^{N} w_{ij} \times \text{Representation}_{jt-5} + \sum_{k=1}^{K} \theta_k \sum_{j=1}^{N} w_{ij} \times X_{jtk} + \rho \sum_{j=1}^{N} w_{ij} \times \text{Representation}_{jt} + \lambda \sum_{j=1}^{N} w_{ij} \times \varepsilon_{jt} + u_{it} \quad (18)$$

$$\text{Rights}_{it} = \alpha + \sigma \times \text{Rights}_{it-5} + \sum_{i=2}^{N} \delta_i \times C_i + \sum_{k=1}^{K} \beta_k \times X_{itk} + \theta_0 \sum_{j=1}^{N} w_{ij} \times \text{Rights}_{jt-5} + \sum_{k=1}^{K} \theta_k \sum_{j=1}^{N} w_{ij} \times X_{jtk} + \rho \sum_{j=1}^{N} w_{ij} \times \text{Rights}_{jt} + \lambda \sum_{j=1}^{N} w_{ij} \times \varepsilon_{jt} + u_{it} \quad (19)$$

$$\text{Participation}_{it} = \alpha + \sigma \times \text{Participation}_{it-5} + \sum_{i=2}^{N} \delta_i \times C_i + \sum_{k=1}^{K} \beta_k \times X_{itk} + \theta_0 \sum_{j=1}^{N} w_{ij} \times \text{Participation}_{jt-5} + \sum_{k=1}^{K} \theta_k \sum_{j=1}^{N} w_{ij} \times X_{jtk} + \rho \sum_{j=1}^{N} w_{ij} \times \text{Participation}_{jt} + \lambda \sum_{j=1}^{N} w_{ij} \times \varepsilon_{jt} + u_{it} \quad (20)$$

$$\text{Rule of Law}_{it} = \alpha + \sigma \times \text{Rule of Law}_{it-5} + \sum_{i=2}^{N} \delta_i \times C_i + \sum_{k=1}^{K} \beta_k \times X_{itk} + \theta_0 \sum_{j=1}^{N} w_{ij} \times \text{Rule of Law}_{jt-5} + \sum_{k=1}^{K} \theta_k \sum_{j=1}^{N} w_{ij} \times X_{jtk} + \rho \sum_{j=1}^{N} w_{ij} \times \text{Rule of Law}_{jt} + \lambda \sum_{j=1}^{N} w_{ij} \times \varepsilon_{jt} + u_{it} \quad (21)$$

where: C_i is country specific dummy variable for country 'i', X_{itk} are independent variables including growth rate, trade (% of GDP), mean years of schooling and life expectancy for country 'i'. w_{ij} is an element from spatial weight matrix. σ represents the convergence and θ_0 represents the spatial spillover. The conditions for convergence are summarized in following table.

Table 1: Conditions for σ-convergence and spatial convergence

Coefficient		Interpretation
$\sigma > 0$	$\theta_0 > 0$	σ divergence with positive spatial spillover
$\sigma < 0$	$\theta_0 > 0$	σ convergence with positive spatial spillover
$\sigma > 0$	$\theta_0 < 0$	σ divergence with negative spatial spillover
$\sigma < 0$	$\theta_0 < 0$	σ convergence with negative spatial spillover

It should be noted that in spatial econometric analysis, where spatial lag of dependent variable is included, LeSage & Pace (2009) suggest that marginal effects in terms of direct and indirect (spatial spillover) effect should be used to have an appropriate interpretation[3]. This approach is particularly pertinent in the context of nonlinear spatial models, which present challenges in interpretation compared to their linear counterparts. Spatial regression models offer distinct advantages in quantifying spatial spillovers, defined as instances where nonzero cross-partial derivatives exist, indicating impacts on outcomes in one region resulting from changes in characteristics of another region. These cross-partial derivatives enable the interpretation of effects stemming from changes in either the own region's characteristics on other regions or changes in other regions' characteristics on the own region. The capacity to furnish empirical estimates, coupled with measures of dispersion suitable for inference on the statistical significance, magnitude, and spatial scope of spillovers, constitutes a compelling rationale for the adoption of spatial regression models.

Spatial economic analysis requires the integration of various data sources. In particular, it relates to the combination of the following: economic data from the World Bank, political data from GSoD Indices provided by IDEA, and geographical data, which usually come in the form of shapefiles to be used in creating a spatial weight matrix and are also obtained from the World Bank. Moreover, for the purpose of conducting panel data spatial analysis in STATA, it is essential to ensure a strongly balanced panel dataset. There are several challenges, especially in terms of common country identifiers across datasets and the availability of data

[3] Refer to LeSage & Pace (2009) for more details on the interpretation of spatial econometric results and derivation of direct and indirect effects. The direct and indirect effect can be different than the coefficients due to the feedback effects.

for all countries at all points in time. The analysis has thus been limited only to the dataset from 1991 to 2022 for all 152 countries. Using panel data from 152 countries between 1991 and 2022, we assess convergence across four democratic dimensions: representation, rights, participation, and rule of law. By integrating spatial panel econometrics with the Global State of Democracy Indices, we capture both domestic evolution and cross-country influences in democratic trajectories.

3. Research Results

Table 2 presents the results of Moran's I test, which assesses the presence of spatial dependence across four key dimensions of democracy: Representation, Rights, Participation, and Rule of Law, between 1991 and 2022. As noted earlier, Moran's I is a crucial diagnostic tool in determining the appropriateness of spatial econometric techniques over standard OLS models. Consistently across all years and dimensions, the Moran's I value are statistically significant, ranging from 0.15 to 0.22, thereby confirming spatial autocorrelation. This suggests the existence of clustering and spatial dependencies across countries in the distribution of democratic values. These results strongly justify the application of spatial regression models in subsequent analyses.

Table 2: Moran's I test for spatial dependence

Year	Representation	Rights	Participation	Rule of Law
1991	0.19*** (0.01)	0.21*** (0.01)	0.15*** (0.01)	0.16*** (0.01)
1992	0.18*** (0.01)	0.21*** (0.01)	0.15*** (0.01)	0.16*** (0.01)
1993	0.17*** (0.01)	0.21*** (0.01)	0.16*** (0.01)	0.16*** (0.01)
1994	0.18*** (0.01)	0.21*** (0.01)	0.15*** (0.01)	0.16*** (0.01)
1995	0.18*** (0.01)	0.21*** (0.01)	0.15*** (0.01)	0.16*** (0.01)
1996	0.19*** (0.01)	0.21*** (0.01)	0.15*** (0.01)	0.16*** (0.01)
1997	0.20*** (0.01)	0.21*** (0.01)	0.16*** (0.01)	0.16*** (0.01)
1998	0.20*** (0.01)	0.21*** (0.01)	0.15*** (0.01)	0.17*** (0.01)
1999	0.20*** (0.01)	0.21*** (0.01)	0.15*** (0.01)	0.17*** (0.01)
2000	0.19*** (0.01)	0.21*** (0.01)	0.15*** (0.01)	0.16*** (0.01)
2001	0.20*** (0.01)	0.21*** (0.01)	0.16*** (0.01)	0.17*** (0.01)
2002	0.19*** (0.01)	0.21*** (0.01)	0.15*** (0.01)	0.17*** (0.01)
2003	0.20*** (0.01)	0.21*** (0.01)	0.15*** (0.01)	0.17*** (0.01)
2004	0.17***	0.21***	0.15***	0.16***

Year	Representation	Rights	Participation	Rule of Law
	(0.01)	(0.01)	(0.01)	(0.01)
2005	0.16***	0.21***	0.15***	0.17***
	(0.01)	(0.01)	(0.01)	(0.01)
2006	0.17***	0.21***	0.15***	0.17***
	(0.01)	(0.01)	(0.01)	(0.01)
2007	0.18***	0.21***	0.15***	0.17***
	(0.01)	(0.01)	(0.01)	(0.01)
2008	0.17***	0.21***	0.15***	0.17***
	(0.01)	(0.01)	(0.01)	(0.01)
2009	0.16***	0.21***	0.15***	0.17***
	(0.01)	(0.01)	(0.01)	(0.01)
2010	0.17***	0.21***	0.15***	0.17***
	(0.01)	(0.01)	(0.01)	(0.01)
2011	0.17***	0.22***	0.15***	0.17***
	(0.01)	(0.01)	(0.01)	(0.01)
2012	0.18***	0.22***	0.15***	0.18***
	(0.01)	(0.01)	(0.01)	(0.01)
2013	0.18***	0.21***	0.15***	0.17***
	(0.01)	(0.01)	(0.01)	(0.01)
2014	0.19***	0.21***	0.15***	0.17***
	(0.01)	(0.01)	(0.01)	(0.01)
2015	0.18***	0.22***	0.15***	0.17***
	(0.01)	(0.01)	(0.01)	(0.01)
2016	0.19***	0.21***	0.15***	0.17***
	(0.01)	(0.01)	(0.01)	(0.01)
2017	0.19***	0.21***	0.15***	0.17***
	(0.01)	(0.01)	(0.01)	(0.01)
2018	0.18***	0.20***	0.15***	0.16***
	(0.01)	(0.01)	(0.01)	(0.01)
2019	0.19***	0.20***	0.15***	0.17***
	(0.01)	(0.01)	(0.01)	(0.01)
2020	0.18***	0.20***	0.15***	0.16***
	(0.01)	(0.01)	(0.01)	(0.01)
2021	0.16***	0.20***	0.16***	0.15***
	(0.01)	(0.01)	(0.01)	(0.01)
2022	0.16***	0.20***	0.15***	0.16***
	(0.01)	(0.01)	(0.01)	(0.01)

Note: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Absolute σ Convergence

Table 3 presents the results for absolute σ convergence across the four democratic dimensions. The positive and statistically significant coefficients indicate divergence, suggesting that instead of converging, countries are moving apart in terms of representation, rights, participation, and rule of law. Representation (σ = 0.206*), Rights (σ = 0.476***), Participation (σ = 0.415***), and Rule of Law (σ = 0.445***) all exhibit upward trends in dispersion. This reflects growing democratic polarization, where well-established democracies improve their institutional quality, while weaker regimes stagnate or backslide. The divergence

aligns with theories of institutional path dependence and democratic entrenchment, which suggest that countries with strong institutional baselines are more likely to reinforce democratic norms, while those without such foundations face structural barriers to convergence.

Table 3: Absolute σ convergence

	Representation	Rights	Participation	Rule of Law
$Representation_{t-5}$	0.206***			
	(0.014)			
$Rights_{t-5}$		0.476***		
		(0.013)		
$Participation_{t-5}$			0.415***	
			(0.014)	
$Rule\ of\ Law_{t-5}$				0.445***
				(0.014)
Constant	0.422***	0.277***	0.329***	0.278***
	(0.007)	(0.007)	(0.008)	(0.007)
Observations	4,104	4,104	4,077	4,104
R-squared (Within)	0.055	0.255	0.188	0.199
R-squared (Between)	0.986	0.995	0.988	0.993
R-squared (Overall)	0.800	0.964	0.890	0.951
Number of Country	152	152	151	152
F test model	229.26***	1350.93***	909.48***	983.25***
F test for country specific effect	21.58***	15.93***	14.08***	15.31***
Hausman test	2984.49***	1407.66***	1314.38***	1283.49***

Note: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Absolute Spatial σ Convergence

Table 4 reports the results from Spatial Durbin Models (SDM). The coefficients of lagged dependent variables remain positive and significant, suggesting continued divergence. However, the magnitude of these coefficients decreases compared to Table 3, indicating that accounting for spatial effects mitigates divergence. The spatial lag terms for Rights, Participation, and Rule of Law are statistically significant and negative, suggesting negative spatial spillovers, i.e., higher values in neighbouring countries lead to lower outcomes domestically. The ρ coefficients are positive and significant, further validating spatial dependence. These negative spatial lags suggest defensive reactions or strategic divergence in response to neighbouring countries' democratic improvements. Authoritarian regimes may tighten control when nearby states democratize, an effect known as the autocracy firewall (Gleditsch & Ward, 2006). The reduction in divergence after controlling for spatial dependence highlights the interconnected nature of democratic development, where regional networks play a non-trivial role in shaping domestic trajectories.

Table 4: Absolute Spatial σ Convergence

	Representation	Rights	Participation	Rule of Law
$Representation_{t-5}$	0.169***			
	(0.014)			
$Rights_{t-5}$		0.449***		
		(0.014)		
$Participation_{t-5}$			0.390***	
			(0.015)	
$Rule\ of\ Law_{t-5}$				0.446***
				(0.014)
$W \times Representation_{t-5}$	0.138***			
	(0.052)			
$W \times Rights_{t-5}$		-0.152***		
		(0.045)		
$W \times Participation_{t-5}$			-0.127***	
			(0.049)	
$W \times Rule\ of\ Law_{t-5}$				-0.220***
				(0.077)
ρ	0.382***	0.492***	0.528***	0.426***
	(0.065)	(0.056)	(0.054)	(0.063)
Sigma(e)	0.080***	0.031***	0.048***	0.036***
	(0.001)	(0.0003)	(0.0005)	(0.0004)
Observations	4,104	4,104	4,077	4,104
Number of Country	152	152	151	152
Wald chi2	331.69***	1483.37***	1057.89***	1042.71***
Log likelihood	4364.58	8166.56	6340.09	7558.01
Wald test of spatial terms	96.33***	95.96***	118.61***	45.60***

Note: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Direct and Indirect Effects: Absolute Spatial σ Convergence

Table 5 decomposes total effects into direct (own country) and indirect (spatial spillover) effects. Direct effects are consistently positive and significant for all dimensions (except Rule of Law), reaffirming divergence. Indirect effects, surprisingly, are positive and significant for Representation, Rights, and Participation, contrary to the coefficients in Table 4. This implies positive spatial spillovers, where improvements in neighbouring countries positively influence domestic outcomes. The Rule of Law dimension shows an insignificant and negative indirect effect, indicating no spatial spillover. These results suggest that positive externalities from democratic gains in neighbouring countries may eventually dominate. Mechanisms like regional learning, institutional emulation, and diplomatic pressure may encourage democratic advancement even when short-term political reactions are defensive.

For Representation and Participation, the role of cross-border civil society and digital platforms may accelerate this positive spillover. The lack of spillover in Rule of Law indicates that legal institutional reform is more domestically driven and less susceptible to diffusion.

Table 5: Direct and indirect effects for absolute σ convergence

	$Representation_{t-5}$	$Rights_{t-5}$	$Participation_{t-5}$	$Rule\ of\ Law_{t-5}$
Direct Effect	0.170*** (0.014)	0.450*** (0.014)	0.391*** (0.015)	0.446*** (0.014)
Indirect Effect	0.280*** (0.055)	0.115*** (0.049)	0.142*** (0.064)	-0.045 (0.107)
Total Effect	0.450*** (0.054)	0.565*** (0.048)	0.533*** (0.064)	0.401*** (0.108)

Note: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Conditional σ Convergence

Table 6 examines conditional σ convergence by incorporating controls (GDP growth, trade, education, and health). All four dimensions show positive and significant coefficients, confirming persistent divergence. Compared to Table 3, coefficients are marginally lower, particularly for Participation and Rights, suggesting slight attenuation of diverge. This suggests that economic growth, trade, health, and education play a modest role in reducing divergence but are not sufficient to generate convergence. These findings reinforce arguments that democracy is not a guaranteed by-product of development, as institutions also depend on political agency, historical legacies, and elite incentives (Przeworski et al., 2000). The relatively larger decline in Participation and Rights coefficients indicates that these dimensions are more sensitive to improvements in socio-economic conditions.

Table 6: Conditional σ convergence

	Representation	Rights	Participation	Rule of Law
$Representation_{t-5}$	0.174***			
	(0.014)			
$Rights_{t-5}$		0.447***		
		(0.015)		
$Participation_{t-5}$			0.402***	
			(0.015)	
$Rule\ of\ Law_{t-5}$				0.453***
				(0.014)
Constant	0.187***	0.221***	0.300***	0.224***
	(0.032)	(0.013)	(0.020)	(0.015)
Observations	4,101	4,101	4,074	4,101
Control Variables	Yes	Yes	Yes	Yes
R-squared (Within)	0.073	0.261	0.190	0.211
R-squared (Between)	0.786	0.989	0.978	0.984
R-squared (Overall)	0.670	0.958	0.882	0.943

	Representation	Rights	Participation	Rule of Law
Number of Country	152	152	151	152
F test model	78.10***	348.74***	229.36***	263.53***
F test for country specific effect	21.89***	16.08***	14.13***	15.17***
Hausman test	3214.22***	1440.95***	1314.30***	1276.50***

Note: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Conditional Spatial σ Convergence

Table 7 uses the General Nesting Spatial (GNS) model. Lagged dependent variables remain positive and significant, but with reduced coefficients, indicating diminished divergence under spatial effects. The spatial lags of independent variables are mostly not statistically significant, except for Rule of Law, where the coefficient is negative and significant. ρ values confirm spatial dependence, while λ values show error autocorrelation. These findings underscore the differential transmissibility of democratic components. While Representation and Participation may spread more easily through cross-border social and political networks, the Rule of Law requires deeper domestic institutional transformation, which is less influenced by neighbouring practices. The significance of spatial autocorrelation (ρ) confirms the importance of regional democratic clusters, consistent with the democratic neighbourhood hypothesis (Brinks & Coppedge, 2006).

Table 7: Conditional spatial σ convergence

	Representation	Rights	Participation	Rule of Law
$Representation_{t-5}$	0.126***			
	(0.015)			
$Rights_{t-5}$		0.443***		
		(0.015)		
$Participation_{t-5}$			0.325***	
			(0.016)	
$Rule\ of\ Law_{t-5}$				0.423***
				(0.015)
$W\times Representation_{t-5}$	0.104			
	(0.075)			
$W\times Rights_{t-5}$		0.229*		
		(0.137)		
$W\times Participation_{t-5}$			-0.0930	
			(0.064)	
$W\times Rule\ of\ Law_{t-5}$				-0.216**
				(0.089)
ρ	0.614***	-0.586***	0.690***	0.596***
	(0.072)	(0.165)	(0.070)	(0.087)
λ	-0.517***	0.720***	-0.463***	-0.410**
	(0.177)	(0.056)	(0.175)	(0.180)

	Representation	Rights	Participation	Rule of Law
Sigma(e)	0.073***	0.028***	0.046***	0.032***
	(0.0008)	(0.0003)	(0.0006)	(0.0004)
Observations	4,104	4,104	3,624	4,104
Control Variables	Yes	Yes	Yes	Yes
Number of Country	152	152	151	152
Wald chi2	437.32***	898.03***	772.27***	941.18***
Log likelihood	4685.61	8491.39	5773.12	7920.72
Wald test of spatial terms	139.27***	255.13***	191.69***	82.16***

Note: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Direct and Indirect Effects: Conditional Spatial σ Convergence

Table 8 elaborates on spatial marginal effects. Direct effects are positive and significant across all dimensions. Indirect effects are significant and positive for Representation and Participation, suggesting robust spatial spillovers. For Rights and Rule of Law, indirect effects are statistically insignificant, implying limited or no regional diffusion. For Representation and Participation, indirect effects exceed direct effects, underscoring the strength of spatial influence. This suggests that political participation and representative institutions are more susceptible to regional influence, possibly due to shared media, transnational movements, and regional norms. In contrast, Rights and Rule of Law appear more institutionally insulated, requiring elite consensus, judicial independence, and long-term state capacity. These patterns reflect the idea that not all democratic dimensions diffuse equally, and some depend more heavily on internal state structures and political will (Pevehouse, 2005; Simmons et al., 2008).

Table 8: Direct and indirect effects for conditional σ convergence

	$Representation_{t-5}$	$Rights_{t-5}$	$Participation_{t-5}$	$Rule\ of\ Law_{t-5}$
Direct Effect	0.129***	0.443***	0.328***	0.424***
	(0.015)	(0.016)	(0.016)	(0.015)
Indirect Effect	0.396***	-0.018	0.355**	0.076
	(0.142)	(0.061)	(0.149)	(0.160)
Total Effect	0.525***	0.425***	0.683***	0.500***
	(0.144)	(0.062)	(0.150)	(0.161)

Note: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Continent-wise Analysis

Table 9 summarizes the continent-wise analysis. Appendix table A1 to table A4 provide the detailed results. The results from the continent-wise disaggregated spatial σ convergence analysis reveal important regional dynamics shaping democratic trajectories across four key dimensions: Representation, Rights, Participation, and Rule of Law. While the overall trend indicates divergence, as reflected in consistently positive and statistically significant direct effects, spatial spillovers play a heterogeneous and dimension-specific role across regions.

Table 9: Continental patterns of σ convergence across democratic dimensions

Dimension	Continent	Direct Effect	Indirect Effect (Spillover)	Interpretation
Representation	Africa	Positive (abs. & cond.)	Positive, significant	Divergence dominates, but positive regional diffusion; strong regional convergence.
	Asia	Positive, significant	Insignificant	Clear divergence; minimal regional influence.
	Europe	Strong positive	Negative (conditional), weak	High divergence; possible weak regional resistance to spillovers.
	North America	Positive	Insignificant	Divergence; negligible regional spillover.
	South America	Strong positive	Negative, significant (abs.)	Divergence; negative spillover implies regional divergence forces dominate.
Rights	Africa	Strong positive	Positive, significant	Divergence with clear spatial clustering of rights expansion.
	Asia	Strong positive	Insignificant	Pure divergence; little regional interdependence.
	Europe	Strong positive	Negative but weak	Divergence; no evidence of positive spatial externality.
	North America	Positive	Negative, significant	Divergence and regional pushback; countries resist influence from neighbors.
	South America	Positive	Positive, significant	Divergence but coupled with regional rights diffusion.
Participation	Africa	Positive	Positive, significant	Divergence coupled with regional democratic participation spillover.
	Asia	Positive	Insignificant	Internal divergence; no spatial feedback effects.
	Europe	Positive	Positive (abs.), mixed (cond.)	Strong divergence but some regional clustering.
	North America	Positive	Negative, significant	Divergence with adverse spillover effects, possibly due to polarization.
	South America	Positive	Positive, significant	Divergence with spatial clustering of participation practices.
Rule of Law	Africa	Positive	Positive, significant	Divergence with strong regional convergence impulses.
	Asia	Strong positive	Insignificant	Divergence; weak spatial linkage.
	Europe	Positive	Negative, significant	Divergence with resistance to regional convergence in rule of law norms.
	North America	Positive	Negative, significant	Divergence reinforced by regional dissimilarities.
	South America	Positive	Positive, significant	Divergence coupled with legal institutional diffusion.

Africa and South America emerge as the most spatially interactive regions. In both continents, the indirect effects are positive and statistically significant across most dimensions, suggesting that democratic improvements in one country are likely to influence neighbouring countries. This pattern reflects regional democratization spillovers, potentially driven by shared histories, regional integration mechanisms or transnational civil society linkages. In particular, Africa shows strong positive spillovers for Rule of Law, Participation, and Representation, signalling an encouraging trend of democracy diffusion in the Global South.

Conversely, Asia and Europe exhibit a pattern of divergence with weak or insignificant spatial spillovers. In Asia, the strong direct effects coupled with minimal indirect effects suggest internal divergence without meaningful regional convergence. This may reflect institutional diversity, geopolitical fragmentation, and regime heterogeneity, with countries following distinct democratic paths shaped more by domestic than regional forces. Europe, while having strong democratic institutions, shows negative indirect effects for Rule of Law and Representation, indicating that democratic erosion or backsliding in one country may have adverse spillover effects, possibly due to regional disillusionment or institutional fatigue within the EU framework.

North America shows a particularly striking pattern: while divergence persists across all democratic dimensions, the negative and statistically significant indirect effects for Rights and Participation suggest that spatial interdependence may amplify divergence rather than mitigate it. This could reflect polarized democratic norms or ideological contagion, where democratic deterioration in one country may erode democratic norms in neighbouring countries rather than foster alignment.

Interestingly, Rule of Law stands out as the most spatially sensitive dimension. While direct effects remain positive across all continents, its indirect effects are more variable, turning negative in Europe and North America but remaining positive and significant in Africa and South America. This underscores that the institutional dimension of democracy is more responsive to regional contexts, possibly due to shared legal frameworks or judicial cooperation mechanisms, or conversely, due to regional disillusionment or backlash in more developed democracies.

Overall, the findings support the notion that democracy does not evolve in isolation, but rather through complex spatial dynamics that vary substantially across regions. While global convergence in democratic values remains elusive, the presence of positive regional spillovers in certain parts of the world suggests that targeted regional cooperation and peer learning can play a pivotal role in fostering democratic development.

Conclusion

This study investigates the global and regional convergence or divergence of democratic values using a spatial econometric framework applied to the Global State of Democracy (GSoD) Indices for 152 countries from 1991 to 2022. The results consistently reveal divergence across all four core dimensions of democracy: Representation, Rights, Participation, and Rule of Law, at both absolute and conditional levels.

The Moran's I statistics confirm the presence of significant spatial dependence, validating the use of spatial models. Incorporating spatial dynamics through Spatial Durbin Models (SDM) and General Nesting Spatial (GNS) models reveals that ignoring spatial effects can overstate divergence. Once spatial interdependencies are controlled for, the magnitude of divergence declines, suggesting that regional interactions moderate democratic trajectories.

The analysis of direct and indirect effects underscores an important asymmetry: while countries diverge in their own democratic attributes over time (positive direct effects), many dimensions, particularly Representation and Participation, exhibit positive and significant spatial spillovers, implying regional convergence pressures. Conversely, Rights and Rule of Law demonstrate weaker or negative spillover effects, indicating that legal-institutional norms are less likely to diffuse across borders compared to participatory or representative practices.

Continental disaggregation further nuances this picture. Africa exhibits the strongest and most consistent positive spillover effects across dimensions, suggesting regional democratization pressures. In contrast, Europe and North America show negative or statistically insignificant indirect effects, indicating relative insulation or saturation in democratic values. South America and Asia display mixed patterns, often reflecting heterogeneous trajectories.

Taken together, these findings suggest that while global democratic convergence remains elusive, regional and dimension-specific convergence mechanisms exist, particularly for norms related to participation and representation. These results highlight the importance of regional democratic ecosystems and suggest that international and regional organizations aiming to foster democracy should tailor their strategies to specific dimensions and regional contexts. Moreover, the divergence in institutional aspects such as Rights and Rule of Law signals the need for targeted support mechanisms that address structural and governance barriers to democratic consolidation.

Future research should explore the causal mechanisms behind these spatial spillovers, such as regional cooperation, media flows, migration, or donor networks, and assess how political shocks (e.g., authoritarian backsliding, pandemics) reshape these spatial dynamics.

Credit Authorship Contribution Statement

J.V. is the sole author of this article and is fully responsible for all aspects of the study, including the conception, design, data collection, analysis, interpretation, and manuscript preparation.

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The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Data Availability Statement

The data used in this study are publicly available from recognized international databases and sources, as cited in the manuscript.

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Appendix

Table A1: Representation

Absolute σ Convergence					
	Africa	Asia	Europe	North America	South America
Direct Effect	0.039 (0.025)	0.308*** (0.027)	0.514*** (0.030)	0.146*** (0.049)	0.509*** (0.042)
Indirect Effect	0.380*** (0.068)	0.116 (0.080)	-0.057 (0.098)	-0.139 (0.093)	-0.207** (0.088)
Total Effect	0.419*** (0.066)	0.424*** (0.083)	0.456*** (0.098)	0.007 (0.094)	0.302*** (0.094)
Conditional σ Convergence					
Direct Effect	0.026 (0.025)	0.307*** (0.028)	0.506*** (0.032)	0.181*** (0.049)	0.496*** (0.045)
Indirect Effect	0.211** (0.096)	0.081 (0.102)	-0.273* (0.166)	0.027 (0.096)	-0.167 (0.137)
Total Effect	0.237** (0.097)	0.387*** (0.108)	0.233 (0.173)	0.208** (0.100)	0.328** (0.153)

Note: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Table A2: Rights

Absolute σ Convergence					
	Africa	Asia	Europe	North America	South America
Direct Effect	0.347 (0.024)	0.526*** (0.027)	0.556*** (0.030)	0.417*** (0.058)	0.476*** (0.056)
Indirect Effect	0.286*** (0.064)	0.012 (0.067)	-0.092 (0.080)	-0.229*** (0.077)	0.221** (0.073)
Total Effect	0.633** (0.062)	0.538*** (0.066)	0.464*** (0.079)	0.187*** (0.069)	0.697*** (0.052)
Conditional σ Convergence					
Direct Effect	0.109 (0.101)	0.500*** (0.029)	0.576*** (0.032)	0.437*** (0.059)	0.433*** (0.056)
Indirect Effect	0.331*** (0.024)	0.191* (0.105)	0.150 (0.158)	-0.131 (0.102)	0.486*** (0.140)
Total Effect	0.440*** (0.103)	0.309*** (0.112)	0.726*** (0.166)	0.306** (0.107)	0.919** (0.129)

Note: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Table A3: Participation

Absolute σ Convergence					
	Africa	Asia	Europe	North America	South America
Direct Effect	0.388** (0.027)	0.410*** (0.027)	0.380*** (0.030)	0.508*** (0.044)	0.324*** (0.053)
Indirect Effect	0.218*** (0.073)	-0.030 (0.073)	0.302** (0.146)	-0.470*** (0.119)	0.192** (0.087)
Total Effect	0.606*** (0.071)	0.380*** (0.074)	0.682*** (0.147)	0.038 (0.129)	0.516*** (0.082)
Conditional σ Convergence					
Direct Effect	0.377*** (0.027)	0.405*** (0.027)	0.380*** (0.031)	0.449*** (0.050)	0.329*** (0.055)
Indirect Effect	0.280*** (0.103)	0.028 (0.101)	0.160 (0.215)	-0.778*** (0.186)	0.343** (0.160)
Total Effect	0.657*** (0.104)	0.377*** (0.106)	0.540** (0.221)	0.329 (0.208)	0.672*** (0.173)

Note: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Table A4: Rule of Law

Absolute σ Convergence					
	Africa	Asia	Europe	North America	South America
Direct Effect	0.413** (0.024)	0.487*** (0.027)	0.553*** (0.029)	0.310*** (0.052)	0.331*** (0.049)
Indirect Effect	0.371*** (0.106)	-0.151 (0.119)	-0.134** (0.154)	-0.477*** (0.121)	0.272*** (0.098)
Total Effect	0.784*** (0.109)	0.335*** (0.125)	0.419*** (0.158)	-0.167 (0.130)	0.603*** (0.096)
Conditional σ Convergence					
Direct Effect	0.401*** (0.024)	0.504*** (0.027)	0.595*** (0.031)	0.326*** (0.050)	0.293*** (0.049)
Indirect Effect	0.289*** (0.108)	-0.186 (0.112)	0.386* (0.212)	-0.408*** (0.089)	0.267** (0.141)
Total Effect	0.690*** (0.111)	0.318*** (0.118)	0.981** (0.223)	-0.082 (0.090)	0.560*** (0.144)

Note: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1